



ETP
Nigeria's Energy Transition Plan

Nigeria's Energy Transition Office Stakeholder Engagement Learnings

Jan - June, 2023



Stakeholder Engagement Learnings



Global Energy Alliance
for People and Planet
(GEAPP)

Introduction

Nigeria is a high-impact country for achieving the UN Sustainable Development Goal 7 (SDG7) which calls for universal access to clean and affordable energy. Based on the latest data available, 92 million Nigerians lack access to electricity while 175 million lack access to clean cooking solutions. At the same time, the reality and grave impacts of climate change are already manifest in the form of floods, pollution, erosion, desertification, and the associated socio-economic consequences. As a result, demanding and modelling bold action to address energy poverty and mitigate climate change became a priority for Nigeria. This served as the backdrop for Nigeria's leadership in becoming the first African country to develop a detailed Energy Transition Plan (ETP) in 2021. In partnership with the UK Energy Transition Council, Sustainable Energy for All (SEforALL) and McKinsey, the Nigerian Government designed the Energy Transition Plan to tackle the dual crises of energy poverty and climate change and deliver SDG7 by 2030 and net-zero by 2060, while also providing energy for development, industrialization, and economic growth. **The ETP details pathways for significant low-carbon development of energy systems across 5 key sectors: Power, Cooking, Transport, Industry, and Oil and Gas. Nigeria's Energy Transition Office which serves as the secretariat for the ETP is situated in the Nigerian Presidency.**

Objective

Nigeria's Energy Transition Office commenced a series of stakeholder engagements across identified sectors, partner groups etc. The goal is to expand the understanding of Nigeria's Energy Transition Plan, extract qualitative insights from stakeholder groups, identify gaps, foster connections, trust, confidence, and buy-in for the ETP's targets and objectives as well as identify constraints to effective implementation to Nigeria's Energy Transition Plan.

Partners

Nigeria's Energy Transition Office is resourced by Sustainable Energy For All (SEforALL) and Global Energy Alliance for People and Planet (GEAPP)



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The ETP-Private Sector Stakeholder Session

Context and Rational

The Nigerian Government designed the Energy Transition Plan (ETP) to tackle the dual crises of energy poverty and climate change; and outline a pathway to achieve net-zero status by 2060, while also providing energy for development, industrialization, and economic growth. To deliver net-zero target by 2060, Nigeria requires **~\$410 billion above business-as-usual spending** (between 2021 - 2060); \$150 billion net spend on generation capacity, \$135 billion on transmission and distribution infrastructure, \$79 billion on cooking, \$21 billion on industry, \$12 billion on transport and \$12 billion on oil and gas decarbonisation. Nigeria's Energy Transition Office has identified an initial \$23 billion investment opportunity across a portfolio of projects, out of which ~\$17 billion is estimated as funding required through the private sector, across generation, transmission and distribution, metering, gas commercialization, clean cooking, e-mobility, and healthcare.

Nigeria needs to unlock an enormous amount of financing from various sources of capital, both domestic and foreign, to fund its just energy transition. The scale and ambition of the ETP underscores the important role of the private sector in bridging financing gaps, and mainstreaming private sector led climate-friendly and innovative financing solutions for Nigeria's transition to net zero. A successful transition will require commercial investment capital, blended structures in the form of public- private partnerships and concessional capital and development funding from a combination of philanthropists and multilateral development financiers.

To help consolidate efforts towards the financing of the ETP, a private sector-focused roundtable was convened in Lagos on Friday, February 17th, 2023 to support the preparation of aligned pipeline projects to financial close and provide private sector stewardship towards project implementation.



\$150B

Generation
Capacity

\$79B

Cooking

\$135B

Transmission
& Distribution

\$21B
Industry

\$12B
Transport

\$12B
Oil & Gas
Decarbonisation

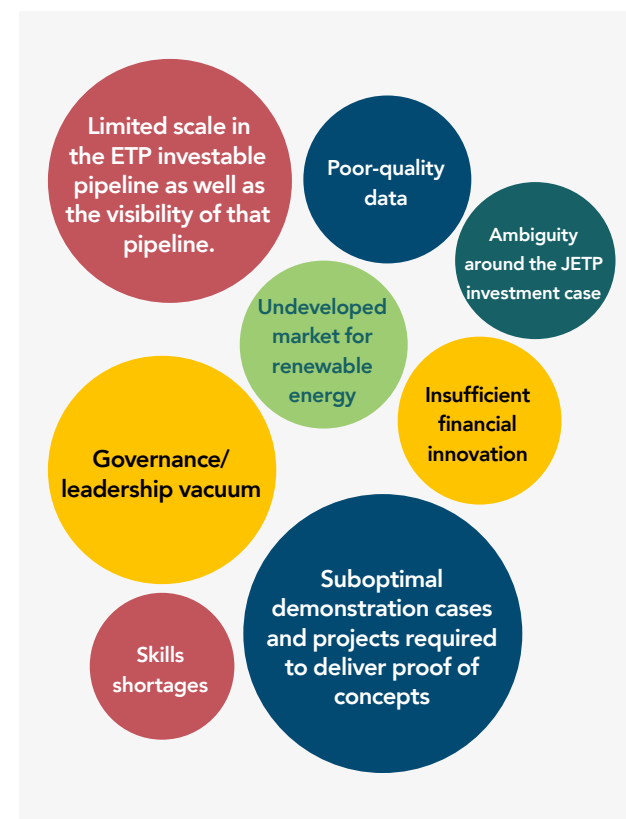
Project Based Themes and Challenges

Several themes emerged as constraints to unlocking private funding. Some of the themes were surprising, and linked to specific pools of international capital, while others were not, and linked to domestic institutional investors and strategic partners. Many cross-cutting issues also emerged, many of which are complex to resolve and will require public and private sector collaboration. The discussions highlighted eight project based constraints that cut across the five verticals (sectoral focus) of the ETP, and prevent stakeholders from fully engaging with and investing in the energy transition projects. These bottlenecks include;

- ✘ **Limited scale in the ETP investable pipeline as well as the visibility of that pipeline.** There is a lack of (bankable) pipeline and project development support, including for bridging the disconnect between the actual projects and the available capital. Several participants reported that they had not been presented with any ETP projects for serious consideration despite an abundance of rhetoric on energy finance and infrastructure in general.
- ✘ **Suboptimal demonstration cases and projects required to deliver proof of concepts and build the viability case to potentially attract the buy-in from institutional funders.**
- ✘ **Insufficient financial innovation, as the local market has been slow to adopt new instruments that can crowd in funding for the ETP projects.** Furthermore, there is relatively little evidence to suggest that practitioners are proactively thinking about designing new and innovative instruments and mechanisms that could accelerate the mobilisation of private sector funding for the ETP.

- ✘ **Ambiguity around the JETP investment case and financing model.** Participants reported a limited understanding of what a JETP was, the scale of funding required and the role that various stakeholders in the market should play. Participants recognized that unless there is consensus on what needs to be financed and how this can be done, the just energy transition in Nigeria will remain an unachievable ambition.
- ✘ **Skills shortages related to knowledge transfer and upskilling capacity required for the power, oil and gas and buildings (cooking) sectors.** Many of the blockages highlighted by participants refer to a lack of specialist skills and expertise in the local market to drive the capacity required for building a pipeline of low-carbon projects in the ETP's five sectors. For example, the ETP envisages a significant ramp up of solar capacity at 5.3 GW each year till 2060, and the associated economic trade-offs such as the long term job loss in the oil sector.
- ✘ **Governance/leadership vacuum to drive sustained private sector ETP engagement and enhance trust between stakeholders.** Specifically, the public sector has a suboptimal track record of developing viable funding opportunities and projects that can be taken to the private sector with appropriate instruments. Private sector stewardship is required to support the preparation of priority ETP projects and accelerate the financing of the ETP.

- ✘ **Poor-quality data and ESG climate reporting standards.** Participants shared that data demands of ESG are a key factor that could deter investment by the private sector into the ETP. Collecting, collating and packaging ESG data is resource intensive and requires technical expertise to ensure that the data is of good quality.
- ✘ **Undeveloped market for renewable energy (RE) component assembly and manufacturing for renewable energy installations (solar PV, batteries and other related inputs).**



Recommendations

- ✔ **Demonstration projects for the ETP verticals.** Participants expressed an interest in identifying aligned priority projects to use as case studies or demonstration projects that signal the viability of energy transition business models, and curate learnings that may inform broader policy action. Participants committed to getting their teeth stuck into actual priority pipeline deals to test internal structures and processes as well as offer solutions, project preparation support and enable discussions with end investors. More broadly, there is an opportunity for development funders, including philanthropists and multilateral development agencies, to support the development of projects that are close to being investment ready to get to a point of bankability. Alternatively, projects that are deemed excessively risky for commercial funders can be de-risked by development funders.
- ✔ **Innovative financing mechanisms.** To unlock large-scale financing from the local pension funds industry in Nigeria, mobilizing domestic credit or equity to the private sector through innovative financing instruments will be required. There is a need for packaging transition financing instruments in a way that is accessible for institutional investors. This is applicable for both domestic and offshore investors. Moreover, other sustainable finance instruments (including transition bonds, carbon credits and sustainability linked loans) may have to be considered on a much larger scale to enable the funding of the just element of the transition.

Although there has been a shift in Nigeria from a dependency on sovereign guarantees for projects, to more private sector-led financing, other forms of risk mitigation such as revenue ring fencing, blended finance structures and stabilisation funds will continue to be important to the success of ET transactions.

- ✔ **Developing the investment case for Just Energy Transition Partnership (JETP) financing.** A more concerted effort to engage with international capital allocators, through the JETP (or other alternatives) is essential. To attract funding at scale, Nigeria may need to offer liquid investments to capital allocators that yield competitive, risk-adjusted returns over the medium to long term. Advocacy related to scaling up financing for the ETP must be done successfully in the local market to demonstrate to offshore investors that there is buy-in from local investors (which encourages a sense of derisking and information sharing). It is also critical to ensure that the case for investing in the just transition as well as how such investment will support the pathway to net zero are clearly articulated. The local private sector needs to ramp up efforts to demonstrate to offshore investors how their capital can be utilised to achieve long-term sustainable outcomes. Capacity building and market development: Participants highlighted that Nigeria will need to develop highly specialised skills across various ET industry areas to create the capabilities needed to achieve the energy transition



goals over the next four decades. To understand exactly what skills are needed in which areas, the government needs to do a skills gap analysis and develop a strategy on how this gap will be closed. This is an area where development funders can provide technical assistance. To get to the end-goal of achieving net zero, Nigeria will need to have a number of fundamental building blocks in place including capacitated human resource, green manufacturing (and assembly) market development as well as ESG integration amongst others.

- ✓ **Private sector governance framework to guide the ETP resource mobilization and complement the government's Energy Transition Implementation Working Group.** Public and private sector participants agreed to work together through private sector working groups, organised around thematic areas, to advance project preparation and innovative financing mechanisms that could help mobilize private finance at scale. Participants acknowledged that in developing solutions to project constraints, some hurdles will be easier to overcome than others, yet with collaborative efforts between private and public sector actors, as well as partnerships between capital providers along the entire spectrum of capital – from philanthropic funders right through to commercial investors – progress can be made to ultimately mobilise funding at scale.

Next Steps

COMPLETED

Establish core sub groups that will drive recommended actions and assist in financing specific projects.

ONGOING

Core sub groups will focus on

- i. Demonstration projects for the ETP verticals;
- ii. Innovative financing mechanisms to unlock large-scale financing, (including developing the investment case for Just Energy Transition Partnership (JETP) financing), and
- iii. Capacity building and market shaping activities, including for building localized manufacturing and industrial capabilities related to renewable energy.



The ETP-Women In Energy Stakeholder Session

Context and Rationale

Female representation along the hierarchical levels across the energy sector shows that women are underrepresented, yet where they are represented, they make significant contributions to energy policies, energy advocacy, implementation, regulation, energy access and so much more. The Energy Transition Office recognizes that women are a vital dynamic force that can catalyze the implementation of Nigeria's Energy Transition Plan - and drive the adoption of cleaner energy technologies and solutions. Rooted in their communities, women play a vital role as leaders and consumers in building confidence in the use of clean energy technologies.

Nigeria's Energy Transition Plan provides a decarbonisation pathway for 5 sectors and women and women groups who are in the frontline must be assembled to explore how their skills, roles and expertise can be leveraged to accelerate the implementation of the Energy Transition Plan, foster collaboration among female professionals and groups across all aspects of the energy supply chain, and provide a platform for female policymakers, industry leaders, groups and experts to develop actionable solutions that support the implementation of the Energy Transition Plan.



Challenges and Bottlenecks

- ❌ **Cultural barriers.** Traditional ascription of roles prevent access to education for many young girls, Gender presumptions restrain many young women from undertaking certain course/disciplines. These barriers limit female participation in the energy sector.
- ❌ **Low Purchasing Power.** A major bottleneck observed in the course of the conversation was the low purchasing power of the product end-users in relation to the high cost of the products.
- ❌ **Inadequate distribution channels to rural areas.** Inadequate distribution channels to rural areas particularly for LPG presents a serious challenge. There is a fundamental gap between accessibility, affordability and cost in developing LPG in cylinders which has the potential to severely slash down profits and thus discourage small business operators.
- ❌ **Access to finance.** Stringent loan financing requirements cripple expansion for female-led businesses in the energy sector.
- ❌ **Fear of failure and rejection.** Many female players in the energy sector are reluctant to apply for business opportunities for fear of failure and rejection. In other instances, there is a lack of female applications which is sometimes due to a dearth of information about available opportunities.



Action Points

- ✓ **Develop policies that foster cultural reorientation**, dispel gender stereotypes in education, strengthen the curriculum, and facilitate equal opportunities for girls in STEM education.
- ✓ **Support capacity building for women in Energy** across all cadres from entry level through to senior management level.
- ✓ **Promote continuous professional development policies and other career development programs** that benefit women to facilitate sustainable representation of women under the ETP from incubation to the peak.
- ✓ **Promote entrepreneurship development in the energy sector by supporting gender diversity and inclusivity policies**, facilitating capacity building, removing bottlenecks and improving access to project and business financing.
- ✓ **Work with state actors and private investors to improve distribution channels to rural areas** especially for the LPG sector to facilitate product delivery to consumers and remove the challenge of retail marketing.
- ✓ **Develop sustainable development goals and social development goals** that improve the livelihood of rural communities, increase rural purchasing power and promote compliance with the key objectives of the ETP.
- ✓ **Leverage religious and community leadership by developing community wide (rather than individual) approach** to sensitization and reorientation of rural users to the ETP and benefits of clean energy.
- ✓ **Close regulatory gaps**, develop robust legal and regulatory frameworks for the enforcement of the ETP objectives.
- ✓ **Consolidate the ETO's mandate to bridge the gap between energy sector entrepreneurs and financiers** in order to facilitate access to financing for female-owned businesses.
- ✓ **Ensure female representation among project leads** with regards to proposals submitted to the ETO under the ETP.



The ETP-eMobility Stakeholder Session

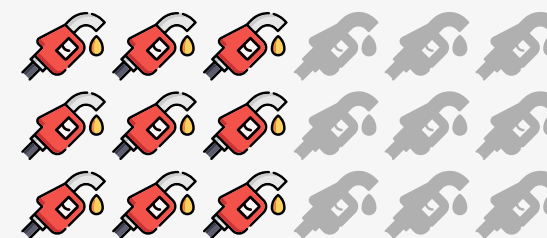
Context and Rationale

Energy consumption within the transportation sector alone accounts for more than 50% of world utilisation of liquid fuels. The International Energy Agency (IEA)'s projection shows that from 2007 to 2035, growth in transportation energy use will account for 87% of the total increase in the world's energy consumption. These global emissions are responsible for the increasing effects of climate change and are a source of socio-economic concerns.

Recognizing the negative socio-economic impacts of climate change, the imperative to lift millions of Nigerians out of poverty and bring modern energy services to the populace, the Federal Government of Nigeria prioritised the development of its Energy Transition Plan (ETP). The ETP is a data driven plan intended to tackle the dual crises of energy poverty and climate change and deliver SDG7 by 2030 and net-zero by 2060, while also providing energy for development, industrialization, and economic growth. It details pathways for significant low-carbon development of energy systems across **5 key sectors: Power, Cooking, Transport, Industry, and Oil & Gas**, and highlights the key role natural gas must play as a transition fuel on Nigeria's path to net-zero.

As Nigeria commences its decarbonization journey in the Transport sector, we are witnessing a significant growth in the development of E-Mobility, which has evolved from an experimental concept to a viable addition to the Nigerian Transport sector. The integration of E-Mobility in Nigeria's Energy Transition Plan presents an opportunity for sustainable transportation, increased energy efficiency, and economic growth.

In order to further facilitate investment, policy alignment and developmental support towards the decarbonisation of the Transport sector, the Energy Transition Office, is mobilising stakeholders through a series of dialogues. With these engagements, the ETO aims to gain further insights into activities within the E-Mobility sector; assemble current players, regulatory and policy bodies, identify existing E-Mobility pipeline projects within the industry, discuss decarbonisation and current policy constraints and available financing for existing and potential E-Mobility projects within the industry.



Transportation Sector consumes

50% of world utilisation
of liquid fuels



Project Based Themes and Challenges

- ❌ **High Import Duties.** Stakeholders agreed that high import duties was a challenge for importing electric vehicles and its components.
- ❌ **Costs of vehicle integration into society.** Stakeholders raised the attendant costs of integrating the vehicles into society such as the cost of setting up charging stations, cost of training the drivers on operating vehicles etc.
- ❌ **High cost of Capital Expenditure and Operating Expenditure.** CapEx and OpEx could translate to high cost of services to the final consumer and this will deter patronage because the average man is more interested in cheaper mobility than cleaner mobility.
- ❌ **Lack of adequate data to guide decision-making** was also identified as a challenge.
- ❌ **Inconsistencies between policy and vision** also presents a problem and accounts for issues like very high import duties which almost defeat the aim of importing EVs.
- ❌ **Lack of incentives to encourage manufacturers and also importers of EVs and their components.**
- ❌ **Incompatibility of the rough terrain of Nigerian roads with electric vehicles** is a significant challenge.
- ❌ **The undeveloped value chain market.**
- ❌ **Inadequate financial resources.**
- ❌ **Absence of ecosystem collaboration** affects the scale and expansion of e-mobility space.

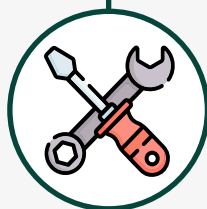


Opportunities

- ✓ **The local production of lithium presents a thriving opportunity for local investors and government** to not only utilize this in mass production and maintenance of EVs, but also for exports.
- ✓ **EVs by their very nature require peculiar infrastructure for their maintenance** which could in effect lead to creation of more jobs and investment opportunities.
- ✓ **The dearth of data in the sub-sector emphasizes an urgent need for more research** which presents an opportunity for sector stakeholders to broaden their horizon and also contribute significantly to the narrative.
- ✓ **There are no special skills required to manage such vehicles** apart from the requisite training for drivers. Thus this presents another virgin area for even more female industry actors to step in and take advantage of the relative newness to close any gender gaps.



Business Opportunities



Low Maintenance



Research Opportunity



Requires no special skills

Action Points

- ✓ Ensure government investment in the sector to strengthen the E-mobility ecosystem and foster foreign and domestic investments in the sector.
- ✓ Develop multi-level policies that align with the vision of the E-mobility sector and facilitate further investment in the sector.
- ✓ Close funding gaps within the sector, identify existing financiers and help unlock funding opportunities.
- ✓ Policy makers to facilitate reduction of import duties within the sector.
- ✓ Invest in localisation of manufacturing capacity for components (solar panels, lithium batteries etcetera) to facilitate reduction in costs, especially when considering that 40% of renewable energy cost is on the battery.
- ✓ Facilitate public private partnerships between states and the private sector like opportunities created by the Lagos state government.
- ✓ Ensure and facilitate development of a clear sustainable transport policy by all state governments. Part of the progress made in the E-mobility sector in Lagos state is due to an existing Transport policy that clearly outlines how the transition from fossil energy to cleaner energy would be executed.
- ✓ Create cross-sector incentives from the perspective of E-mobility value chain operators, manufacturers, infrastructure providers, financial and other investors, down to the end users/consumers.
- ✓ Ensure effective public sensitization to create environmental awareness, alleviate scepticisms (which largely stems from a lack of trust in the power sector to run an E-mobility transport system) and help foster consumers trust and acceptance.
- ✓ Reward positive action/behavioural change to sustainable energy by the consumers to reinforce behaviour.
- ✓ Ensure effective standardization of imported components etc from the get-go.
- ✓ Invest in security and infrastructure to promote the sector.
- ✓ Create enabling environment for synchronised efforts of operators within the sector to foster collaborations.
- ✓ Create financing opportunities that are start-up friendly and help build connections between startups and the right financial partners.
- ✓ Foster local content participation within the sector by facilitating and empowering local /indigenous operators in the sector.
- ✓ Entrench an understanding that the energy transition itself is essentially an economic transition and the more indigenous investors and financial organisations hold back, the greater the chances of foreign investors dominating the sector.



Comms Output + Media Outreach

ETP-Private Sector Stakeholder Session

<https://nairametrics.com/2023/02/20/fg-targets-private-sector-players-like-sun-africa-infracredit-for-energy-transition-plan-execution/?amp=1>

<https://businessday.ng/news/article/fg-seeks-investors-support-for-energy-transition-plan/>

<https://www.youtube.com/watch?v=AsuKj46an0A>

https://www.youtube.com/watch?v=-tSP_M0QvWY

<https://www.prnewswire.com/news-releases/nigerias-energy-transition-office-hosts-the-private-sector-roundtable-in-lagos-nigeria-301756367.html>

ETP-Women In Energy Stakeholder Session

<https://www.bellanaija.com/2023/05/women-in-energy-dialogue/>

<https://twitter.com/NigeriaETP/status/1659279465367629832?s=20>

<https://www.youtube.com/watch?v=15ajGnNe5GQ>

<https://www.pulse.ng/business/energy-transition-office-hosts-women-in-energy-dialogue-event-in-lagos/7q4zgh4>

<https://www.youtube.com/watch?v=15ajGnNe5GQ>

ETP-eMobility Stakeholder Session

<https://www.thecable.ng/sustainable-transport-stakeholders-make-case-for-switch-to-electric-vehicles-motorcycles/amp>

<https://www.thisdaylive.com/index.php/2023/06/16/energy-transition-experts-urge-govt-to-address-constraints-to-private-sector-participation-in-e-mobility-space>

<https://www.bellanaija.com/2023/06/energy-transition-office-e-mobility-session-lagos/>

https://www.linkedin.com/posts/nigeriaenergytransitionplan_the-world-has-always-known-an-energy-mix-activity-7079387581624254464-ON_U?utm_source=share&utm_medium=member_android

https://www.linkedin.com/posts/nigeriaenergytransitionplan_olajide-kumapayi-is-the-chief-technical-officer-activity-7077230955807055872-rciq?utm_source=share&utm_medium=member_android

https://www.linkedin.com/posts/nigeriaenergytransitionplan_transportationintransition-nigeriaetp-energytransition-activity-7076444512683720708-XLo5?utm_source=share&utm_medium=member_android



Muntaka Umar-Sadiq discussing 'Nigeria's Energy Transition Plan is a Drive for Economic Growth' on Arise News TV

Watch on YouTube



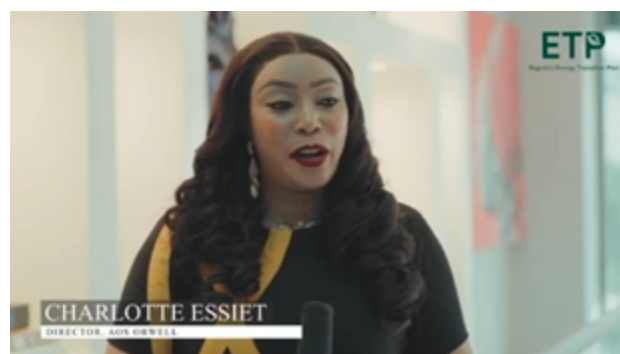
Lolade Abiola discussing Energy Transition on Arise News TV

Watch on Twitter





Lolade Abiola giving a presentation at the Women in Energy Dialogue



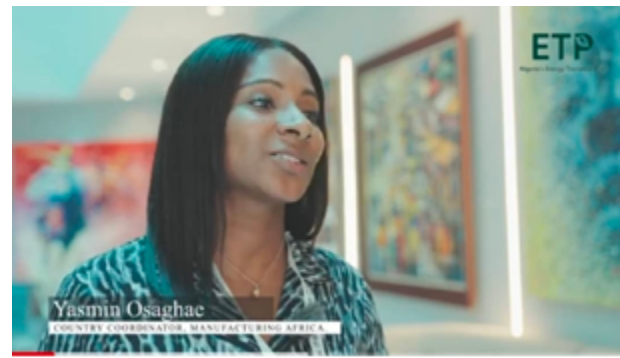
Charlotte Essiet at the Women in Energy Stakeholder Session 2023



Ruth Timileyin at the Women in Energy Stakeholder Session 2023



Tariye Gbadegesin, MD/CEO, ARM Harith Infrastructure at the ETP-Private Sector Roundtable



Yasmin Osaghae at the Women in Energy Stakeholder Session 2023



Chinua Azubike, MD, InfraCredit at the ETP-Private Sector Roundtable



Moyo Mekanjuola at the Women in Energy Stakeholder Session 2023



Gbemi Akinsipe at the eMobility Stakeholder Session 2023



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