



Nigeria's Energy Transition Office

# Data Stakeholder Session Report

19th July, 2023.



Supported by:



Global Energy Alliance  
for People and Planet  
(GEAPP)

## Data Stakeholder Session Report

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Nigeria's Energy Transition Office (ETO), supported by SEforALL, organized a Data Stakeholder Session as part of its comprehensive Energy Transition Plan, which outlines Nigeria's pathway to achieve net zero emissions by 2060. The one-day session took place at the Ogun-Nassarawa Hall in the Transcorp Hilton, located in Maitama, Abuja, on July 19th, 2023. A diverse group of individuals from various sectors within the energy and data fields participated in the event.

This report provides a detailed account of the discussions and activities that transpired during the Data Stakeholder Session.

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# List of Abbreviations

<b>COP26</b>	- 26th United Nations Climate Change Conference in 2021
<b>CapEx</b>	- Capital Expenditures
<b>DISCOs</b>	- Distribution Companies
<b>ECN</b>	- Electricity Commission of Nigeria
<b>ESIA</b>	- Environmental and Social Impact Assessment
<b>ETO</b>	- Energy Transition Office
<b>ETP</b>	- Energy Transition Plan
<b>EVs</b>	- Electric Vehicles
<b>ETWG</b>	- Energy Transition Implementation Working Group
<b>FGN</b>	- Federal Government of Nigeria
<b>GIZ</b>	- Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>LPG</b>	- Liquefied Petroleum Gas
<b>MD</b>	- Managing Director
<b>NBS</b>	- National Bureau of Statistics
<b>NEMSA</b>	- Nigerian Electricity Management Services Agency
<b>NERC</b>	- Nigerian Electricity Regulatory Commission
<b>NESP</b>	- Nigerian Energy Support Programme
<b>NOSDRA</b>	- National Oil Spill Detection and Response Agency
<b>NMDPRA</b>	- Nigerian Midstream & Downstream Petroleum Regulatory Agency
<b>OpEx</b>	- Operating Expenses
<b>PMS</b>	- Petroleum Motor Spirit
<b>REA</b>	- Rural Electrification Agency
<b>SON</b>	- Standard Organization of Nigeria
<b>VP</b>	- Vice President



# Executive Summary



**“The session emphasized that data is inherent and vital to the success of the Energy Transition Plan (ETP), enabling effective tracking of progress, identifying bottlenecks, and enhancing collaboration among stakeholders for a cleaner and resilient energy future.”**

The Energy Transition Office (ETO) held its one-day Energy Transition Plan: Data Stakeholder Session at the Ogun-Nassarawa Hall, Transcorp Hilton, Maitama, Abuja, on Wednesday, the 19th day of July, 2023. The event featured stakeholders from different organizations relevant to the energy and data sector.

The Energy Transition Office is the secretariat of Nigeria’s Energy Transition Plan and is resourced by Sustainable Energy for All (SEforALL) and Global Energy Alliance for People and Planet (GEAPP). The ETO works to support commitments made by Nigeria to attain Net-Zero Emissions by 2060.

The Energy Transition Plan (ETP) represents the nation’s strategy, which primarily targets energy poverty and climate change and proposes to significantly lower carbon emissions across 5 key sectors: Power, Cooking, Transport, Industry and Oil & Gas by 2060.

Accurate, sufficient, timely, accessible, and up-to-date data has been identified as vital, imperative, and non-negotiable in the achievement of the ETP’s objectives. However, the Nigerian narrative, fuelled (amongst

other factors) by a multiplicity of data sources, hoarding of data, reticence towards collaboration, varying priorities, lack of funds and an ever-changing landscape across data subjects have served to limit the availability of data in the sector. Thus, the one-day workshop engineered a sit-down of some relevant stakeholders to ascertain the best practices towards data collation by stakeholders, to sift out information on credible data sources for different data needs within the sector, and to address unique challenges to data collection.

**Several resolutions, recommendations and/or observations emanated from the event, with emphasis on:**

- i. The need to consolidate all data sources in the sector into a single, credible, source of truth to help drive data credibility, uniformity, awareness and accessibility.
- ii. The need for constant workshops and brainstorming sessions with all stakeholders to increase awareness of the importance of data, promote a sense of inclusion and thus cooperation, and to deliberate easing of red tapism in sharing data across agencies.
- iii. The fact that the gaps in the data were occasioned by several factors but are curable by synergy among stakeholders and greater utilization of professional local data consultants who understand the terrain and data subjects better than foreigners.
- iv. The need to engage policy makers with a view to securing policies targeted at driving sharing of open data among government agencies in particular.
- v. Deliberate building of institutional and human capacity among relevant stakeholders to help collect salient data currently being overlooked or mismanaged.
- vi. The need for constant training of stakeholders on data privacy, data management, and ethical collection of data with a bid to ensure data integrity and standardization as well as reorienting

and entrenching awareness on the vitality of data.

- vii. The need for stakeholders to be encouraged to imbibe the culture of updating their websites frequently, especially by incentivizing them and also creating avenues for startups to engage.
- viii. The need for better synergy among government agencies and a deliberate easing of interagency rivalry and suspicions among the agencies particularly through constant stakeholder engagements because the government and its agencies are vital to centralization and standardization of data.
- ix. The need for greater efforts on the part of the ETO to incentivize capable institutions to collate data necessary for delivering the ETP but perhaps not a priority to those other agencies.
- x. The need to emphasize to stakeholders and the general public that ETP's modus is a transition, not a replacement, with emphasis on bringing gradual changes from the status quo to the realization of the ETP goals in sectors like transport and cooking.
- xi. The need for open source platforms for data streamlined into ETO as this will play a key role in achieving the Net Zero Emissions goal by 2060.
- xii. The need for all stakeholders to maintain updated and nimble websites with open data for ease of access and availability.
- xiii. The need for establishing competitions such as hack-a-thons to encourage public participation, as such engagements often sponsored the harvesting of rich data from the pool at a relatively low financial cost.
- xiv. The need for a review of the ETP sectors to include the agriculture, forestry and land use sector, which are also core sources of emissions but are currently not captured under the stated five ETP sectors.

# Background and Methodology

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**“The ETO works to support Nigeria’s commitment to achieving a Net-Zero-Emissions record by 2060, collaborating with relevant ministries and stakeholders.”**

## Background

Following Nigeria’s commitment to net zero emissions by 2060, the ETO and stakeholders in the field have been working assiduously to transition the five key sectors of cooking, transport, oil and gas, industry and power to clean energy sources through the ETP.

The ETP represents a people-inclusive transition plan — a cohesion of government sources, citizens-sourced data and information from relevant stakeholders. Data enables stakeholders, development partners, government and the global community to effectively track progress made in energy transition, bottlenecks, loopholes, etc.

As the world becomes more and more digitized, the generation and consumption of data have grown exponentially and impacted every sector. In tracking the transition to cleaner energy, a dearth of data could actively impede meaningful progress and could be a chief sponsor for repetition and data mismanagement.

By unassailable logic, data is inherent and vital to the success of ETP, hence the need for the Session to help unify the multiplicity of data sources, canvass for data integrity and single source of truth, entrench

better ideals on data management and privacy and also network with a view to improve synergy among stakeholders in future.

Policymakers, industry stakeholders, and citizens can collaboratively shape a cleaner and more resilient energy future if the right data is delivered into their hands from credible and definable sources. Hence, the Session considered best practices, studies, and recommendations to optimize data utilization whilst addressing concerns regarding source, usage, storage, privacy, security, and accessibility of data. The Session shed light on the crucial role of data in facilitating and accelerating the energy transition process as well as to nudge stakeholders onto the right track in sourcing and analyzing relevant data and information. It also served as a forum for identifying opportunities and strategies for leveraging data to promote energy sustainability and enhance the efficiency of data management within the sector.

## **Methodology**

The One-day Data Stakeholder Session adopted the format of a roundtable meeting/discourse with a presentation by Ms. Gbemi Akinsipe, conducted with the help of slides, to help set the tone for the meeting and bring participants up to speed on the background and achievements so far.

Thereafter, the roundtable segued into a series of interactive contributions from multi-stakeholder perspectives, with participants drawing on personal and professional experiences peculiar to them in the various organizations or by virtue of their unique job roles.

The discussion was robust and lively and showcased proper brainstorming with ideas actively sought from and welcomed by all participants.

## **Objectives**

The Session aimed at providing a platform for qualitative stakeholder engagement and information exchange on the paucity or otherwise of data, credible data sources and challenges to data sourcing and sustainability in the energy sector.

The Session also sought to curate and address some of the challenges to data integrity, accessibility and credibility.



# Opening



## Program Overview

The program commenced at noon, with a brief welcome of participants by Mr. Solumkele. He informed participants that the session was expected to be highly collaborative and interactive. He then called for a round of introductions among the participants in the room; the participants proceeded to introduce themselves and their job roles. The round of introductions revealed representations from ECN, BudgIT, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Power Africa Initiative (a USAID Nigeria Power Sector Program), Ministry of Power, ETO, Nigerian Energy Support Programme (NESP), amongst others.





# Presentation

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## **Overview of Nigeria's Energy Transition Plan by the Energy Transition Office (ETO) – Ms. Gbemi Akinsipe**

Ms. Gbemi Akinsipe commenced a brief slide presentation offering participants a walk-through of the Energy Transition Plan, its scope and its activities. She maintained that the underlying purpose of the extant Session was to engage participants with the goal of arriving at a unified awareness of the technologies, the plans, and the figures/numbers requiring attention, as well as properly tracking those figures/numbers across the five key sectors the ETP was focused on.

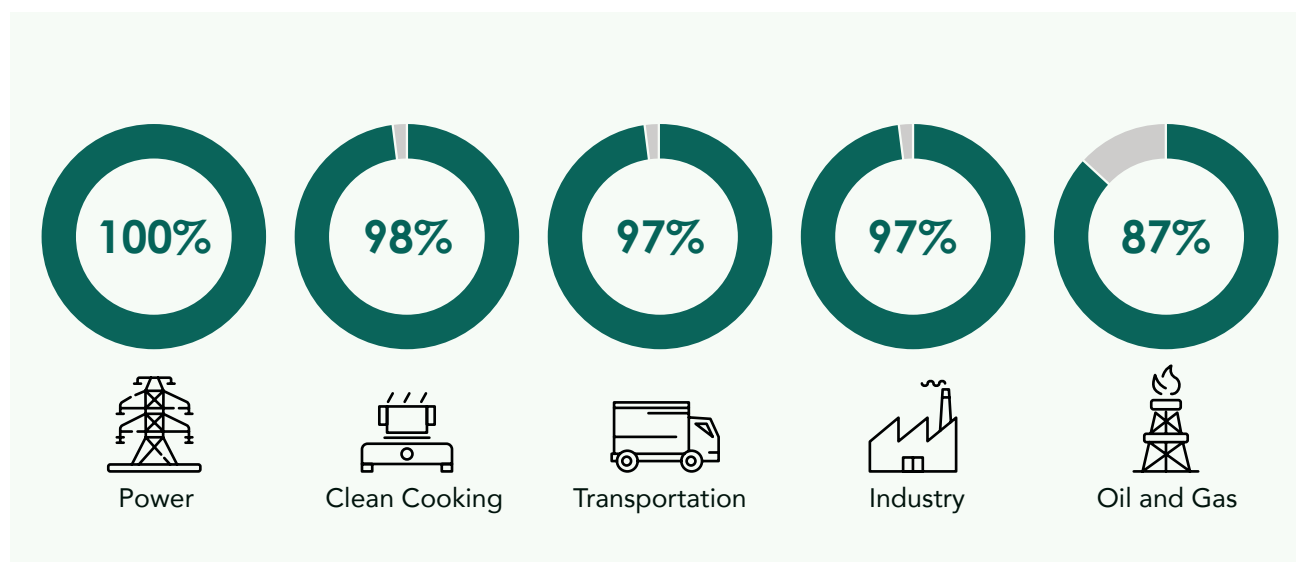
Ms. Akinsipe referenced Nigeria's national net-zero ambition, announced at the 26th United Nations Climate Change Conference in 2021 (also known as COP26). Nigeria had committed to net zero emissions by 2060, effectively garnering global attention and setting the stage for the emergence of ETP.

The energy sector, according to baseline data, was responsible for 65% of emissions in Nigeria. Thus the ETP basically was channeled at considering the chunk of the emissions in that sector with a view to arriving at zero emissions by 2060.

She noted that ETP was adopted as a strategy for significant development of low-carbon energy systems across 5 key sectors, namely cooking, oil and gas, power, transport and industry.

Using a simple graph, Ms. Akinsipe depicted the projected trajectory of emissions if activities in the five aforementioned sectors were carried on in line with "business as usual" as opposed to the projections if activities were shifted to inculcate the net-zero-by-2060 protocols. As projected on the graph, business as usual would lead to an astronomical rise in the emissions in the nation, whereas following the net-zero protocols would cause a plunging of the emissions line.

She enthused that the key features of Nigeria's Net Zero pathway included an anticipated 100% decrease in emissions from the Power sector if solar replaced gas and fuel; 98% decrease in emissions from the Cooking sector if traditional cooking methods like firewood and kerosene were discarded in favor of bio-gas and electric cooking; 97% decrease in emissions from Transport upon a switch to Electric Vehicles (EVs); 97% decrease in emissions from Industry upon adoption of decarbonization and clean fuels for heating; and an 87% decrease in emissions from Oil and Gas due to fall in global demands, reduced flaring and electrification.



### ETP Overview of Sector Plans

Ms. Akinsipe revealed that for the power sector, the goal was to ensure expansion of the current capacity and phasing out of the power generators currently in use, to move to a stronger and more sufficient grid, and to increase the solar capacity, hydro, and other renewable sources of power.

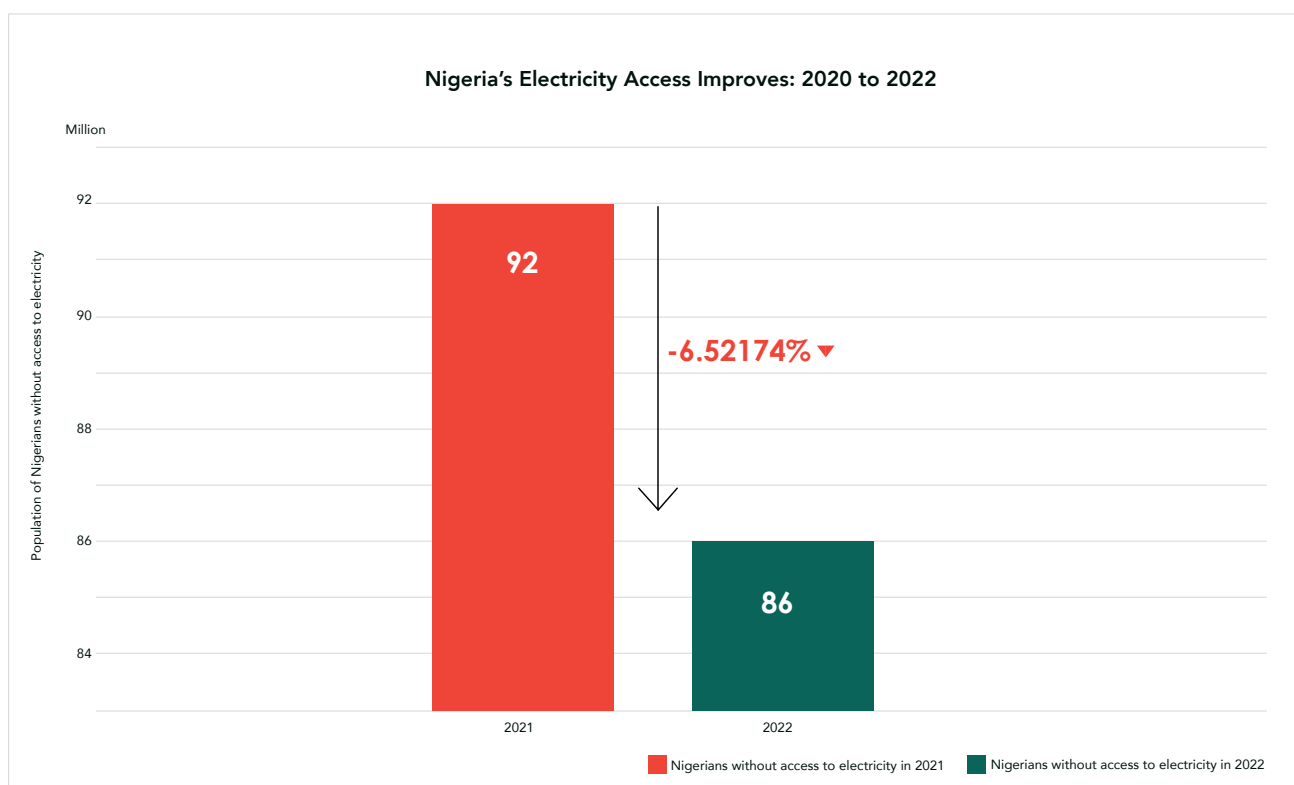
Ms. Akinsipe noted that Nigeria was a signatory to several international agreements, climate plans, and conventions such as the Paris Agreement and United Nations Framework Convention on Climate Change (UNFCCC). All those agreements had requirements for reporting. As a result, there had been several working documents set up, of which most of the data on fuel consumption across the country had come from those documents and been included in the ETP. She however admitted that there remained a lot to be understood about energy consumption patterns, related costs, health implications, job creation, gender issues and so on.

She referenced the power sector with its worrisome emission numbers owing to the use of diesel and a decentralized system of generators, hence the need to eliminate over-reliance on diesel generators and provide universal access to electricity. She further

argued that the demands for access to increased cleaner sources of power cut across all five sectors: the need for cleaner cooking methods in the cooking sector, electric vehicles in transport, and cleaner sources of heating in industry. Thus it was important to understand how people used energy and access credible data showing the right numbers if the non-clean energy sources were to be successfully eliminated.

Ms Akinsipe stated that provision of universal access to electricity was a key priority for the power sector and the data/figures were exceedingly important. Universal access to affordable, clean, and sustainable energy is being tracked by agencies like the World Bank.

In 2022 the latest World Bank report from 2020 showed that 92 million people in Nigeria lacked access to electricity. The 2021 figure depicted a drop to 86 million. Industry experts like Power Africa, GIZ and others had supported the project but ETO needed to actively track the numbers to see how lives were changing, how people were connecting, how the concept of clean energy was being embraced and how emissions were being edged out.



Ms Akinsipe stated that with regard to cooking, the goal was to transition from traditional cooking methods such as firewood, charcoal, and kerosene to cleaner sources such as LPG. She emphasized that the ETP as a document also considered factors like air pollution and health implications arising from non-clean cooking. She noted that there had been debates around the health impact of cooking with wooden stoves—that the baseline for the study had been drawn from the Nigerian Living Standard Survey and the NBS Report in 2017. She said that more recently, the Multidimensional Poverty Index Report shows that the most common deprivation in Nigeria was clean cooking. So even when people were connected to the grid, they tended to still lack clean cooking sources. Appropriate data would help delineate the cost implications of moving the average household to clean cooking; the accessibility of the clean sources, the sentimental attachment of people to ancient ways of cooking despite the negative emissions potential, and so on. She emphasized that the decarbonization strategy of the ETP anticipated a shift from firewood, charcoal and kerosene to LPG until 2030 and shared a series of pie-charts. The charts further depicted an estimated 95% shift to electric stoves in about 39 million households by 2050.

On the Transport Sector, Ms Akinsipe noted that the ETP proposed reducing transport emissions by switching to low-emissions transport systems like EVs. She further explained that the right data would help spell out how many vehicles are in Nigeria and whether the cars are passenger cars or buses. According to the data she shared, the Nigerian cars to buses ratio is 40:1, placing the country at a 40% higher passenger-car ratio than India and Indonesia. She opined that we need data to tell us whether this was tied to income levels, because if the level of emissions were cost-driven, then the approach needed to be adjusted as well in reducing emissions cost-effectively. She further maintained that there was a need to consider the integrity of the data sources in the sector. She shared a series of pie charts depicting a projected steady rise in a tilt toward cleaner energy cars, with an estimated 60% of EVs, 20% of gasoline cars and 20% of hybrid cars by 2050.

She noted that the industry sector also requires data to delineate progress or otherwise on the transition plan; we also need data about what it would take to move to cleaner sources. In this sector the ETP focuses primarily on heating and moving to cleaner sources but targets specific sectors such as the ammonia and cement production industries. She shared that the

proposed mitigation pathways were the substitution of clinker with calcined clay in cement production, the application of BECCS in cement production, and the inclusion of blue and green hydrogen in ammonia production to lessen emissions. She observed that the best practice in the industry was natural gas, but the move from the current practices to hydrogen and then to green hydrogen needed to be gradual. She again used pie charts and graphs to show the projections relative to the industry sector. She noted that data was needed to depict the quantity of cement being produced in the country, the quantity of ammonia being used in the country, cost numbers in the industry and so on, as these would help guide interventions.

Ms. Akinsipe said that in the Oil and Gas Sector, the ETP envisaged an end to gas flaring by 2030 and thus required a lot of data across the sector. She also referenced oil and gas fugitives and upstream energy emissions. The ETP envisions that the increase in refining activities would occasion more carbon capture and storage mechanisms. In this sector, the ETP relies on declining global demands and abatement levels to drive down emissions.

Ms. Akinsipe noted that the ETO had put together different data for different sectors and there was an expectation that to build an implementation plan, data like the energy capacity numbers were important. She noted that there were questions as to which

single source of data could answer such questions as how many generator sets there were and what was good enough for the grid. Another important question posed was, how often were energy plants being run? She noted that if the gas plants were not running many times, then cooking habits and types of meals being cooked had to be investigated and documented.



**In the Oil and Gas Sector, the ETP envisaged an end to gas flaring by 2030 and thus required a lot of data across the sector.**



She suggested that apart from head knowledge or knowledge occasioned by everyday life experience, the data had to be available in a written format, for accessibility, credibility and reference.

Ms Akinsipe informed the Session that beyond setting the stage for conversations, she had expectations that the discourse would tilt towards efforts the different organizations were making in their sectors, organizations they had liaised with, the data they had gathered in the past, and such other robust contributions.



# Interactive Session

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## The Current Landscape on Energy Data in the Country

Mr Solumkele said that in considering data in the energy space, there was a need for sustained conversations in a similar vein as the ETP Data Stakeholder Session with an aggregation of all data requirements, because while different stakeholders had different data, there was little or no sharing of the available data across the different organizations. Thus, he emphasized the need to synchronize and merge datasets and also think critically about what was required to achieve the data objectives in the sector. He stated that in as much as the ETO was trying to glean an overview of the efforts of varied stakeholders, there was a need for constant engagement via workshops among stakeholders such as individuals, implementers, and budget sponsors to share ideas and brainstorm.

Mr Gabriel Okeowo suggested the creation of an ETP-data framework. He lauded the slide presentation and

the five sectors the ETP had chosen to focus on. He however suggested setting up an entire dashboard to break down the matrix and aggregate data from different sources with ETO serving as a centralized bank where these collated data would be converged. He maintained that ETO could collect such data itself or liberalize the process to enable stakeholders send in data based on the ETO matrix. He opined that this would help guide further interventions in implementing the ETO plan. He also observed to carefully consider security as regards the ETP—security being an integral factor in all aspects of the nation's framework. He noted that ETP implementation of data would require some infrastructural investments and would require the security of personnel, which is a topic that can not be evaded.

Mr Gabriel Okeowo also expressed the view that the conversation around ETP intersects with the lifestyle and health of Nigerians. He noted that cultural implications meant some people preferred the taste



of food cooked with firewood over food cooked with LPG or other cleaner sources. He however suggested measures such as introducing into the market a food spice with a unique smokey taste to give that impression of food cooked with firewood.

Mr Temitope noted that practical approaches could be applied to other indicators of the ETP. He said that in Nigeria and Sub-Sahara Africa, primarily collected data was prevalently lacking. He also identified the mode of data dissemination as a burning challenge with a lot of overlaps and lack of adequate, unified awareness of the activities of other stakeholders relative to the said data thus leading to repetition of activities across the different stakeholder platforms. He re-echoed the stated need for a national dashboard and revealed that the Energy Commission of Nigeria (ECN) and Ministry of Power had each been championing setting up national dashboards on data in the sector. He stated the need for major databases with open interfaces that allowed crowd-sourced or organizational contributions to the available data. He emphasized the need for a prior assessment of the importance of data in achieving ETP as this would guide the collation process, the type of data collected and the purpose. He reminded the Session that data was needed to plan, to effectively monitor and evaluate and to forecast and make accurate

projections.

Mr Temitope further expressed worries about the forecasts of ETP, especially as regards funding and targets. He suggested a revisiting and revival of the data figures as there was no clear indication of the findings that sponsored the results. He also said the impact of technology on use and harvest of data needed to be considered. He also noted that the word 'transition' in the ETP did not need to mean 'replacement', especially in the African context. He called for an emphasis on bridging a gradual change from the current status quo to the realization of the ETP end goals in sectors like transport and cooking.

Mr Temitope also noted that data was vital for ascertaining if everyone could be carried along. Data was vital to ascertain how jobs and livelihoods would be impacted by the transition to cleaner energy and how just and fair the transition was in operation. He decried the tendency to defer to government and public institutions for providing data because, with regard to data, the government is often incapacitated or overwhelmed. He suggested that in consideration of demographics and micro-economic data, we need to include other players in data collection, especially by incentivizing them and creating mediums for startups to engage. He also noted the need to consider data privacy, data management, and ethical



collection of data. He pointed out the importance of emphasizing human capacity building and skills to train a capable workforce to work with and collect data.

Mr Solumkele wondered whether the government truly understood the importance of data and whether datasets were being made scarce on purpose by government agencies.

Mr Temitope noted that some organizations like GIZ champion free and open-source data and conceded that while some public officials might have reasons to sponsor the unavailability of data, it was not a prevalent phenomenon and was more likely inadvertent than deliberate. He opined that it was a matter of changing thinking and creating more awareness on the importance of data and data accessibility.



**Data is vital to ascertain how jobs and livelihoods would be impacted by the transition to cleaner energy and how just and fair the transition was in operation.**



A representative of Power Africa observed that there was a need for better coordination and planning and thinking from various donor efforts. He referenced the influx of more persons making inquiries about solar technology due to the fuel increase, which in itself was a migration to cleaner energy. He said they had also received intel from four major commercial banks, WEMA, STERLING, FCMB and HERITAGE, seeking to access data that could help improve financing and train them on accessing the risks of unblended finances. He noted that the data from a World Bank study which estimated about 90 million Nigerians being without power had been quoted for years and there was a need to use more up-to-date data to get a current and accurate result.

Mrs. Farida Umar, a representative of ECN, stated the need to go back to the drawing board and drive increased engagement among stakeholders because most of the data were in fact in existence but in different organizations. She wondered why people



from the Rural Electrification Agency (REA) and Ministry of Environment were missing from the table. She further revealed that ECN was already working on a centralized database. She however pointed out that due to lack of legal backing for enforcement, ECN was compelled to only operate by requesting data from agencies without the ability to utilize enforcement in the event of denials of their requests. Further, ECN had begun to form committees of government and private sector organizations with regular meetings to harmonize data. She revealed that there was a committee on petroleum statistics that met regularly to harmonize data.

Mrs Farida Umar further stated that a committee had been formed on renewable energy statistics with the goal of involving the Ministry of Environment. However, she conceded that things in government tended to move slowly due to bureaucracy but maintained that there was also a need to consider how to fashion out and validate data. She expressed the hope that organizations like Power Africa could take up some of those projects to enable faster progress non-dependent on budget. She also noted that ECN had pilot projects such as introducing boreholes and electricity to communities.

Ms. Akinsipe wondered if ETO could reach out to ECN for data.

Mrs Farida Umar noted that public data was for the public and not the property of any given organization. She thus noted that ETO could reach out to ECN for data but it had to be done officially. She reiterated the call for continued engagement of stakeholders.

Mrs Aisha Ingawa said ECN also engaged in energy planning and had set up a Country Study Team with stakeholders across the sector and their





meetings involved sharing data. She also observed that the agriculture, forestry and land use sector was not captured under the stated ETP sectors and recommended that it be included. She also re-emphasized the need to involve all stakeholders across the different sectors.

Mr Gabriel Okeowo opined that there was always positive action when the government speaks to the government, meaning that the bulk of the conversation should be spearheaded by government agencies. He referenced personal experiences where interventions by a partner government agency had ensured a speedier response to his organization's requests for data from another government agency. Mr Gabriel Okeowo noted that the ETO was a



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government organization and they should leverage their position in the quest for data. He suggested a repeat stakeholder forum with focus on having all critical stakeholders, particularly all relevant government agencies, as well as development partners, the private sector, CSOs and media. Every critical component of government relevant to this sector had to be in the room. He noted that if ETO was in fact getting the Presidential backing it should, then every relevant government agency would be in the room upon invitation.

Ms Gbemi Akinsipe reported that ETO had had several one-on-one engagements with ECN and Ministry of Environment and it now had a couple of projects in the works, thus, at some level, government coordination was already happening. She however drew the distinction that while the focus of other agencies was on climate, the ETO was coming from the angle of energy. She further agreed with the notion that there was some available data but the burning issue was knowing whom to ask and where to go, hence the question to the stakeholders on their data sources.

Mr Solumkele divulged that some stakeholders who were invited to the ETP-Data Stakeholder Session didn't show up for reasons unknown.

Mr Diran Adesua joined the conversation by addressing the question of available data and whom to approach. He stated that with respect to the Power Sector, the key data sources recommended would include the ECN, Nigerian Electricity Regulatory Commission (NERC) and Ministry of Power because they had information about the various energy sources, grid(s) capacity, and even data around demand and supply. He noted that on the question of energy access numbers and capacity utilization, the REA was a good data source. On job creation statistics, he opined that Nigerians on the streets would be a vital source of data so long as efforts were made to help them understand some technical terms and the purpose for collecting the data.

Mr Diran Adesua conceded that with regards to data on Capital Expenditure (CAPEX) and Operating Expenses (OPEX), the ETO might benefit from some data gotten from private developers but he also maintained that the best data in this case had to be sourced from the ETO itself. With respect to oil and gas, he opined that the World Bank had a flare monitoring arm and could be a useful source of data, but he also suggested National Oil Spill Detection and Response Agency (NOSDRA) as a good source of information. He noted that from the power sector, there was a big issue in terms of the lack of a single source of truth, hence there could be data variance due to multiplicity of sources. He suggested that this could be due to multiple interpretations and a lack of standardization as to who should be the collector of data, the analyzer of data, or the reporter of the data. He opined that there was no understanding in the industry on who should report data and noted that beyond getting data there needed to be some weight placed behind ensuring a single source of data to ensure its integrity.

Ms Akinsipe noted that there was an attempt recently to consider the number of jobs in Nigeria based on segments of the population. She queried participants on what impact numbers they were tracking as organizations.

Mr Temitope said tracking was done across three pillars: technical performance, financial performance and social impact. He noted that his organization also encouraged self-reporting and also periodic data collection.

Mr Chimereze Nwosu stated that the cooking habits in Nigeria presented an interesting discourse and stated that agencies that could help with data on cooking included Nigerian Alliance for Clean Cooking and also HPS Foundation which was engaged in frequent studies and empirical resources on cooking. He acknowledged the already ongoing discussions between GIZ and ETO and also suggested liaising with ICED and also NBS as they both had data. He further noted that NBS had an interesting data bank but some of them were a bit outdated.

Mr Chimereze Nwosu noted that the focal arm on Liquefied Petroleum Gas (LPG) expansion in Nigeria was the Office of the Vice President and the National LPG Expansion Program. For LPG retail plans and infrastructure, he suggested connecting with Nigerian Midstream and Downstream Petroleum Regulatory Agency (NMDPRA) was a good place to start because retailing and distribution are done by them. Standard Organization of Nigeria (SON) was also good for standards and Nigerian Electricity Management Services Agency (NEMSA). He opined that a good engagement with these agencies would aid the overall goals of the ETP.

Mr Temitope stated that he had conducted surveys on over 1,000 communities and volunteered to make the data available. He also suggested making available an online form to be sent to stakeholders as a follow-up to the data stakeholder forum for information on areas of specialty tracking, data sources, access numbers, etc.

Mrs Farida Umar stressed the need for considering energy requirements for cooking different meals in light of the fact that dwellers in rural areas tend to use agricultural waste after planting and in urban areas they tend to use a certain type of wood with less moisture. Thus, in planning, there is a need to consider the exact types of fire source people used, and how to turn them to clean energies.



**In planning, there is a need to consider the exact types of fire sources people use and how to turn them into clean energies.**



In response to how to close data gaps, Mr Temitope revealed that he had some colleagues who had done ISO certifications and suggested sending the information across.

Mr Diran Adesua said Environmental and Social Impact Assessment (ESIA) was a major key in reaching the average Nigerian but it was imperative to establish methodologies for monitoring data to ascertain if the parameters were shifting. He however admitted that it was not a cheap venture.

Ms Akinsipe observed that it was easy to assert that data was not available, but in her view, often, the true cost of actually gathering data was not considered in making such summations.

Mr Temitope noted that there was a need for proper project design and planning and also some pre-conditions for implementers of projects to build a sustainability component into the data plan. As regards to costs, he suggested a move away from the national penchant for high, unrealistic numbers. This can only be achieved by disruptive thinking and the infusion of new talents such as nimble startups, rather than old, traditional, bureaucratic organizations. He noted that on the question of data gaps, there were in fact gaps everywhere due to inaccessibility of data and lack of ongoing primary data collection.



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Ms Akinsipe noted that another key area of consideration was data gathering, sharing processes, protocols, frameworks, priorities and recommendations. She observed that sometimes while data was available it could not be shared, maybe because different organizations had different priorities per time or because of the protocols around data. She invited recommendations from participants on how to work around these issues.

Mr Diran Adesua said that there was a clear need to

synchronize information around the sector and secure a single source of truth in which case access could be gained by engaging a sole platform rather than several departments and several organizations. He noted that having such a singular source improves data credibility. He further envisaged instances where certain institutions had the capacity and access to certain data which they in fact did not need. In such instances, the issue of priority was paramount and ETO would have to consider the option of going after the data itself, flexing political muscles to get it from the other organization, or using the route of an established relationship, merely providing incentives to that other organization. He further noted that some other data also do not exist because no one was collecting them. In such cases, he suggested building institutional capacity in relevant institutions to help collect that data.

Mr Gabriel Okeowo said there were different sets of data in different places and since ETO might transit into a commission in future as part of the implementation of ETP, it needed a dashboard beyond the data matrix framework; it needed an open-source platform. The dashboard would depict details such as the number of cars emitting carbon, the number of households using firewood, and how the trend was declining if the 2060 goal was to be achieved. The ETO needs a central database for such information, and the ETO would have the master upload button after collating data from various stakeholders. Data management should be a critical office in the ETO to show the status quo in each year, and also the progress recorded.

Mr Temitope said that some initiatives in his organization had identified bottlenecks around protocols, ownership and accessibility of data. He said that they made efforts to prioritize open data by publishing their data on open licenses, free-to-use channels, with mere requirement of attribution of source or ownership. He noted that the issue of open data was occasionally met with opposition, sometimes for issues of national security, trade secrets and so on. He suggested the need for policies to drive sharing of open data.

Mr Chimereze Nwosu said innovations in technology could still be leveraged to solve the issue of data. He noted that the level of skill in Nigerians was impressive, and this can be harnessed in competitions such as



hack-a-thons. He said the cost of such competitions was often low when compared with the value of the data that will be gathered from it. He also noted the need for us to be patient as government processes take time. Some government agencies could buy into ideas immediately and support them, while some others require a longer period. A lot of government agencies are capable, but let's make allowances for the fact that organizations often reacted according to the proactiveness of their leadership.

Mrs Farida Umar agreed that patience was vital to work with government stakeholders. She also decried the tendency for interagency rivalry which was often avoided in conversations and said there was a need to urge synergy and calm their fears of losing their jobs.

An ETO representative noted that fuel technology improved cookstoves, which also decreased the amount of firewood used. He lauded this result as a transition and sought to know the relevant individual or unit responsible for this data in ECN.

Mrs Farida Umar noted that most of their partners published their reports online.

Mrs Aisha Ingawa added that the best time to involve other agencies was at inception to lessen reticence.. She also noted that the challenge with the cookstove was that most people said it could not cook food for large families due to its size; therefore, it was not used frequently in large households even though it was available.

Mr Abdurasheed said that on the issue of territoriality of agencies, he had firsthand experience, being an electricity specialist in ETO. He shared that including those agencies in stakeholder engagements was key to securing their cooperation. In gathering research data, he learned to first look at the websites and had found that most websites were not updated with open data for ease of access and efficiency. He called on all stakeholders to imbibe the culture of updating their websites frequently.

Engr. Jaffar stated that the Rural Electrification Agency (REA) had been building mini grids since 2016 and yet their data was in silos. He acknowledged data collection and centralization as a big problem. Thus with around 80 million Nigerians lacking access to energy, the question remains: Who will get and



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supply the data? Who will finance it? He said that the NBS made sense as a holistic national approach to data collation and repository. He also noted that data becomes outdated very quickly. For instance, data would be sourced and used for a project, but six months down the line, the conclusions drawn from that data or project would become wrong and outdated because changes had occurred within that time. A place that had no electricity six months ago could have power now, thus making the results of the older data become inaccurate.

He also observed that there were good data repositories; for instance, the Integrated Energy Plan was based on the data frame platform. He also revealed that his organization had worked on Energy Access Explorer with another organization, which was on open access platforms with at least four or five years of maintenance agreement and thus was a source of data. He noted that he had gotten data like hours of lighting and availability of healthcare facilities from REA.





Ms Ifeoma Obiasogu said most organizations and ministries know that data is important for decision making. But sometimes their leadership makes decisions without recourse to data, which makes data seem irrelevant. She said energy transition also comes with some challenges like energy security and lack of confidence of the public in transitioning to alternatives like solar.

Ms Ifeoma Obiasogu suggested approaching the Geological Survey Agency on datasets on existing resources and raw materials for production of components of renewables; Nigerian Mining Cadastral had datasets on those resources as well and how many of them were being used. Also on dissemination and sustainability, she maintained that data worked hand in hand with digitalization. She however noted that DPR had datasets in hard copy and not digital copies but suggested that ETO needed to undertake the digitalization anyway.

Ms Ifeoma Obiasogu also said that Nigerians tended to place greater importance on foreign consultants' data than locally sourced data, even though the foreigners sometimes did not even understand the scope. People generally thought from international perspectives and not local context. The underlying effect was that sometimes when these reports by the foreign agencies were turned in, the Nigerian

institution receiving such data would have been removed from the process, and often did not even know the data they had in their custody. She maintained that people handling data have to be encouraged to improve their skills. Foreign consultants may not be able to understand the realities on ground. The ETO must work toward using local capacities.



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# Closing

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Ms Akinsipe noted that the conversations had been insightful and she was glad that ETO was not alone in giving importance to data. She said systems had to be in place to ensure the quality and use of data. Conversations have revolved around mainstreaming people and managing associations. The discourses had also buttressed the need for constant engagement to help target dialogue and measure impact. Ms Akinsipe promised that the ETO would reach out again to participants for one-on-one engagements and also for further roundtable conversations.

An ETO representative reiterated that the conversations had been insightful and thanked the participants for honoring the invitation. He also informed participants that lunch was available and urged them to partake. The Session ended at 2:40pm.



# Lessons Learned

## Challenges

- i. Participants identified the mode of dissemination of data as a major challenge, engendering a lot of overlap across stakeholder functions; they also identified ignorance of the achievements realized in other data-driven organizations.
- ii. The true cost of gathering data is often a chief cause of data scarcity and includes factors like access to limited funds, inadequate number of skilled personnel, infrastructural investments, insecurity challenges in the field, etc.
- iii. Many organizations tend to hoard data either inadvertently or deliberately, thus leading to data paucity.
- iv. Participants identified a tendency to over-rely on outdated data rather than seeking newer and more accurate results as another challenge prevalent in the sector.
- v. In Nigeria and Sub-Saharan Africa, there is a lack of primarily collected data; we need to promote data collection.
- vi. Participants observed a marked tendency to defer to government and public institutions for the provision of data, whereas such institutions were often incapacitated and overwhelmed by volumes of work and therefore slow in acting, leading to data being outdated almost as soon as it is sourced.
- vii. The ETP goal of transition is sometimes erroneously viewed as a replacement, which may result in some data collectors pushing too hard — and data subjects balking at intended changes and treating the ETP with trepidation or suspicion.
- viii. The technical lingo of the energy sector is sometimes incomprehensible to the average man on the streets who is more often than not the data subject. Thus there must be concerted efforts to break down the lingo into relatable terms to enable understanding.
- ix. The lack of a single source of data in the sector could result in data variance due to multiplicity of sources, variance of interpretation and a lack of standardization. There is no clear understanding in the industry of who should be responsible for reporting, sourcing, holding or managing data.
- x. Participants reported that data gaps were prevalent in the sector due to the inaccessibility of data.
- xi. Data inaccessibility was often sponsored by interagency rivalry among government institutions and sometimes even among private stakeholders.



### Data Dissemination Challenges

Overlapping data sharing modes, lack of awareness about achievements in other organizations.



### Hoarding and Outdated Data

Organizations hoard data, reliance on old data, and over-reliance on government sources.



### Data Gathering Costs

Limited funds, skilled personnel shortage, infrastructure, security issues contribute to data scarcity.



### Transition Misunderstanding

ETP goal misconstrued as replacement, causing resistance; simplify technical language for understanding.

## Opportunities

- i. The dearth of data and its tendency to be easily outdated presents an opportunity for nimble, flexible and trustworthy startups to engage with the sector to help source data, especially in areas where traditional institutions tend to move sluggishly.
- ii. The concept of utilizing competitions such as hack-a-thons, to encourage participation by the public presents an opportunity for harvesting rich data from refreshingly new perspectives at a relatively low financial cost.
- iii. The lack of a single source of truth for data in the sector presents an opportunity for the ETO to step in and take its place as the recognized custodian of data whilst managing and setting up a centralized database, with data submitted by different stakeholders and uploaded to its database as accessible, open-source data.

## Action Points

- i. The ETO must undertake an Environmental and Social Impact Assessment (ESIA), which is a major key for reaching the average Nigerian, and must also establish clear methodologies for monitoring data to easily identify shifting parameters.
- ii. The ETO must engage policy makers to help drive policies geared at compelling data sharing among government agencies in the sector.
- iii. All stakeholders must as a matter of urgency update their websites frequently to reflect current and timely data and to curb inaccessibility.
- iv. Set up an ETP data framework, with the ETO as a centralized data bank, vested with the

responsibility for collating and disseminating a unified and standardized output of all data from the different stakeholders in the sector.

- v. The ETP, in its collation and implementation of data, must factor in costs for the security of personnel and data subjects in its budget going forward.
- vi. Expansion of the ETO-ETP focus sectors to include the agricultural, forestry and land use sector being a key sector in the use and manipulation of energy.
- vii. Increased engagement of other stakeholders such as Energy Commission of Nigeria (ECN), Nigerian Electricity Regulatory Commission (NERC), Ministry of Power, NOSDRA, World Bank flare monitoring Unit, Ministry of Environment, Rural Electrification Agency, National Bureau of Statistics (NBS), Nigerian Midstream and Downstream Petroleum Regulatory Agency (NMDPRA), Standard Organization of Nigeria (SON) and Nigerian Electricity Management Services Agency (NEMSA), etcetera.
- viii. The ETO is expected to create an online form to be sent to stakeholders as a follow-up to the data stakeholder forum for information on areas of specialty tracking, sources, etc.
- ix. Stakeholders must categorically consider data privacy, ethical collection of data, and the impact of technology on use and harvest of data in their internal and collaborative activities.
- x. The ETO must convene frequent data stakeholder sessions to sponsor its bid for accessing and ultimately unifying data sources in the sector.







## Key Takeaways

- i. Quality, alignment, and timeliness of data are non-negotiable indices in the drive for a data-adequate energy transition plan.
- ii. Data is needed to plan, to effectively monitor, to evaluate, to forecast and to make accurate projections. It is a vital component for unified progress, strategy, and effective transition to cleaner energy.
- iii. No meaningful development can take place relative to the ETP, without accurate data and the ETP would be impossible without accurate and frequently updated data.
- iv. Data, by its very nature, is quickly outdated, hence there must be concerted efforts towards engineering constant newer studies to ensure more accurate data.
- v. Data has an undeniable effect on the sector through energy capacity numbers, energy access numbers, capacity utilization numbers and even job creation statistics.
- vi. There is a clear need to synchronize information around the sector and secure a single source of truth.
- vii. In instances where a different organization is the custodian of the data relevant to ETP, in the absence of policies compelling the release, the ETO must consider the option of going after the data itself from the source, or flexing political muscles to get it from the other organization, or using the route of established relationship, or merely providing incentives to that other organization to release the data.

# Event Photographs

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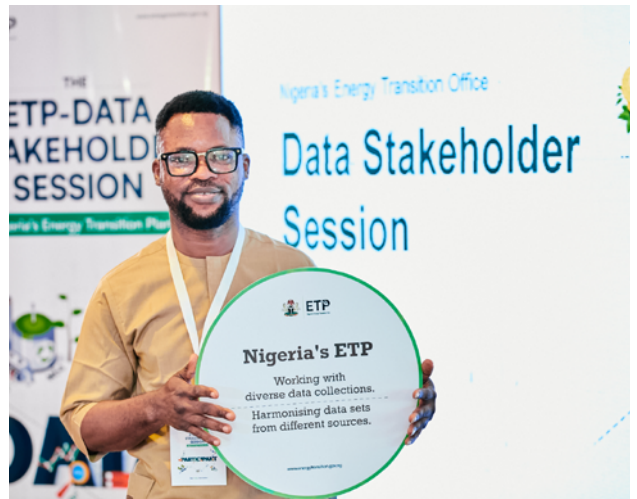












## Nigeria's ETP

Working with  
diverse data collections.  
Harmonising data sets  
from different sources.



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