



POWER AFRICA

NIGERIA POWER SECTOR PROGRAM

QUARTERLY REPORT (FY21 Q2)

1 January–31 March 2021

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QUARTERLY REPORT (FY21 Q2)

IDIQ Contract No. 720-674-18-D-00003 Power Africa Expansion

Task Order No. 720-674-18-F-00003 Power Africa Nigeria Power Sector Program (PA-NPSP)

USAID | Southern Africa

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ACRONYMS

Acronym	Definition
BPE	Bureau of Public Enterprise
DISCO	Distribution Company
E-WASH	Effective Water, Sanitation, and Hygiene Services
FGN	Federal Government of Nigeria
IPP	Independent Power Producer
LNG	Liquid Natural Gas
MAP	Meter Asset Providers
MSD	Market Settlement Department
MW	Megawatts
NBET	Nigerian Bulk Electricity Trading Company
NDPHC	Niger Delta Power Holding Company
NECMP	National Electricity Consumer Metering Program
NEP	Nigeria Electrification Project
NERC	Nigerian Electricity Regulatory Commission
NLNG	Nigerian Liquefied Natural Gas Limited
NMMP	National Mass Metering Program
NGN	Nigerian Naira
PIND	Partnership Initiatives in the Niger Delta
PPI	Presidential Power Initiative
PSRO	Power Sector Recovery Operation
REA	Rural Electrification Agency
RETTI	Renewable Energy Technology Training Institute
SHS	Solar Home System
TCN	Transmission Company of Nigeria
USAID	U.S. Agency for International Development
U.S.-EXIM	U.S. Export Import Bank
USG	United States Government
USTDA	United States Trade and Development Agency

EXECUTIVE SUMMARY

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Deloitte Consulting LLP was awarded the U.S. Agency for International Development (USAID) Power Africa Nigeria Power Sector Program (PA-NPSP) under Task Order No. 720-674-18-F-00003 of the Power Africa Indefinite Delivery, Indefinite Quantity (IDIQ) Contract No. 720-674-18-D-00003. PA-NPSP is a five-year program with a period of performance from 2 April 2018 to 31 March 2023.

This PA-NPSP Fiscal Year 2021 (FY21) Quarter 2 (Q2) report of the program sets out significant developments and achievements from 1 January through 31 March 2021 in U.S. Government (USG) FY21. PA-NPSP is the signature initiative of Power Africa in Nigeria. Coordinated by USAID, Power Africa is a USG-led partnership that harnesses the collective resources of over 170 public and private sector partners to double access to electricity in sub-Saharan Africa. Power Africa's goal is to add at least 30,000 megawatts (MW) of new electricity generation capacity and 60 million connections by 2030.

PA-NPSP promotes Power Africa's aims by working to increase electricity availability, access, and reliability throughout Nigeria, measuring progress across four outcomes:

- **Outcome 1:** Increase Private Sector Investment in Gas Supply, Power Generation, and Transmission
- **Outcome 2:** Facilitate Off-Grid Connections to Cleaner Power Supply
- **Outcome 3:** Improve Enabling Environment for Private Sector Participation in Power Sector
- **Outcome 4:** Promote Improved Liquidity throughout the Energy Sector

FY21 Q2 KEY RESULTS



82,166

New On-Grid Connections



172,944

New Off-Grid Connections



546 PEOPLE
(66% WOMEN)

Trained in Technical Energy Fields



US\$2.4 Million
Assistance Mobilized for Energy Projects through USG Assistance

QUARTER 2 KEY HIGHLIGHTS

Developing the Nigeria Bulk Electricity Trading Company (NBET) and Niger Delta Power Holding Company (NDPHC) Business Plans: During FY21Q2, PA-NPSP supported the development of a business plan for NDPHC and submitted the finalized NBET business plan to NBET's Managing Director. NBET's business plan details how it will continue to play a vital role in maturing the electricity sector in the near-term until it fulfills contractual obligations and eventually transitions out of the market. The plan outlines the progression of the Nigerian electricity sector over the past 10 years and assesses the degree to which NBET has supported the evolution of the sector. By supporting NBET in identifying priority actions to further the development of the Nigeria Electricity Supply Industry, and by identifying processes that will contribute to the development of bilateral contracts and a deepening of the on-grid electricity market, PA-NPSP actions are anticipated to increase generation capacity and investments.

NDPHC's strategy will outline the actions needed to improve revenue growth and secure profit and positive cashflows. According to the NDPHC managing director, the proposed business strategy should focus on revenue growth and the structure will combine external or market and internal or operational strategies. PA-NPSP also will explore privatizing generation assets as a strategy for NDPHC revenue growth. By supporting NDPHC in identifying priority actions to take to increase NDPHC plant efficiency and utilization, PA-NPSP actions contribute to increased electricity generation (MWh) and increased revenue generation, enabling NDPHC to further invest in developing generation capacity (MW).

Assisting TCN with Presidential Power Initiative (PPI) Project Implementation and Monitoring: In FY21Q2, PA-NPSP continued to provide technical support to TCN on PPI activities. These included reviewing scopes of work, verifying third-party contractors' qualifications and proposals, and providing succinct technical feedback on contractor proposals and qualifications. On 18 February, Siemens AG was awarded a US\$12.6 million (EUR15.2 million) contract to implement the pre-engineering scope of the PPI. During the reporting period, PA-NPSP facilitated the contract award, coordinated activities, and ensured timely delivery of PPI pre-engineering deliverables, including the pre-engineering scope. The pre-engineering scope includes preliminary engineering design of 11 high-voltage transmission substations, development of technical requirements for 175-distribution substations,[1] power analysis software, and training and consultancy services. The technical requirements for the 175 distribution substations include both new project developments (greenfield) and substation upgrades (brownfield).

Advancing Independent Power Producers (IPP) Project Development: In FY21Q2, PA-NPSP continued to support Geometric Power, Quaint Energy, and Nigeria Solar Capital Partners to advance project development. PA-NPSP's embedded advisor in the Federal Ministry of Finance continued to play a central role in reviewing business structure proposal submittals from the IPPs and advising on the position of the Ministry of Finance and other stakeholders on the proposal and how PA-NPSP can best support the plan. Please see specific advancements made during this quarter in the On-Grid Generation Top Achievements at a Glance section.

Hosting the Solar Home System (SHS) Investor Pitch Competition: In FY21Q2, PA-NPSP hosted the SHS Investor Pitch Series Competition to coach Nigerian SHS companies Cloud Energy, PAS Solar, A4&T, Greenage Technologies, and Black Bit Solar on best practices for raising capital and delivering effective investment pitches. The five companies spent eight weeks working with PA-NPSP and developing their investment pitches, including participating in a pitching fundamentals session in January and multiple one-on-one coaching and practice pitch sessions in February and March. In March, the five companies took their pitches to a panel of judges representing investors active in Nigeria's off-grid energy market, including Acumen, All On, ARM-Harith, Camco Clean Energy, ElectriFI, First City Monument Bank, and Nithio. The judges evaluated the pitches in eight categories, including presentation of business model, credibility of forecasts and assumptions, and attractiveness of investment opportunity. After the pitches, the judges deliberated and selected PAS Solar as the winner and Black Bit Solar as runner up.

Implementing Innovative Financing Models: In FY21Q2, PA-NPSP continued to advance implementation of innovative financing models through two channels: 1) the split AssetCo DevCo model for mini-grid developers with sufficient pipelines to make it attractive, and 2) the collateralized payment or revenue pledge mechanism under the Solar Power Naija program. For the latter, PA-NPSP worked with Nayo Tropical Technologies, Ltd. to build out an AssetCo financial model and discuss the deal with potential investors. In addition, PA-NPSP met with A4&T, which is restructuring its entities to attract needed financing.

Implementing PA-NPSP's Institutional Sales Framework Model: Commercial banks that are in partnership with SUNREF's program are adopting the PA-NPSP Institutional Sales Framework Model for salary-backed loans to acquire renewable energy and energy efficient solutions for employees under the Manufacturers Association of Nigeria member companies. Under the program, commercial banks give staff the low-cost loan rate to adopt stand-alone or SHS solutions that meet SUNREF program requirements. PA-NPSP will further train bank staff to explain the available products and how they meet SUNREF requirements.

Advancing the Solar Power Naija Program: In FY21Q2, PA-NPSP supported the Rural Electrification Agency (REA) Solar Power Naija Project Management Unit to advance the program in a variety of ways. PA-NPSP supported the Project Management Unit to develop project management documents; build and implement a strategic communications plan; enhance stakeholder coordination, including work on two major stakeholder workshops; and review and coordinate applications and support companies applying for funding. PA-NPSP directly supported Darway Coast, A4&T, Privida, Azuri, GVE, Emel Solar, and others and reviewed their applications.

Hosting the Off-Grid Sector Stakeholders Meeting and U.S. Trade and Development Agency (USTDA) and Sosai Grant Signing Event: On 24 March, PA-NPSP, REA, and Power Africa partner All On hosted the Quarterly Off-Grid Stakeholders Meeting for all donors working in the sector to present their activities. This quarter's meeting started with a grant signing between USTDA and Nigeria's Sosai Renewable Energies Company. U.S. Ambassador Mary Beth Leonard and USTDA's Acting Director Enoch T. Ebong led the signing event. The grant funds a feasibility study to connect more than 200,000 women, farmers, and rural citizens to 100 planned solar-powered mini-grids in Kaduna, Kogi, and Plateau states. USTDA's study will create business opportunities for U.S. equipment and services suppliers in Nigeria's mini-grid sector, while supporting up to 20 MW of new solar power in rural communities.

Advancing the National Electricity Consumer Metering Policy (NECMP): In FY21Q2, PA-NPSP, with the Federal Ministry of Power and Federal Government of Nigeria (FGN), convened a working group to develop a national metering policy. The group was chaired by the Director of Distribution in the Federal Ministry of Power. On 25 March, PA-NPSP hosted the first NECMP Stakeholder Alignment Workshop chaired by the Honourable Minister of Power with more than 80 stakeholder representatives attending. The Ministry of Power and key Nigerian energy sector industry stakeholders gave presentations and attendees reviewed the NECMP policy document, contributing suggestions. Stakeholder feedback is being considered and, where appropriate, incorporated into the document.

Tracking Meter Installations through the Nigerian Electricity Regulatory Commission's (NERC) Metering Dashboard: Throughout FY21Q2, PA-NPSP provided ongoing support to update and maintain NERC's metering dashboard. Installation of meters continues to progress across Nigeria. The National Mass Metering Program has provided a facility for distribution companies (DISCOs) to procure meters. From the beginning of FY21 to the end of February 2021, 636,837 meters were installed in Nigeria under the National Mass Metering Program (NMMP) and Meter Asset Provider (MAP) Program.

Launching the Rebranded PA-NPSP Energy Sector Women's Leadership Initiative: In FY21Q2, PA-NPSP rebranded and expanded the Professional Skills Development Course to the PA-NPSP Energy Sector Women's Leadership Initiative. Under this umbrella initiative, PA-NPSP offers the Aspire:

Women's Energy Leadership Development Course for junior and mid-level women in the sector, the Women in Management Executive Seminar for senior sector women, and special events and training for all women in the sector, including alumni networking opportunities. PA-NPSP also held five new classes of the Aspire: Women's Leadership Development Course, with 154 registered participants successfully completing the course (126 on time graduates, and 28 catch-up graduates).

INTRODUCTION



INTRODUCTION

Deloitte Consulting LLP was awarded the USAID PA-NPSP under Task Order No. 720-674-18-F-00003 of the Power Africa IDIQ Contract No. 720-674-18-D-00003. PA-NPSP is a five-year program with a period of performance from 2 April 2018 to 31 March 2023.

The PA-NPSP Quarterly Report (FY21Q2) sets out significant developments and achievements from 1 January through 31 March 2021 in USG FY21.

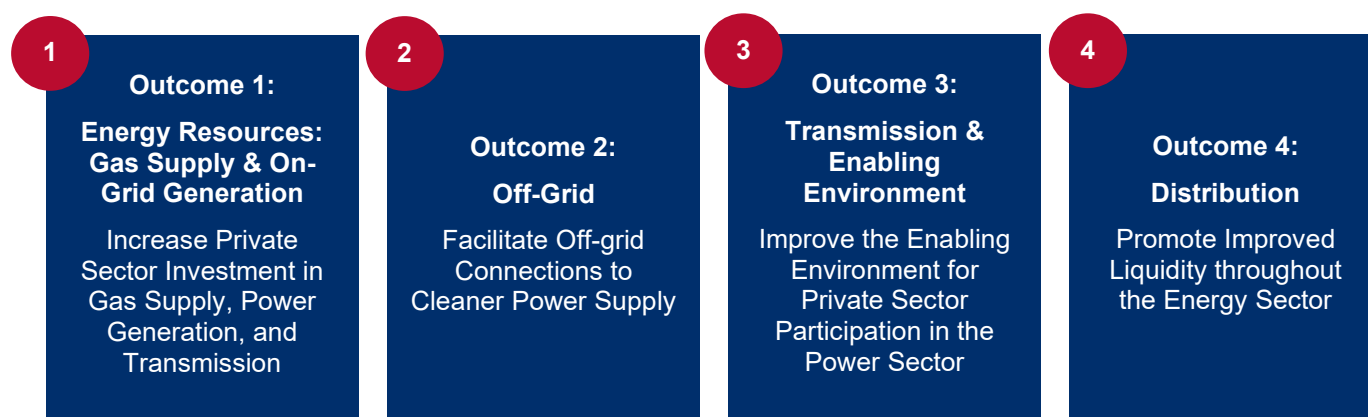
POWER AFRICA OVERVIEW

Power Africa is a USG-led partnership that harnesses the collective resources of over 170 public and private sector partners to double access to electricity in sub-Saharan Africa. Power Africa's goal is to add at least 30,000 MW of new electricity generation capacity and 60 million connections by 2030. Since 2013, Power Africa has helped bring 124 power generation deals to financial close with a generation capacity of over 11,000 MW and a total project value of over \$22 billion. Of these deals, 48 are operational and generating more than 4,000 MW of cleaner and more reliable electricity, supplying more than 18 million homes and businesses with electricity for the first time.

PA-NPSP OVERVIEW

PA-NPSP is the signature initiative of Power Africa in Nigeria. PA-NPSP has a target to enable 10,000 MW of new and rehabilitated generation capacity and 3,000,000 connections by 2023. To date, PA-NPSP has achieved over 1.2 million new on and off-grid connections, leveraged over US\$636 million for on- and off-grid energy projects, and added 1,005 MW of generation capacity. PA-NPSP promotes Power Africa goals by working to increase electricity availability, access, and reliability throughout Nigeria. PA-NPSP contributes to comprehensive reform in Nigeria's power sector, addressing gas-to-power challenges, competitive procurement of clean and conventional energy, regulatory and policy reforms to foster greater sector transparency and private investment, utility distribution sector reform, and off-grid electricity access.

PA-NPSP measures progress across four outcomes:



To achieve these outcomes, PA-NPSP works across the value chain of the power sector:

- **Energy Resources (Gas Supply):** Improved gas supply to meet national demand for the power sector
- **On-Grid Generation:** Increased private sector investment in the power sector to meet energy demand
- **Off-Grid:** Off-grid connections to cleaner power supply
- **Transmission:** Increased grid stability, improved planning, and overall service expansion
- **Distribution:** Improved distribution operational performance to increase commercial viability of the value chain
- **Enabling Environment:** Improved enabling environment for long-term investment

Table I: Overview of Outcomes, Technical Areas, and Interventions gives an overview of PA-NPSP's technical areas and interventions based on the four outcome areas.

PA-NPSP uses a central Project Management Office to deliver cross-cutting services for stakeholder partnerships, alliances, and coordination; communications and outreach; gender and social inclusion; environmental compliance and social impact; and program results management. The PA-NPSP Finance and Operations Office centralizes financial, contractual, and administrative services.

Table 1: Overview of Outcomes, Technical Areas, and Interventions

Technical Areas and Interventions			
OC1: Increase Private Sector Investment	Energy Resources: Gas Supply		
	Intervention 1.01: Support Nigeria Liquefied Natural Gas Limited to develop Nigeria's gas and liquefied natural gas potential		
	On-Grid Generation		
	Intervention 1.02: Maintain an evolving transaction assistance plan to achieve PA-NPSP goals by identifying, segmenting, and prioritizing a pipeline of priority transactions for support Intervention 1.05: Provide transaction advisory support to independent power producers Intervention 1.08: Capacity building support to public and private counterparts to improve sector corporate governance and project development	Intervention 1.03: Provide technical and transaction assistance to the Federal Government of Nigeria to support the privatization of Nigerian National Integrated Power Project generation companies (assets) to unlock 5,000 MW of capacity Intervention 1.06: Provide technical support to the Nigerian Bulk Electricity Trading Company to progress power transactions	Intervention 1.04: Provide advisory support to the Bureau of Public Enterprises on the privatization transaction of the 987 MW Afam Generation Company Intervention 1.07: Provide transaction advisory support to the Infrastructure Concession Regulatory Commission on implementation of power asset transactions
OC2: Facilitate Off-Grid Connections	Off-Grid		
	Intervention 2.01: Enhance market transparency, information, and tools to attract and support stakeholders interested in the off-grid sector and guide their response to growing demands	Intervention 2.02: Unlock financing for deployment of off-grid solutions by streamlining and expanding access to innovative financing mechanisms and supporting transactions	Intervention 2.03: Develop capacity across the off-grid marketplace
OC3: Improve the Enabling Environment	Enabling Environment		
	Intervention 3.01 (Cross-Sectoral Initiative): Support transformational energy initiatives: Presidential Power Initiative, Lagos State Integrated Energy Resource Plan Intervention 3.04: Provide technical assistance to Transmission Company of Nigeria	Intervention 3.02 (Cross-Sectoral Initiative): Support Nigeria Electricity Supply Industry leadership (Office of President, Ministry of Power, Ministry of Finance, Central Bank of Nigeria)	Intervention 3.03: Provide technical assistance to Nigerian Electricity Regulatory Commission
OC4: Promote Improved Liquidity	Distribution		
	Intervention 4.01: Support the Meter Asset Provider program Intervention 4.04: Distribution Company Assistance for Service Reflective Tariffs	Intervention 4.02: Port Harcourt Electricity Distribution Company Pilot Loss Reduction Program	Intervention 4.03: Distribution Company Coordination with the Presidential Power Initiative

RESULTS BY THE NUMBERS

RESULTS BY THE NUMBERS

Achieved Over 250,000 New On-Grid and Off-Grid Connections: During this quarter, PA-NPSP recorded a total of 255,110 new connections. Of these, 163,000 connections were from REA projects receiving PA-NPSP support that target improving electricity access for unserved and underserved communities in rural and semi-urban areas in Nigeria.

Leveraging US\$2.4 Million in the Off-Grid Sector: With PA-NPSP transaction support, 11 off-grid companies successfully raised a total of US\$2,396,781 to expand SHS and mini-grid installations. Specific deals include:

- The U.S. African Development Foundation and All On deal closed in December 2020. This is a US\$100,000 blended finance deal for nine off-grid companies with each receiving US\$50,000 in convertible debt and US\$50,000 in grant capital.
- The US\$500,000 Acumen and Winock Solar deal was announced on 14 January. PA-NPSP provided technical support for the due diligence process for the proposed tranching investment.
- The USTDA grant of US\$996,781 was awarded to Sosai Renewable Energies Company for a feasibility study to connect more than 200,000 women, farmers, and rural citizens to a planned 100 solar-powered mini-grids in Kaduna, Kogi and Plateau states. PA-NPSP provided transaction advisory support for the USTDA grant application and evaluated prospective companies/bidders seeking to partner with Sosai Renewable Energies.

Commissioning 14 Off-Grid Electricity Projects: This quarter, PA-NPSP supported the commissioning of 14 off-grid projects with a combined capacity of 1.02 MW. These projects were commissioned under the REA Rural Electrification Fund project and Nigeria Electrification Program (NEP) and by off-grid companies supported by PA-NPSP. As a result, nearly 20 unserved and underserved communities received access to electricity.

Improving DISCO Remittances: The sector has witnessed a steady increase in DISCO remittances to NBET and the Market Operators. Remittances to the Market Operators have risen to almost 100 percent of the invoice value and remittances to NBET have significantly risen from as low as 23 percent from July to September 2019 to 35 percent from July to September 2020. Overall remittance has increased by 63 percent from July to September 2019 to July to September 2020.¹ PA-NPSP continues to support the enabling environment in Nigeria's energy sector through the development and implementation of regulations, policies, and standards necessary to drive stakeholder commitment and stimulate liquidity.

¹ Remittance indicator reporting is delayed by six months due to a lag in data publication by relevant public institutions.

Supporting the Development and Implementation of a Policy Directive on the Service-Based Tariff Regime: PA-NPSP supported the preparation of a policy directive on the Service-Based Tariff Regime. The policy directive guides the implementation of the service-based tariff following the position of organized labor on the major tariff review of 2020. This has allowed the technical committee to address the challenges of the service-based tariff and reach a mutually beneficial conclusion. As a direct consequence of this intervention, organized labor and other key stakeholders have reached an agreement to enable the new tariff regime to kick in, resulting in an increase in the sector's liquidity.

Building Capacity of over 540 Technical Energy Experts: In FY21 Q2, PA-NPSP successfully trained 546 people from different technical energy fields. This includes 309 women² working in Nigeria's energy sector who were trained under the PA-NPSP Energy Sector Women's Leadership Initiative (ESWLI), which builds participant capacities in a range of areas to bridge the Nigerian energy sector gender gap and meet the professional development needs of experienced senior executives as well as those stepping up as new leaders in the sector.

Details are included in the technical areas below as well as in Appendix A: PA-NPSP Performance Indicator Tracker (FY21 Q2).

TRANSACTION PORTFOLIO

Table 2 shows current PA-NPSP-supported on-grid and off-grid transactions. Transaction details are included in the technical areas below.

Table 2: Overview of PA-NPSP Transactions

Technical Area	# of Transactions	Active Transactions	Proposed Transactions (Pending QTAT approval)	On-Hold ³
On-Grid	18	4	0	13
Off-Grid	25 ⁴	11 ⁵	14 ⁶	0

² Training results for the PA-NPSP ESWLI program capture data from 1 October 2020 – 30 March 2021.

³ On hold: Not actively supported by PA-NPSP in the FY21 Q2 reporting period.

⁴ This number does not include transactions that are less than 1 MW.

⁵ This number does not include transactions that are less than 1 MW.

⁶ Of the 14 proposed off-grid transactions, QTATs for five have been submitted to USAID for review.

RESULTS BY TECHNICAL AREA

RESULTS BY TECHNICAL AREA

ENERGY RESOURCES: GAS SUPPLY (OUTCOME 1)

In Q2, PA-NPSP continued to engage with Nigeria Liquefied Natural Gas Limited (NLNG) to assess opportunities in Nigeria's gas and liquid natural gas value chain to identify where NLNG can intervene to address and alleviate gas-to-power challenges. Under its Nigeria Domestic Gas Market Program, NLNG shortlisted gas marketing companies for potential liquid natural gas (LNG)-to-power partnerships.

PA-NPSP worked with the USTDA on its proposed Gas Definitional Mission for Nigeria to explore gas sector opportunities to improve power generation. PA-NPSP supported the review of proposals and provided information on ongoing and potential gas projects that might be of interest to USTDA. However, given the United States Government's evolving position on gas development, USTDA has put this activity on hold pending receipt of gas guidance on fossil fuel activities.

PA-NPSP continues to analyze the sector to identify solutions to improve the reliability of gas supply for power generation. Below are highlights of the program's top achievements against target interventions for FY21Q2.

For supplemental information, see Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2), Appendix B: PA-NPSP Deliverable Trackers (FY21Q2), and Appendix C: PA-NPSP Technical Activity Tracker (FY21Q2).

TOP ACHIEVEMENTS AT A GLANCE

Conducting an Initial USTDA Proposal Review: During the reporting period, USTDA shared a proposal from Lakewood, Colorado-based Pioneer Energy, Inc. for a front-end engineering design study and feasibility analysis for a flare gas-to-dimethyl ether plant. PA-NPSP reviewed the proposal and submitted its recommendations to USTDA. PA-NPSP will provide ongoing support at USTDA's request.

Exploring Domestic LNG-to-Power Opportunities: PA-NPSP held discussions with NLNG to explore LNG-to-power opportunities. PA-NPSP had previously connected NLNG to USTDA and gave the company a list of current and proposed plants that might benefit from an LNG supply. In later discussions between NLNG and PA-NPSP, NLNG indicated that it was in discussions with third parties about selling LNG to the domestic market and is not considering direct sales to gas-to-power-generation stations given the Nigerian Energy Sector Industry's liquidity issues. As NLNG's business model involves point-of-sale at the LNG facility, it is not considering investing in infrastructure. As a result, under commercial agreements with NLNG, third-party suppliers will be responsible for infrastructure development necessary to enhance domestic industrial/commercial market access, with the viability of such development based upon the commercial terms agreed between NLNG and the third parties. PA-NPSP intends to continue exploring areas to support gas-to-power initiatives and NLNG.

ON-GRID GENERATION (OUTCOME 1)

TECHNICAL OVERVIEW

In FY21Q2, PA-NPSP continued to engage with independent power producer (IPP) developers and government counterparts to advance on-grid project development and increase electricity availability and energy access across Nigeria. IPP developers include Quaint Energy, Nigeria Solar Capital Partners, KVK Power, Pan Africa Solar, Qua Iboe Power Plant developers, and Geometric Power.

PA-NPSP previously supported the Bureau of Public Enterprises (BPE) in bringing the Afam generation company transaction to financial close and continues to support the Afam transaction activities following closure. PA-NPSP is also supporting the FGN's commercial operation at the Afam plants. For example, PA-NPSP supported the FGN through the Ministry of Power to coordinate a special status meeting with Transcorp Power Consortium. The purpose was to discuss a labor union settlement at the Afam power plant to enable Transcorp to gain access to the Afam facility. PA-NPSP is also coordinating the Federal Government's interactions with General Electric US to pay its outstanding engineering, procurement, and construction contract sums.

In FY21Q2, PA-NPSP supported NBET's senior management and Board of Directors to develop a multi-year strategic analysis and business plan to support NBET to achieve its mandate to guide the sector toward bilateral and competitive trading and ultimately take steps toward achieving its vision of a world in which Nigerians take the availability of their electricity for granted. A main driver was the upcoming expiration of NBET's trading license in Q4 of 2021. NBET was required to submit for license renewal in Q1 of 2021, which required a business plan.

In FY21Q2, PA-NPSP initiated support to NDPHC in updating its business strategy to be able to enhance its financial outlook relative to its current position as well as increase power generation and energy access and develop an actionable roadmap to execute on current, planned, and potentially new projects over the next three years (2021-2024).

Below are highlights of the program's top achievements against target interventions in FY21Q2. For supplemental information, see Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2), Appendix B: PA-NPSP Deliverable Trackers (FY21Q2), and Appendix C: PA-NPSP Technical Activity Tracker (FY21Q2).

TOP ACHIEVEMENTS AT A GLANCE

Developing the NBET and NDPHC Business Plans: PA-NPSP supported the development of business plans for NBET and NDPHC. On 12 February, PA-NPSP submitted the finalized NBET business plan to NBET's Managing Director. NERC required NBET to present a 10-year business plan when submitting its license renewable application on 14 February 2021. The business plan details how NBET will continue to play a vital role in maturing the electricity sector in the near-term until it fulfills its contractual obligations and phases out of the market. The plan outlines the Nigerian electricity sector's progress during the past 10 years and assesses the degree to which NBET has supported the sector's evolution. The report acknowledges persistent power sector obstacles and contains strategic and tactical actions NBET plans to take in the next five to 10 years and the internal capacity and resources required. To complete the business plan, PA-NPSP reviewed NBET's activities, including strategies, market evolution, evaluations and other program documents. PA-NPSP held interviews with technical experts at NBET, NERC, and the distribution and generation companies. Information gathered informed development of NBET's business strategy.

PA-NPSP began work on developing the NDPHC strategy. As described by the NDPHC's Managing Director, the proposed business strategy is fundamentally about revenue growth and how NDPHC can make a profit and achieve positive cashflows. The business structure will be a combination of external or

market and internal or operational strategies. PA-NPSP will also explore privatization of generation assets as a potential strategy.

Advancing Solar IPP Project Development: In FY21Q2, PA-NPSP continued to support solar IPPs with project development. PA-NPSP's embedded advisor in the Federal Ministry of Finance continued to play a central role in reviewing IPPs' business structure proposal submissions and advising the Ministry of Finance and other stakeholders on each proposal and how PA-NPSP can best support the plan.

TCN has stated that technical assessments need to be conducted to evaluate the grid's ability to absorb the load from the solar plants. This is an important task that needs to be conducted prior to putting a variable renewable energy (VRE) load on the grid. The lack of an integrated resource plan (IRP) would constrain the development of on-grid solar projects in Nigeria. Without the employment of an IRP, it is difficult for TCN, NBET, and others to consider how the relative benefits of demand response, inter-connection, storage, and conventional and renewable generation can be optimally combined to result in the most efficient use of the system as a whole. To support the effort, PA-NPSP updated the generation dispatch model to include information on solar projects to assess their potential dispatch efficiency, and ascertain the likely economic value of having solar projects dispatching generated electricity on the grid. PA-NPSP developed a data sheet and asked solar developers for information on capital expenditure and other operating costs. PA-NPSP has commenced incorporating the information received from one of the solar developers into the dispatch analysis and anticipates presenting the generation dispatch model to Nigerian Energy Sector Industry stakeholders, including NERC, in FY21Q3.

PA-NPSP is supporting the following companies and projects:

- **Geometric Power on developing the 141 MW Aba IPP:** PA-NPSP provided a letter of intended support to Geometric Power Limited for its 141 MW Aba IPP project to move to financial close. The letter identified proposed support, including one or more of the following: 1) supporting Geometric Power conduct an enumeration study detailing the customer classes in the Aba ring-fenced area for technical and commercial planning purposes; 2) supporting an aggregate technical commercial and collection loss study to set a baseline for key performance indicator monitoring; and 3) offering a transition training program for new Geometric Power staff who will run the distribution network in the ring-fenced area. PA-NPSP has requested Geometric Power to provide a scope of work for each of the three areas of support so PA-NPSP can gather necessary resources. PA-NPSP will also ask Geometric Power to provide data for each of these potential interventions to determine the feasibility of PA-NPSP's support.
- **Quaint Energy on developing the 6 MW Ikere Gorge and 2 MW Omi Kampe hydro projects:** PA-NPSP continues to support Houston-based Quaint Energy complete the review of concession agreements for the 6 MW Ikere Gorge and 2 MW Omi Kampe hydro projects. PA-NPSP provided advisory support to Quaint on two proposed changes in the concession agreements relating to a delay in construction completion and termination. PA-NPSP is also engaging with Quaint Energy and Voith Hydro on a bid tender Mainstream Energy is conducting for the extension and rehabilitation of three units at the 280 MW Kainji hydroelectric power station. PA-NPSP provided a letter of support to Quaint Energy and Voith Hydro to demonstrate Power Africa's visibility on the proposal and to identify areas of potential support PA-NPSP can offer if Quaint and Voith secure the bid.
- **Nigeria Solar Capital Partners:** PA-NPSP and Power Africa partners Nigeria Solar Capital Partners and JCM Power discussed the possibility of incorporating their solar projects into the generation dispatch model developed by PA-NPSP. This model could help Nigerian government agencies, including the Ministry of Finance, NBET, and TCN, assess the potential value to the government if solar plants were on the grid. This analysis would also allow the government to

consider adopting an automated dispatch order or identify the limits of any potential financial exposure in providing a minimum dispatch guarantee to select solar IPPs.

ADDITIONAL HIGHLIGHTS

Supporting BPE Privatize Power Projects: PA-NPSP continues to engage with BPE on privatizing power projects. In FY21Q2, BPE told PA-NPSP the Federal Government plans to fund the 2021 budget by privatizing four of NDPHC's Nigerian National Integrated Power Project generation assets with a combined capacity exceeding 1,200 MW and to sell some non-oil assets. BPE sent a request to PA-NPSP to help assess investor interest in the refineries to best structure transactions. Although the refinery support is outside PA-NPSP's purview, PA-NPSP is discussing the request with USTDA and intends to explore the possibility of support from Prosper Africa.

BPE is interested in selling TCN's assets, keeping the systems operator and market operator as independent government entities. The Government is looking to expand the transmission network and improve TCN's efficiency but lacks the funds. Support to BPE for this initiative is not in PA-NPSP's FY21 Workplan, so PA-NPSP is conducting an internal review to determine if it can be supported this fiscal year.

Coordinating the Power Africa Legal Fellows Training for Nigerian Lawyers: PA-NPSP continued its support of the Cyrus R. Vance Center for International Justice, coordinating the Power Africa Legal Fellows Training for Nigerian lawyers in government power institutions. PA-NPSP supported the engagement of participants from nine government energy institutions, including TCN, NBET, NDPHC, NERC, and REA. PA-NPSP coordinated with the Vance Center to facilitate delivery of two trainings: 1) *Legal aspects arising from a financial model process in building and analyzing financial model*, delivered on 26 February 2021 and 2) *Overview of Project Finance, including types of financing with specific requests made to cover bond securitizations PART 2*, delivered on 17 March 2021. PA-NPSP participated in the discussion panel for both sessions.

Advocating for a Sustainable Gas Pricing Regime for Gas-to-Power in the Petroleum Industry Bill: PA-NPSP worked with the Office of the Vice President to advocate for a market-based regulatory approach responsive to the energy value chain to the Joint Committee of the National Assembly. The current proposed pricing methodology in the Petroleum Industry Bill is based on Gas Authority. The gas-to-power sector is considered strategic, and the Petroleum Industry Bill is proposed to regulate gas prices through a fixed base and ceiling prices. This proposal will likely have an adverse effect on the new service-based tariff structure and multi-year tariff order review in the coming year.

Supporting the Transaction and Sale of Afam Power Plc and Afam 3 Fast Power Limited: In FY21Q2, PA-NPSP secured a provisional approval for Transcorp Afam Power Limited to connect a 240 MW gas power plant to the national grid through the 330/132/33KV Afam substation. This transaction was possible because PA-NPSP supported the Ministry of Power in the privatization of the Afam 3 Fast Power transaction. A key challenge was creating a transparent post-handover transaction all parties supported. This transaction would cover the Federal Government's obligations to unpaid contractors who ensure the proper functioning of the Afam 3 plant. PA-NPSP resolved most concerns by working with TCN to secure a commitment for a bankable path for the Afam 3 plant so that Transcorp could have a smooth transaction. A committee was formed to facilitate a handover of the human resource functions to Transcorp Power. The Ministry of Power intends to ensure that Transcorp has full control of all business processes, functions, and operations of the plant as quickly as possible to avoid any risks of a protracted handover.

OFF-GRID (OUTCOME 2)

TECHNICAL OVERVIEW

Overall, Nigeria's off-grid sector enjoyed continued success in FY21Q2. Strong support from REA and growing support from major donors, including other USAID programs, the European Union, African Development Bank, and World Bank, strengthened the sector's development with a combination of program support, direct grants, and technical assistance.

Persistent market challenges continue to create some hurdles for mini-grid developers and SHS providers. These include unclear long-term market viability and sustainability owing to a lack of clear economic business cases for investment. An unclear sector strategy and the means to determine the most effective methods for achieving rapidly accelerating energy access are also challenges to the off-grid sector.

To address these challenges, PA-NPSP continued to implement the following activities:

- **NEP Implementation:** Supported the World Bank and African Development Bank in advancing components of the NEP. To date, PA-NPSP has supported the program to achieve more than 68,000 SHS connections. During this period, six mini-grids were commissioned under NEP—two in Bayelsa, two in Ondo, and one each in Plateau and Niger states for an expected total 3,567 connections and 475 kW total capacity.
- **Private Sector Development:** Provide one-on-one support to local and international private sector entities. PA-NPSP supported seven private sector entities in FY21Q2 and 64 to date.
- **Continued Government Focus:** Deepened support to Nigerian government entities; built on successes from FY20, including continued support to REA in implementing its long-term strategy and implementation of NEP and Solar Power Naija.
- **Energy+:** Developed strong partnerships and new approaches for Energy+ business models that provide electricity to a primary anchor off-taker and excess electricity to surrounding residential and productive off-takers.
- **Innovative Finance Models:** Gained significant traction with identifying investor sponsors and project portfolios whose structures align with and offer opportunity for application of one or more of the innovative business models proposed in PA-NPSP's Innovative Financing Model Report.
- **Investor Pitch Sessions:** Held its second quarterly capacity-building event on 26 January, 23 February, and 22 March to coach SHS companies on leading practices for raising capital and delivering effective investment pitches. PA-NPSP also gave the companies the opportunity to practice their pitches with members of PA-NPSP's team and investors in the off-grid energy sector in Nigeria.

PA-NPSP is working on challenges and opportunities to deepen relationships and build on momentum in FY21 by focusing on the drivers created during PA-NPSP's "Pathway to Impact" analysis in FY18–19. The Off-Grid Theory of Change aims to accelerate off-grid market growth by outlining the steps PA-NPSP, industry, donors, and government actors must address. PA-NPSP steps are to improve market transparency, unlock financing by piloting innovative financing and business models, and delivering capacity-building support across all stakeholders, working directly with REA, private developers, and capital providers. PA-NPSP is also making gender and social inclusion activities and interventions in the off-grid sector a priority.

Below are highlights of the program's top achievements against target interventions in FY21Q2. For supplemental information, see Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2), Appendix

B: PA-NPSP Deliverable Trackers (FY21Q2), and Appendix C: PA-NPSP Technical Activity Tracker (FY21Q2).

TOP ACHIEVEMENTS AT A GLANCE

Market Transparency

Developing REA's Energy Access Database and Geospatial Tool: Designed with support from PA-NPSP in FY20, the REA strategy outlines a larger role for REA as a coordinating body for the creation of an energy access database and geospatial tool. The database and tool will pull together data from relevant off-grid stakeholders into a single format hosted on REA's website. REA is looking to take on a larger role as the hub, or coordinating body, for rural electrification in Nigeria to facilitate connections, provide data, and help direct sector priorities. In FY21Q1, PA-NPSP worked on the tool and completed a concept note that outlines the technical parameters, tool functionalities, and donor coordination necessary to create this collaborative platform. PA-NPSP presented the concept note to REA's Managing Director and Executive Board and gained approval to move forward with the Energy Access Database design and with PA-NPSP's role as coordinator for REA's technical acquisition. To kick off this effort, PA-NPSP and REA held a donor coordination meeting on 31 March 2021 to present the concept note and learn from donors about ongoing efforts in the geospatial space. Donors included Sustainable Energy for All, GIZ-Nigeria Energy Support Programme, U.K. Nigeria Infrastructure Advisory Fund, Nigeria Off-grid Market Acceleration Program, and Africa Clean Energy Technical Assistance Facility. Additional speakers included the Executive Director of REA's Rural Electrification Fund, Dr. Sanusi Ohiare, and the Executive Director of REA's Technical Services, Engr. Barka Sajou. Next steps include hosting meetings with individual donors and REA to align the tool's parameters and gain buy-in for collaboration from key stakeholders in the market.

Mobilizing Finance and Private Sector Support

Implementing Innovative Financing Models: In FY20, PA-NPSP research confirmed the necessity of using innovative financing structures and business models to mobilize financing in the off-grid sector. In FY21Q2, PA-NPSP continued to advance implementation of innovative financing models through two channels: 1) the split AssetCo DevCo model through conversations with mini-grid developers with sufficient pipelines to make the model attractive and 2) the collateralized payment or revenue pledge mechanism under the Solar Power Naija program. For the latter, PA-NPSP worked with Nayo Tropical Technologies, Ltd. to build out an AssetCo Financial Model and socialize the deal with potential investors. In addition, PA-NPSP met with A4&T, which is restructuring its entities to attract needed financing.

Other efforts to implementing innovative financing models include:

- **Collaborating with the United Bank of Africa:** On 25 January, PA-NPSP met with officials of Power Africa partner United Bank of Africa to discuss the bank's interest in rolling out salary-backed loans for its employees and employees of approved counterparty companies in its network. PA-NPSP originally outlined this collaboration in its Institutional Sales Framework model. The Bank is designing the product to match the SUNREF funding criteria and specifications, aligning the financing mechanisms to its previously established program. SUNREF is an Agence Française de Développement lending program that promotes green growth.

Implementing Innovative Business Models: PA-NPSP has been pursuing the Energy+ approach and continues to make progress developing innovative Energy+ business models for solar development. This includes:

- **African Development Bank NEP Component II Subsidy Scheme Phase I:** PA-NPSP continued its support for the African Development Bank NEP Component II Productive Use Subsidy Scheme. In January, PA-NPSP presented initial subsidy levels for six mini-grid productive use equipment sites, based on data Phase I developers provided in applications. The data provided

varied considerably from site to site. For this reason, PA-NPSP worked with the REA NEP Project Management Unit to set up one-on-one discussions with each Phase I developer to discuss application inputs and request validation. REA and PA-NPSP received revised data rosters, including information on anticipated productive use equipment for procurement under the program and customers. PA-NPSP used the revised data to provide recommendations to the REA Project Management Unit on subsidy levels and design. In February, PA-NPSP submitted a memo to the African Development Bank NEP Component II Project Management Unit outlining calculated subsidy levels for Phase I of the Productive Use Equipment Subsidy Program. The subsidy levels incorporate incentives for gender equity, scalability, and reaching more economically vulnerable communities. As a next step, the Project Management Unit will take these subsidy levels to Phase I site developers to negotiate and finalize terms before sending the information to the African Development Bank, NEP, and REA for approval.

- PA-NPSP also supported the REA Management Unit in designing and developing the monitoring and evaluation system for Phase I. PA-NPSP developed indicators and data inputs based on the REA Project Management Unit's targeted results for Phase I. The team developed a plan for baseline and monthly data collection as well as roles and responsibilities for monitoring and evaluation. In March, PA-NPSP developed prototypes in AppSheets for all required monitoring and evaluation surveys and transferred these to the REA Project Management Unit for implementation.
- **USAID Effective Water, Sanitation, and Hygiene Services (E-WASH):** PA-NPSP and USAID's E-WASH program continue to collaborate on developing viable Energy+ business models for a portfolio of water pumping and sanitation sites across four Nigerian states. PA-NPSP has modeled initial capital expenditure, operational expenditure, and requirements for E-WASH sites. PA-NPSP has also developed a concept note that outlines how PA-NPSP and E-WASH can work together to select sites, work with state governments and relevant distribution companies, and develop tender documentation to enable E-WASH to engage the private sector directly. On 5 February, PA-NPSP submitted a final concept note and worksheet showing calculations for the capital expenditure, operating expenses, savings, and subsidy design to the USAID E-WASH team. The concept note included the three E-WASH sites for project implementation under the Energy+ initiative. PA-NPSP met with the Water Commissioners for Imo, Niger, and Taraba States about developing Energy+ business models for water pumping and sanitation infrastructure. The Commissioners were receptive to the proposal, which relies on partial grant funding to subsidize operating expenses for the first year. As a next step, PA-NPSP will engage the distribution companies in each state, and E-WASH will approach additional state-government entities to obtain buy-in at all levels of government. However, E-WASH will discontinue this effort, as the program has been going through programmatic restructuring and descoping, which has affected its funding availability.
- **Healthcare and USAID Integrated Healthcare Program:** PA-NPSP and USAID's Integrated Healthcare Program coordinated to determine how to develop a recurring, coalition-driven touchpoint focused on expanding electricity access at primary healthcare centers. PA-NPSP, the Integrated Healthcare Program, and other coalition partners (e.g., Heinrich Boll Foundation) plan to implement this recurring roundtable discussion in FY21Q3.
- **PA-NPSP's Institutional Sales Framework Model:** Commercial banks in partnership with SUNREF's program are adopting the PA-NPSP Institutional Sales Framework Model for salary-backed loans to acquire renewable energy and energy efficient solutions for employees under the Manufacturers Association of Nigeria member companies. Under the program, commercial banks will offer the low-cost loan rate to staff to take up stand-alone or SHS solutions that meet the

requirements of the SUNREF program. PA-NPSP will train staff at these banks to explain the product offerings and how they meet the SUNREF program's requirements.

Continuing Support to Development Partner Programs: PA-NPSP continues to work with development partner programs to support cross-cutting initiatives.

- **Supporting the USTDA Project Portfolio:** In February 2021, USTDA approved grant funding for Sosai Renewable Energy Company, Ltd. to conduct feasibility studies for developing, financing, and implementing isolated rural mini-grid projects in Kaduna, Kogi, and Plateau States targeting women-owned businesses. PA-NPSP provided a portfolio review and feedback on terms of reference to support this grant funding. The USTDA–Sosai Renewables grant signing took place during the Off-Grid Stakeholders on 24 March 2021, with U.S. Ambassador Leonard and USTDA Acting Director Enoch T Ebong making opening remarks.

PA-NPSP is awaiting the outcome of support provided to EmOne Solutions' USTDA grant application in FY21Q1. If EmOne receives USTDA funding, EmOne will perform a technical feasibility review of several hundred primary healthcare centers across Nigeria to determine the viability and feasibility of implementing sustainable Energy+ business models at those locations.

- **Supporting Darway Coast's USTDA Grant Implementation:** PA-NPSP met with Darway Coast, a recent USTDA grant recipient, to determine any support PA-NPSP can provide as Darway Coast begins to implement grant-related activities. Darway Coast released a solicitation for interested bidders to submit applications for a USTDA-funded feasibility study to be conducted for 95 mini-grid sites in southern Nigeria. Using a strict quantitative rubric, PA-NPSP analyzed bidder submissions for completeness and adherence to proposal criteria. Following this analysis, Darway Coast selected a successful bidder in FY21Q2 and is moving toward implementation.
- **Sustainable Energy for All and PA-NPSP Off-Grid Coordination:** On 1 March, PA-NPSP held a coordination meeting with Sustainable Energy for All to introduce the teams and share the current work and accomplishments of PA-NPSP in off-grid market development in Nigeria. As a follow up, PA-NPSP and Sustainable Energy for All have established quarterly touchpoints between teams to solidify program collaboration. In addition, Sustainable Energy for All presented an update of its current project work and engagements at the quarterly Off-Grid Stakeholders Meeting held on 24 March.

Providing Private Sector Support: PA-NPSP continues to provide support to the private sector to mobilize financing and improve business strategies. Key activity areas include:

- **Hosting the SHS Investor Pitch Competition:** In FY21Q2, PA-NPSP hosted the second competition in its Investor Pitch Series. This series coached Nigerian SHS companies Cloud Energy, PAS Solar, A4&T, Greenage Technologies, and Black Bit Solar on leading practices for raising capital and delivering effective investment pitches. The competition gave companies the opportunity to practice pitches with PA-NPSP and established off-grid investors in Nigeria. PA-NPSP worked one-on-one with five SHS companies on their investment pitches.

The five participating companies spent eight weeks working with PA-NPSP and developing their investment pitches, including participating in a pitching fundamentals session in January and multiple one-on-one coaching and practice pitch sessions in February and March.

In March, the five companies took their pitches to a panel of judges representing investors active in Nigeria's off-grid energy market. Companies represented included Acumen, All On, ARM-Harith, Camco Clean Energy, ElectriFI, First City Monument Bank, and Nithio. The judges evaluated the pitches against eight categories, including presentation of business model, credibility of forecasts and assumptions, and attractiveness of investment opportunity. Following the five

pitches, the judges deliberated and selected PAS Solar as the winner and Black Bit Solar as runner up.

In-kind prizes for the winning companies included voice coaching from a professional voice actor and a complementary three-month subscription to Fraym, a database that provides localized data to support decision-making in emerging markets. Power Africa looks forward to seeing the results of this training and the deals that arise between companies and investors as a result of the competition.

- **Supporting the Development of the Walter Smith Nigeria 1 MW Plant:** Walter Smith Nigeria asked PA-NPSP to facilitate introductions to mini-grid developers with the capacity and track record to submit bids to develop a 1 MW mini-grid. PA-NPSP facilitated introductions, with follow-up meetings expected.

Increased Coordination and Capacity Building

Assessing and Updating the REA Rural Electrification Strategy and Implementation Plan: In consultation with REA, PA-NPSP is assessing potential gaps in REA's Rural Electrification Strategy and Implementation Plan. PA-NPSP is comparing the Plan to REA's mandate and mission and identifying opportunities to update it to reflect components of REA's revised strategic direction, which PA-NPSP supported REA to develop in FY20. On 2 March 2021, PA-NPSP presented the initial outline and proposed research plan to REA's Managing Director and Executive Board for approval. The meeting included a debriefing on the current Rural Electrification Strategy and Implementation Plan compared to the REA Strategy and discussion on the development of potential Rural Electrification Strategy and Implementation Plan amendments to enable REA to advocate for official revisions with the Ministry of Power. Upon approval by the Board, FY21Q3 steps will include a final gap assessment and formal consultation with the Ministry of Power.

Advancing the Solar Power Naija Program: In FY21Q2, PA-NPSP supported the REA Solar Power Naija Project Management Unit to advance its program. PA-NPSP supported the Project Management Unit to develop project management documents, furthering development and implementation of a strategic communications plan; provided stakeholder coordination, including support for two major stakeholder workshops; and reviewed and coordinated applications for companies applying to the program for funding. PA-NPSP directly supported and reviewed applications from Darway Coast, A4&T, Privida, Azuri, GVE, Emel Solar, and others. PA-NPSP completed pitch decks to fulfill requests for guarantees from the Nigerian National Petroleum Corporation and interested state and rural electrification boards. PA-NPSP held a call with the U.K. Nigeria Infrastructure Advisory Facility to clarify how it would help the fund administrator, confirming that it would be limited to an initial review of company financial models. PA-NPSP held calls with several developers, including Green Light Planet, Fenix, and Oolu Solar, to provide guidance on the application process and requirements. During February, PA-NPSP helped REA prepare for a meeting with the Vice President and Economic Sustainability Committee. During the meeting, the Vice President highlighted the need to update the public on the status of Solar Power Naija and to learn which companies are setting up local assembly plants, with expected plant capacities. Other donors are also providing targeted support to Solar Power Naija. The Tony Blair Institute provided support through direct engagement with the state entities in promotion of the program, specifically regarding the model of bulk sales via the state governments. At the outset of Solar Power Naija, Sustainable Energy for All provided geospatial mapping support to identify all potential beneficiaries to avoid the concentration of the disbursements to a limited number of geographical areas. As a result of this exercise, Sustainable Energy for All identified seven million potential connections across Nigeria. UK Foreign, Commonwealth and Development Office provided financial modeling support to companies in the Solar Power Naija pipeline, but this support is currently on hold. Finally, the Africa Clean Energy Technical Assistance Fund has been involved in capacity building with the states, setting up state working groups, and preparing states for Solar Power Naija projects.

During February and early March, PA-NPSP supported the Solar Power Naija working group to establish a “Pathway to Spending” strategy that tentatively allocates program funds across the following sub-components: guarantor projects⁷ (NGN 27 billion, US\$72 million), commercial bank upstream (NGN 32 billion, US\$85 million), commercial bank downstream (NGN 33 billion, US\$88 million) for transactions exceeding NGN500 million (US\$1.3 million), state guarantor projects (NGN28 billion, US\$75 million), and small-scale downstream (NGN20 billion, US\$53 million) for transactions below NGN500 million (US\$1.3 million). This allocation is intended to maximize program effectiveness, ensure achievement of program objectives, and ensure that program funds are disbursed more quickly. Under the guarantor component,

Collaborating with REA’s Gender Programme: PA-NPSP is working closely with the new REA Gender Programme to develop the first-year work plan and targets. At the start of Q2, PA-NPSP drafted a scope of work to support the following key initiatives and activities: 1) technical (science, technology, engineering, and mathematics or STEM) and professional skills-based development, 2) mentorship programs and energy sector collaboration in support of the Energizing Education Programme’s female STEM program and REA female staff, and 3) support for women Rural Community Coordinators. On 16 March, PA-NPSP met with REA’s Gender Programme and the U.K. Foreign, Commonwealth & Development Office’s Africa Clean Energy Technical Assistance Facility program to discuss donor alignment, coordination for gender mainstreaming deliverables, and PA-NPSP’s ongoing support in FY21.

Advancing Gender Mainstreaming Activities in the Off-Grid Sector: PA-NPSP met with Oolu Solar to discuss potential areas of support, including having PA-NPSP review its gender policy and strategy to identify any gaps. Oolu indicated interest in receiving gender awareness training and resources to promote employee retention as well as giving qualified female interns on-the-job training with the possibility of full-time employment after internships. PA-NPSP is collaborating with the Deutsche Gesellschaft für Internationale Zusammenarbeit’s Skill-up Scale Up program for the latter and is aligning its direct technical training and employment support with the Scale-Up program at the start of FY21 Q3.

Hosting the Off-Grid Sector Stakeholders Meeting and USTDA and Sosai Grant Signing Event: On 24 March, PA-NPSP, REA, and Power Africa partner All On hosted the Quarterly Off-Grid Stakeholders Meeting where all donors in the sector presented their activities. This quarter’s meeting started with a grant signing between USTDA and Nigeria’s Sosai Renewable Energies Company. U.S. Ambassador Mary Beth Leonard led the signing event with USTDA Acting Director Enoch T. Ebong. The grant is for a feasibility study to connect more than 200,000 women, farmers, and rural citizens to a planned 100 solar-powered mini-grids in Kaduna, Kogi, and Plateau States. USTDA’s study will also create business opportunities for U.S. equipment and services suppliers in Nigeria’s mini-grid sector, while supporting up to 20 MW of new solar power in rural communities.

For the first time, Power Africa partners Sustainable Energy for All and Rockefeller Foundation gave presentations at the Stakeholders Meeting. Several investors provided updates on their interest and available facilities to support the sector. The Vice President’s Office closed the session with a presentation on the use of liquefied petroleum gas in the off-grid sector and an All On-sponsored waste management study.

⁷ The guarantor subcomponent of Solar Power Naija encompasses financing for off-grid transactions supported by a guarantee from a large organization (such as the Asolar and NDPHC transaction further detailed below), with no minimum or maximum threshold.

ENABLING ENVIRONMENT (OUTCOME 3)

TECHNICAL OVERVIEW

The under-performance of the Nigerian power sector is linked to broad challenges in electricity policy enforcement, regulatory uncertainty, gas supply, transmission system constraints, and major power sector planning shortfalls. These have kept the sector from reaching commercial viability. PA-NPSP works with FGN stakeholders to identify and implement interventions that address many of these issues and create an enabling environment conducive to sector development and sustainability.

Creating a strong enabling environment can catalyze investment and support sustainable long-term development. Strategic interventions in other areas are critical in addressing issues in specific areas of the power sector value chain. An enabling environment, however, will address some of the foundational legal, regulatory, organizational, and policy issues that have held back sustainable development in the power sector and support achievement of the development goals of the Federal Government and Power Africa.

Four overarching themes motivate the strategic and tactical activities outlined under Outcome 3 :

1. **Sector Planning and Coordination:** Work with Federal Government stakeholders to address the current lack of a clear vision for the sector and implement mechanisms to sustainably promote long-term planning. The development of an Integrated Resource Plan and planning process for Lagos State can serve as a model for other states and improve overall sector planning and coordination in Nigeria.
2. **Improved Regulatory Environment:** Assist NERC to develop, implement, and enforce regulations to improve sector economics and increase investment. Work with the regulator to develop organizational capacity and improve overall regulatory processes.
3. **Increased Sector Transparency:** Work with Federal Government entities to cultivate and sustain reliable sources of sector data that can increase transparency and enable data-driven decision-making.
4. **Transmission System Operations:** Work with TCN to support the efficient dispatch and optimization of wheeled transmission capacity. Building on the momentum of the introductory meetings, strengthen the relationship with the new leadership team. Provide advisory support on the alignment of the transmission and distribution interface projects with other critical sector initiatives, especially the pivot to service-based level tariffs and the Presidential Power Initiative.

Below are highlights of the program's top achievements against target interventions in FY21Q2. For supplemental information, see Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2), Appendix B: PA-NPSP Deliverable Trackers (FY21Q2), and Appendix C: PA-NPSP Technical Activity Tracker (FY21Q2).

TOP ACHIEVEMENTS AT A GLANCE

Recording Peak Grid Generation of 5,584 MW: In FY21Q2, TCN announced an all-time peak generation of 5,584 MW – a remarkable increase from the August 2020 peak of 5,377 MW. PA-NPSP supported TCN with policy, fiscal, and operational approaches that improved TCN's wheeling capacity. Additional income from automated and increased collections ensured that TCN could carry out essential capital projects to improve the grid. As a result of PA-NPSP's support, the capping of estimated billing, revival of the metering plan, adoption of the service-based tariff, and deployment-of-service level agreements between TCN and distribution companies contributed significantly to Nigerian Electricity Supply Industry sustainability and the increase in grid capacity.

Assisting TCN with Presidential Power Initiative (PPI) Project Implementation and Monitoring: PA-NPSP continued to provide technical support to TCN with PPI activities, including reviewing scopes of work, verifying qualifications and proposals from third-party contractors, and

providing technical feedback on contractor proposals and qualifications. On 18 February, the FGN awarded Siemens AG a contract to implement the pre-engineering scope of the PPI and the corresponding pre-engineering work. PA-NPSP facilitated the contract award, coordinated activities, and ensured timely delivery of the PPI pre-engineering deliverables, including the pre-engineering scope. The pre-engineering scope includes preliminary engineering design of 11 high-voltage transmission substations, development of technical requirements for 175-distribution substations, power analysis software, and training and consultancy services. The technical requirements for the 175 distribution substations include both new project developments (greenfield) and substation upgrades (brownfield).

PA-NPSP also assisted TCN to identify key data sets that will be compiled and shared before, during, and after project operation to maximize knowledge transfer and information sharing.

Supporting Effectiveness of Power Sector Recovery Operations (PSRO): PA-NPSP is expediting subsidiary agreements between NBET and NERC in the Loan Finance Agreement between the Federal Government of Nigeria and the World Bank for the PSRO. During the reporting period, the Attorney General granted a positive legal opinion to allow the Federal Government to proceed with taking the US\$3 billion World Bank Facility loan. The independent verification agent, supervised by the Federal Ministry of Finance, verified initial conditions for the disbursement. The Budget Office of the Federation brought the PSRO secretariat onboard and vetted individuals for various roles.

PA-NPSP coordinated with the Power Sector Reform Working Group Payment Assurance Facility to enable funds to be accessed through PSRO. PA-NPSP facilitated the preparation of the subsidiary agreement, worked with the NERC and NBET and prepared a request for information to PSRO stakeholders to ensure verification of the conditions of the financing plan and completion of assignments. PA-NPSP held a meeting between the independent verification agent and PSRO secretariat to kick-start a results verification exercise and initiate review of the 2021 financing plan to permit initial fund disbursement to eliminate accumulated tariff shortfalls.

Supported World Bank's appraisal and negotiation process that resulted in June 2020 financing approvals for the Power Sector Recovery Operation, involving \$750 million in International Development Association credit to improve the reliability of electricity supply, achieve financial and fiscal sustainability, and enhance accountability in the power sector in Nigeria.

Facilitating the Approval of Revised Transmission and Distribution Interface Projects: PA-NPSP facilitated ministerial approval for the implementation of 114 transmission projects in the 11 distribution company service regions. PA-NPSP developed the project list with TCN and distribution companies, which was validated by NERC. The total sum for the interface project the Central Bank of Nigeria is expected to finance is NGN114 billion (US\$279 million). Once completed, the project is expected to increase transmission and distribution capacities by 2,333 MW in nine to 12 months.

ADDITIONAL HIGHLIGHTS

Coordinating Power Sector Rebasing: PA-NPSP coordinated a rebasing exercise with the Minister of Power to recalculate the capacities of power sector components. The objective was to use a standardized method to recalculate generation, transmission, and distribution capacities based on reality, correcting for the under-quoted figures being used. The rapid increase in industrial off-grid generation and embedded generation projects like Bonny Island 340 MW, Dangote Cement 360 MW, and Lafarge 40 MW necessitated the rebasing. The World Bank hired KPMG to support execution of three broad streams of work: 1) collating baseline indices to capture all electricity supply arrangements in the Nigerian Electricity Supply Industry; 2) developing an industry-wide data collection, management, and reporting framework; and 3) developing data visualization packages and supporting stakeholder engagements. PA-NPSP supported the development of the operational framework to begin the initiative.

Advancing TCN's Multi-Year Tariff Order: PA-NPSP supported TCN's Market Settlement Department (MSD) implement a new balancing mechanism for the Multi-Year Tariff Order in line with NERC's plan, which enhanced capacity for the Multi-Year Tariff review.

After a series of interactions with the MSD and NERC, PA-NPSP created Excel templates for the MSD to implement the Order. PA-NPSP helped the MSD craft the explanation and descriptive illustration of the new balancing mechanism for stakeholders, along with an explanation of the difference between the balancing mechanism, merit order dispatch, and service level agreement.

PA-NPSP developed training materials to explain the balancing mechanism, merit order dispatch, and service level agreement to a wider audience. This was very important for stakeholders to understand the concepts and the new direction NERC is taking. The capacity-building support is in line with PA-NPSP's efforts to support TCN to develop an elaborate system of templates to forecast DISCO loads, track feeder load utilization, and attribute differences to TCN or DISCOs to honor NERC's orders on service reflective tariffs.

Advancing Tariff Reform and Labor Negotiations: PA-NPSP supported the negotiation of an agreement between the FGN and labor unions on electricity tariff reform. Through this agreement, implementation of the previously suspended tariff adjustments will resume. PA-NPSP also supported the development of a policy directive issued to NERC to resume the implementation of the service reflective tariff.

Improving Service Reliability and Quality for TCN: PA-NPSP supported TCN to develop a training program to teach transmission service providers how to improve service reliability and quality to meet service level agreement criteria, which includes decreasing equipment failure rates and downtime. PA-NPSP continued to work closely with TCN's new General Manager of Corporate Planning to lead activities to improve TCN's reliability and quality of service delivery to generation and distribution companies.

Developing a Performance Report for the TCN Board of Directors: PA-NPSP provided guidance on developing a technical performance report for TCN's newly appointed Board of Directors. The report focused on TCN's past performance and current status of management target goals for grid expansion and stability. PA-NPSP's support included developing a report template, adapting various department outputs into a synchronized report, developing key system performance graphs, and aligning department reports with TCN's policy priorities.

Advancing the Lagos State Integrated Resource Plan: In cooperation with the Ministry of Energy and Mineral Resources Commissioner, PA-NPSP is supporting the development of the Integrated Resource Plan to increase electricity accessibility, reliability, and security in Lagos State by promoting improved communication and decision-making in electricity supply, policy, and regulatory environment (enhanced sector planning, cost effective power supply, cost-reflective tariffs, and regulatory stability). In FY21Q2, PA-NPSP completed and presented its Demand-side Management and Energy Efficiency Report to the Commissioner of Lagos State Ministry of Energy and Mineral Resources. The report analyzes demand-side management, energy efficiency potential and policies, distributed energy resources, and offers a practical review of conservation programs. It includes an overview of the September 2020 four-day Demand-side Management and Energy Efficiency Training as well as input from across the African continent for demand-side management and energy efficiency programming, including GIZ, the Economic Community of West African States Center for Renewable Energy and Energy Efficiency, Standards Organization of Nigeria, Eswatini Water Services Corporation, and Power Africa Southern African Energy Program.

PA-NPSP is working on developing the *Transmission and Distribution Planning Report*, to be completed in FY21Q3. This report will be a high-level, least-cost distribution expansion plan for a maximum of five years in association with the demand-side management plan and load forecast for Lagos State. The report will

build on collected inputs and analysis from the FY21Q2 least cost generation planning report and load forecast report.

To support this, PA-NPSP created detailed work plans for regular virtual engagement with technical leads for the generation and distribution companies to begin development of the generation planning and distribution planning report sections of the Integrated Resource Plan respectively. PA-NPSP has set up weekly meetings with both counterparts for ongoing data collection for these analyses.

DISTRIBUTION (OUTCOME 4)

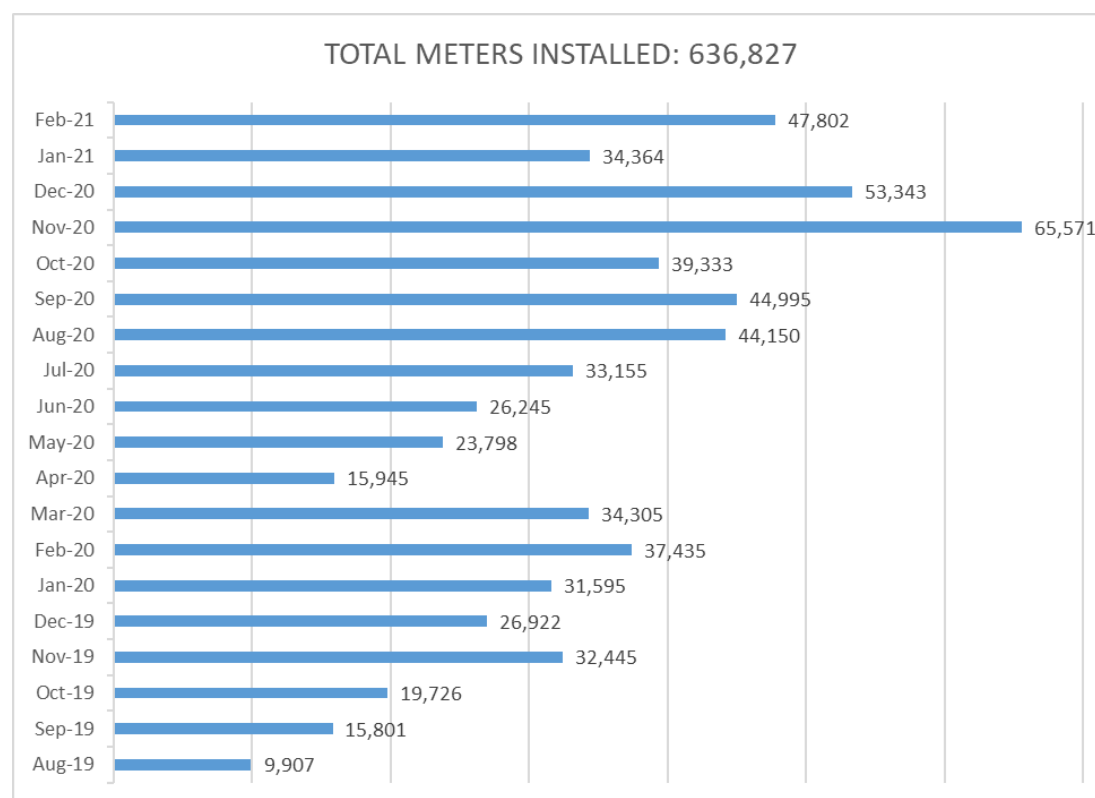
TECHNICAL OVERVIEW

Customer meter penetration in Nigeria is less than 50 percent. DISCOs rely heavily on estimated billing for their revenue. NERC launched the MAP Program in 2018 to reduce the metering shortfall but has fallen short of its targets to install consumer meters across the country. The program has had financing issues in buying meters, meters are not available at all locations, and the pandemic has created implementation challenges. This is a major concern of the Federal Government, which is committed to metering all consumers and decreasing the practice of estimated billing.

To support financing and promote indigenous meter manufacturers, the FGN launched the NMMP through the Central Bank of Nigeria. Through this program, DISCOs can get financing at a nine percent interest rate with a two-year moratorium. DISCOs can use the loans to buy meters from local assemblers and manufacturers. They are expected to implement the service reflective tariff, which will pave the way to repay the loans.

In February 2021, NERC published a consultation paper inviting stakeholders to comment on the main issue of structuring the NMMP to replace the MAP program. The paper seeks to provide relief to customers who had paid for meters outright by reimbursing them their entire payment. The intention is to have DISCOs buy and own all meters, the cost for which is captured in the Multi-Year Tariff Order. As of 28 February 2021, 636,837 meters have been installed, 89,267 of which were under NMMP. It is significant to note that Yola DISCO, which had installed no meters under the MAP program, installed 955 meters under NMMP.

Figure I: Total Meters Installed by Month



The primary objectives of PA-NPSP's FY21 distribution interventions are to:

- Increase the number of connections achieved through metering
- Reduce estimated billing and aggregate technical, commercial, and collections losses through improved operations and customer service at five targeted DISCOs: Abuja Electricity Distribution Company, Eko Electricity Distribution Company, Ikeja Electric, Port Harcourt Electricity Distribution Company, and Enugu Electricity Distribution Company
- Increase energy throughput by optimizing DISCO operations
- Build DISCO staff capacity and skills

In FY21Q2, PA-NPSP continued to deliver the Project Management Fundamentals and Meter Installation Audit and Customer Service courses and outreach, now including Enugu DISCO. PA-NPSP trained 224 staff from Enugu, Port Harcourt, and Ikeja Electric in these courses in FY21Q2. The courses help DISCO personnel manage MAP projects and prepare personnel to manage PPI Project Management Office initiatives.

Under the restrictions imposed by COVID-19, PA-NPSP has expanded virtual engagements with DISCOs, MAP providers, NERC, and the National Power Training Institute of Nigeria. PA-NPSP has leveraged its experience in virtual program delivery by hosting workshops and capacity-building seminars through an online platform. On 25 March 2021, PA-NPSP held an online National Electricity Consumer Metering Policy Stakeholder Alignment Workshop with high participation and feedback.

Below are highlights of the program's top achievements against target interventions in FY21Q2. For supplemental information, see Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2), Appendix B: PA-NPSP Deliverable Trackers (FY21Q2), and Appendix C: PA-NPSP Technical Activity Tracker (FY21Q2).

TOP ACHIEVEMENTS AT A GLANCE

Developing the NECMP: In FY21Q2, PA-NPSP, in collaboration with the Federal Ministry of Power and FGN, convened a working group chaired by the Director of Distribution in the Federal Ministry of Power to develop the NECMP. PA-NPSP established a recurring Policy Working Group meeting to ensure the initiative progresses between meetings. In FY21Q2, the working group reviewed components of a concept note that details the initiative's objectives, scope of work, key tasks, schedule, deliverables, and working group composition. Using this framework, the working group developed a draft outline of the NECMP document.

On 25 March, PA-NPSP hosted the first NECMP Stakeholder Alignment Workshop that was chaired by the Honourable Minister of Power. The workshop included presentations by the Ministry of Power and key Nigerian energy sector stakeholders. Attendees reviewed the NECMP policy document and offered comments. More than 80 attendees represented various stakeholder groups. Stakeholder feedback is being considered and, when appropriate, incorporated into the document.



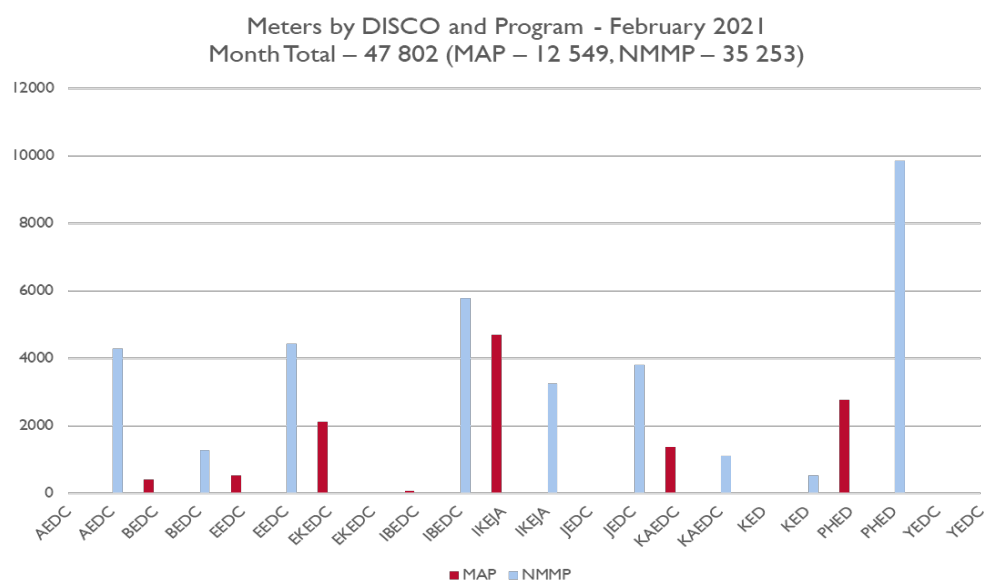
Advancing the NMMP: In FY21Q2, PA-NPSP made important strides toward bringing stakeholders together to coordinate the NMMP. PA-NPSP worked with the U.K.–Nigeria Infrastructure Advisory Facility to continue developing a concept note to address the NMMP’s Project Management Office’s structure, including key roles and governance. In addition, PA-NPSP held meetings with NERC to begin developing the Commercial Framework for DISCO capital expenditure and operating expense recovery for operating and maintaining meters. On 24 February 2021, NERC released the consultation paper on meter asset provider regulations. In March 2021, at NERC’s request, PA-NPSP provided feedback on the paper, specifically on the future of the MAP and NMMP programs.

Building DISCO Capacity in Project Management: From 3–5 February, PA-NPSP conducted a Meter Installation Audit and Customer Service Training for 139 Port Harcourt staff. PA-NPSP held the same training for 46 staff at Ikeja Electricity on 8 and 9 March. Training continues to flourish with additional training in the next quarter for Enugu, Port Harcourt, and Ikeja. The meter installation audit training will help DISCOs identify and correct improperly installed MAP meters and repair those that have been tampered with. PA-NPSP conducted a Project Management Fundamentals Training for 40 Project Managers at Enugu Electricity Distribution Company from 16 – 18 February. The course covered implementation of planned infrastructure projects and project management of meter installation initiatives.

Tracking Meter Installations through NERC’s Metering Dashboard: Throughout FY21Q2, PA-NPSP provided ongoing support to update and maintain NERC’s metering dashboard. With the launch of NMMP, PA-NPSP configured the dashboard to distinguish between meters installed under the MAP and NMMP programs. The dashboard has been able to incorporate this new metering program with limited redesign. The NMMP has provided a facility for DISCOs to buy meters. At the end of February 2021, Yola DISCO had installed 995 meters under NMMP and none under MAP.

Meter installations in Nigeria totaled 636,837 by the end of February. Installations for February 2021 by DISCO and the metering programs are shown in Figure 2 below, with Port Harcourt and Ibadan Electric Distribution Company leading. PA-NPSP is working with NERC, MAPs, and DISCOs to promote improved meter installations.

Figure 2: February 2021 Meter Installation by DISCO and Program



ADDITIONAL HIGHLIGHTS

Completing Port Harcourt Electricity Distribution PLC.'s Transformer Surveys and Assessments: PA-NPSP completed Port Harcourt's distribution transformer site survey and meter requirement assessment for two pilot feeders: the 33 KV Rumuodomaya and 33 KV TIB. PA-NPSP is currently developing meter specifications with Port Harcourt. These specifications will provide the information and data needed to develop a concept note to initiate the approval process for procurement of the distribution transformer meters and accessories.

As lockdowns ease across Nigeria, DISCOs are accelerating to normal operations. Port Harcourt's Loss Reduction Pilot Program has made consumer metering data available for the Energy Management Simulator software to analyze energy consumption by prepaid and postpaid customers. As part of the pilot program development, PA-NPSP developed a series of revised commercial procedures that will be implemented in the pilot area. The Port Harcourt project team reviewed the commercial procedures and has requested PHED management approval.

PROJECT MANAGEMENT

PROJECT MANAGEMENT

In coordination with Deloitte Home Office Management, PA-NPSP uses a central Project Management Office to deliver cross-cutting services:

- Partnerships, Alliances, and Coordination
- Communications and Outreach
- Gender and Social Inclusion
- Environmental Compliance and Social Impact
- Program Results Management

PARTNERSHIPS, ALLIANCES, AND COORDINATION

Supporting Power Africa and USAID/Nigeria: During FY21Q2, PA-NPSP worked closely with USAID/Nigeria and Power Africa to address program priorities and highlight power sector gains and leading practices based on in-country work. PA-NPSP provided comprehensive program updates in biweekly reports shared with USAID/Nigeria and the Power Africa Coordinator's Office. PA-NPSP supplemented these with responses to ad hoc requests for information and special reports to address high-priority questions from the Mission and Power Africa Coordinator's Office. The program responded to USAID/Nigeria and Power Africa ad hoc requests for information and other communications, including a comprehensive review of USAID power sector cables, a financial vignette highlighting PA-NPSP's support to raise private sector financing for REA's Energizing Economies Initiative for submission to USAID's Mobilizing Finance for Development Global Learning Series, and providing content and data for a high-level USAID/Nigeria overview video. PA-NPSP continues to participate in weekly leadership and technical meetings with USAID/Nigeria to keep the Mission informed.

Highlighting U.S. Nexus: PA-NPSP has supported 14 U.S. companies with a U.S. nexus for US\$3.5 billion in total project value in concluded and active deals to date. PA-NPSP continued its close cooperation with USG agencies, including U.S. International Development Finance Corporation, U.S.-EXIM, and USTDA. In particular, PA-NPSP worked with USTDA to identify potential gas sector opportunities and supported the agency with an initial review of a proposal submitted by Colorado-based Pioneer Energy, Inc.

Engaging with Power Africa and Other Program Partners: In FY21Q2, PA-NPSP met regularly with Power Africa partners to achieve program goals and launched new engagement with Power Africa partners JCM Power and United Bank of Africa. PA-NPSP continued engagement with key Power Africa development partners, including the African Development Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit, World Bank, and Sustainable Energy for All. In addition, PA-NPSP commenced

engagement with more than 10 new private sector partners during the reporting period, primarily related to program engagement with new stakeholders through the off-grid Investor Pitch Series.

Cooperating with Power Africa and USAID/Nigeria Implementing Partners and Communities of Practice: PA-NPSP continued to engage with Power Africa and USAID/Nigeria implementing partners, including participating in quarterly monitoring and evaluation roundtables and regular informal communications meetings with the Southern Africa Energy Program, West Africa Energy Program, and East Africa Energy Program to share leading practices and address questions and issues collectively.

PA-NPSP also took part in several meetings with the Power Africa Gender Champs, Women in African Power, USAID/Nigeria Communications Working Group, and USAID/Nigeria Monitoring, Evaluation and Learning Community of Practice.

PA-NPSP continued to cooperate with USAID/Nigeria implementing partners on Energy+ initiatives and worked with the African Development Bank, a Power Africa partner, USAID E-WASH, Ardova Plc, USAID's Integrated Healthcare Program to identify Energy+ business models for solar development. In addition, program leaders participated regularly in the Mission's Implementing Partner meetings.

Supporting Development Partner Coordination: On 14 January and 4 March, PA-NPSP provided secretariat support to the Power Sector Development Partners Group, chaired by USAID and African Development Bank. Members include Power Africa partners World Bank, the European Commission and Agence Française de Développement as well as Deutsche Gesellschaft für Internationale Zusammenarbeit and the Japan International Cooperation Agency.

PA-NPSP continued to provide support and coordination to key development partners, coordinating with All On and REA to host the quarterly Off-Grid Stakeholders Meeting on 24 March and hosting the NECMP Workshop with key sector stakeholders on 25 March.

COMMUNICATIONS AND OUTREACH

In FY21Q2, PA-NPSP provided cohesive communications support to promote PA-NPSP activities and Power Africa priorities in Nigeria.

Maintaining Up-to-date Guidance Documents and Providing Communications Expertise

PA-NPSP developed talking points for USAID and PA-NPSP representatives for several events, including the Quarterly Off-Grid Stakeholders Meeting, Investor Pitch Session and NECMP Stakeholder Workshop.

To enhance communications products and knowledge sharing, PA-NPSP participated in two meetings with the Power Africa communications team and the Southern Africa Energy Program and West Africa Energy Program communications teams. These meetings were an opportunity to review communications plans and share information on best practices, including how to procure high-quality project photography in a remote environment. Power Africa gave feedback on proposed communications products to help PA-NPSP prioritize which stories and products to develop in FY21.

PA-NPSP provided communications support and expertise to REA on developing two REA products to highlight 2020 accomplishments: 1) contracting a designer and providing feedback on a photobook, and 2) recording video remarks on behalf of USAID for inclusion in a year-in-review video.

Generating Program Communications

Managing Deliverables and Other Reports: In FY21Q2, PA-NPSP submitted to USAID/Nigeria ten contractual deliverables, including six biweekly updates, and six technical deliverables, including the Outcome 1 Contracting and Dispatch Gap Analysis, Outcome 2 Battery Storage Report, Outcome 3 EMD/SCADA and Communications in Nigeria report, and the Outcome 4 MAP Progress Report. See

Appendix B: PA-NPSP Deliverable Trackers (FY21Q2) for additional information on contractual and technical deliverable submissions and other significant reports.

Developing and Disseminating Creative Communications Products, Program Information, and Promotional Materials: PA-NPSP submitted to Power Africa and USAID/Nigeria social media posts promoting PA-NPSP's International Women's Day event, the Minister of Power's participation at the NECMP Stakeholder Workshop, the USTDA and Sosai grant signing, and the SHS handover event to Lagos State gender-based violence centers.



Planning and Managing Events

As detailed throughout this report, in FY21Q2, PA-NPSP successfully planned, supported, and participated in 28 events. PA-NPSP representatives participated in several high-level events including: 1) the USTDA and Sosai grant-signing event at the quarterly Off-Grid Stakeholders Meeting, 2) the NECMP Stakeholder Alignment Workshop with opening remarks from the Minister of Power, and 3) the Leveraging Networks for Leadership event, which featured a four-woman panel who spoke on the pivotal roles of women in leadership and practical tips to leverage networks to advance careers and attain leadership positions in the energy sector.

PA-NPSP also began preparations for Power Africa Partners Week, taking place virtually from 12-15 April 2021. This included developing a video introducing the program and coordinating video recording of key program partners and stakeholders to stream during the event.

Before key events, PA-NPSP helped create presentation materials, including talking points for USAID and PA-NPSP representatives and outreach to participating stakeholders. After events, PA-NPSP develops content for publication through USAID and Power Africa's social media channels.

See Appendix D: PA-NPSP Event Tracker (FY21Q2) for additional event information.

GENDER AND SOCIAL INCLUSION

The goal of the PA-NPSP Gender and Social Inclusion Action Plan is to implement gender-sensitive interventions and support policies and activities to improve equitable inclusion in the energy sector. It has the following objectives: 1) Maximize opportunities to include women in decision-making and leadership roles; 2) Facilitate adoption of sound policies and leading practices to promote gender equity in the workplace in public and private energy institutions; 3) Develop a significant pipeline of women with relevant technical and professional skills to meet sector labor demands; and 4) Advance women-owned businesses and women entrepreneurs. To achieve these and other objectives, PA-NPSP implements a two-track approach to gender mainstreaming, integrating gender and diversity across technical areas and directly implementing signature initiatives.

Providing Expertise and Engaging Communities of Practice

Briefing Stakeholders: On 4 February, USAID and PA-NPSP met with Dr. Nkiru Balonwu, an activist and entrepreneur based in Lagos, giving her an overview of power sector issues and improvements, including gender and social inclusion, in support of her upcoming service as the first woman on the TCN Board of Directors. Dr. Balonwu is the founder and chair of African Women on Board and founder and managing partner of RDF Strategies, a consulting firm that provides advice on stakeholder engagement.

She is a recent recipient of the Powerlist UK International Award. In FY21Q3, PA-NPSP and Dr. Balonwu will meet for a comprehensive discussion on gender and social inclusion in the power sector.

On 8 February, USAID and PA-NPSP gave a similar briefing to representatives of Global Affairs Canada, introducing power sector issues and improvements. The presentation highlighted alignment of the PA-NPSP Gender and Social Inclusion Action Plan and program interventions with key areas of Canada's Feminist International Assistance Policy, including gender equality and the empowerment of women and girls, support for human dignity, growth that works for everyone, and environment and climate change.

Collaborating with Engendering Utilities: On 26 March, PA-NPSP met virtually with Power Africa's Gender Advisor and USAID's Engendering Utilities Program to continue discussion on areas of synergy, building on FY20 cooperation. The PA-NPSP Energy Sector Women's Leadership Initiative and the Engendering Utilities Workforce Gender Accelerated Course offer mutually reinforcing opportunities to strengthen gender equality, diversity, and inclusion in the workplace. During the upcoming reporting period, PA-NPSP will provide Engendering Utilities with information on engagement to date with government, private sector, and civil society stakeholders and on upcoming executive seminars for senior women in the sector to maximize participation by Engendering Utilities Abuja, Eko, and Ibadan DISCO partners.

Contributing to Development of the National Action Plan on Gender Mainstreaming in Energy Access: On 26 January, PA-NPSP participated in a meeting with a consultant hired by the Ministry of Power to develop a National Action Plan on Gender Mainstreaming in Energy Access. PA-NPSP provided valuable input and lessons learned based on its experience developing the Gender and Social Inclusion study. PA-NPSP also shared relevant resources the consultant will use in research. PA-NPSP continues to support the consultant.

Engaging with Renewable Energy Technology Training Institute (RETTI): On 9 March, PA-NPSP met with the chief executive officer of RETTI to discuss areas of collaboration. Introduced to PA-NPSP by USAID Power Africa, the institute aims to empower Nigerians to design, install, troubleshoot, and develop renewable energy technologies to meet Nigeria's energy demands and promote the industrial application of renewable energy. The institute equips participants with practical knowledge on how to develop a sustainable renewable energy product that will meet local demands and supports professional skill development of those working in the sector. PA-NPSP is following up with RETTI on off-grid opportunities and will invite eligible RETTI graduates to participate in the Aspire course.

Delivering Signature Initiatives

Rebranding and Expanding the Women's Leadership Initiative: In FY21Q2, PA-NPSP rebranded and expanded the Professional Skills Development Course to the PA-NPSP Energy Sector Women's Leadership Initiative. Under this umbrella initiative, PA-NPSP offers the Aspire: Women's Energy Leadership Development Course for junior and mid-level women in the sector, the Women in Management Executive Seminar for senior sector women, and special events and training for all women in the sector, including alumni networking opportunities. PA-NPSP held five new classes of the Aspire: Women's Leadership Development Course, with 154 registered participants completing it successfully (126 on-time graduates, 28 catch-up graduates). The graduates represented 25 energy sector institutions, including utilities, civil society organizations, non-governmental organizations, government agencies, and private sector companies. One of the courses featured successful question-and-answer sessions with Bestman Uwadia, the head of Afrinergia Energy, Narlene Egu, the Power Africa Energy Advisor /Team Lead for the USAID/Nigeria Office of Economic Growth and Environment, and Adedotun Eyinade, Program Manager of the Nigerian Off-grid Market Acceleration Program.

Celebrating International Women's Day through the Leveraging Networks for Leadership Event: On 4 March, PA-NPSP hosted Leveraging Networks for Leadership to commemorate International Women's Day, with more than 110 participants from the sector. Narlene Egu, Power Africa Energy

Advisor for the USAID/Nigeria Office of Economic Growth and Environment, gave opening remarks, followed by a panel discussion with four leading women in Nigeria's power sector: Funmi Ogbue, President of the Women in Energy Network; Hansatu Adegbite, Executive Director of Women in Management, Business, and Public Service; Fabia Ogunmekan, Executive Secretary of Women in Successful Careers; and Hafsat Abiola, President of Women in Africa Initiative.

Following the event, Power Africa and USAID/Nigeria published social media posts highlighting practical tips women can use in their careers. View the posts through the following links: [USAID/Nigeria Facebook](#), [Power Africa Twitter](#), [Power Africa Instagram](#), and [Power Africa LinkedIn](#).

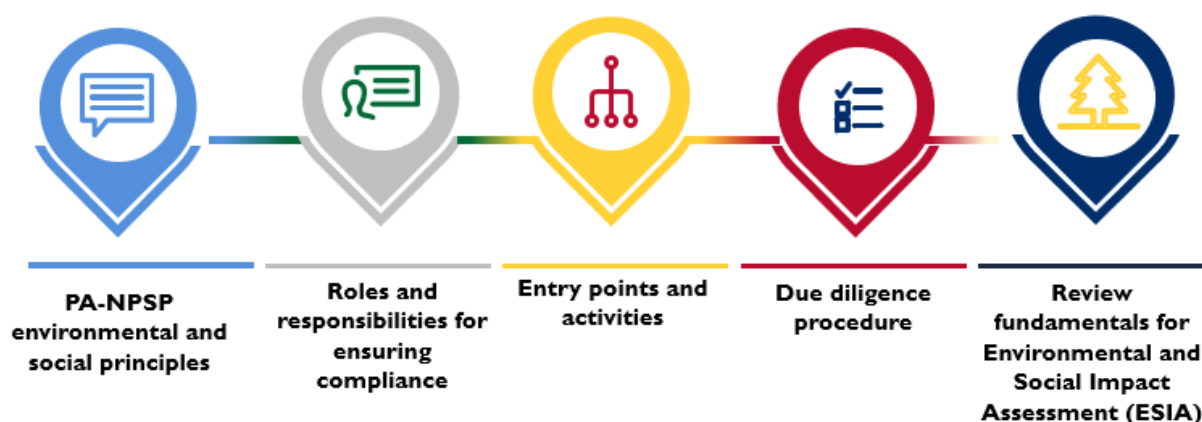


ENVIRONMENTAL COMPLIANCE AND SOCIAL IMPACT

PA-NPSP strengthened the program's technical resources to implement USAID and Power Africa environmental and social impact requirements and leading practices. It also assessed alignment with climate objectives. Newly mobilized resources include the program's Outcome I lead (Gas Supply and On-Grid Generation), a Nigerian environmental consultant with international expertise, and an expatriate Environmental Compliance Analyst based in the program's home office.

PA-NPSP also initiated design of staff training on environmental and social compliance, covering USAID Regulation 216 and tailored to the program's Supplemental Initial Environmental Examination and Environmental Mitigation and Monitoring Plan and to Nigeria's energy sector. In FY21Q3, PA-NPSP will train staff and assess partner training.

Figure 3: Overview of PA-NPSP's Environmental and Social (E&S) Compliance Objectives



PA-NPSP developed a high-level overview of the effects of climate change in Nigeria, information on Nigeria's Intended Nationally Determined Contribution, and key documents and resources that outline Nigeria's plan to counter the effects of climate change while progressing toward development goals. The program also analyzed Nigeria's [National Action Plan on Gender and Climate Change](#), released in March 2021 by the Ministry of Environment and the Women's Environmental Programme. The review will inform PA-NPSP's approach to any USAID and Power Africa climate risk mitigation requirements as well as training and guidance materials on the relationship between energy, gender, and climate change. PA-NPSP

anticipates that its research on social inclusion and diversity in Nigeria's power sector can help inform Nigeria's gender analysis of the Nationally Determined Contribution priority sectors, supported by the United Nations Development Programme.

Also, during the quarter, PA-NPSP consulted with Power Africa and implementing partners on use of the Clean Energy Emission Reduction Tool and using it to calculate the reduction of greenhouse gas emissions based on PA-NPSP interventions.

PROGRAM RESULTS MANAGEMENT

PA-NPSP manages the program's performance monitoring, evaluation, learning, and knowledge management activities and provides the client, staff, and stakeholders with results management information and assistance.

Monitoring, Evaluation, and Learning

Routine Data Management: In FY21Q2, PA-NPSP completed performance data collection and analysis covering 1 December 2020 through 31 March 2021 for the FY21Q2 report. The data call captured December 2020 data that was not included in the FY21Q1 report due to the holiday period. See Appendix A: PA-NPSP Performance Indicator Tracker (FY21Q2) for more information.

Updating the Monitoring, Evaluation, and Learning Plan: On 15 February 2021, PA-NPSP submitted the program's updated Monitoring, Evaluation, and Learning Plan to USAID, including revised targets for FY21–FY23. The update takes into account Power Africa and USAID Nigeria guidance, changes in Nigeria, and program developments.

Collaborating, Learning, and Adapting: PA-NPSP participated in USAID's FY21Q2 Monitoring, Evaluation and Learning Community of Practice meeting and quarterly roundtables and discussion with Power Africa implementing partners. Some of the issues discussed and resolved include using the Clean Energy Emission Reduction Tool to calculate greenhouse gas emissions reduction, acceptable source documentation proxies for transactions that reached financial close and the best approach to determine the exchange rate (for the USD equivalence) for deals transacted in the local currency. PA-NPSP also met with the Power Africa Monitoring, Evaluation and Learning team to resolve grey areas in tracking and reporting some indicators. The group decided that Power Africa will implement a broader approach involving all implementing partners to resolve all indicator-related issues and challenges.

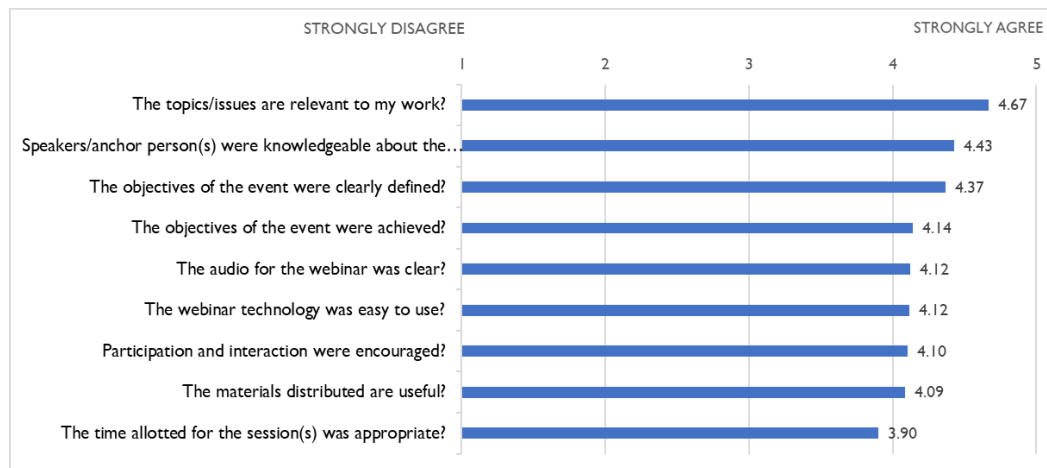
Knowledge Management

PA-NPSP Results Dashboard: In FY21Q2, PA-NPSP conducted additional internal demonstrations of the program's data dashboard for program leadership and staff. The feedback was used to further enhance the tool's capacity to capture and present information in user-friendly formats, sharing progress and supporting evidence-based decision making.

Online Reporting Systems and Repositories: PA-NPSP uploaded FY21Q1 performance, transaction, and training data to USAID and Power Africa online systems, including USAID Monitor, USAID TEAMS, and the Power Africa Information System, and uploaded FY21Q1 as well as FY21Q2 data to the Power Africa Transaction Tracker. The program also coordinated with USAID and Power Africa to update authorized users for the platforms. During this process, USAID informed PA-NPSP that in December 2020 the USAID Automated Directives System Chapter 253 requirement to enter participant training data into TEAMS was rescinded and is now optional. PA-NPSP has continued to upload data and will reassess in FY21Q3 in consultation with the Mission. Also, the program regularly tracks deliverable submissions to USAID and uploads approved deliverables to the USAID Development Experience Clearinghouse. See Appendix B: PA-NPSP Deliverable Trackers (FY21Q2) for an overview of FY21Q2 deliverables.

Evaluating Events: The program regularly conducts post-training/event participant evaluations to gain insight into the usefulness of the training topic and content, and to inform future capacity-building activities. During FY21 Q2, PA-NPSP evaluated six events, with results summarized below.

Figure 4: Summary of Participant Feedback on FY21 Q2 Events



FINANCE & OPERATIONS

FINANCE AND OPERATIONS

In coordination with Deloitte Home Office Management, PA-NPSP utilizes a central Finance and Operations Office in Abuja to provide the program's financial and operational services. The Finance and Operations Office continued to provide and facilitate virtual activities for staff in several countries.

OPERATIONS

In FY21Q2, the Finance and Operations Office continued to provide critical support to PA-NPSP financial and operational services.

Funding Management: After receiving incremental funding in FY21Q1, PA-NPSP issued a new subcontract and new task orders to existing subcontractors. PA-NPSP also ramped-up local procurements delayed in FY21Q2.

Reopening the Project Office: Although most project staff continue to telework, the office coordinated the return of 30 percent of the staff to the PA-NPSP field office owing to effective COVID-19 health and safety measures. The Finance and Operations Office also facilitated in-person participation in significant events such as the Lagos Economic Summit and Power Briefing with the U.S. Ambassador and key government partners.

Host Country Contribution Report: At the request of USAID/Nigeria, PA-NPSP started to collect data for the Host Country Contribution Report that will be submitted in early Q3.

PROJECT STAFFING

PA-NPSP onboarded a local senior advisor to support the PPI, an advisor to support environmental and social impact activities, and two advisors to support the Solar Power Naija program. From the home office, PA-NPSP also onboarded a new project coordinator, copy editor, environmental consultant, and a strategy consultant to support the NDPHC. See Appendix E: PA-NPSP Organigram (FY21Q2) for details on the program's organizational structure.

SUBCONTRACTORS

During the reporting period, PA-NPSP continued to engage the following subcontractors through modification of existing task orders:

- CrossBoundary
- Manitoba Hydro International
- Arete Protean Global Services Limited

During the reporting period, PA-NPSP issued a new contract to the following subcontractor:

- Kimberly Ryan

APPENDICES

APPENDICES

APPENDIX A: PA-NPSP PERFORMANCE INDICATOR TRACKER (FY21Q2)

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
1	Number of new grid and off-grid anticipated direct connections at financial close [PA #2]	- Self-reported data from REA and developers - Signed confirmation from utilities supported	Number	Off-grid (Solar Mini-grids) 60,403 Off-grid Hydro Mini-grids: 0 Off-grid SHS: 91,723 On-grid: 71,588	0	700,000	478,824	224,016 ⁸	68%	1,250,585 ⁹
2	Number of new grid and	- Self-reported	Number	Off-grid (Solar Mini-grids): 67,733	774,601	500,000	221,176 ¹⁰		95%	1,250,585

⁸ Indicator 1: PA-NPSP tracks and reports the difference between the anticipated total connections and the actual connections in each quarter.

⁹ Cumulative actual connections (FY18/19 to date).

¹⁰ Indicator 2: As a result of an internal review process, the program discovered that it over-reported the FY21Q1 on-grid (MAP) connection. This reporting error has been corrected, and the number (221,176) represents the actual on and off-grid connections achieved in FY21Q1.

No.	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	off-grid actual direct connections due to USG assistance [PA #3]	data from REA and developers - confirmation from utilities supported.		Off-grid Hydro Mini-grids: 0				255,110 ¹¹		
				Off-grid SHS: 105,211						
				On-grid: 82,166						
3	Number of grid connections with improved access to reliable power at financial close	Program records from REA	Number € €	Solar Mini-grids: 4,423 Hydro Mini-grids: 0 SHS: 0	1,039	10,000	0	4,423 ¹²	44%	5,462
4	Number of MW from transactions that have NOT YET achieved	Power Africa Transaction Tracker (PATT) Publicly	MW	On-grid Natural Gas: 141 MW On-grid Renewables: 1,318 MW	3,339MW	3,014 MW	728 MW	1,459MW ¹³	64%	5,039 MW ¹⁴

¹¹ The REA projects (supported by PA-NPSP) account for 163,000 of these new connections. These projects are targeted at improving electricity access for the unserved and underserved mostly in the rural and semi-urban areas of Nigeria.

¹² Indicator 3: Connections from the Energizing Economies Initiative (EEI) program, supported by PA-NPSP. The target was set in expectation of EEI implementation. However, this program is not going forward. This has consequently affected the achievement of the target.

¹³ Indicator 4: Natural gas projects: 141 MW; On-grid renewable projects: 1,318 MW, Off-grid: 0.08 MW.

¹⁴ The cumulative total is the combined sub totals of transactions for OC1 and OC2. Because some on-grid transactions may be carried over from one quarter/year to the next until they reach financial close, the on-grid total represents the sum of MW associated with the active on-grid transactions/projects in the fiscal year that had not reached financial closure. Therefore, the cumulative total does not equal the sum of the overall quarterly actuals.

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	financial close [Custom]	reported data Self-reported data from developers		On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 0.08 MW						
5	MWs from transactions that have ACHIEVED financial closure [PA #8]	PATT Publicly reported data Self-reported data from developers	MW	On-grid Natural Gas: 0 On-grid Renewables: 0 On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 1.06MW	1,004MW	1,759 MW	0.00 MW	1.06 MW	0.1%	1,005MW
6	Generation Capacity Commissioned: Number of MWs that	PATT Publicly reported data Self-	MW	On-grid Natural Gas: 0 On-grid Renewable: 0	15MW	2MW	0.00MW	1.02MW ¹⁵	64%	16MW

¹⁵ In total, 14 off-grid projects, with a combined capacity of 1.02 MW, were commissioned by PA-NPSP partners in this quarter.

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	have been commissioned [PA #10]	reported data from developers		On-grid: 0 Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 1.02M W						
7	Number of transactions that have not yet achieved financial close (PA #7)	PATT	Number € € € € €	On-grid Natural Gas: 1 On-grid Renewable: 10 On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 2	29	16	5	13 ¹⁶	88%	37 ¹⁷
8	Number of transactions	PATT Self-	Number	On-grid Natural Gas: 0	38	12	1	23 ¹⁸	200%	62

¹⁶ Indicator 7: Natural gas projects: 1; On-grid renewable projects: 10; Off-grid: 2

¹⁷ The cumulative total is the combined subtotals of transactions for OCI and OC2, which are calculated differently. Because some on-grid transactions may be carried over from one quarter/year to the next until they reach financial close, the on-grid total represents the sum of the active on-grid transactions/projects in the fiscal year that had not reached financial closure. Therefore, the cumulative total does not equal the sum of the overall quarterly actuals.

¹⁸ These off-grid transactions (16 mini-grids and 7 SHS projects) include the USADF/All On grants (for 9 off-grid companies), the Acumen \$500,000 deal with Winock Solar, the Sosai Renewable Energies Company grant from USTDA, and 12 projects under REA's REF and NEP programs.

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	that have ACHIEVED financial closure [PA #9]	reported data from developers		On-grid Renewable: 0 On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 23						
9	Number of transactions that have been commissioned [PA #11]	- PATT Self-reported data & signed confirmation memo from developers	Number	On-grid Natural Gas: 0 On-grid Renewable: 0 On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid: 16	14	4	0	14	350%	28

No.	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
10	Regional Electricity Trade: New electricity capacity committed for regional trade through bilateral agreements	TCN / System Operator Signed TA Memo from relevant institution	MW	By Country 0 MW	0MW	300MW	0MW	0 MW ¹⁹	0%	0MW
11	Grid evacuation capacity (MW) of the transmission system	TCN / System Operator Signed TA Memo from relevant institution	MW	Power lines installed/ upgraded: 0 MW	539MW	500MW	123MW	0 MW	25%	662MW ²⁰
				Substations installed/ upgraded: 0 MW						
12	Kilometers of Power Lines Constructed or Rehabilitated	TCN / System Operator	KM	Transmission: 0 KM Distribution: 0 KM	0 KM	0 KM	0 KM	0 KM ²¹	-	0 KM
13	Kilometers of Power Lines Reached Financial Close	TCN / System Operator	KM	Transmission: 0 KM Distribution: 0	0 KM	0 KM	0 KM	0 KM ²²	-	0 KM

¹⁹ Indicator 10: PA-NPSP has not yet begun implementing activities for this indicator.

²⁰ Please note that the program baseline is 7,000 MW. So, the total evacuation capacity has increased by 662 MW, moving the aggregate grid evacuation capacity to 7,662 MW.

²¹ Indicator 12: The baseline and targets are zero, as PA-NPSP has not yet begun implementing activities for this indicator.

²² Indicator 13: The baseline and targets are zero, as PA-NPSP has not yet begun implementing activities for this indicator.

No.	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
14	Aggregate Losses: Total technical and non-technical electricity losses / total electricity generated	Program records & confirmation memo from utilities Publicly available data from NERC	Percentage	Aggregate ATC&C Losses: 46.1%	43.3%	46%	45.7%	46.1% ²³	100%	46.1%
				Total Generation (MWh): 8,832,000						
15	Total public and private funds leveraged by USG for energy projects [PA #13]²⁴	PATT Self-reported data & signed confirmation memo from developers	USD	US Org: \$2,396,781 Non-US Org: 0 Public: \$1,896,781 Private: 500,000	598,721,667	530,500,000	35,000,000	2,396,781 ²⁵	7%	636,118,448
16	Amount of investment mobilized for energy projects due	PATT Self-reported data & signed	USD	On-grid Natural Gas: 0 On-grid Renewables: 0	1,148,032,714	2,563,000,000	35,000,000	2,396,781 ²⁷	1%	1,185,429,495

²³ Indicator 14: Due to the severe impact of the COVID-19 pandemic, in particular between April and September 2020, the ATC&C loss (moving average) keeps increasing and is at 46.1% as at September 2020. PLEASE NOTE: Reporting on this indicator is retrospective (delayed by 6 months) because data publication by the relevant public institutions is often delayed.

²⁴ Indicator 15: Refers to amount of public and private dollars that have been directly supported or facilitated by the program.

²⁵ The amount includes: (1) The USADF/All On deal for nine off-grid companies, each of which is \$100,000 in blended finance (\$50,000 in the form of convertible debt, \$50,000 of grant capital); (2) The Acumen deal with Winock Solar, announced on 14 January 2021 and facilitated by PA-NPSP, which previously supported the due diligence process for the proposed tranching investment; (3) the USTDA grant of \$996,781 to Nigeria's Sosai Renewable Energies Company for a feasibility study to connect more than 200,000 women, farmers, and rural citizens to a planned 100 solar-powered mini-grids in Kaduna, Kogi, and Plateau states.

²⁷ See footnote #18, above.

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	to USG assistance [PA #14] ²⁶	Confirmation memo from developers		On-grid Hybrid: 0 On-grid Transmission: 0 On-grid Distribution: 0 Off-grid Mini-grids: \$1,296,781 Off-grid SHS: \$1,100,000						
17	Distribution company payments to NBET and MO improved [USAID Nigeria-DOI-13]	Program records & confirmation memo from utilities	Nigerian Naira	Abuja DISCO: ₦22.5 B Benin DISCO: ₦15.3 B Eko DISCO: ₦25.6 B Enugu DISCO: ₦13.6 B Ibadan DISCO: ₦23.6 B Ikeja DISCO: ₦32.2 B Jos DISCO: ₦5.0 B Kaduna DISCO: ₦8.2 B	₦253 B	₦9,65 B	-	₦163 B ²⁸	2185%	₦ 253 B

²⁶ Indicator 16: The total cost of power project transactions that reach financial close, enabled by program assistance. Finance may be mobilized from the public sector or private sector.

²⁸ Indicator 17: These data represent DISCO payments for 2 quarters – N63.3B in Apr-Jun 2020 and N100B in Jul-Sept 2020 (representing 58% increase in remittances between the 2 quarters). The sector has witnessed a steady rise in the remittances of DISCOs to both NBET and the Market Operators (MO). Specifically, while the remittance to the MOs has risen close to 100% of the invoice value, remittances to NBET has also risen appreciably from as low as 23% (Jul-Sept 2019) to 35% (of the invoice value) in the same quarter of 2020. PLEASE NOTE: Reporting on this indicator is retrospective (delayed by 6 months) because data publication by the relevant public institutions is often delayed.

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
				Kano DISCO: ₦7.8 B PH DISCO: ₦7.5 B Yola DISCO: ₦2.1 B						
18	Utilization of risk mitigation tools by developers of Qualified Transactions [PA #17]	PATT and program records	Number	Types & frequency of use of Tools PRG: 0 PCOA: 0 PPA: 8 GCA: 4 SSA: 0 GSA: 1 GTA: 3 DUOS: 0 TUOS: 0 CA: 2 Technology: Gas: 1 Solar: 6 Hydro: 2 Transmission: 0	10	9	7	5	78%	10

No .	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
				Distribution: 0						
				Institution Type: Public: 0 Private: 8						
19	Number of laws, policies, regulations, or standards to enhance energy sector governance formally proposed, adopted, or implemented as supported by USG assistance [Power Africa - #23 & USAID Nigeria - EG.7.3-1]	Program records	Number	Proposed: 0 Adopted: 0 Implemented: 1	4	1	1	1 ²⁹	200%	6
20	Number of strategic planning documents adopted,	Program records	Number	Adopted: 8 Implemented: 1 Revised: 0	113	13	4	9	100%	126

²⁹ Indicator 19: PA-NPSP supported the preparation of a policy directive on the Service Based Tariff (SBT) Regime. The policy directive guides the implementation of the Service Based Tariff (SBT), following the position of the organized labor on the major tariff review of 2020.

No.	Indicator	Data Source	Unit of Measure	Disaggregation (FY21Q2)	Baseline (FY18/19 Actual)	FY21 Target	FY21Q1 Actual	FY21Q2 Actual	% Achieved (FY21)	Cumulative Total (through FY21Q2)
	implemented or revised [PA 2.0]			Institutions Supported: 20						
21	Number of people trained in technical energy fields due to USG assistance [Power Africa -#18 & USAID - EGE4.4.1-34]	Program records	Number	Gas/Generation: 0 Transmission: 0 Enabling Environment: 0 Distribution: 224 Off-grid: 13 Gender & Social Inclusion: 309 Men Trained: 187 (34%) Women Trained: 359 (66%)	1,961	330	317	546 ³⁰	262%	2,824
22	Number of companies serving the off-grid solar market due to USG assistance [Custom - NPSP]	Program records	Number	Mini-grid (Solar): 3 Mini-grid (Hydro): 0 SHS: 4 Others: 0	53	30	4	7	37%	64

³⁰ Indicator 21: This total includes 309 women working in Nigeria's energy sector, who were trained under the PA-NPSP Energy Sector Women's Leadership Initiative (ESWLI), in line with PA-NPSP's gender and social inclusion priorities. PLEASE NOTE: The ESWLI training results capture data from August 2020 through March 2021.

APPENDIX B: PA-NPSP DELIVERABLE TRACKERS (FY21Q2)

CONTRACTUAL DELIVERABLE SUBMITTALS

Deliverable Title	Due Date	Initial Submission	Final Submission	COR Accept	DEC Submission
Annual Work Plan (FY21)	1 Sep 20	1 Sep 20	15 Jan 21	12 Feb 21	Yes
Annual Report (FY20)	30 Oct 20	30 Oct 20	8 Jan 21	15 Jan 21	Yes
Quarterly Progress Report (FY21Q1)	15 Jan 21	15 Jan 21	24 Feb 21	26 Feb 21	Yes
ME&L Plan (Revised)	31 Dec 20	15 Feb 21			

TECHNICAL DELIVERABLE SUBMITTALS

Deliverable Number	Deliverable Title	Due Date	Initial Submission	Final Submission	COR Accept
Outcome 1 (Gas Supply/On-Grid Generation)					
FY20.1.07.A	Contracting and Dispatch Gap Analysis	30 Jun 20	21 Dec 20	16 Mar 21	19 Mar 21
Outcome 2 (Off-Grid)					
FY20.2.01.B	Energy Storage System (Battery Storage Report)	30 Mar 20	6 Aug 20		
FY20.2.01.F	Energy Access Database and Geospatial Tool Technical Concept Note	30 Jun 20	24 Jul 20	21 Jan 21	22 Jan 21
FY20.2.02.C	Off-Grid Financing Handbook	30 Sep 20	30 Sep 20		
FY20.2.03.A	Community Mini-Grid Program Manuals	30 Mar 20	29 Apr 20		
FY21.2.02.02	AfDB Component II Subsidy Design Final Report (Mini-Grid Productive Use Subsidy Manual)	30 Mar 21	19 Mar 21		
Outcome 3 (Transmission/Enabling Environment)					
FY20.3.04.B	EMS/SCADA Implementation and Recommendations Report (EMS/SCADA and Communications in Nigeria)	15 May 20	9 Sep 20	16 Mar 21	19 Mar 21
Outcome 4 (Distribution)					
FY20.4.01.A	Meter Availability Forecast, Installation Plan, and Schedule (MAP Progress Report and Meter Availability in Nigeria)	31 Mar 20	22 Oct 20	8 Mar 21	19 Mar 21

APPENDIX C: PA-NPSP TECHNICAL ACTIVITY TRACKER (FY21Q2)

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
Outcome 1 (Gas Supply/On-Grid Generation)					
Intervention 1.01: Support Nigeria Liquified Natural Gas Limited (NLNG) on development of Nigeria's gas and LNG potential (1)					
	FY21.1.01.01: Technical advisory support to NLNG Limited on development of Nigeria's gas and liquified natural gas potential	Thu 4/1/21	Not Started	Thu 9/30/21	
Intervention 1.02: Maintain an evolving transaction assistance plan to achieve PA-NPSP goals by identifying, segmenting, and prioritizing a pipeline of priority transactions for support (1)					
	FY21.1.02.01: Targeted transaction assistance	Thu 10/1/20	In Progress	Thu 9/30/21	This task is a multiyear initiative that involves support to developing generation projects. As projects require PA-NPSP support, PA-NPSP advisors will assist with advising on financial and transaction business documents related to the financial close.
Intervention 1.03: Provide technical and transaction assistance to FGN to support the privatization of Nigerian National Integrated Power Project (NIPP) generation companies (assets) to unlock 5,000 MW of capacity (2)					
	FY21.1.03.01: Advisory support to NDPHC and BPE on the privatization of the NIPP Generation Assets	Thu 10/1/20	On Hold	Thu 9/30/21	Support on this activity is on hold pending directive from NDPHC's shareholders to commence.
	FY21.1.03.02: Transaction support to NDPHC on bilateral transactions with eligible customers	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP commenced support to NDPHC on the development of a medium-term business strategy aimed at improving business operations and setting NDPHC on a pathway for financial sustainability.
Intervention 1.04: Provide advisory support to Bureau of Public Enterprises (BPE) on the privatization transaction of the 987 MW Afam Generation Company (1)					
	FY21.1.04.01: Transaction advisory support to FGN on privatization of Afam Generation Company	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP is providing post-financial close support to the FGN through BPE and Ministry of Power to progress the Afam power project to commercial operation.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
Intervention I.05: Provide transaction advisory support to IPPs (1)					
	FY21.I.05.01: Advisory support to select IPPs to facilitate project development and financial close	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP is providing transaction advisory support to progress on-grid independent power projects including the development of solar IPPs and the concession of hydroelectric projects.
Intervention I.06: Provide technical support to Nigerian Bulk Electricity Trading Company (NBET) in structuring Power Purchase Agreements (PPAs) for bankable commercial transactions (1)					
	FY21.I.06.01: Technical support to NBET in structuring contracts for bankable commercial transactions	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP supported NBET in developing a business strategy to provide a clear vision and an actionable strategic plan to execute NBET's existing and planned programming over the next ten years.
Intervention I.07: Provide transaction advisory support to Infrastructure Concession Regulatory Commission (ICRC) on implementation of power asset transactions (1)					
	FY21.I.07.01 Transaction advisory support to ICRC to progress power concession transactions	Thu 10/1/20	On Hold	Thu 9/30/21	This intervention is on hold pending a resolution of an ownership/leadership conflict between the Ministry of Power and the Ministry of Water Resources.
Intervention I.08: Capacity building support to public and private counterparts to improve sector corporate governance and project development (3)					
	FY21.I.08.01: Board of Director Training	Thu 10/1/20	Not Started	Thu 9/30/21	The Company Direction Course I & II are expected to be delivered in Q3 and Q4 2021.
	FY21.I.08.02: Structuring Power Generation Projects to Enhance Bankability	Thu 4/1/21	Not Started	Thu 9/30/21	
	FY21.I.08.03: Understanding Power Project Finance	Mon 11/2/20	In Progress	Thu 9/30/21	PA-NPSP continues to support the Power Africa Legal Fellows Program to deliver Project Finance trainings to lawyers and legal practitioners working in government power institutions in Nigeria. In FY21Q2, PA-NPSP hosted three training sessions for the Legal Fellows Program.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
Outcome 2 (Off-Grid Generation)					
Intervention 2.01: Enhance market transparency, information, and tools to attract and support stakeholders interested in the off-grid sector and guide their response to growing demands (3)					
	FY21.2.01.01: Develop data-sets to improve effectiveness of decision making in the sector	Fri 11/13/20	In Progress	Fri 4/9/21	PA-NPSP supported REA in hosting a Donor Coordination Roundtable on 30 March in support of the Energy Access Database and Geospatial Tool concept note that PA-NPSP developed FY20. Next steps will include a follow-up meeting with REA and donors to begin building out this coordinated data hub. PA-NPSP will act as a coordinator for this effort.
	FY21.2.01.02: Develop studies to enhance market knowledge in select areas	Mon 11/23/20	In Progress	Wed 6/30/21	In FY21 Q2, PA-NPSP finalized a concept note for a second productive use report for solar irrigation and cold storage. This report will incorporate support from the Clean Technology Hub and build on the widely shared <i>Productive Use Simulation: Agricultural Productive Uses for Mini-Grids</i> report.
	FY21.2.01.03: Develop tools for business decisions in the off-grid sector	Thu 10/1/20	Not Started	Thu 10/1/20	This activity is on hold until PA-NPSP receives further direction from REA regarding energizing agricultural programming.
Intervention 2.02: Unlock financing for deployment of off-grid solutions by streamlining and expanding access to innovative financing mechanisms and supporting transactions (3)					
	FY21.2.02.01: Support the development and implementation of replicable innovative financing structures for SHS companies and mini-grid projects/portfolios	Thu 10/15/20	In Progress	Thu 9/30/21	Through REA's Solar Power Naija program, PA-NPSP has successfully included project cash flows as collateral (revenue pledge account), that has been accepted by CBN. This is similar to the Energizing Economies Initiative where a similar concept was applied for raising debt from Sterling Bank. PA-NPSP will continue to monitor the progress and report when a transaction has been successfully executed. In addition, PA-NPSP began work with Nayo Technology and Chevron's PIND Foundation to assess viability of the application of the AssetCo/DevCo model outlined in the Innovative Financing Report. On 24 March, PA-NPSP received updated site information from the PIND Foundation team to incorporate into an AssetCo finance model. The data is currently under review by PA-NPSP.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					PA-NPSP continues to work with Nayo Tech and interested investors on structuring an AssetCo model for three of Nayo Tech's planned mini-grid projects for 2021. PA-NPSP is developing bespoke project finance models for each of Nayo Tech's three sites and will use the cashflows from each to inform an AssetCo structure. PA-NPSP has drafted preliminary content for this report based on activities to date under the Solar Power Naija program (receivables financing) and will be incorporating work on the AssetCo structure for the final draft due by 30 June.
	FY21.2.02.02: Support the development and implementation of replicable innovative business models for SHS companies and mini-grid projects/portfolios	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP is providing follow-on strategic advice to Ardova PLC to develop innovative business models to integrate renewable energy into their operations. PA-NPSP continued to work with USAID Integrated Health Program to establish a coordinated effort focused on expanding electricity access at primary healthcare centers. In addition, PA-NPSP continues to support REA with the design and initial roll out of the AfDB NEP Component II Productive Use Subsidy program. PA-NPSP provided support for a subsidy design that measures gender mainstreaming, scalability, and vulnerability for Phase I to allocate full and partial subsidies. PA-NPSP also presented subsidy levels for each of the mini-grid sites based on the subsidy design to REA's Managing Director for approval. PA-NPSP is currently working with the REA Project Management Unit to finalize a monitoring and evaluation plan for Phase I which is expected to launch in FY21 Q3.
	FY21.2.02.03: Provide strategic advisory support to developers	Mon 10/5/20	In Progress	Wed 9/29/21	In FY21, PA-NPSP delivered two webinars as part of the Quarterly Investor Pitch Series. Each series kicks off with a fundamental session on the Off-Grid Financing Report and PA-NPSP tools and resources for mini-grid developers and SHS companies. The webinar for mini-grid developers was held on 18 November 2020. The webinar for SHS companies was held on 26 January 2021.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
Intervention 2.03: Develop capacity across the off-grid marketplace (4)					
	FY21.2.03.01: Support the REA in the roll-out of large-scale programs	Mon 11/30/20	In Progress	Fri 7/30/21	PA-NPSP is supporting REA in implementing strategic initiatives, including developing a gap analysis of REA's Rural Electrification Strategy and Implementation Plan and determining how REA can shape this policy document to empower its off-grid approach. PA-NPSP has also finalized discussions with REA's Gender Programme to support key areas such as STEM skills development, mentorship programs, and supporting women community coordinators.
	FY21.2.03.02: Support to SHS marketplace	Wed 9/29/21	In Progress	Wed 9/29/21	PA-NPSP continued to provide support to the SHS marketplace. In FY21 Q2, PA-NPSP provided gender mainstreaming support to Oolu Solar. PA-NPSP and Oolu have discussed potential areas of support, including having PA-NPSP review its gender policy and strategy to identify existing gaps. This support will continue through Q3.
	FY21.2.03.03: Support to mini-grid marketplace	Wed 9/29/21	In Progress	Wed 9/29/21	PA-NPSP continued to provide support to the mini-grid marketplace through advisory services to Darway Coast, A4&T, Privida, Azuri, GVE, and Emel Solar, among other off-grid mini-grid developers.
	FY21.2.03.04: Provide cross-sector support to the off-grid value chain	Thu 10/1/20	In Progress	Wed 9/29/21	PA-NPSP continued to hold cross-cutting off-grid activities, including the quarterly Off-Grid Stakeholders Meeting.
Outcome 3 (Enabling Environment/Transmission)					
Intervention 3.01: (Cross-Sectoral Initiative): Support transformational energy initiatives (Presidential Power Initiative, Lagos State Integrated Energy Resource Plan) (2)					
	FY21.3.01.01: Provide advisory support to Phase I Presidential Power Initiative	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to support Phase I of the PPI. Project Management Office operations are currently kicking off.
	FY21.3.01.02: Support development of an IRP roadmap for the Lagos State Government	Fri 12/4/20	In Progress	Fri 5/14/21	In FY21 Q2, PA-NPSP submitted the Demand-side Management and Energy Efficiency Report for review and clearance by the Lagos State Commissioner. The report details an analysis of demand-side management, energy efficiency potential and policies, distributed energy resources, and a practical review of

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					conservation programs. PA-NPSP is also drafting the Generation Planning Report that includes a least cost generation development plan for Lagos State. The report will present the generation plant additions and retirement schedules prepared according to the predicted load demand growth over the next 20 years.
Intervention 3.02: (Cross-Sectoral Initiative): Support Nigeria Electricity Supply Industry leadership (Office of President, Ministry of Power, Ministry of Finance, Central Bank of Nigeria) (4)					
	FY21.3.02.01: Provide advisory support to the Ministry of Finance	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP's technical advisor continues to serve as the Special Assistant for Energy to the Minister of Finance.
	FY21.3.02.02: Provide project management and technical support to CBN	Thu 10/1/20	Completed	Wed 6/30/21	A request from CBN for additional support is currently under consideration by PA-NPSP.
	FY21.3.02.03 Support the Office of the Vice President and broader stakeholders to determine optimal merit order based on current plant economics	Thu 10/1/20	In Progress	Thu 9/30/21	Due to travel restrictions, the finalization of this model is on hold and will be completed when the advisor can travel to Nigeria.
	FY21.3.02.04 Support the Ministry of Power in the development of a metering policy and a rollout plan	Thu 10/1/20	In Progress	Wed 3/31/21	The Central Metering Policy being developed with support from PA-NPSP has gained traction and PA-NPSP has a defined scope of work, established a Meter Policy Working Group, and developed a concept note. The concept note was shared with the Ministry of Power and PA-NPSP's Technical Advisor collated internal stakeholder feedback to ensure alignment of the development process from the beginning with the Ministry taking ownership. On 25 March, PA-NPSP held a stakeholder alignment workshop to gather stakeholder input on the policy's development.
Intervention 3.03: Provide technical assistance to Nigerian Electricity Regulatory Commission (NERC) (2)					
	FY21.3.03.01: Senior Special Assistant to NERC Chairman	Thu 10/1/20	Completed	Thu 12/31/20	Following a leadership transition at NERC, PA-NPSP's embedded advisor is working with NERC to understand the priorities of the new Chairman and Commission. Once priorities are set, PA-

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					NPSP will work with the new Chairman to set the agenda and define a future scope of work at NERC.
	FY21.3.03.02: Support functional and technical requirements for the NERC Data Aggregation platform	Thu 10/1/20	In Progress	Thu 9/30/21	This work is supported by the World Bank and will continue once travel restrictions have been lifted.
Intervention 3.04: Provide technical assistance to Transmission Company of Nigeria (TCN) (2)					
	FY21.3.04.01: Provide advisory support to TCN Managing Director	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP's advisor is supporting TCN management on strategic and capacity building initiatives.
	FY21.3.04.02 Support TCN with PPI	Thu 10/1/20	In Progress	Thu 9/30/21	A TOR has been approved and PA-NPSP's advisor is working closely with TCN management to facilitate completion of critical transmission projects.
Outcome 4 (Distribution)					
Intervention 4.01: Support the Meter Asset Provider (MAP) program (6)					
	FY21.4.01.01 Accelerate meter installation by developing an overall meter sourcing strategy	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP, in collaboration with the Ministry of Power and Federal Government, established a Policy Working Group chaired by the Ministry of Power's Director of Distribution. PA-NPSP agreed to and developed a Policy Working Group recurring meeting with the Director and team to ensure the initiative progresses between Policy Working Group meetings. In FY21 Q2, the Working Group reviewed components of a concept note that provides details on the initiative's objectives, scope of work, key tasks, schedule, deliverables, and working group composition. Utilizing this framework, the Working Group developed the draft outline of the NECMP Document. On 25 March, the first NECMP Stakeholder Alignment Workshop was held and chaired by the Honorable Minister of Power. The workshop consisted of presentations by the Ministry of Power and key Nigerian energy sector industry stakeholders, a review of the NECMP Policy Document, and input and

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					comments from attendees on the policy document. The workshop was well attended with over 80 stakeholders. Stakeholder feedback is being considered and, where appropriate, will be incorporated into the policy document.
	FY21.4.01.02 Development of a MAP Performance Dashboard for NERC	Thu 10/1/20	In Progress	Thu 9/30/21	Throughout FY21Q2, PA-NPSP provided ongoing support to update and maintain NERC's MAP Performance Dashboard. With the launch of NMMP, the Dashboard has now been configured to distinguish between meters installed under the MAP and NMMP programs. Going forward, the dashboard will cater for any new programs without having to redesign the complete dashboard. Metering continues to progress and the NMMP has provided a facility for DISCOs to procure meters. For example, by the end of February 2021, Yola DISCO installed 995 meters under NMMP and none under MAP. Total meter installations in Nigeria at the end of February totaled 636,837. PA-NPSP is working closely with NERC, MAPs, and DISCOs to promote improved meter installations going forward.
	FY21.4.01.03 Support to DISCOs for Metering Strategy and Meter Deployment Plans	Thu 10/1/20	In Progress	Thu 9/30/21	In FY21Q2, PA-NPSP made important strides forward in bringing stakeholders together and coordinating the NMMP. PA-NPSP worked with the U.K. Nigeria Infrastructure Advisory Facility to continue the development of a concept note to address the NMMP's Project Management Office's structure, including key roles and governance. In addition, PA-NPSP held meetings with NERC to begin the development of the Commercial Framework for the capital expenditure and operating expense recovery by distribution companies for operating and maintaining meters. On 24 February, NERC released the consultation paper on meter asset provider regulations. In March 2021, at NERC's request, PA-NPSP provided feedback on the consultation paper, specifically on the future of the MAP and NMMP programs.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
	FY21.4.01.04 Support Project Managers for the MAP Program within DISCOS	Thu 10/1/20	Not Started	Thu 9/30/21	PA-NPSP conducted the Project Management Fundamentals Training for 40 Project Managers at Enugu Electricity Distribution Company from 16 – 18 February. The course will assist Project Managers with the implementation of planned infrastructure projects and the overall project management of meter installation initiatives.
	FY21.4.01.05 Support Meter Inspection at DISCOs	Thu 10/1/20	In Progress	Thu 9/30/21	From 3-5 February, PA-NPSP conducted the Meter Installation Audit and Customer Service Training for 139 Port Harcourt Electricity Distribution Company staff. Meter Installation Audit and Customer Service Training was held on 8 and 9 March for 46 staff at Ikeja Electricity. Training continues to flourish with additional training in the next quarter for Enugu, Port Harcourt, and Ikeja. The meter installation audit training will assist the DISCO with identifying and correcting MAP meter installations that were installed improperly and or have been tampered with
	FY21.4.01.06: Support meter installation training and certification review for MAP	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to work with the National Power Training Institute of Nigeria to reduce the meter installation course for experienced meter installers. In country presence is required to complete the course due to the hands-on experience required. PA-NPSP is developing a virtual course for all meter installers that can be given at the Training Institute that focuses on safety standards and best practices.
Intervention 4.02: Port Harcourt Electricity Distribution Company Pilot Loss Reduction Program (I)					
	FY21.4.02.01 PHED Pilot Loss Reduction Program	Thu 10/1/20	In Progress	Thu 9/30/21	During the reporting period, PA-NPSP completed Port Harcourt's distribution transformer site survey and meter requirement assessment for two pilot feeders: the 33 KV Rumuodomaya and 33 KV TIB. Meter specifications are being developed in conjunction with Port Harcourt. These specifications will provide the required information and data for developing a concept note to initiate the approval process for procurement of the distribution transformer meters and accessories. Additionally, with the ease of lockdowns across Nigeria, DISCOs are accelerating normal operations. The Port Harcourt Electricity Distribution Company Loss Reduction Pilot Program

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					has seen progress in terms of making consumer metering data available for the Energy Management Simulator software to analyze energy consumption by prepaid and postpaid customers. Port Harcourt also reviewed the commercial procedures developed by PA-NPSP and provided comments. After PA-NPSP addressed the comments, the procedures were sent back to Port Harcourt for approval to implement in the two pilot feeders.
Intervention 4.03: DISCO Coordination with the Presidential Power Initiative (I)					
	FY21.4.03.01 DISCO Coordination with PPI through PMO's at select DISCOS	Thu 10/1/20	In Progress	Thu 9/30/21	During FY21 Q2, PA-NPSP held an initial meeting with the PPI Project Management Office and DISCOs to provide an overview of the 114 DISCO-planned transmission and distribution projects.
Intervention 4.04: DISCO Assistance for Service Reflective Tariffs (I)					
	FY21.4.04.01 DISCO facing support for service reflective tariffs in tandem with Outcome 3	Thu 10/1/20	Not Started	Thu 9/30/21	
PMO (Project Management Office)					
Intervention PMO.01: Maintain strong, productive relationships with program stakeholders (I)					
	FY21.PMO.01.01 Track, analyze, and report on PA-NPSP partnerships, alliances, and coordination efforts across the program	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to maintain a list of partners and alliances to track coordination and support. This allowed PA-NPSP to quickly respond to Power Africa on African Voices to feature during Partners Week. Additionally, PA-NPSP continued to provide secretarial support to the Development Partner Working Group, co-chaired by USAID and AfDB, to coordinate planning in the energy sector.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
Intervention PMO.02: Provide cohesive support to promote PA-NPSP activities and deliver on the communication and outreach priorities of Power Africa within Nigeria (6)					
	FY21.PMO.02.01 Maintain up-to-date guidance documents and templates for PA-NPSP communications and outreach	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP held two separate meetings with the Power Africa communications and the Southern Africa Energy Program and West Africa Energy Program communications team. These meetings provided an opportunity to review communications plans and share information on best practices, including how to procure high quality project photography in a remote environment. To improve reporting practices, PA-NPSP revamped the program's reporting templates and developed a comprehensive overview document of standard reporting requirements. The improved templates will ensure that staff have the guidance and resources they need to produce cohesive, properly branded, and high-quality deliverables.
	FY21.PMO.02.02: Support PA-NPSP staff, counterparts, and partners with communications expertise and engage in relevant communities of practice	Thu 10/1/20	In Progress	Thu 9/30/21	During the reporting period, PA-NPSP developed talking points for USAID and program representatives for several events, including the Quarterly Off-Grid Stakeholders Meeting, Investor Pitch Session, NECMP Stakeholder Workshop, and PA-NPSP hosted meetings with the NERC Chairman. In FY21Q2, PA-NPSP also provided communications support and expertise to REA on the development of two REA products to highlight 2020 accomplishments: 1) contracting a designer and providing feedback on a photobook, and 2) recording video remarks on behalf of USAID for inclusion in a "year in review" video.
	FY21.PMO.02.03 Support development and submittal of contractual and technical deliverables	Thu 10/1/20	In Progress	Thu 9/30/21	In FY21Q2, the PA-NPSP PMO team continued to support the submission of contractual and technical deliverables to USAID/Nigeria, including six biweekly updates and technical reports. In addition, the program responded to USAID/Nigeria and Power Africa ad hoc requests for information and other communications, including a comprehensive review of USAID power sector cables, developing of a financial vignette highlighting PA-NPSP's support to raise private sector financing for REA's Energizing Economies Initiative for submission to MarketLinks, providing content and data for a high-level USAID/Nigeria overview video, and updating the USG Deal Team Tracker.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
	FY21.PMO.02.04: Develop and disseminate communications products	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to develop timely communications products to highlight significant achievements. This includes developing blogs, social media posts, and factsheets for public dissemination. During the reporting period, PA-NPSP submitted promotional content to USAID/Nigeria and Power Africa highlighting program updates on the OC2 Investor Pitch Series, the U.S. Ambassador's Power Dinner with key power sector stakeholders, and PA-NPSP's International Women's Day event titled Leveraging Networks for Leadership.
	FY21.PMO.02.05 Develop and disseminate PA-NPSP program information and promotional materials	Thu 10/1/20	In Progress	Thu 9/30/21	In preparation for Power Africa Partners Week, PA-NPSP updated and submitted program materials including a fact sheet and communications product overview. PA-NPSP also finalized standard materials to highlight and update quarterly indicator results and started the development of fact sheets for each technical area. These fact sheets will be used to provide partners and stakeholders specific technical area program information.
	FY21.PMO.02.06: Manage event planning and coordination	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to provide support to deliver virtual and in-person events. In FY21 Q2 PA-NPSP delivered 17 events including the Leveraging Networks for Leadership event in commemoration of International Women's Day.
Intervention PMO.03: Support energy sector policies and interventions aimed at equitable inclusion and ensure activities are gender-sensitive and inclusive (3)					
	FY21.PMO.03.01: Maintain up-to-date knowledge and resources on Power Africa, USAID/Nigeria, and other relevant gender and social inclusion strategies, policies, and guidance	Mon 1/4/21	In Progress	Fri 4/30/21	Provided WiAP with information on Nigerian networks for the Women in African Power Network and Resource Directory
	FY21.PMO.03.02: Support PA-NPSP staff, counterparts, and partners with gender and social inclusion expertise and engage in relevant communities of practice	Thu 10/1/20	In Progress	Wed 3/31/21	Contributed to 3 Power Africa Gender Champs meetings and provided a comprehensive update to the Power Africa gender tracker. Provided WiAP with information on Nigerian women in the energy sector as potential speakers for an upcoming Empowering Industry Podcast that will highlight stories of female professionals in male dominated fields to inspire and encourage

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					the next generation of leaders. Supported the development of a National Action Plan on Gender Mainstreaming in Energy Access through a meeting with the consultant leading the process in collaboration with the Ministry of Power. Held 3 monthly touchpoints with the 4 Outcome teams of the PA-NPSP Program on integrating gender and social inclusion into outcome areas.
	FY21.PMO.03.03: Manage gender and social inclusion signature activities	Thu 10/1/20	In Progress	Thu 10/1/20	In FY21Q2, PA-NPSP rebranded and expanded the Professional Skills Development Course to the PA-NPSP Energy Sector Women's Leadership Initiative. Under this initiative, held five new classes of the Aspire: Women's Leadership Development Course, with 154 registered participants completing it successfully (126 on-time graduates, 28 catch-up graduates). The graduates represented 25 energy sector institutions, including utilities, civil society organizations, non-governmental organizations, government agencies, and private sector companies. Also met virtually with 74 energy sector entities on a dialogue about the importance of professional skills development for women in the energy sector. Developed the dissemination plan for the social inclusion and diversity research, which is in final stages of preparation for publication.
Intervention PMO.04: Adhere to Power Africa environmental and social impact principles and requirements (4)					
	FY21.PMO.04.01: Review and update SIEE and EMMP	Thu 7/1/21	In Progress	Thu 9/30/21	PA-NPSP initiated design of staff training on environmental and social compliance, covering USAID Regulation 216 and tailored to the program's Supplemental Initial Environmental Examination and Environmental Mitigation and Monitoring Plan and to Nigeria's energy sector.
	FY21.PMO.04.02: Review transactions and activities for potential negative impacts, and undertake SIEE and PATRP IEE screening/compliance measures	Thu 10/1/20	In Progress	Thu 9/30/21	Mobilized resources, including the program's Outcome I lead (Gas Supply and On-Grid Generation), a Nigerian environmental consultant with international expertise, and an expatriate Environmental Compliance Analyst based in the program's home office. Developed a high-level overview of resources related to climate change in Nigeria, including Nigeria's National Action Plan on Gender and Climate Change . Consulted with Power Africa

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
					and implementing partners on use of the Clean Energy Emission Reduction Tool.
	FY21.PMO.04.03: Provide counterparts and project developers with technical assistance and training, and support developers to establish relevant monitoring and reporting frequency	Thu 10/1/20	In Progress	Thu 9/30/21	Initiated design of staff training on USAID Regulation 216 tailored to the program's work plan.
	FY21.PMO.04.05: Report regularly on environmental and social impact compliance and PATRP IEE conditions	Thu 10/1/20	In Progress	Thu 9/30/21	Quarterly reports regularly include status updates.
Intervention PMO.05: Support evidence-based program results management and a program-wide learning culture through participatory, responsive performance monitoring, evaluation, and knowledge management (7)					
	FY21.PMO.05.01.01 Manage and adapt the ME&L process, knowledge and resources to facilitate active engagement of stakeholders	Thu 10/1/20	In Progress	Tue 11/23/21	PA-NPSP continues to provide its key service of performance results management and analysis using various tools. PA-NPSP continues to collaborate with partners and technical teams to access qualitative performance data that will provide deeper insight into the impact of the program in Nigeria.
	FY21.PMO.05.01.02 Build collaboration around ME&L to support program and stakeholder learning	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP participated in USAID's FY21Q2 MEL Community of Practice meeting and continued regular monitoring, evaluation, and learning roundtables with Power Africa implementing partners to share knowledge, successes, and challenges. PA-NPSP continually provides support to the program leadership and technical teams on indicators and performance management.
	FY21.PMO.05.01.03 Manage data processes and data quality using stakeholders feedback loop	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP successfully revised and submitted the Monitoring, Evaluation, and Learning Plan, including FY21-FY23 revised targets to USAID/Nigeria on 10 February. PA-NPSP actively engaged in routine data quality assurance activities, including follow-up, verification, and compilation of relevant source documentation.

OC/ Int	Activity	Start Date	Work Status	End Date	Work Status Description
	FY21.PMO.05.02.01 Maintain up-to-date guidance resources and tools on knowledge management	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP regularly updates all performance tracking and reporting documents to enhance efficiency and quality of performance results data.
	FY21.PMO.05.02.02 Support PA-NPSP staff, counterparts, and partners with knowledge management expertise and engage in relevant communities of practice	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP supports program staff, counterparts, and partners with valuable resources to enhance performance improvement and alignment of program deliverables to the overarching goals of Power Africa. PA-NPSP conducted evaluations to gather participant feedback on PA-NPSP trainings. The results from the evaluations provided technical teams with valuable insights that helped inform the design and delivery of future capacity-building events.
	FY21.PMO.05.02.03 Manage visualization of data	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP's Monitoring, Evaluation, and Learning Dashboard is live and operational and continues to be improved as needed.
	FY21.PMO.05.02.04 Support performance data and document tracking, reporting, and archiving	Thu 10/1/20	In Progress	Thu 9/30/21	PA-NPSP continues to provide necessary support for this activity.

APPENDIX D: PA-NPSP EVENT TRACKER (FY21Q2)

EVENTS HOSTED BY PA-NPSP

#	Event Title	Host/Co Host	Activity	Date	Event Location
1	Investor Pitch Workshops	PA-NPSP	Workshop	26 January–22 March 2021	Virtual
2	Professional Skills Development Course Classes 11- 13	PA-NPSP	Course	1–12 February 2021	Virtual
3	Port Harcourt Meter Installation Audit and Customer Service Batch 1	PA-NPSP	Training	3 February 2021	Virtual
4	Port Harcourt Meter Installation Audit and Customer Service Batch 2	PA-NPSP	Training	4 February 2021	Virtual
5	Port Harcourt Meter Installation Audit and Customer Service Batch 3	PA-NPSP	Training	5 February 2021	Virtual
6	Port Harcourt Meter Installation Audit and Customer Service Training - Batch 4	PA-NPSP	Training	8 February 2021	Virtual
7	Enugu Project Management Fundamentals Training I	PA-NPSP	Training	16 – 18 February 2021	Virtual
8	Power Africa Legal Fellows Program Training- Building and Analyzing Financial Models	Co-host (Cyrus R. Vance Center for International Justice)	Training	26 February	Virtual
9	Aspire: Women's Leadership Development Course Virtual (Classes 14 & 15)	PA-NPSP	Course	1 – 12 March 2021	Virtual
10	Energy Sector Women's Leadership Initiative Lunch and Learn Event: Leveraging Networks for Leadership	PA-NPSP	Networking Event	4 March 2021	Virtual
11	Power Lunch Event	Co-Host (U.S. Embassy)	Meeting	4 March 2021	Abuja
12	Ikeja Electric: Meter Audit and Customer Service Training Batch 1	PA-NPSP	Training	8 March 2021	Virtual
13	Ikeja Electric: Meter Audit and Customer Service Training Batch 2	PA-NPSP	Training	9 March 2021	Virtual
14	Ikeja Electric: Meter Audit and Customer Service Training Batch 3	PA-NPSP	Training	11 March 2021	Virtual

#	Event Title	Host/Co Host	Activity	Date	Event Location
15	Power Africa Legal Fellows Training – Overview of Project Finance Part 2	Co-Host (Cyrus R. Vance Center for International Justice)	Training	17 March 2021	Virtual
16	Off-Grid Stakeholders Meeting	PA-NPSP	Meeting	24 March 2021	Virtual
17	NECMP Stakeholder Alignment Workshop	PA-NPSP	Training	24 March 2021	Virtual
18	USTDA Grant Signing Ceremony	Co-Host (USTDA)	Signing Ceremony	24 March 2021	Virtual

EVENTS WITH PA-NPSP REPRESENTATION AND PARTICIPATION

#	Event Title	Host/Co Host	Activity	Date	Event Location
1	Afam Fast Power, (Special Status project)	Federal Ministry of Power	Meeting	7 January 2021	Virtual
2	Solar Home System Products Training	Federal Ministry of Power	Training	18–22 January 2021	Virtual
3	Afam Fast Power, (Special Status project)	Federal Ministry of Power	Meeting	27 January 2021	Virtual
4	5 Million Solar Homes Connections – Working Group Meeting	Federal Ministry of Power	Working Group Meeting	30 January–20 February 2021	Virtual
5	PSRP Technical Committee	Federal Ministry of Power	Meeting	3 February–3 March 2021	Virtual
6	Transmission/Distribution Interface Project (SLA Project)	Federal Ministry of Power	Meeting	12 February 2021	Virtual
7	Meeting with key stakeholders of 5 Million Solar Connections	Federal Ministry of Power	Working Group Meeting	15 February 2021	Virtual
8	Alternative Power Supply and Export Support for businesses in Anambra	Anambra State Government	Conference	25 February 2021	Virtual
9	Meeting on Transmission/Distribution Interface Project	Federal Ministry of Power	Meeting	4 March 2021	Virtual
10	PSRP Technical Committee Meeting	Federal Ministry of Power	Meeting	9–11 March 2021	Virtual

APPENDIX E: PA-NPSP ORGANIGRAM (FY21Q2)

PA-NPSP ORGANIGRAM

