



Enabling growth in Nigeria's Energy & Natural resources sectors: sector challenges and proposed interventions

Policy Advisory Council Report

Submission from the Energy & Natural Resources
subcommittees of the President Elect's Advisory
Council

May 2023



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Oil and gas subcommittee report



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Executive Summary



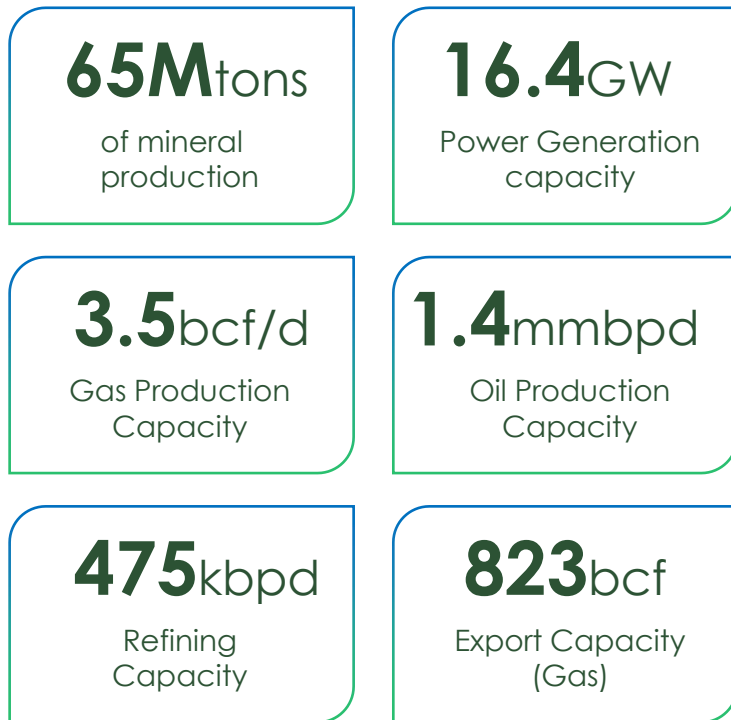
Vision

Unlock
Nigeria's **energy
potential** to fuel
economic **growth**
and **diversification**
while improving
energy security
sustainably



The energy sector's capacity in Nigeria

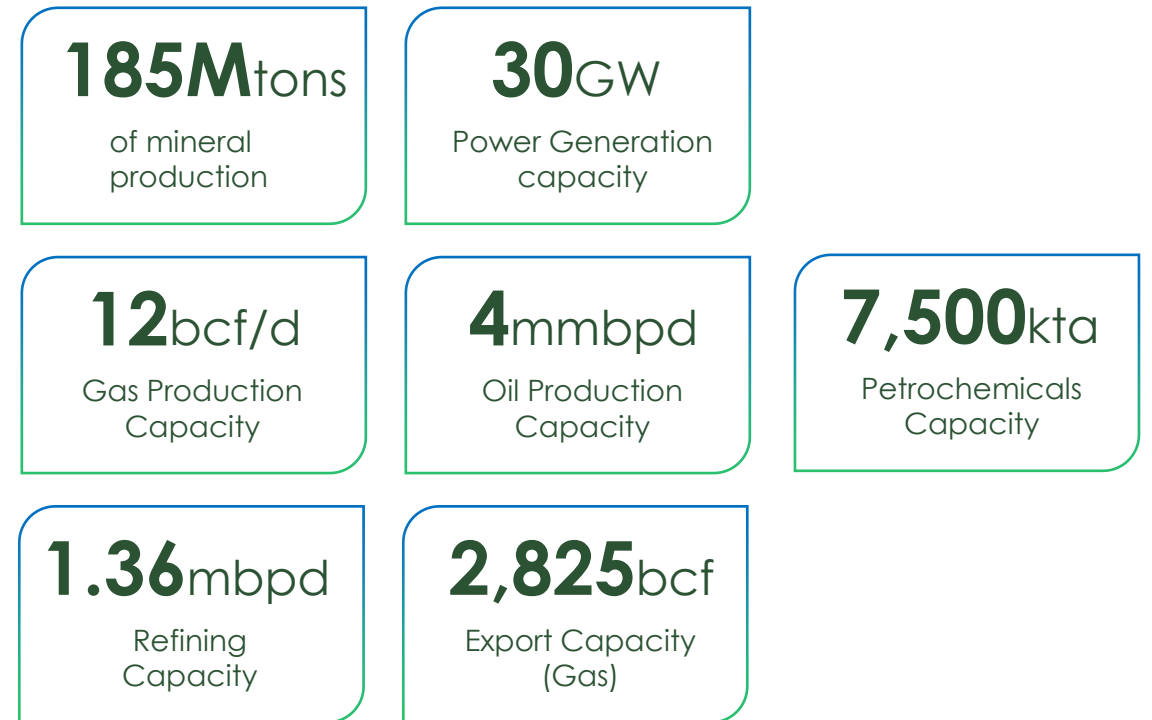
2023



2,500kta
Petrochemicals
Capacity



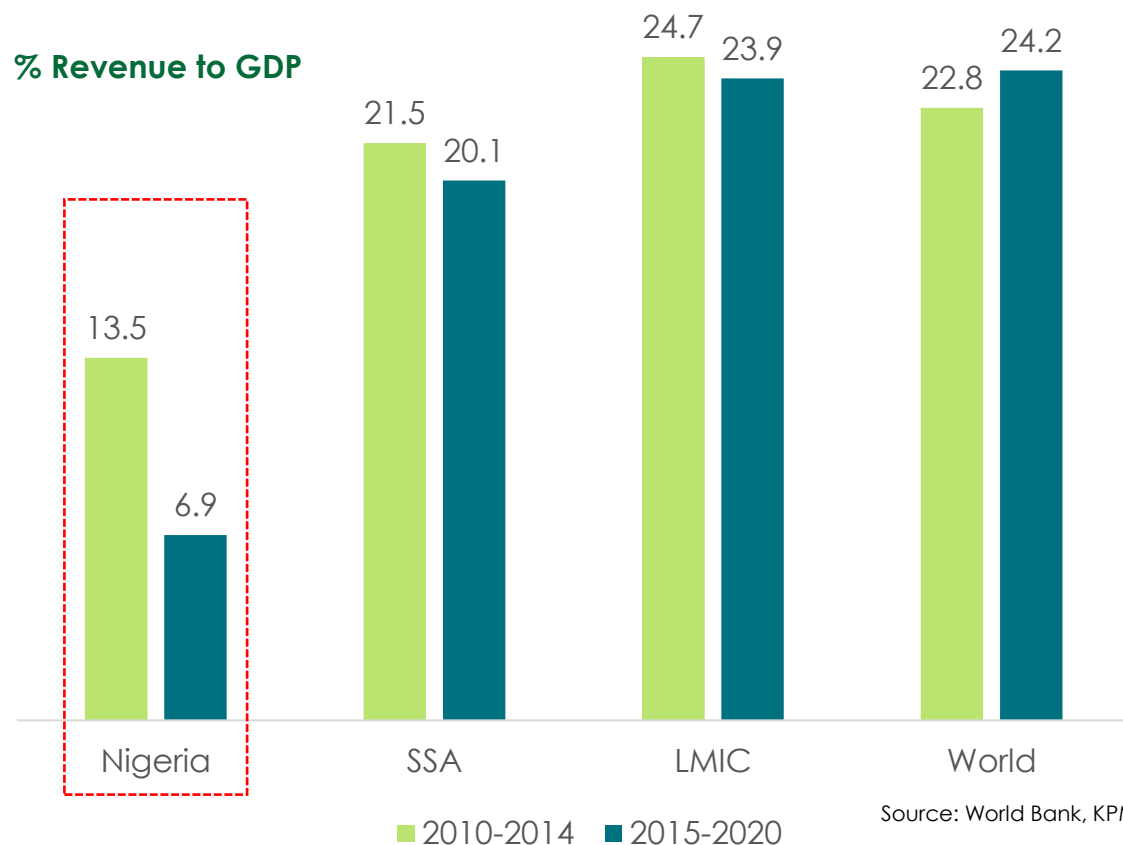
2030



7,500kta
Petrochemicals
Capacity

To achieve this vision, the oil and gas sector must address its current challenges, restore, grow, and sustain production to deliver economic growth

At 7%, Nigeria's Revenue to GDP ratio is among the five lowest in the world



Highlights of economic and sector challenges

- **\$70 billion** worth of investments lost in the petroleum industry since 2011 also due to the absence of the PIA
- **Insecurity is a major sector challenge. \$46.16 billion** was lost to crude oil theft between 2009 and 2020
- **\$10.70 billion** lost annually to PMS subsidy and inefficiencies associated with the purchase, distribution, and sale of PMS
- **Governance and regulatory concerns have eroded investor confidence**, diverting private capital needed for the development of critical oil and gas infrastructure
- Cumulatively, these have reduced the energy sector contribution to economic growth and **deprived citizens of the necessary infrastructure and social amenities** required for improving living standards

Restore, grow, and sustain production through three horizons

Prepare 0-100 days



Execute/Achieve 18 Months Dec 2024



Achieve May 2027



Sustain 2030



Target: 1.8mbpd and 3.5bcf

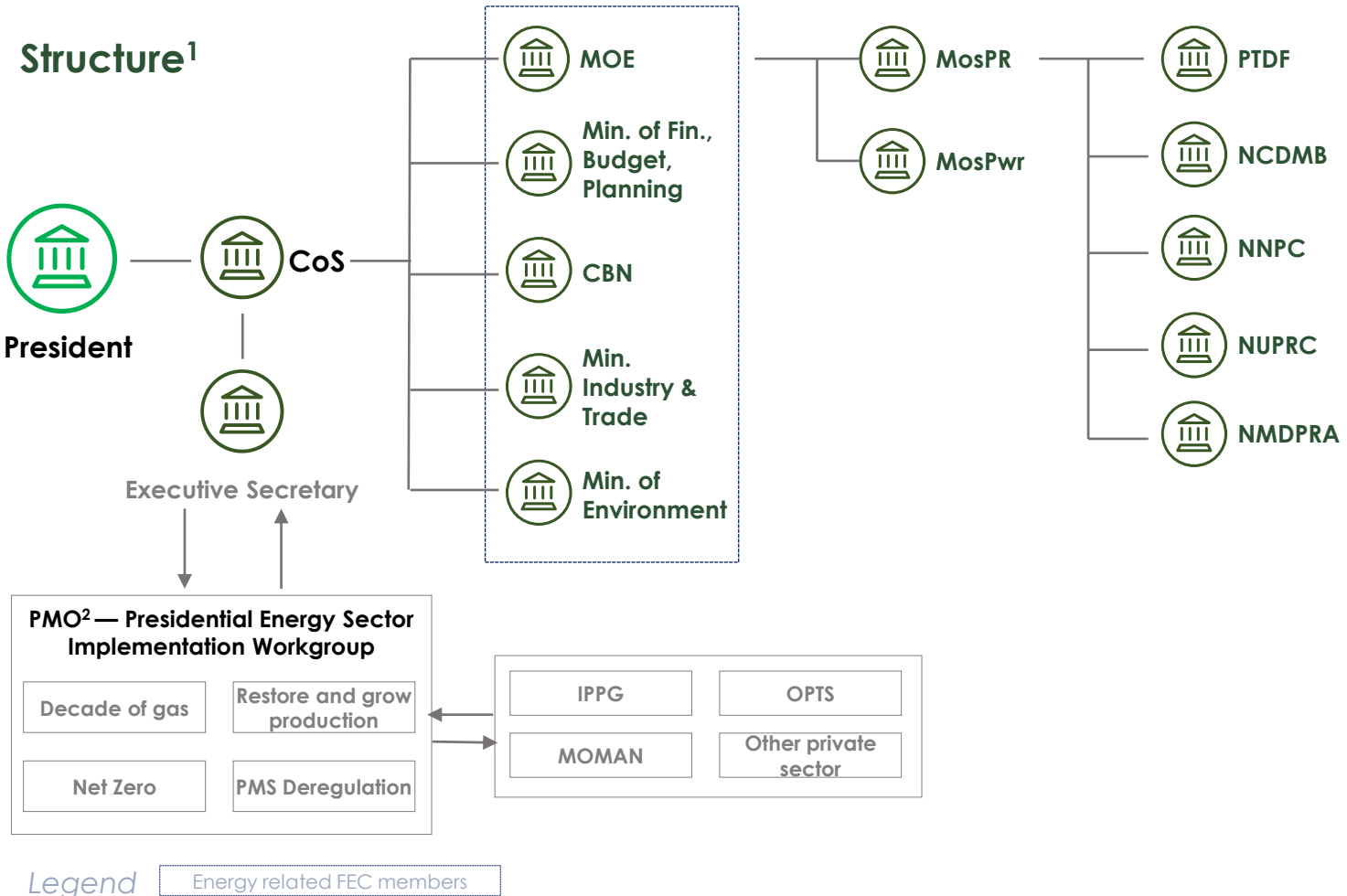
Target: 2.5mbpd and 5bcf

4mmbpd and 12bcfd

- **Unify exchange rate** window
- **Reorganize NUPRC/NMDPRA to deliver set milestone goals and** headhunt / place capable resources in critical positions
- **Head-hunt competent, tested, reform-focused leaders in NNPC** ensuring its function as commercial entity per PIA; paying taxes, royalties and profit to Federation Account and properly regulated by NUPRC/NMDPRA/NCDMB
- **Deregulate PMS pricing and implement Federal Direct Cash Transfer** Program
- **Signal determination to end insecurity** in oil producing states (Imo, Delta, Ondo, Rivers, Bayelsa, Akwa-Ibom) by engaging key political and community stakeholders
- **Reform the operations of the military task force** with clearly defined KPIs and consequent mgt to tackle deficiencies
- **Improve financing** – agree on cash call arrears and debt repayment framework
- Transition to **market prices for Gas**
- **Mandate NNPC and NUPRC/NMDPRA to close out outstanding divestments and contract issues** for project delivery clarity
- **Strip NNPC of policy making roles** and keep NCDMB within its Act mandate
- Consider **integrating NUPRC, NMDPRA, and NCDMB** into a single regulator or **include all midstream activities into NUPRC** scope
- **Expand domestic gas reserves and promote** the development of a **diversified oil and gas industry by implementing reforms in PIA including “network code”**
- Develop a **sustainable financing model**
- **Facilitate a third-party gas pricing framework** for export market
- **Enact Fiscal Enablers for NAG and Deepwater** via Finance Act and expand **stabilization in PIA to cover full credit for post FID levies and taxes**
- Bring **ready Brownfield Project Onstream from 10 critical Gas projects and Oil projects at FID.**
- **Batch FIDs for growth projects for focus**
- **Execute NNPC sell down (target \$17.4billion):**
 - Transition NNPC to a minority shareholder and form global strategic partnerships with other coventurers
 - Sell down interests in JVs to a minority position and develop an operating model that eliminates cash calls
 - Sell down/Divest interests in the refineries and build NLNG operating model
- Bring **remaining Brownfield Project onstream** from:
 - 10 critical gas projects
 - Oil and gas projects post FDP and pre-FID
- Bring **Greenfield Projects to FID to grow production**
 - Deepwater Oil and NAG Projects
 - Develop Offshore Gas Hub
 - FLNGs

Refer to slides 23 – 34 for details on how to execute the proposed solutions

Governance framework and resourcing: Improve governance and resourcing required to drive coordinated and integrated implementation of policy objectives



¹ Chart is depicted to represent flow of information

² Project Management Office (PMO) supporting the Executive Secretary

Refer to slides 34 for alternative structure

Merits

- To strengthen the Ministry of Petroleum, it is essential to have a capable Minister who can provide effective leadership and direction.
- It is important to establish an appropriate distance for the President to observe issues and provide guidance or intervention when misalignment occurs.
- Both the PMO and advisory committee should work together to enhance coordination and provide clear visibility to the President

Demerits

- Implementation of this will necessitate changes in the current structures, particularly in cases where a Minister of State is also appointed.
- The set-up process will require additional time to be completed.
- Additional resources and change management required

Vision



The committee has set ambitious targets for the energy sector to unlock Nigeria's energy potential in line with the vision



Global Competitiveness

- Create an enabling environment to become the:
- **Top 10 Energy Investment Destinations**
- **Top 10 World-class Talent for Energy Innovation**



Economic Growth & Diversification

- **8X GDP growth** to \$3.6 trillion¹ by 2050
- **8%² unemployment rate** by 2050
- Enable **gas-fired (distributed) generation to >40GW**
- Grow revenue via **export of liquefied natural gas beyond Train 7 (30mtpa) to 100mtpa**
- Catalyze **growth of other sectors**



Energy Security & Affordability

- Enable **access to clean, affordable, and abundant energy** for all Nigerians
- **9X electricity consumption to 1000kwh per capita by 2050**
- **1.36mbpd refining capacity** by 2030



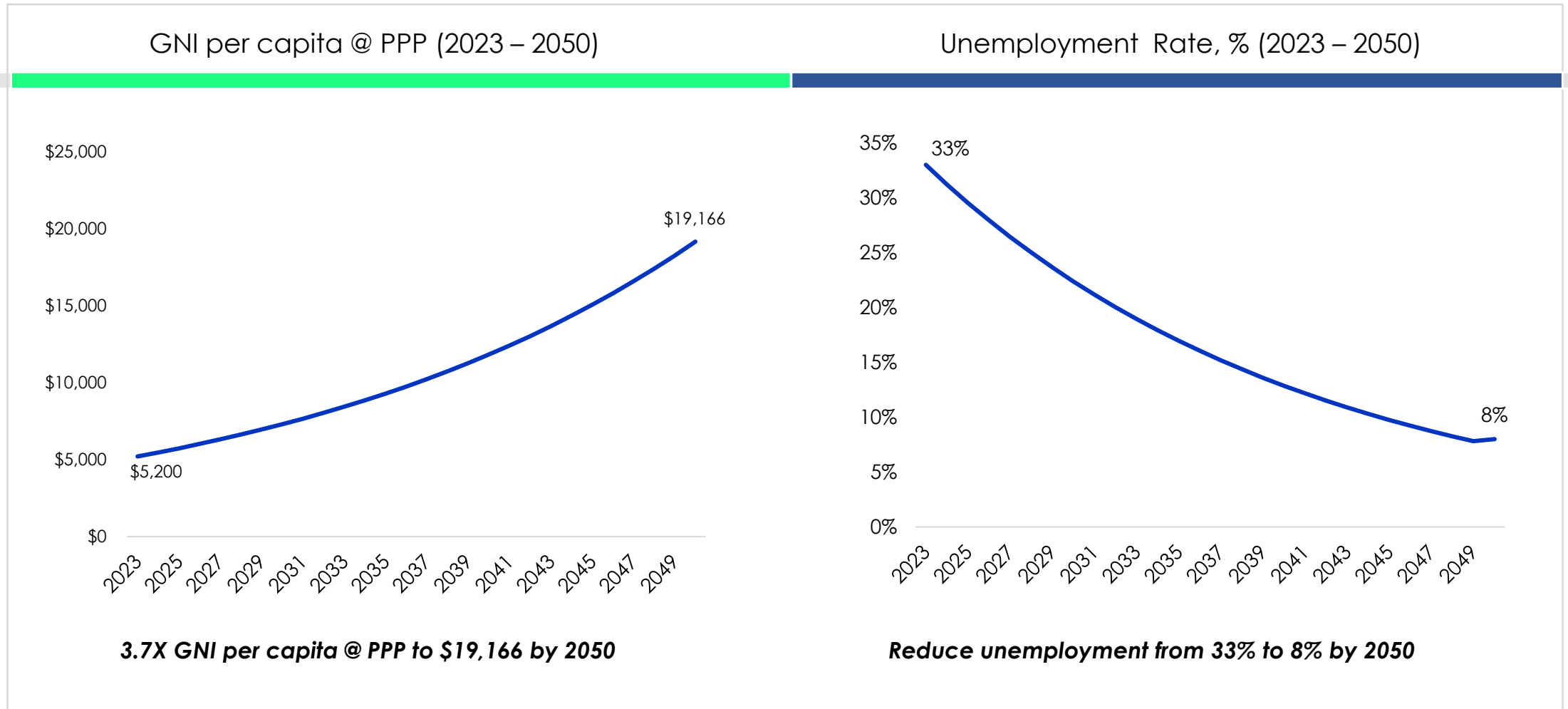
Increase sustainability

- Achieve **net-zero emissions** by 2060
- **Grow gas utilization** across multiple sectors
- **Reduce emissions** from oil and gas operations
- Grow renewables to **30% share in the electricity mix**

¹Assumes a CAGR of 8% for GDP over the next 27 years. ²Assumes a 5.39% YOY decrease in the unemployment rate over the next 27 years

Sources: World Bank; Trading Economics; Nigeria Bureau of Statistics; Nigeria Energy Transition Plan; Our World in Data based on BP Statistical Review of Global Energy; PMO analysis

The attainment of these ambitious goals is expected to uplift Nigerians out of poverty and enhance their standard of living



Assumes a 4.95% CAGR for GNI per capita and a 5.39% YOY decrease in the unemployment rate over the next 27 years
Sources: Trading Economics; Nigeria Bureau of Statistics, PMO modelling

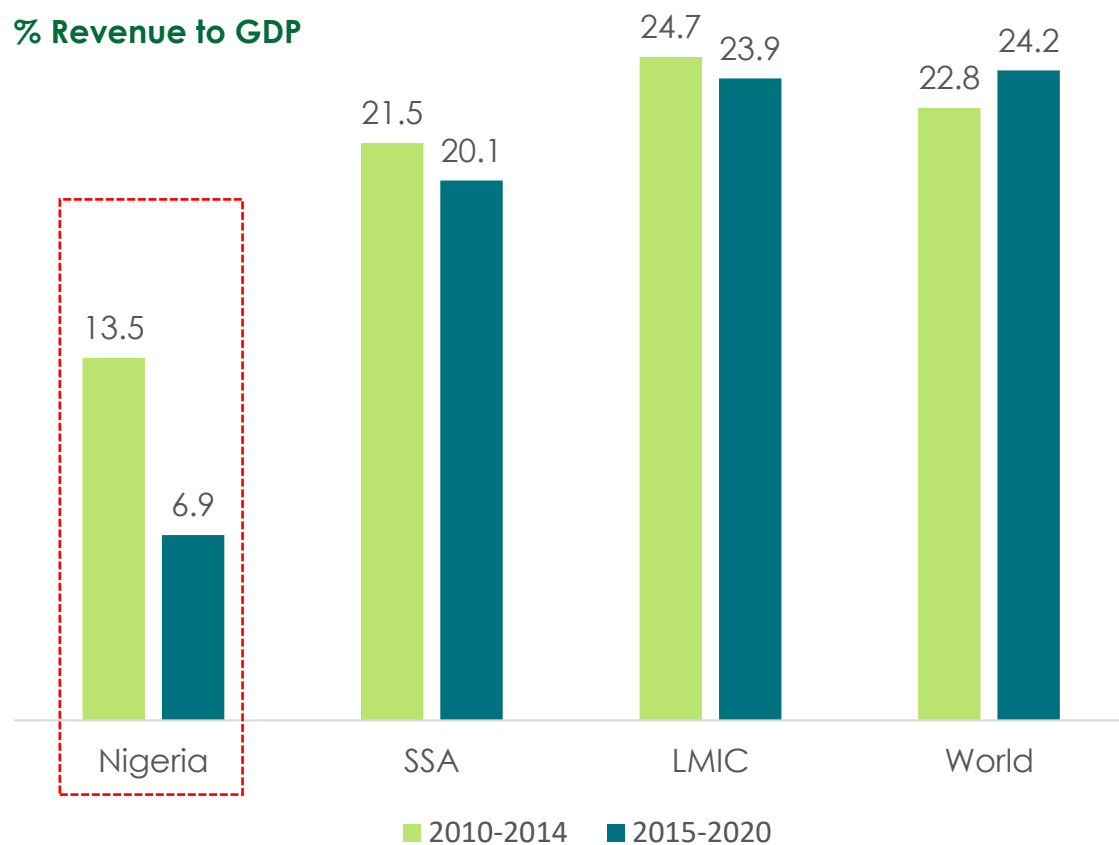
Economic Growth: Oil and Gas sector challenges



Urgent action is required to generate additional revenue for the development of essential sectors

At 7%, Nigeria's Revenue to GDP ratio is among the five lowest in the world

% Revenue to GDP



300 years to close the infrastructure gap at the current rate of capital spending



Ranks 163 out of 191 on human development index, one of the lowest in the world



45% of Nigerians do not have access to on-grid electricity

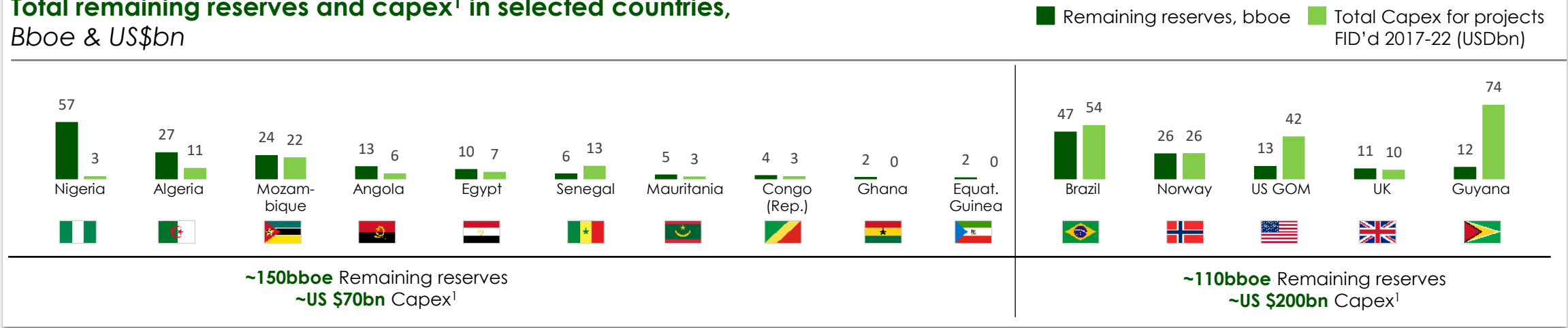


133 million Nigerians, or 63% of the population are multidimensionally poor

Addressing the key challenges around revenue generation would enable Nigeria to **increase investment in critical areas** such as **infrastructure, education, and health care**, enabling economic development

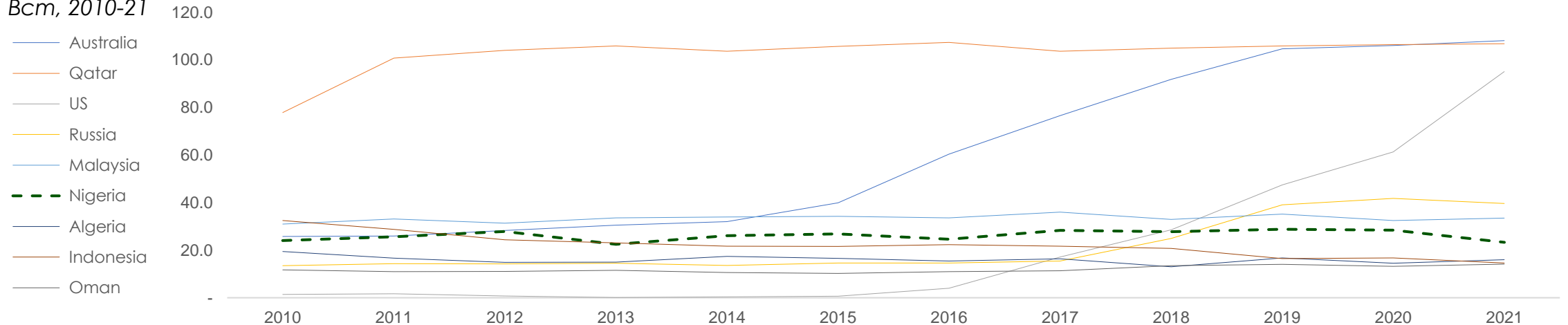
Investments in the sector have remained low relative to reserves, limiting export output and government revenues

Total remaining reserves and capex¹ in selected countries,
Bboe & US\$bn



LNG export volume,

Bcm, 2010-21

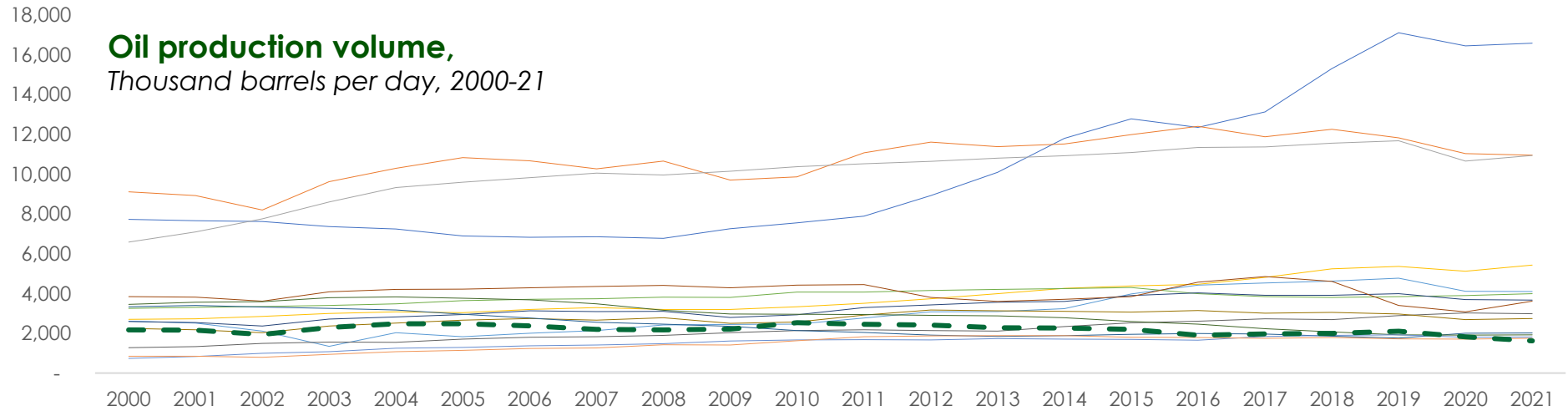


¹Total Capex over the lifecycle of Project FID'd between 2017-2022

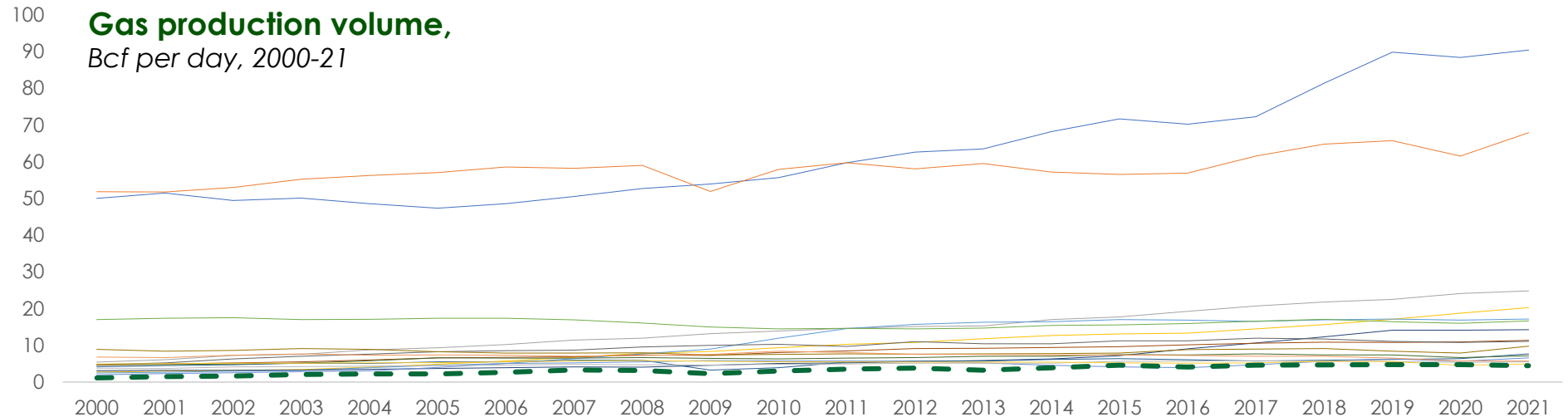
Sources: OPTS Report; Wood Mackenzie UDT (Nov 2022 extract); World Energy Investments 2022; BP Statistical Review of World Energy

Oil production in Nigeria has also experienced a substantial decline, while gas production has lagged that of other nations

- US
- Saudi Arabia
- Russia
- Canada
- Iraq
- China
- UAE
- Iran
- Brazil
- Kuwait
- Norway
- Mexico
- Kazakhstan
- Qatar
- Nigeria



- US
- Russia
- Iran
- China
- Qatar
- Canada
- Australia
- Saudi Arabia
- Norway
- Algeria
- Turkmenistan
- Malaysia
- Egypt
- Indonesia
- UAE
- Uzbekistan
- Nigeria



PMS subsidy places additional pressure on government funds: ~\$10.70 billion is lost to PMS subsidy and inefficiencies associated with its purchase, distribution, and sale

Losses ^{1,2}	Estimated daily loss (\$m)	Description
Under Recovery	25.97	Difference between the purchase and sales price of PMS
Theft	1.78	Lost to theft of PMS from vessels during transportation
Demurrage/cargo	1.00	Payable to vessels for failure to load/discharge crude products on time
Term lifters	0.45	Middleman charges for facilitating crude for PMS trade between the FGN & refineries
DSDP importers	0.11	Difference between the market and contractual price for PMS importation

- Nigeria currently has a budget deficit of ₦10.8trillion. Removing PMS subsidy could potentially save the FGN ~ ₦ 4.5 trillion annually
- Financing the deficit with borrowings from domestic and international markets will be a challenge due to Nigeria's already high debt service-to-revenue ratios and rising interest rates globally
- Nigeria is import dependent for PMS due to low refining capacity – NNPC is the sole importer with strategic Direct Sales – Direct Purchase (DSDP) contracts to complement efforts
- Eliminating PMS subsidy by June 2023 is necessary for stabilizing the economy by preventing the deficit from growing out of control and conserving limited foreign reserves to stabilize exchange rates
- Nigeria is projected to spend ₦2.9 trillion on education & healthcare in 2023, significantly less than the ₦3.3 trillion budgeted for fuel subsidy in first half of the year. The country ranks 163/191 on the human development index, one of the lowest in the world

¹Excludes losses to other inefficiencies, graft, finance, and underinvestment costs

²20% of subsidized PMS valued at \$5.4million/day is smuggled to other W/African markets

A plethora of challenges are responsible for the sector's suboptimal performance (1/2)

CHALLENGES

DESCRIPTION

ROOT CAUSE



Macroeconomic Instability

- Multiple exchange rate regime, limited fiscal revenue, high inflation, high unemployment, impacting investments
- Excessive fees, taxes and levies imposed on the oil and gas industry
- Regulatory overlap and lack of clear delineation of responsibilities among regulatory bodies impacting costs and execution timelines

- Opaque regulatory framework unaligned with the overall sector objectives (e.g., unstable fiscals, regulated prices)
- Frequent changes in policies
- More regulatory agencies than required
- Poor enforcement of the rule of law



Security

- Theft and vandalization of products and assets have led to huge production losses, asset integrity/reliability issues, and high cost of operations

- **Macroeconomic instability**
- Energy poverty and socio-economic poverty
- Policing and Administration of Justice

A plethora of challenges are responsible for the sector's suboptimal performance (2/2)

CHALLENGES

DESCRIPTION

ROOT CAUSE



Infrastructure

- Significant oil and gas infrastructure decay and deficit
- Inadequate power transmission and distribution infrastructure

- **Macroeconomic instability**
- Power Sector Liquidity issue
- Funding and NNPC liabilities

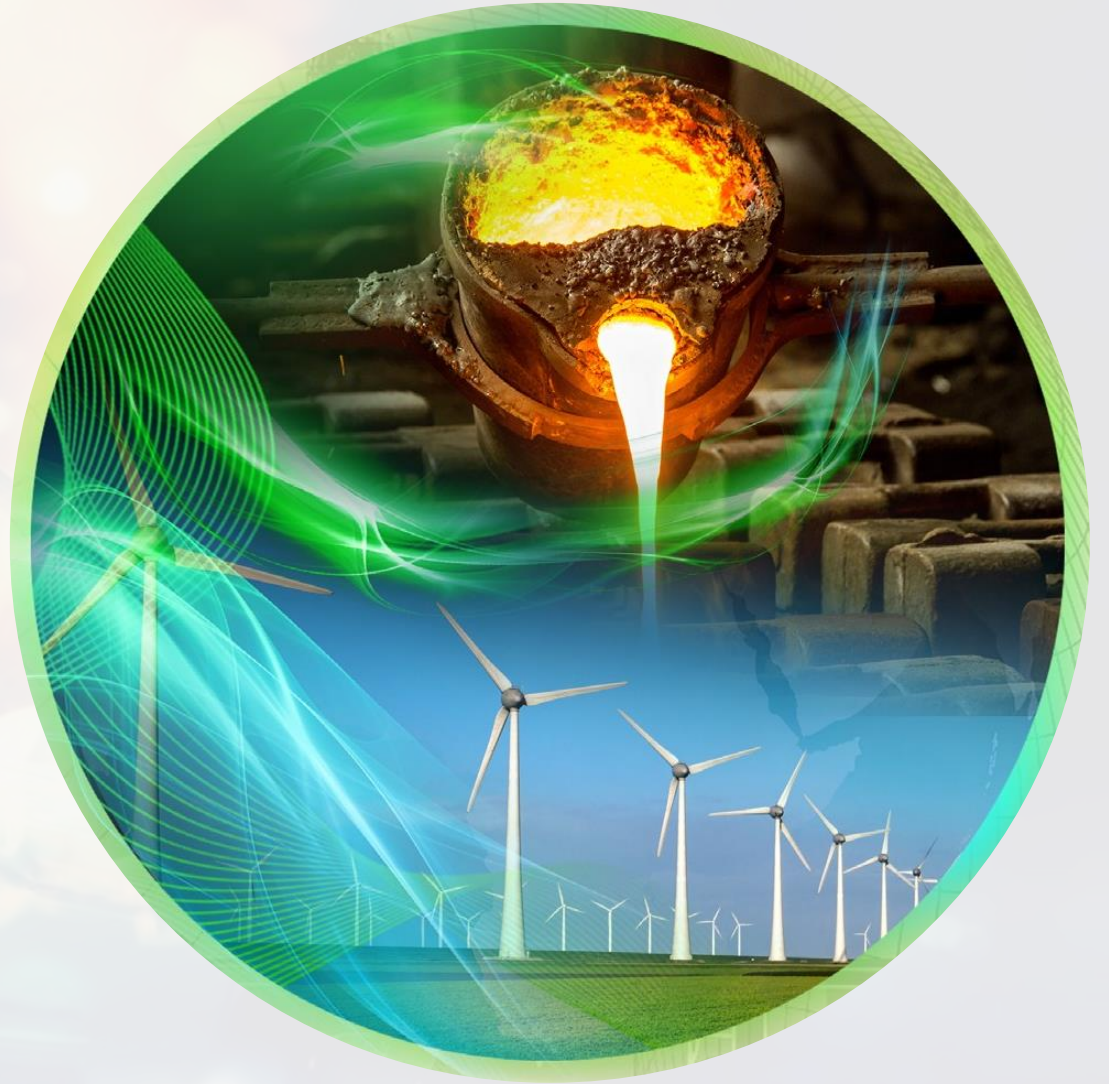


Funding & NNPC Liabilities

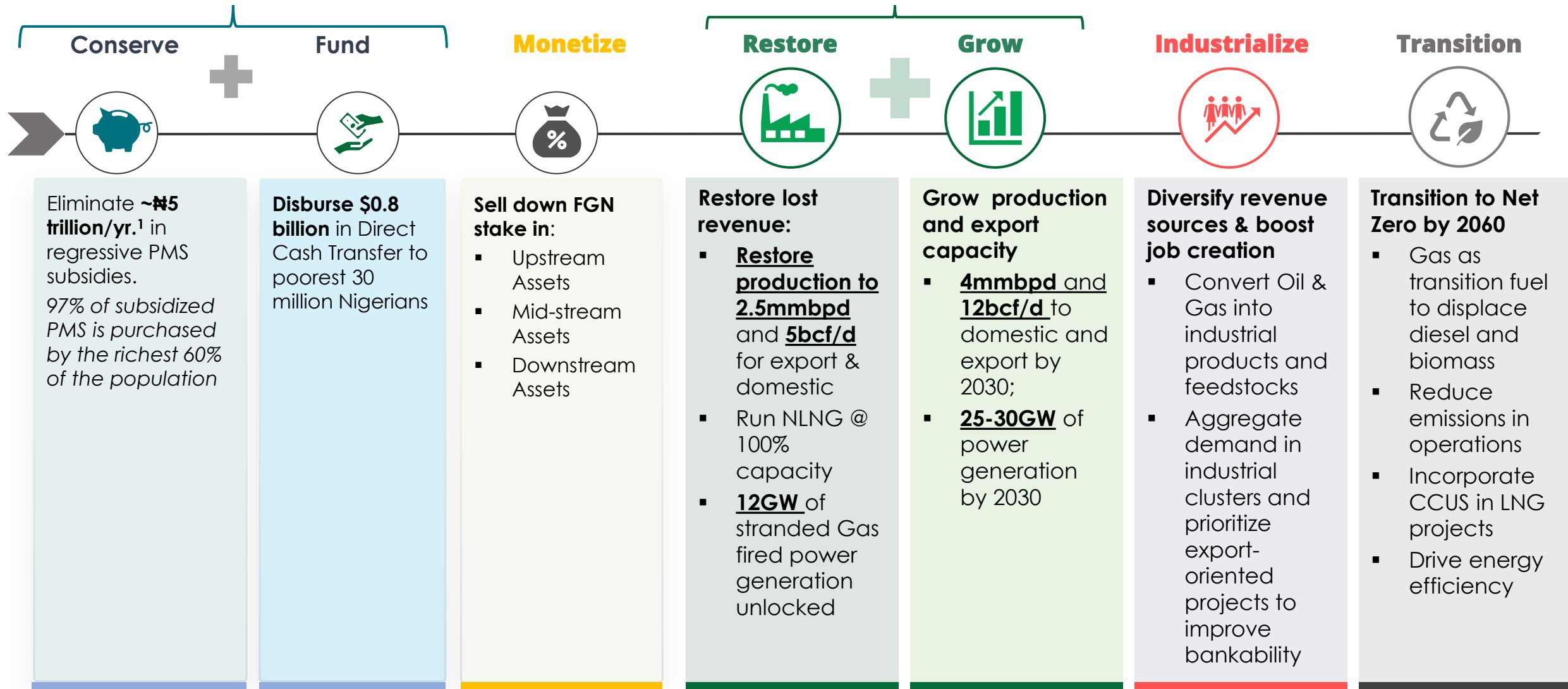
- Narrowing window for oil investments due to lower growth potential for the sector
- Growing NNPC liabilities to operators impacting working capital

- **Macroeconomic instability**
- NNPC cash management

Proposed **Solutions**



Seven core pillars have been coined to spur growth in the oil and gas industry, while enabling economic growth and reducing carbon emissions



¹In 2022, Nigeria spent ₦4.39 trillion for subsidies, and projections suggest that this amount will continue to rise in the coming years if continued

Sources: Reuters; Nigeria Energy Transition Plan; BAT action plan manifesto; PMO modelling

Implementation **Plan**



Conserve + Fund: PMS deregulation would enable the government divert cost savings for social and infrastructural drives

First 30 – 100 days

War Room Organization and planning

- President Elect's PAC Energy team to update subsidy removal facts and figures: latest market data on PMS pricing, projected import volumes post deregulation, potential sources of FX liquidity for initial 3 months post deregulation, stakeholder management plan and ensure aligned personnel at NNPC, NMDPRA and CBN

Stakeholder Engagement

- Map and engage key stakeholders (Industry participants(including vested interest), Governors, organized labor, civil society organizations, media etc.)
- Align on messaging and commence a “facts and figures” as well as a “hearts and minds” advocacy campaign across various platforms (e.g., social media, popular talk shows on radio and TV) using multiple trusted surrogates (local and international) to bridge trust deficit gap.

Product availability and FX liquidity

- Terminate all DSDP contracts to gain incremental cashflow from sale of 445k bpd equity crude previously allocated to swaps.
- Provide initial FX liquidity (latest estimates - \$3bln for first 3 months) and non-discriminatory access to FX at the same rate for major suppliers and refiners

Cash transfers

- Obtain NASS approval for an addendum to the external borrowing plan for the \$0.8bln IDA financed cash transfer program to 10 million Households (55million people) to mitigate the impact on inflation and the most vulnerable using existing social register
- Include unionized poor workers earning between NGN 137,000 and NGN 206,000 in urban & peri-urban areas in compact. (Junior civil servants, shared taxi operators, market women, organized labor, etc.)

Medium term

- Enlist international partners (WB, Bilaterals) to provide finance and technical Assistance for a broader compact to deliver:
 - Clean urban mass transit (gas + Electric)
 - Clean Energy Access (gas, LPG and renewables to displace PMS and Diesel consumption in SMEs and biomass in households)

Monetize: sale of government assets will enable the government raise funds while driving greater efficiency in the oil and gas sector



Immediate Steps (100 days)

- Constitute a team to evaluate portfolio of upstream, midstream and downstream.
- Decision Analysis - Carry out high level Valuation and establish range of consideration
- Commence preliminary engagements with potential buyers and financiers

18 months (Dec 2024)

Up to USD 4.5bln

- Appoint external investment banker, legal advisor and financial advisor
 - Identify and test transaction principles with key buyers
 - Establish transaction process
 - Establish execution timeframe and assess market conditions for transaction
- Prepare IM/Management Presentation
- Identify potential bidders, sign NDA with them and share IM with them
- Prepare data room and shortlist potential bidders for due diligence
- Engage in bidding and negotiation of price and contract terms
- Draft Sales of Purchase Agreement (SPA)
- Sign SPA and prepare to commence operations
- Complete sale of IOC Operated SW assets(include assets that IOCs have indicated interest in holding on to in the medium term. Excludes announced divestments)

Long term (May 2027)

Up to USD 12.9bln

- Appoint external investment banker, legal advisor and financial advisor
 - Identify and test transaction principles with key buyers
 - Establish transaction process
 - Establish execution timeframe and assess market conditions for transaction
- Prepare IM/Management Presentation
- Identify potential bidders, sign NDA with them and share IM with them
- Prepare data room and shortlist potential bidders for due diligence
- Engage in bidding and negotiation of price and contract terms
- Draft Sales of Purchase Agreement (SPA)
- Sign SPA and prepare to commence operations
- Complete sale of Phase 1 UJV sales(UJVs between NNPC and local independents), Shallow water ongoing and executed divestments, Phase 2 UJV sales (UJVs between NNPC and local independents)

Beyond May 2027

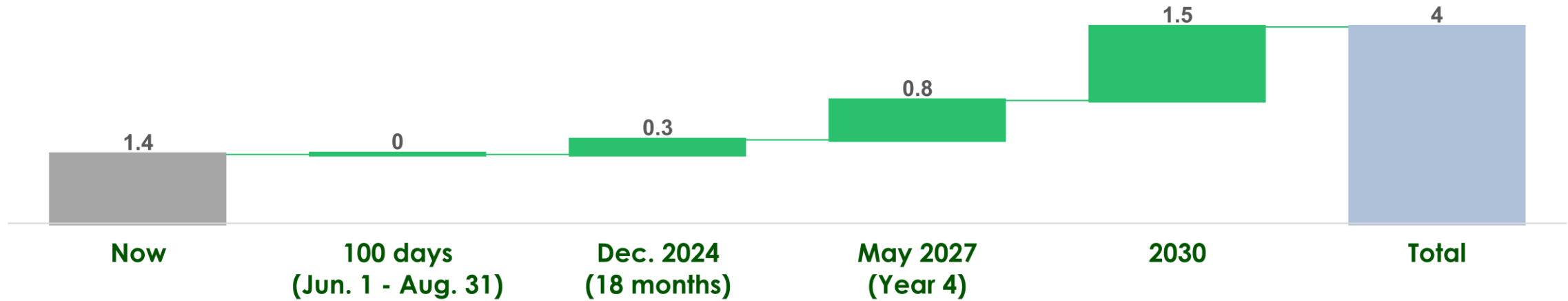
Up to USD 16.4bln

- Appoint external investment banker, legal advisor and financial advisor
 - Identify and test transaction principles with key buyers
 - Establish transaction process
 - Establish execution timeframe and assess market conditions for transaction
- Prepare IM/Management Presentation
- Identify potential bidders, sign NDA with them and share IM with them
- Prepare data room and shortlist potential bidders for due diligence
- Engage in bidding and negotiation of price and contract terms
- Draft Sales of Purchase Agreement (SPA)
- Sign SPA and prepare to commence operations
- Complete sale of IOC assets planned for divestment or ongoing divestment in Onshore East and West

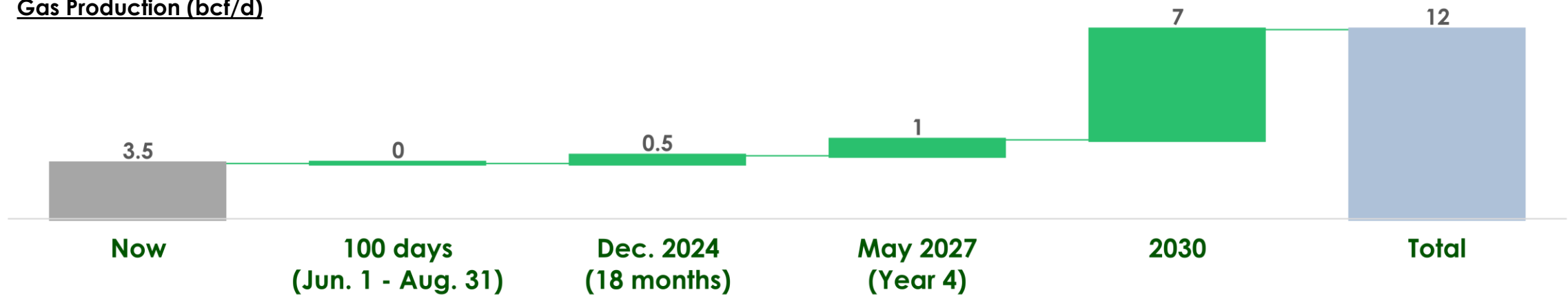
Asset sale values exclude difficult to value assets such as Refineries, Refined Products infrastructure and Pipelines
 IOC Operated SW assets include assets that IOCs have indicated interest in holding on to in the medium term. Excludes announced divestments
 Value estimates based on precedent transaction multiples (\$2/boe) for asset level deals in Nigeria. Excludes transactions for shares (e.g. COP, XOM, Shell) which include liabilities that are not publicly disclosed and are difficult to estimate.
 Value estimates assume asset sales. Net receipts to government will need to deduct applicable NNPC liabilities.

Restore + Grow: Effective and transparent regulations will enable the government restore and grow oil and gas production while optimizing revenue from the sector

Oil Production (mmbpd)



Gas Production (bcf/d)



Restore + Grow: First 100 days | (June 1 – August 31, 2023)

Governance

- **Improve governance framework and resourcing by headhunting and placing capable resources** across critical oil and gas MDAs
- **Constitute advisory group to develop blueprint that addresses barriers hampering oil and gas production** and finalize strategy by first 30 – 100 days
- **Head-hunt competent, tested, reform-focused leaders in NNPC** ensuring its function as commercial entity per PIA; paying taxes, royalties and profit to Federation Account and properly regulated by NUPRC/NMDPRA/NCDMB

Security

- **Signal determination to end insecurity in oil producing states (Imo, Rivers, Bayelsa, Akwa-Ibom)** by engaging **key political and community stakeholders** and resolving disputes
- **Reform the operations of the military task force** with clearly defined KPIs to tackle deficiencies and implement **frequent rotations to address complicity**, especially with GSA

Finance

- **Unify exchange rate window** to ease pressure on foreign reserves and facilitate trade
- **Enact Fiscal Enablers for NAG and Deepwater via Finance Act**
- **Implement market prices for Gas & Power**, ensuring that prices reflect market realities
- Agree a transfer pricing framework for third party gas supply to NLNG

Contractual and Regulatory

- **Review and amend the Joint Operating Agreement (JOA)**,
 - execute new asset-management team (AMT) agreements to enshrine principle of operatorship by most technical and financially competent partner
 - address loopholes in contracting and optimize government takes
- **Ensure compliance with Nigerian Content participation thresholds** per the 2010 NOGID act and as amended
- **Refocus NCDMB strategy for capacity building** and not creation of middlemen increasing project costs during contracting

Restore + Grow: Medium Term | (September 2023 – December 2024)



Development

- **Promote the development of a diversified oil and gas industry** including petrochemicals,
- **Expand domestic gas reserves and promote the development of a diversified oil and gas industry** by implementing reforms in PIA including “network code”
- **Develop a gas export strategy** that will enable Nigeria to become a major supplier of gas to other countries.
- **Bring Brownfield Project Onstream** to restore (2.5mbpd & 5bcfd)
- **Sequence FIDs for growth projects**



Security

- **Consequence management** for underperformance under the special military taskforce
- **Implement Host Community Fund Development Programs**



Finance

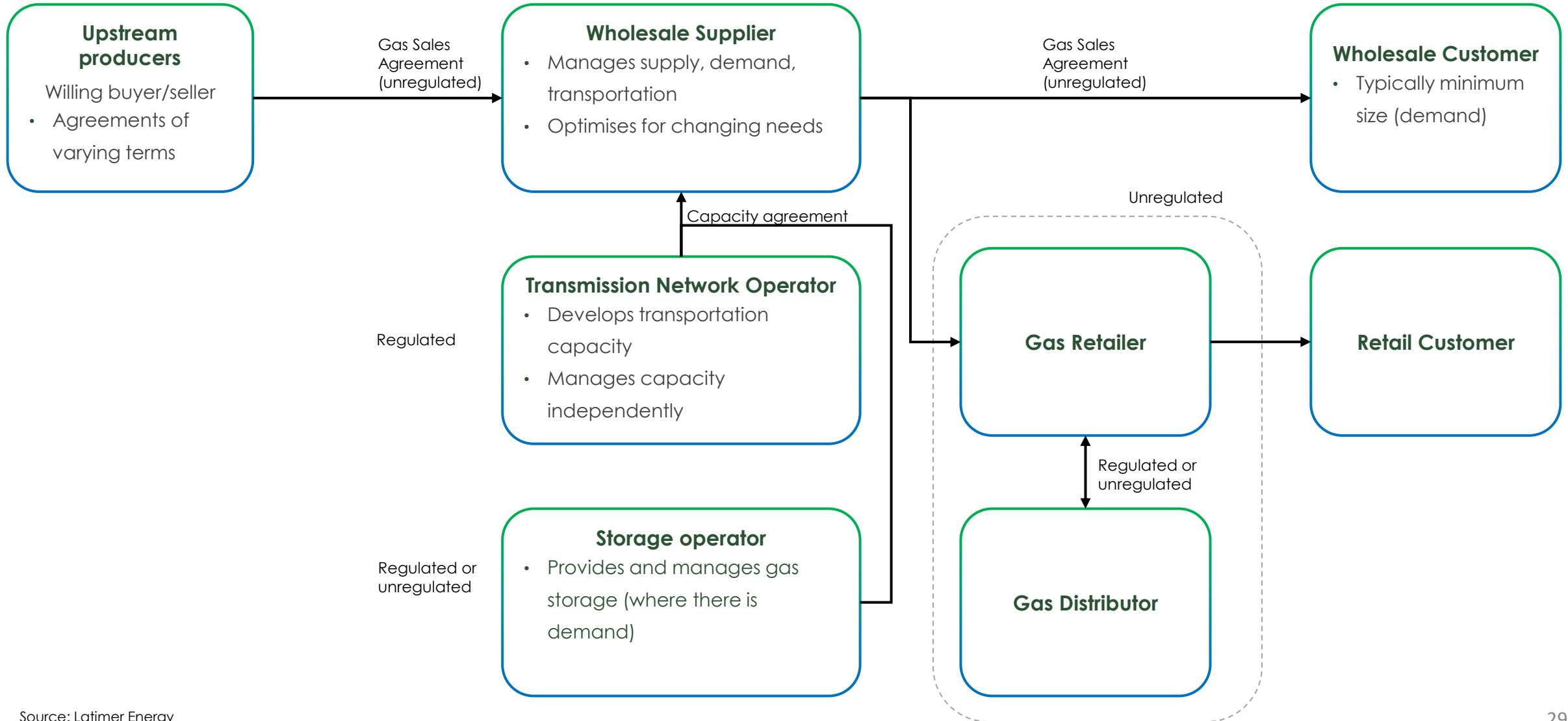
- **Resolve NNPC underfunding** by offsetting product assignments to offset arrears based on increased production levels
- Upon PMS deregulation, **unlock revenue savings** from DSDCP to fund arrears
- **Develop a sustainable financing model** that will ensure the continuous growth and development of the oil & gas industry
- Pay off Gas Suppliers Debt
- NNPC to conclude within 30 days contractual terms for existing Deepwater NAG leases along the following:
 - Up to 90% Profit Gas until full cost recovery, thereafter 50% applies
 - Make fiscal changes as follows:
 - Unregulated market prices
 - Cost recovery ceiling on existing leases to increase to 70% as for new leases in PIA
 - Allow tax holiday of 5 years to apply for all undeveloped NAG resources



Regulatory

- Mandate NNPC and NUPRC/NMDPRA to close out outstanding divestments and contract issues for project delivery clarity
- **Strip NNPC of policy making roles** and keep NCDMD within its Act mandate .
- **Amend the stabilization clause in the PIA** to ensure predictability for investors by granting 100% tax credits on post FID taxes and levies.
- **Consider integrating NUPRC, NMDPRA and NCDMB into a single regulator** or include all midstream activities into NUPRC scope
- Modify regulations to enable a competitive, fair, and transparent private-sector led oil and gas sector across all verticals of the value chain

Restore + Grow: Proposed gas sector gas market model for Nigeria



Restore + Grow: Long Term | (Jan 2025 – May 2027)



Development

- **Bring Greenfield Projects Onstream** to grow to (4mbpd & 12bcfd)
 - Deepwater Oil and gas Projects
 - Develop Offshore Gas Hub
 - FLNG
- Bring remaining **Brownfield Project onstream from:**
 - 10 critical gas projects
 - Oil and gas projects post FDP and pre-FID



Security

- **Sustain short term and medium-term gains**



Finance

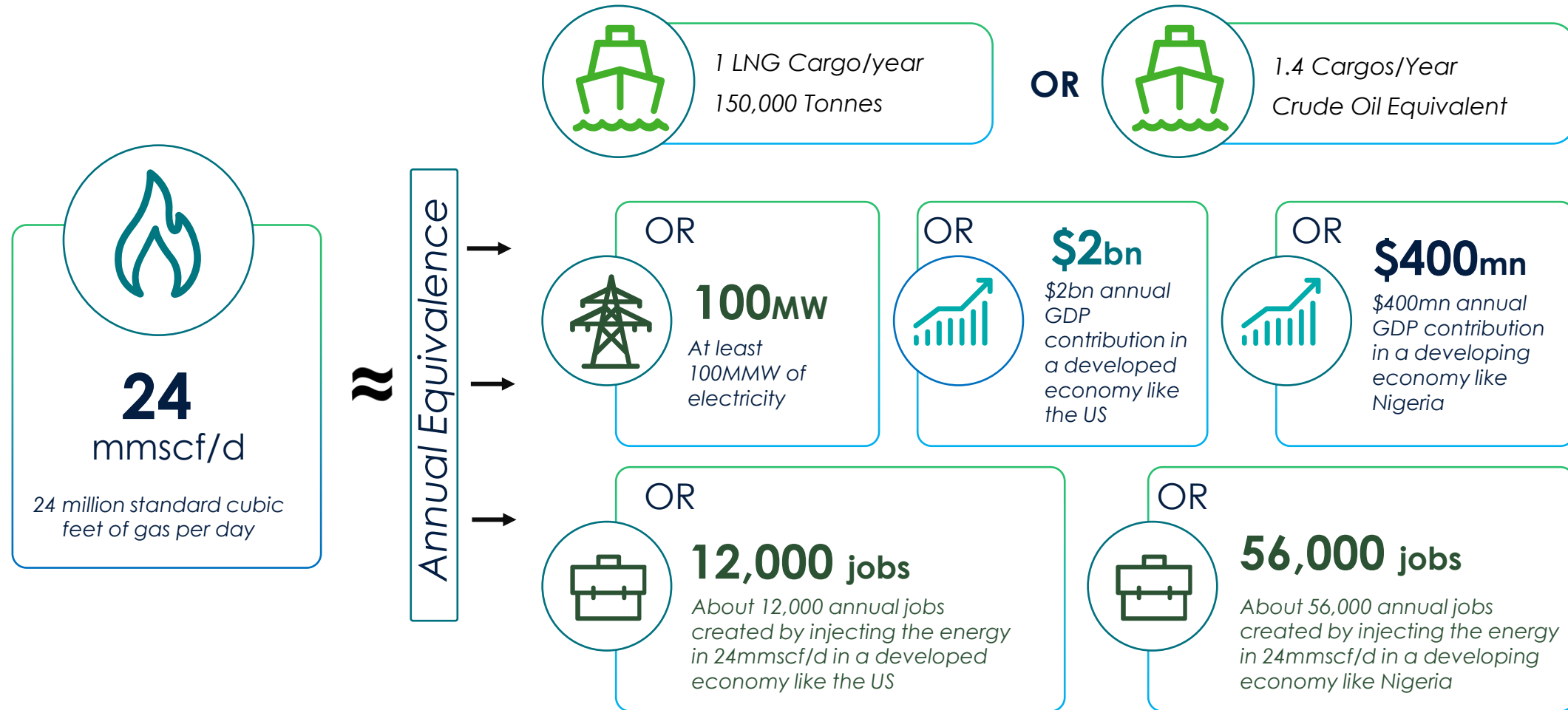
- Execute NNPC sell down:
 - Sell down NNPC assets and form critical partnerships in minority stake cases
 - Sell down interests in JVs to a minority position and develop an operating model that eliminates cash calls
 - Sell down interests in the refineries and build use NLNG operating model
- **Sustain short term and medium-term gains**



Regulatory

- **Sustain short term and medium-term gains**

Diversify: Role of Gas in Growing and Diversifying the Economy



It is our estimate that 2,400mmscf/d of additional gas to be supplied from the 7CGDP to our local economy can create up to 5.6 million jobs and boost our GDP by about \$40bn (about 10% of the current GDP)

Diversify: Connecting the oil and gas sector to other sectors for economic growth



Agriculture and fertilizers

Provision of **energy for farm operations** and **fertilizer for food production** to drive **growth in the agricultural sector**, the biggest employer of labor, leading to direct and indirect employment opportunities



Construction and manufacturing

Construction of oil rigs, pipelines, storage facilities, and export terminals can **revitalize related industries in construction, steel manufacturing, and engineering services**



Local content expansion

Opportunities to encourage the participation of Nigerian businesses and workers will **stimulate the growth of indigenous companies and local businesses**, fostering economic diversification



Human capital development

Advanced technologies and expertise of IOCs can be **transferred to benefit indigenes**; furthermore, increased production generates **additional government revenue** that can be **allocated to sectors such as education**, fostering human capital development and inclusive growth



Research and Development

Investments in R&D to improve exploration can lead to technological advancements that benefit not only the oil and gas industry but also other sectors, such as **environmental monitoring, geoscience research, and remote sensing technologies**



Refining and Petrochemicals

Diversify exports through the production of value enhanced products, including petrochemicals, plastics, etc.

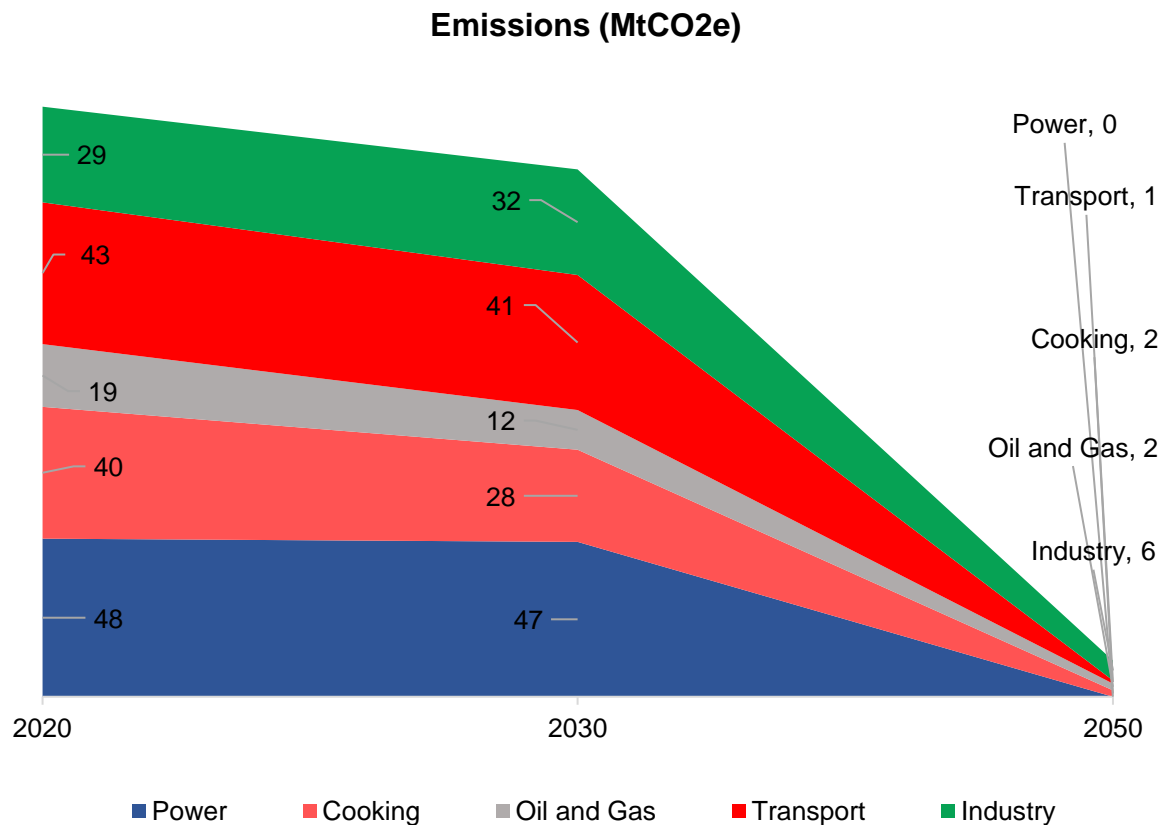


Power generation

Natural gas is used extensively for **power generation**, leading to increased access to electricity for industrial and retail consumers, and **driving economic activities across various sectors**

Transition: The government must however promote low-carbon technologies and energy sources to balance emissions from oil and gas production

Utilizing low-carbon technologies and energy sources, particularly renewables, will drive a 94% reduction in emissions by 2050



Sources of GHG emission reductions



- Increased renewable electrification,
- The gradual shift from fossil fuel generators and increased capacity of gas-powered generating plants



- Utilization of LPG for cooking
- Transition to electric cookstoves and biogas



- Reduction in gas flaring – conclude gas flares commercialization program
- Explore CCUS project

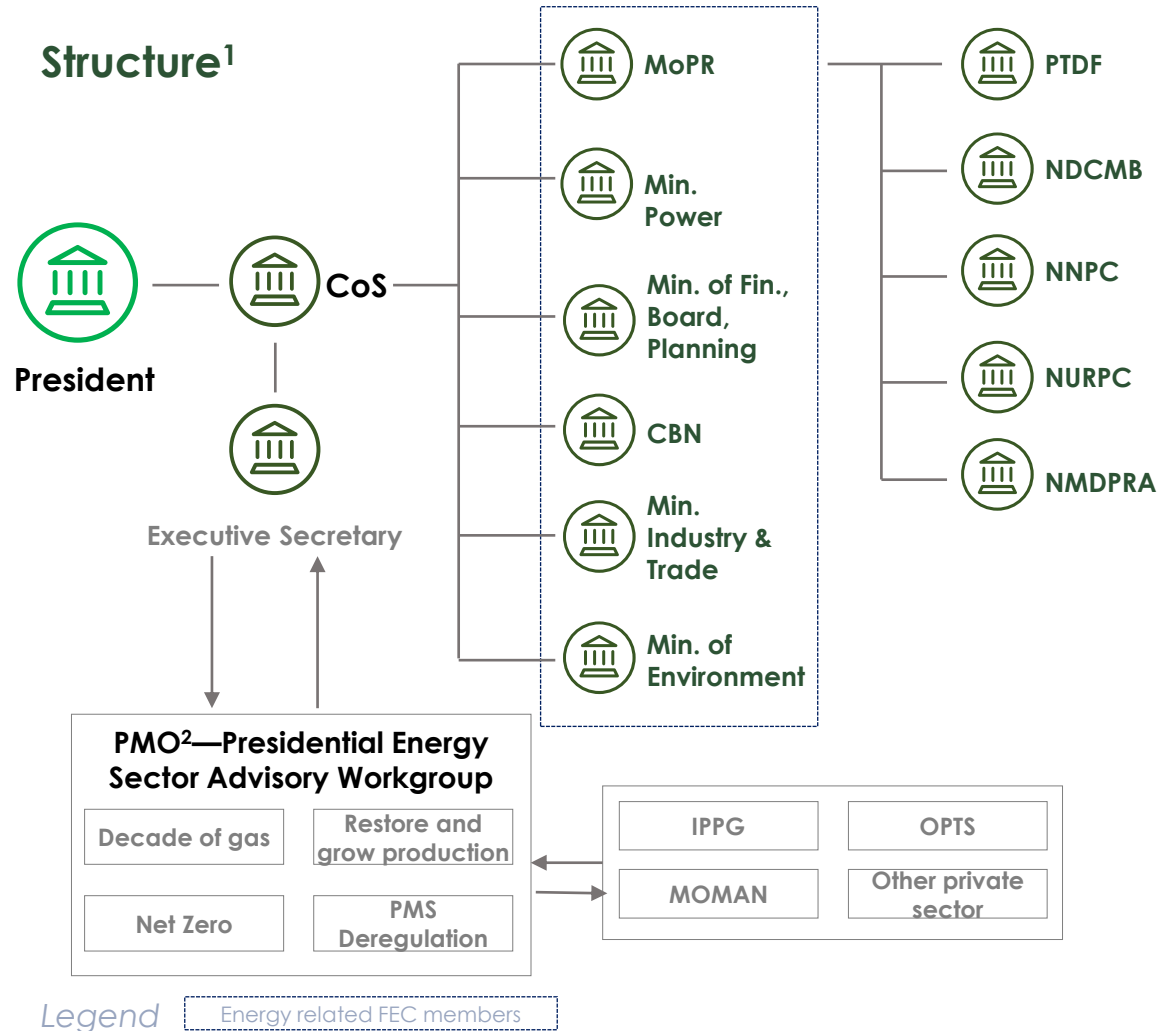


- Introduction of electric vehicles



- Total shift to zero emissions fuels for heating and decarbonization efforts in the industry

Governance framework and resourcing: Alternative



¹ Chart is depicted to represent flow of information

² Project Management Office (PMO) supporting the Executive Secretary

Merits

- To strengthen the Ministry of Petroleum, it is essential to have a capable Minister who can provide effective leadership and direction.
- It is important to establish an appropriate distance for the President to observe issues and provide guidance or intervention when misalignment occurs.
- Both the PMO and advisory committee should work together to enhance coordination and provide clear visibility to the President
- It will strengthen coordination across the Energy value chain

Demerits

- One potential drawback of this structure is that it may pose challenges to effectively implementing policies within a single ministry

