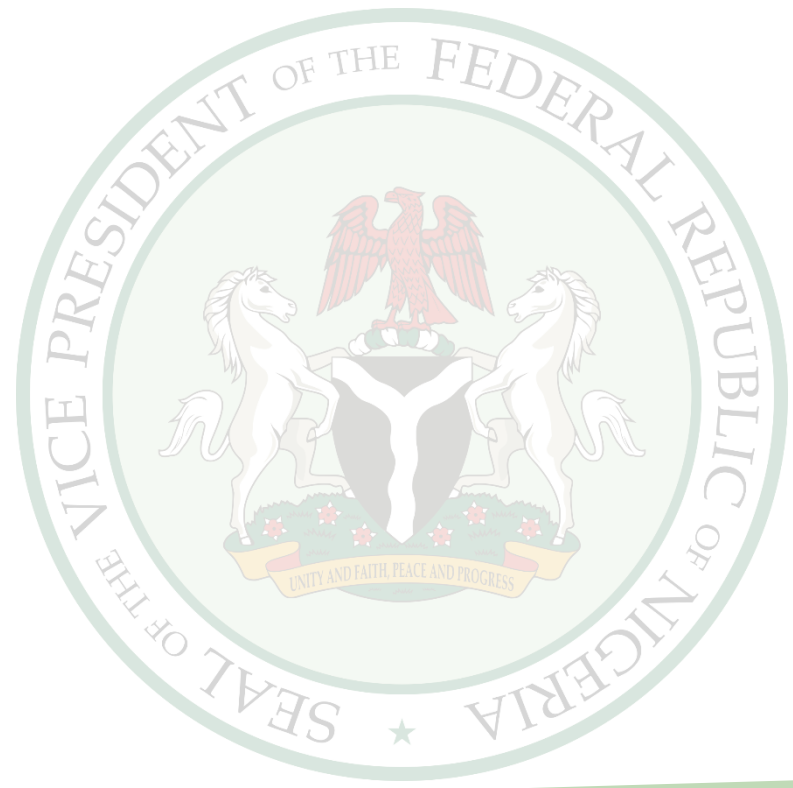


The Strategic Context for CCUS Development in Nigeria

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Nigeria's energy transition



Energy Transition / Net zero target – pathways towards transformation of global energy sector to low carbon emission / net zero carbon (deep decarbonization) targets by 2050

Energy security and climate goal is a key energy transition goal

Sectors

- Industry (cement, iron and steel and chemicals)
- Power
- Oil and Gas (upstream, mid stream and downstream)
- Building (residential and commercial)
- Transport

Measures of decarbonization – deep emission cut and/or carbon removal technologies

- Core - NDC guided (2021 to 2030)
 - Deep decarbonization – Net zero target (2031 to 2050) ?
- } Carbon capture utilisation and storage planning, development and deployment.

Why develop a CCUS Strategy in Nigeria



To guide strategic direction and vision for CCUS in Nigeria, including setting milestones and supporting the development of a policy framework to drive sustainable project implementation

National Drivers

- Petroleum Industry Act (PIA)
- Nigeria Economic Sustainability Plan
- Updated 2021 Nationally Determined Contribution
- Just Transition

Main sectors – hard-to-decarbonize-industries including the energy sector

Potential emission sources

- Vent gas streams from power plants
- Gas processing facilities
- Industrial facilities associated with cement, chemical, and iron and steel production
- Oil refineries

What a CCUS work programme could entail



4 key activities and topics should be considered during development of a Nigerian CCUS work program

1. Technical assessment: Assessments of Nigeria's CCUS potential including CO₂ storage resources/industry hubs, emissions points, and an initial project pre-feasibility assessment; **project studies – pilot or commercial.**
2. Legal and regulatory framework: Identify the applicability of existing laws and regulations for CCUS and support the development of legal and regulatory frameworks for development and deployment.
3. Stakeholder engagement: Strengthening national support and capacity for CCUS activities including regional knowledge and network collaboration and cooperation.
4. Capacity Building: Building national / institutional including technical capacity for CCUS development and deployment in Nigeria.

Proposed outputs of a CCUS work programme



Optimize and reduce the cost of CCUS development and deployment in Nigeria through development of a national strategy

Policy measures (categories): Carbon pricing, grants, operational subsidies and regulatory standards and obligations, innovation, research and development

Applications, required investments, and financial flow:

- Capture – Direct air capture, BECCS, power generation, and industry (natural gas, oil, process emissions)
- Transport – CO₂ transport infrastructure including assessing if existing assets could or should be repurposed
- CO₂ use – EOR, hydrogen production, biofuel production
- Storage – saline formation and depleted oil and gas reservoir – **sufficient and safe**

Legal and regulatory framework that enables and supports CCUS deployment

Public acceptance of CCUS as an emission abatement option while strengthening energy security

The role of the Office of the Vice President



To provide strategic direction and oversight during implementation of a CCUS work programme

Spearhead CCUS strategy development through robust stakeholder engagement

Ensure that the CCUS strategy is in line with Nigeria's broader energy and climate policy

Create conditions that stimulate private investment



Thank you

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