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A U.S. GOVERNMENT-LED PARTNERSHIP

# Power Africa Monitoring, Evaluation and Learning Plan

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## Acronyms

| | |
|---|---|
| ADS | Automated Directive System |
| ALSF | African Legal Support Facility |
| AM | Activity Manager |
| AOR | Agreement Officer's Representative |
| BTG | Beyond the Grid |
| CE | Clean Energy |
| CCIR | Cross-cutting Intermediate result |
| CLDP | Commercial Legal Development Program |
| CLEER | Clean Energy Emission Reduction |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide-Equivalent |
| COD | Commercial Operations Date |
| COR | Contracting Officer's Representative |
| CP | Conditions Precedent |
| DD | Deputy Director |
| DER | Distributed Energy Resource |
| DFC | Development Finance Corporation |
| DO | Development Objective |
| DOC | Department of Commerce |
| DOE | Department of Energy |
| DPs | Development Partners |
| DQA | Data Quality Assessment |
| EAEP | East Africa Energy Program |
| EAGP | East Africa Geothermal Partnership |
| EPC | Engineering/Procurement/Construction |
| ESS | Energy Storage System |
| EX-IM | Export-Import Bank of the United States |
| FAA | Foreign Assistance Act |
| FC | Financial Close |
| FY | Fiscal Year |
| GHG | Greenhouse Gas |
| GLI | Gender Lens Investing |
| GOGLA | Global Off-Grid Solar Forum |
| GWP | Global Warming Potential |
| EAPP | East Africa Power Pool |
| IMs | Implementing Mechanisms |
| IPs | Implementing Partners |
| IPCC | Intergovernmental Panel on Climate Change |
| kV | Kilovolt |
| M&E | Monitoring & Evaluation |

| | |
|---|---|
| MAIFI | Momentary Average Interruption Frequency Index |
| MCC | Millennium Challenge Corporation |
| MEL | Monitoring Evaluation & Learning |
| MOU | Memorandum of Understanding |
| MWh | Megawatt-hour |
| MW | Megawatt |
| $N_2O$ | Nitrous Oxide |
| NARUC | National Association of Regulatory Utility Commissioners |
| NGO | Non-Governmental Organization |
| NPSP | Nigeria Power Sector Program |
| OPIC | Overseas Private Investment Corporation |
| OU | Operating Unit |
| PAAP | Powering African Agriculture Program |
| PAIS | Power Africa Information System |
| PAOP | Power Africa Off-Grid Program |
| PAPO | Power Africa Partnership Office |
| PA-SAG | Power Africa Senior Advisors Group |
| PATT | Power Africa Tracking Tool |
| PAYGO | Pay As You Go |
| PFAN | Private Financing Advisory Network |
| PIRS | Performance Indicators Reference Sheet |
| POC | Point of Contact |
| PPA | Power Purchase Agreement |
| PRO | Power Africa Program Office |
| PPR | Performance Plan and Report |
| PSP | Private Sector Partner |
| PV | Photovoltaic |
| QTAT | Qualified Transactions Assistance Tool |
| RM | Relationship Manager |
| SAEP | Southern Africa Energy Program |
| SAPP | Southern Africa Power Pool |
| SAG | Senior Advisors Group |
| SAIDI | System Average Interruption Duration Index |
| SAIFI | System Average Interruption Frequency Index |
| SEAM | Scaling Energy Access Markets in Africa |
| SEFA | Sustainable Energy Fund for Africa |
| SOP | Standard Operating Procedures |
| SSA | Sub-Saharan Africa |
| TA | Transaction Advisor |
| $tCO_2e$ | Tons of Carbon Dioxide-Equivalent |
| USADF | United States African Development Foundation |
| USAID | United States Agency for International Development |

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|---|---|
| USEA | United States Energy Association |
| USAS | Unlocking Southern Africa Solar |
| USG | United States Government |
| USTDA | United States Trade and Development Agency |
| WAEP | West Africa Energy Program |
| WAPP | West Africa Power Pool |
| WB | World Bank |
| WRI | World Resources Institute |

| **Definitions** | |
|---|---|
| Access | Business or household has use of electric power through a grid connection or an off-grid product or system |
| Amount Mobilized | Finance mobilized (or leveraged), enabled through USG and/or Power Africa partner assistance, for actions, activities, projects, or programs that avoid, reduce, or sequester GHGs from clean energy activities (See Indicator 3.2.1. for broader definition**)** |
| Clean Energy | Power generated from the following renewable resources: wind, tidal, solar, geothermal, hydro, biomass, biogas and green hydrogen |
| Commissioned | The state of an engineering project designed to increase electricity access having been installed and tested; with fully trained operations, maintenance, and management staff in place; viable and sustainable financial management plans in place; and deemed ready for service |
| Commissioning | The process of ensuring that systems are designed, installed, functionally tested, and capable of being operated (General Administration, State of Washington) |
| Conditions Precedent | An event which must occur, unless its non-occurrence is excused, before performance under a contract becomes due, i.e., before any contractual duty exists (Restatement (Second of the Law of Contracts 1981) |
| Connections | Actual direct connections reflect the actual number of new households, businesses, and public institutions that have access to electricity through on-grid and off-grid connections, through interventions provided by Power Africa. |
| Development Objective | The most ambitious result of an initiative, implemented through the U.S. Government (USG), for which the USG will be held accountable to demonstrate |

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| Development Partner | A bilateral or multilateral institution or technical agency with a mandate to pursue activities that support development objectives and partner with Power Africa |
| Financial Close | Achieved when each of the conditions precedent to the initial drawdown of funds under a credit agreement are either satisfied by the project company, as borrower, or waived by the project lender(s) ( Hoffman,1998)[1]<br>Implies the project company has concluded with project lenders a complete package of permanent financing on a nonrecourse or limited recourse basis, where permanent financing involves debt with a grace period equal to the construction period plus a repayment period of at least 10 years on reasonable terms and conditions. |
| Greenhouse Gas | A gas in the earth's atmosphere that contributes to the greenhouse effect by absorbing the sun's radiation and warming the atmosphere. The primary greenhouse gas responsible for anthropogenic climate. |
| Interagency partner | USG institution that partners with Power Africa |
| Investment leveraged | The term "leverage" is used by development agencies as the ability of a public financial commitment to mobilize a larger multiple of private capital for investment in a specific project or undertaking ( see 3.2.2) |
| Marginalized | Marginalized groups may include, but are certainly not limited to, women; youth; children in adversity and their families; older persons; persons with disabilities; LGBTQI+ people; displaced persons; migrants; Indigenous Peoples and communities; non-dominant religious, racial, and ethnic groups; people of castes traditionally considered lower; people of lower socioeconomic status; and people with unmet mental health needs.<br>USAID defines marginalized groups as people who are typically denied access to legal protection or social and economic participation and programs, whether in practice or in principle, for historical, cultural, political, and/or other contextual reasons. |
| Megawatt | A unit of power equal to one million watts; measure of the output of a power station. |
| Megawatt-Hour | A unit of energy, especially electrical energy, equal to the work done by one watt acting for one hour and equivalent to 3,600 joules. |
| Metro-grid | Larger type of mini-grid, typically in the megawatt scale, that serve a |

[1] Hoffman L. (1998) The Law and Business of International Project Finance. pp. 702

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|---|---|
| | densely populated urban area. |
| Mini-grid or Micro-grid | An off-grid system that involves small-scale electricity generation (typically ten kilowatts to one megawatt) that serves a limited number of consumers via a distribution grid that can operate in isolation from, or in conjunction with, national electricity transmission networks (The preferred term for Power Africa usage is mini-grid.) |
| Non-Power Africa Program | Power transactions in sub-Saharan Africa that are being tracked in the PATT system and which will need to be assessed to ensure they meet PA criteria (see ANNEX IV) to become a PA transaction. |
| Private sector partner | For Power Africa this refers to a business or institution working in the energy sector, owned by individuals and established for profit making |
| Qualified Transaction | "Qualified transaction" is any power project in sub-Saharan Africa that is eligible to receive Power Africa support based on the type of technology used. Qualified Transactions include both Power Africa transactions and non-Power Africa transactions for which there is sufficient information to be verified. To be considered a Qualified Transaction, an analysis must be performed to determine if the project meets Power Africa's criteria. For coal and nuclear power projects, the Technical Office will decide on whether or not to support the project (See ANNEX IV) |
| Transaction | A specific power generation, transmission, or distribution development activity. |
| Utility scale | In comparison to a mini-grid and metro-grid, an electrical plant operating in the hundreds of megawatt scale can serve multiple geographic areas, often requiring a transmission infrastructure. |
| | |

## Introduction

Power Africa is an innovative, private-sector-led initiative aimed at doubling electricity access in sub-Saharan Africa (SSA), where more than 570 million people currently lack access to electricity. In response, Power Africa seeks to increase Africa's generation capacity by 30,000 megawatts (MW) and increase electricity access by at least 60 million household and business connections through transaction support, capacity-building, enabling environment reform, and increased investments in off-grid and small-scale energy solutions by 2030. Power Africa's private-sector partners have also committed to investing more than $40 billion in power projects across the continent.

To meet these goals, Power Africa developed a strategic document known as the Power Africa Roadmap[2] to show how the United States Agency for International Development (USAID) and other U.S. Government (USG) agencies, in partnership with the private sector, donors, and host country governments, would increase access to electricity. In 2018, Power Africa revisited this roadmap and introduced a revised strategy known as Power Africa 2.0.[3]. While maintaining focus on supply and electrification, efforts to improve the enabling environment and encourage U.S. investment in the African energy sector have been elevated and given specific goals. This was the result of consultations with interagency and private-sector partners (PSPs) on where Power Africa could utilize its comparative advantage to have the greatest impact.

In 2022, Power Africa revised its development goal and objectives to refocus its efforts on ending energy poverty, accelerating a carbon-free future, and increasing investment and innovation in the energy sector. Power Africa-sponsored interventions will continue to strengthen African energy regulatory frameworks, empower African energy institutions, and encourage environmentally and socially responsible investment. Cumulatively, these efforts will support key results to advance sustainable development across SSA.

The Power Africa Monitoring, Evaluation, and Learning (MEL) Plan provides a strategic framework for Power Africa's performance management tasks which will assess progress towards its three development objectives: 1) ending energy poverty; 2) accelerating a carbon-free future; and 3) bolstering competitive private-sector investment and innovation in the energy sector. This document outlines a common approach to the collection and analysis of information on Power Africa's efforts to manage for results. This MEL Plan is forward looking and is applicable for new activity design and implementation. It does not apply retroactively to activities already under implementation.

The MEL Plan guides Power Africa's efforts to monitor and manage a core set of performance indicators that reflect appropriate targets, baselines, and data collection and analysis. This includes the following:

1. Revised Results Framework and associated narrative;
2. Performance monitoring plan, which includes indicators and their application;
3. Performance indicator reference sheets (PIRS), which provide further details and references on the components and applications of each indicator;
4. Data quality assessment (DQA) standards and procedures for maintaining data quality;
5. Evaluation plan to plan for and track activity performance evaluations; and

[2] Power Africa RoadMap (https://2012-2017.usaid.gov/powerafrica/roadmap)

[3] Power Africa 2.0 (https://drive.google.com/file/d/0Bw7QIIIswE4gZFdTR2o3SlFjRkRVRDdCYmN5NmxrZ0ltV0tr/view)

6. Collaborating, Learning and Adapting (CLA) Plan and Strategy for Power Africa's work, internally and externally.

The MEL Plan is intended to be a living document that provides the basis for continuous assessment and learning about Power Africa's progress achieved towards its intended results. This plan will be reviewed annually to ensure our MEL approaches and tasks are adapted effectively as needs evolve.

## Purpose

The Power Africa MEL Plan establishes the foundation for monitoring and evaluating the results of the initiative and presents approaches to learning that enable decision-makers to adapt program implementation based on knowledge and evidence. Performance monitoring of all project activities will be done in accordance with the USAID monitoring and evaluation policy outlined in Automated Directive System (ADS) 201. Monitoring and evaluation (M&E) activities provide evidence that informs decisions regarding program implementation and ensures effective and efficient use of resources.

## Objectives

The MEL Plan objectives include the following:

- Provide guidelines for data collection, management, and reporting to ensure that high-quality data is collected and reported by partners and managed and disseminated by USAID staff;
- Strengthen skills and capacity of Power Africa staff and partners for effective monitoring, reporting, and data management;
- Regularly track partner progress against targets;
- Standardize MEL methodologies and tools across Power Africa-sponsored project portfolio so that meaningful performance comparisons can be made over time; and
- Facilitate learning, knowledge management, and sharing of crucial lessons to inform current and future projects.

## Guiding Principles

The Power Africa MEL Plan sets a high bar in terms of quality, consistency, and useability of data collected, as well as subsequent learning activities. The plan is underpinned by four guiding principles:

**Data is reliable and high quality:** Quality data should meet five key data-quality standards: validity, reliability, precision, integrity, and timeliness (definitions of these standards can be found in the *Data Quality Assessment Procedures* section). Adherence to these data standards by both Power Africa and partners is enabled through the provision of monitoring and evaluation capacity-building, standard monitoring and reporting tools and guidelines, and undertaking regular and periodic data verification and support visits.

**Activities and Partners are Accountable and Transparent:** Power Africa MEL systems will ensure that all projects, activities, and partnerships meet their obligations in a manner that is transparent to USAID, local government, and intended (and unintended) beneficiaries. Accurate and useful data will be regularly and appropriately shared.

**Data Collection and Monitoring is Performed Ethically:** Monitoring and evaluation processes will uphold confidentiality, respectability, and integrity coupled with fair, accurate, evidence-based reporting.

**Learning is Prioritized and Facilitated:** Intentional learning will be facilitated and promoted through ongoing monitoring, portfolio reviews, evaluations, documentation and use of lessons learned, and other activities (see the Collaboration, Learning and Adapting Plan under Annex III).

## Performance Monitoring Plan

A targeted, efficient, and achievable performance monitoring plan is the core of an effective MEL Plan. This section presents the updated Power Africa Performance Monitoring Plan, which includes (i) the current Power Africa Results Framework and associated narrative, (ii) an overall monitoring plan, inclusive of all core indicators cross-referenced to the results framework, and finally (iii) a performance indicator summary, which is supported by a PIRS (see Annex I) for each indicator.

### Results Framework

The goal of Power Africa is to advance sub-Saharan African development through universal access to clean energy. It seeks to achieve this goal through a multi-faceted approach that includes on-the-ground activities that provide technical assistance and capacity-building, as well as through strategic partnerships with both the public and private sectors to leverage financing and pool efforts for maximum impacts. Work streams focus on both on- and off-grid energy provision and include an explicit focus on supporting and facilitating energy-sector transactions.
Power Africa's interventions are intended to increase first-time access to energy for millions of Africans at their homes and businesses; expand access to rural and marginalized communities; promote clean energy operations; and support utility strengthening for grid expansion, extension, densification, and increased reliability and affordability of power for end users. To accelerate a carbon-free future, Power Africa activities will seek to decarbonize the electricity sector, support a just transition to clean energy, support utilities to improve the efficiency of their grids, and strengthen power pools to increase interconnection and cross-border power trade to deliver more clean energy to end users.

To achieve its ambitious goal, Power Africa works through three development objectives (DO), illustrated within the Power Africa Results Framework (Figure 1 below): 1) Ending energy poverty; 2) Accelerating a carbon-free future; and 3) Bolstering competitive private-sector investment and innovation in the energy sector. It should be noted that portions of this strategy (such as IR 3.1 – increased exports of U.S. clean energy goods and services in Africa) are anticipated for achievement by the broader Power Africa partnership (beyond simply USAID-funded activities), including partners within the interagency, private-sector, and donor community. The strategy will also prioritize implementation of USG gender equality-related initiatives, strategies, and policies to strengthen gender equality and female empowerment across all interventions. The overall approach to developing the MEL Plan is based on a defined strategic results framework (Figure 1). Power Africa uses its Results Framework to inform all functions of its MEL approach, which includes the selection of appropriate indicators, pinpointing learning needs, and targeting resources for MEL actions.

### An Interagency Approach

Power Africa is a broad interagency effort, coordinated by USAID, and inclusive of 12 USG partner agencies, as stipulated by law. Given this, the Power Africa Results Framework includes development objectives and intermediate results that are supported, and at times led, by interagency partners. These areas include the following:

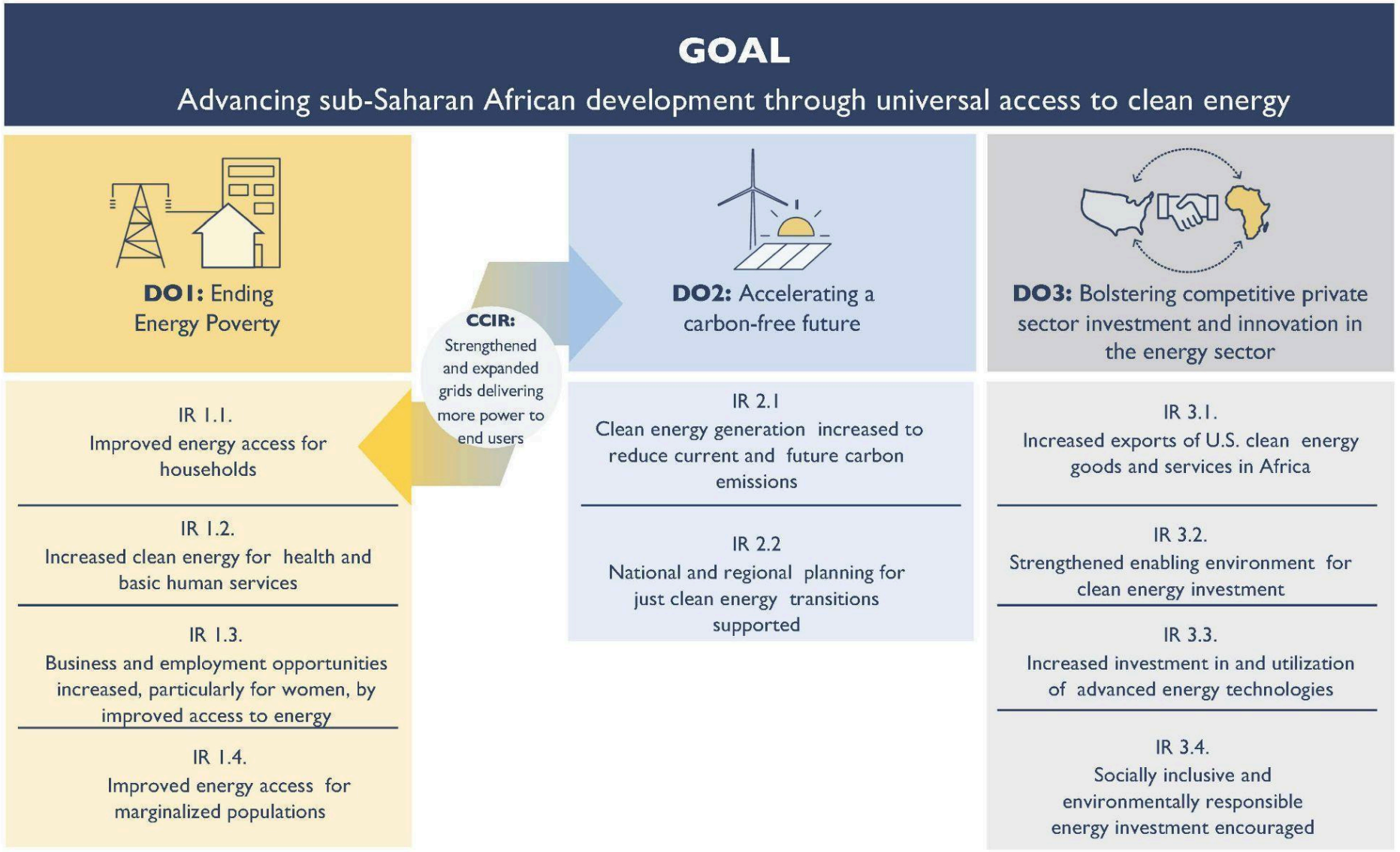
*IR 2.2: National and Regional Planning for Just Clean Energy Transitions Supported:* Many of the USG's bilateral and regional engagements on clean energy transitions are being led, or supported, by interagency partners with a strong foreign policy and/or trade relationship, given the criticality of our bilateral relationships to achieve energy transition goals. This includes the leadership of the Department of State, as well as support from the Development Finance Corporation (DFC), Department of Energy (DOE), and others.

*DO 3: Bolstering competitive private-sector investment and innovation in the energy sector:* Improving the investment in climate and enabling environment requires a broad suite of support and capacity-building. Such support ranges from technical (e.g., legal frameworks, procurement support) to financial (e.g., improved access to debt, risk identification and management). As such, DO 3 requires the engagement of a broad range of USG partners beyond USAID, including the DFC, U.S. Trade and Development Agency (USTDA) , the Departments of Treasury and Commerce, and others.

*IR 3.1: Increased Exports of U.S. Clean Energy Goods and Services in Africa:* While USAID remains the coordinator for efforts to better connect U.S. companies and industries with energy markets in Africa, this process is largely supported, and at times led, by the Department of Commerce, the Export-Import Bank of the United States (Ex-Im), USTDA, and others that have a broader domestic-international mandate.

*IR 3.3 Increased Investment in and Utilization of Advanced Energy Technologies:* Similar to IR 3.1, improving the relationships and connections between African and U.S. industries and companies is critical to increasing African access to advanced and clean technologies and expanded investment within this sector. Related activities are supported, and at times led, by USG agencies that have strong domestic mandates and relationships, such as DOE, USTDA, and others.

*Figure 1. Power Africa Results Framework*



## Performance Monitoring Plan

Power Africa's performance monitoring strategy described in this section is associated with the intermediate results depicted in the Power Africa Results Framework (see Figure 1). Monitoring is crucial to capturing the ongoing success of Power Africa's interventions, and data collected through performance monitoring will be used to illustrate progress at specified intervals. The performance monitoring plan consists of indicators to track output provision and outcome achievement, associated PIRSs that document the definition, purpose, and methodology for each indicator, and a performance tracking table to be updated regularly with baseline values, targets, and actual achievements. Reporting on these indicators will be prescribed by the guidelines detailed in each PIRS ( Annex I).

Table 1 below illustrates the alignment between Power Africa intermediate results and performance indicators.

*Table 1. Performance Indicators Associated with Intermediate Results*

| | Intermediate Result | Outcome Indicator(s) | Output Indicator(s) |
|---|---|---|---|
| **DO 1** | IR 1.1 Improved energy access for households | 1.1.2 Estimated number of beneficiaries: Number of beneficiaries with actual access to connections (PA#5) | 1.1.1 Electricity Access: Number of new on- and off-grid actual direct connections (PA#3)<br><br>1.1.3 Number of productive-use, off-grid devices or systems sold as a result of USG/Power Africa assistance (PA#27) |
| | IR 1.2 Increased clean energy for health and basic human services | | 1.2.1 Number of public facilities electrified |
| | IR 1.3 Increased business and employment opportunities, particularly for women, by improved access to energy | 1.3.1 Number of employed women benefiting from on-the-job, technical, or professional development training as a result of Power Africa assistance | *[also applicable: 1.1.1 Electricity access: Number of new on- and off-grid actual direct connections (businesses)]* |
| | IR 1.4 Improved energy access for marginalized populations | | *1.1.1 Electricity Access: Number of new on- and off-grid actual direct connections (PA#3)* |

| | Intermediate Result | Outcome Indicator(s) | Output Indicator(s) |
|---|---|---|---|
| **DO 2** | IR 2.1 Increased clean energy generation to reduce current and future carbon emissions | 2.1.1 Greenhouse gas (GHG) emissions, estimated in metric tons of carbon dioxide-equivalent (CO2e), reduced, sequestered, or avoided through clean energy as supported by USG assistance (EG. 12-6) (PA#21)<br><br>2.1.2 Projected GHG emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy as supported by USG assistance (EG. 12-7) | 2.1.3 Number of competitive procurements for new generation capacity implemented with USG Power Africa assistance (PA#24)<br><br>2.1.4 Transactions Reached Financial Close: Number of transactions that have achieved financial close (PA#9)<br><br>2.1.5 Additional Power Generation Capacity at Financial Close: Number of MW from transactions that have achieved financial close (PA#8) |
| | IR 2.2 Supported national and regional planning for just clean energy transitions | | 2.2.1 Number of host -government power-sector strategic planning documents adopted, revised, and/or implemented with USG assistance (PA#26) |
| **DO 3** | IR 3.1 Increased exports of U.S. clean energy goods and services in Africa | | 3.1.1 Number of companies participating in Power Africa projects and transactions (PA#30) |
| | IR 3.2 Strengthened enabling environment for clean energy investment | 3.2.1 Amount of investment mobilized (USD) for clean energy as supported by USG assistance (EG12-4; PA#14)<br><br>3.2.2 USG Investment Leverage: Total public and private funds leveraged by USG for energy projects (PA#13) | 3.2.3 Training and Capacity-Building Activities: Number of people trained in technical energy fields with USG assistance (PA#18)<br><br>3.2.4 Policy Reforms: Number of national or regional laws, policies, regulations, or standards to enhance energy-sector governance formally proposed, adopted, or implemented with USG assistance (PA#23)<br><br>3.2.5 Number of institutions with improved capacity to address clean energy issues with USG assistance (EG. 12-2) |

| | Intermediate Result | Outcome Indicator(s) | Output Indicator(s) |
|---|---|---|---|
| | IR 3.3 Increased investment and utilization of advanced energy technologies | | 3.3.1 MW and megawatt-hours (MWh) of energy storage and energy generation from new advanced energy technologies that reach financial close |
| | IR 3.4 Encouraged socially inclusive and environmentally responsible energy investment | | 3.4.1 Number of institutions adopting policies or procedures to promote gender equity in the energy-sector workforce as a result of Power Africa support |
| **XC DO** | CCIR: Strengthened and expanded grids delivering more power to end users | 4.1.1 Kilometers of transmission and distribution power lines that reached financial close with USG, Development Partner (DP), or private (PSP) support (PA #20).<br><br>4.1.2 Kilometers of Constructed or Rehabilitated Power Lines: The sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded transmission and distribution lines that have been energized, tested, and commissioned/installed with USG, DP, or PSP support (PA #19).<br>4.1.3 Aggregate Losses: Aggregate technical, commercial, and collection electricity losses reduced/avoided as a result of Power Africa assistance (PA#22)<br><br>4.1.4 Regional Electricity Trade: New electricity capacity in MW and MWh committed for regional trade through power purchase agreements (PPAs) with USG assistance (PA#12) | 4.1.5 Additional Power Capacity Commissioned: *Number of MW from transactions that have been commissioned* (PA#10).<br><br>4.1.6 Number of transactions that have been commissioned as a result of PA support (PA#11)<br><br>4.1.7 Electricity transmission capacity (MWs) supported by USG assistance<br><br>4.1.8 Number of Power Africa-supported utilities with improved performance (reduction in frequency of outages, and duration of outages) |

All indicators require strong baselines and targets to measure progress and assess when deviating significantly from a set target. Indicator targets will be ambitious but achievable, such that Power Africa will be accountable for assessing progress.

The Performance Indicator Summary (Table 2) provides an overview of all Power Africa performance indicators. It includes a brief description of the indicator and information on the frequency of data collection, responsible party for data collection, and how data will be acquired. Key details about each indicator, including the specific methods used to collect data, are described in detail in each PIRS in Annex 1.

*Table 2. Performance Indicator Summary Table*

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 1.1.1 | Electricity Access: Number of new on- and off-grid actual direct connections (PA#3) | Disaggregation:<br>Type of Connection:<br>➢ # of actual new on-grid connections<br>➢ # of actual or metered on-grid connections<br>○ # of actual or metered off-grid connections<br>○ # of mini-grid connections<br>○ # of new solar home system connections<br>○ # of solar lantern connections<br>➢ USG vs partners<br>➢ Type of Enterprise:<br>○ # Residential connections<br>○ # Business (commercial and/or industrial) connections | Number of connections | Quarterly | *On-grid connections* (actual): national and private utilities' customer profiles and connection documents; procurement documents for meters associated with grid expansion; project documents<br><br>Off-grid connections (actual): sales or installation of systems where support has been provided | Power Africa private-sector partners report via Sector Lead RMs in PAIS<br>USG-funded mechanisms report via MEL POCs/AORs/CORs /AMs in PAIS<br>Implementing Mechanisms that provided technical assistance to the off-grid company report via its MEL POCs in PAIS (see significant technical assistance definitions section below) |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | ○ # of Unknown<br>○<br>○ #of connections for marginalized people (e.g, refugees) | | | | |
| 1.1.2 | Estimated Number of Beneficiaries: Number of beneficiaries with actual access to connections (PA#5) | Disaggregation:<br>● Type of beneficiaries:<br>o # of new on-grid beneficiaries<br>o # of new off-grid beneficiaries<br>▪ # of new mini-grid beneficiaries<br>▪ # of new solar home system beneficiaries<br>▪ # of new solar lantern beneficiaries<br>● Countries<br>● USG vs Development/Private partners | Number of beneficiaries | Quarterly | For standalone systems such as solar home systems and solar lanterns, data will be calculated from the direct connection component by using the Global Off-Grid Solar Forum (GOGLA) discount methodology | Data will be calculated by the Power Africa MEL Specialist and entered in the Power Africa Information System (PAIS) |
| 1.1.3 | Number of productive-use off-grid devices or systems sold as a result of Power Africa | Disaggregation:<br>● Country<br>● Type of device or system<br>○ Solar Water Pumps–Health | Number of devices | Quarterly | Sales records from USG partner off-grid companies that sell productive-use electric appliances | Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | assistance (PA#27) | ○ Solar Water Pumps–Domestic/Business<br>○ Refrigerators–Health<br>○ Refrigerators–Domestic/Business<br>○ Solar Energy Storage System<br>○ Schools–Institutional Solar Power System<br>○ Health–Institutional Solar Power System<br>○ Water Purification Device<br>○ Fishing Lights<br>○ Maize Mills<br>○ Welding Equipment<br>○ Carpentry Equipment<br>○ Business Entertainment System<br>○ Salon Equipment<br>○ Micron Sprayers<br>○ Battery Stick Kits<br>○ Solar Power System/Solar generator<br>○ E-mobility (E-bikes, E-buses) | | | Count of productive-use off-grid devices or systems (e.g., food processing machines, water pumps, refrigerators) sold as a result of support provided by USG to off-grid companies | reporting on this indicator, RMs of Agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | ○ Solar charging systems ( e-bike/e-bus charging stations)<br>○ Public Address Kit<br>○ Sewing Machine Kit<br>○ Phone Charging Station Kit<br>○ Solar-Powered Agro-Processing Machines<br>○ Solar Irrigation Equipment<br>○ Other | | | | |
| I.2.I | Number of public facilities electrified | Disaggregation:<br># Grid connected vs. off-grid<br># Type of public facility<br># For healthcare facilities<br>● With maternity/delivery care<br>● With in-patient treatment capacity<br>● With out-patient treatment capacity<br># Country | Number of public facilities | Quarterly | Count of public facilities with improved energy-production equipment and related electrical installations | |
| 1.3.1 | Number of employed women benefiting from on-the-job, technical, or professional development training | Disaggregation:<br>● Country of origin of the participant<br>● Type of training (technical or professional skills | Number of employed women receiving training | Quarterly | Training/event participants ledger | Data to be collected by Implementing Partners (IPs) offering training |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | as a result of Power Africa assistance | development) | | | | |
| 2.1.1 | GHG emissions, estimated in metric tons of CO2e, reduced, sequestered, or avoided through clean energy with USG assistance (EG. 12-6; PA#21) | Disaggregation:<br>• USG agencies clean-energy-funded activities<br>• IMs clean-energy-funded activities<br>• Country | Number of metric tons of CO2e | Annually | GHG data will be calculated from transactions that reached Commercial Operations Date (COD) by using the ICF Clean Energy Emission Reduction (CLEER) tool. | COR/AOR/Activity Manager for Implementing Mechanisms, Interagency Liaisons, and Power Africa Relationship Manager sectors lead |
| 2.1.2 | Projected GHG emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy with USG assistance (EG. 12-7) | Disaggregation:<br>➢ Years 1 to 5<br>➢ Years 6 to 10<br>➢ Years 11 to 15 | Number of metric tons of CO2e | Annually | GHG data will be calculated from transactions that reached Financial Close (FC) by using the ICF CLEER tool | COR/AOR/Activity Manager for Implementing Mechanisms, Interagency Liaisons, and Power Africa Relationship Manager sectors lead |
| 2.1.3 | Number of competitive procurements for new generation capacity implemented with Power Africa assistance (PA#24) | Disaggregation:<br>• On-grid (generation, transmission, distribution) or off-grid (e.g., mini-grid meters) procurement<br>• Type of procurement process (e.g., reverse auction)<br>• Country<br>• USG agency that supported assistance (including Power | Number of competitive procurements | Quarterly | Public announcement of procurement process, including an explanation of how Power Africa support enhanced the procurement | COR/AORs, Interagency liaisons |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | Africa Implementing Mechanism if USAID) | | | | |
| 2.1.4 | Transactions Reached Financial Close: Number of transactions that have achieved financial close (PA#9) | Disaggregation:<br>● Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)<br>● Transaction types<br>○ Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization)<br>○ Transmission<br>○ Distribution<br>○ Off-grid<br>○ ESSs<br>● Transaction stage (Stage 1 – Pre-feasibility; Stage 2 – Feasibility/Project Development; Stage 3 – Project Structuring/Financing)<br>● Country<br>● USG vs. partner Power Africa transaction | Number of Transactions | Quarterly | ▪ Quarterly submissions by IP staff into the PATT. IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using QTAT<br>▪ Additional data through quarterly reports submitted by DFC, | Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | | | | USTDA, Ex-Im, and MCC<br>▪ Updates from RMs, Sector Leads, and/or USAID IP staff after communication with partners | |
| 2.1.5 | Additional Power Generation Capacity at Financial Close: Number of MW from transactions that have achieved financial close (PA#8) | Disaggregation:<br>● Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)<br>● Transaction types<br>o Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization)<br>● Transaction stage (Stage 1 – Pre-feasibility; Stage 2 – Feasibility/Project Development; Stage 3 – Project Structuring/Financing)<br>● Country | Number of Transactions | Quarterly | ● Quarterly submissions by IM staff into the PATT. IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize | Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | • USG vs. partner Power Africa transaction | | | transactions using the QTAT<br>• Additional data through quarterly reports submitted by DFC, USTDA, Ex-Im, and MCC<br>• Updates from USG agencies, DP RMs, RMs sector leads, and/or USAID Implementing Mechanism staff after communication with developers | |
| 2.2.1 | Number of host-government power-sector strategic planning documents adopted, revised, and/or implemented with USG assistance | Disaggregation: Just energy transition/Other<br><br>Just energy transition/Other<br>• Formally proposed, revised, adopted, and implemented | Number of planning documents | Biannually | Public announcement of procurement process and relevant planning documents impacted by Power Africa entities | AOR/CORs<br><br>Interagency Liaisons |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | (PA#26) | • Type (demand analysis, generation plan, electrification plan, master plan, transmission/distribution plan, other)<br>• On-grid, off-grid, or both<br>• Regional, national, international<br>• country | | | | |
| | | | | | | |
| 3.1.1 | Name of Indicator: Number of U.S. companies participating in Power Africa Projects/Transactions as a result of USG assistance | Disaggregation:<br>• Organization type (association, foundation; non-governmental organization (NGO), consulting services, developer/sponsor, engineering/procurement/construction (EPC), equipment supplier, private equity/debt provider, transmission and distribution company)<br>• Small business or not a small business<br>• Participation pursuant to a USG supported project | Number of companies | Biannually | Public announcements, memoranda of understanding MOUs, contracts/awards, and other relevant documentation, as reviewed and captured within the Power Africa Tracking Tool (PATT) and other Power Africa data systems | Transactions Team Lead, DP Team Lead, Relationship Manager (RM) Team Lead, and Task Order CORs |
| 3.2.1 | Amount of investment mobilized (USD) for clean energy with USG | Disaggregation:<br>• Public, domestic<br>• Public, international | US dollar | Quarterly | Amount mobilized of transactions that have reached FC will be | Power Africa MEL team, AOR/CORs |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | assistance (EG12-4; PA#14) | • Private, domestic<br>• Private, international<br>• Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, gas) | | | sourced from project documents, such as the project agreement. Data sources will include power pools (West Africa Power Pool (WAPP), East Africa Power Pool (EAPP), Southern Africa Power Pool (SAPP)), DPs, and PSPs. | of USAID Implementing Mechanisms reporting on this indicator, RMs of USG agencies, DPs, and PSPs supporting this indicator |
| 3.2.2 | USG Investment Leverage: Total public and private funds leveraged by USG for energy projects (PA#13) | Disaggregation:<br>• Country<br>• Gender lens investing (GLI) or non-gender lens investing (GLI<br>• On-grid power generation<br>• Off-grid power generation<br>• Generation capacity<br>• Transmission<br>• Distribution<br>• Technology (wind, tidal, solar, geothermal, hydro, biomass, biogas and green hydrogen)<br>• USG, public (DP) vs. private partner | US dollar | Quarterly | Data collected from contributing partners Amount mobilized of transactions that have reached FC will be sourced from project documents, such as the project agreement. Data sources will include power pools (West Africa Power Pool (WAPP), East Africa Power Pool (EAPP), Southern Africa Power Pool (SAPP)), DPs, and PSPs. | COR/AOR/Activity Manager for Implementing Mechanisms |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 3.2.3 | Training and Capacity-Building Activities: Number of people trained in technical energy fields with USG assistance (PA#18) | Disaggregation:<br>• Sex – number of men and number of women<br>• Country | Number of people | Quarterly | IMs and USG agencies capture information from attendance records and capture onto PAIS. The data will be supported/ documented by registration and sign-in data sheets maintained by the IMs | Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 3.2.4 | Policy Reforms: Number of national or regional laws, policies, regulations, or standards to enhance energy-sector governance formally proposed, adopted, or implemented with the support of USG assistance (PA#23) | Disaggregation:<br>● Formally proposed, adopted, or implemented<br>● Laws, policies, regulations, or standards<br>● Regional or national, note which region and country<br>● Focus of reform:<br>○ Private-sector participation<br>○ Regional power pools<br>○ Energy efficiency<br>○ Renewable or energy technology<br>○ Distributed energy/off-grid<br>○ Gender equity<br>○ Community engagement<br>○ Environment<br>● USG agency providing assistance | Number of policies | Quarterly | Official title of law, policy, and/or regulation and confirmation of its proposal, adoption, or implementation in public announcement | AOR/CORs/Activity Manager (AM) for USAID Implementing Mechanisms<br><br>Interagency Liaisons |
| 3.2.5 | Number of institutions with improved capacity to address clean energy issues with USG assistance (EG. 12-2) | Disaggregation:<br>● National governmental<br>● Sub-national governmental<br>● Utilities<br>● Other (e.g., private, NGO, utility,) | Number of institutions | Annually | IMs and USG agencies capture validating information and capture onto PAIS. | AOR/CORs, and Interagency Liaisons of agencies supporting this indicator |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 3.3.1 | MW and MWh of energy storage and energy generation from new advanced energy technologies that reach financial close | Disaggregation:<br><br>Power Generation: (utility scale and off-grid power systems)<br>• ESS technology type<br>• Co-located<br>• Standalone<br>• Behind the meter<br>• In front of the meter<br>• All transaction stages<br>• Location<br><br>Transmission and Distribution<br>• ESS technology type<br>• Level of interface (transmission or distribution)<br>• Service offered (energy, frequency, voltage regulation)<br>• Location | MW and MWh | Quarterly | • Quarterly submissions by IP staff (PATT). IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using QTAT<br>• Additional data obtained through quarterly reports submitted by USG agencies | MEL staff of IMs choosing to contribute to this indicator, RM Sector Lead, Interagency Liaisons, and the DP's point of contact (POC) |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | | | | • Quarterly updates from agencies RMs and/or RMs Sector Leads (PATT) | |
| 3.4.1 | Number of institutions adopting policies or procedures to promote gender equity in the energy-sector workforce as a result of Power Africa support | Disaggregation:<br>• Public vs. private institution,<br>• country (country/ies where policy is implemented) | Number of institutions | Biannually | Data to be collected by IMs who are working with energy-sector institutions in support of their adopting policies and procedures to promote gender equity. | Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator |
| 4.1.1 | Kilometers of transmission and distribution power lines that reached FC with USG, development partner, or private sector partner support | Disaggregation:<br>• Transmission vs. distribution<br>• country<br>• Name of project (if applicable)<br>• Start and end point<br>• FC date | Kilometers | Quarterly | Verified reports from relevant Power Africa Implementing Mechanisms, USAID IPs, USG entities, DPs, and PSPs | USAID AORs/CORs and Activity Managers, Interagency Liaisons, DP, RMs |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 4.1.2 | Kilometers of constructed or rehabilitated power lines the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded transmission and distribution lines that have been energized, tested, and commissioned/installed with USG, DP, or PSP support. | Disaggregation:<br>• Transmission vs. distribution<br>• Country<br>• Name of project (if applicable)<br>• Start and end point<br>• ,Commissioning date | Kilometers | Quarterly | Verified reports from relevant Power Africa Implementing Mechanisms, USAID IPs, USG entities, DPs, and PSPs | USAID AORs/CORs and Activity Managers, Interagency Liaisons, DP, RMs Sector leads |
| 4.1.3 | Aggregate Losses: Aggregate technical, commercial and collection electricity losses reduced/avoided as a result of Power Africa assistance (PA#22) | Disaggregation:<br>➢ Total MWh generated<br>➢ Percent or MWh of calculated, estimated, or measured technical losses avoided<br>➢ Percent or MWh of calculated, estimated, or measured commercial losses avoided<br>➢ Percent or MWh of calculated or estimated collection losses avoided<br>➢ Transmission Vs distribution<br>➢ Utility<br>➢ Country | Percentage of total generation | Annually | Utility records, rural electrification agencies, or Ministries of Energy. | MEL POC of Implementing Mechanisms contributing to this indicator |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| 4.1.4 | Regional Electricity Trade: New electricity capacity in MW and MWh committed for regional trade through PPAs with USG assistance | Disaggregation:<br>● Country X to Country Y (MW/MWh) Duration of the power trade (long, medium, or short) | MWh and MW | Quarterly | Cross-border PPAs (national ministries of energy, utilities, regional power pools, and/or national electricity regulators) | CORs/AORs and Interagency Liaisons for activities supporting regional power trade |
| 4.1.5 | Additional Power Capacity Commissioned: *Number of MW from transactions that have been commissioned* (PA#10) | Disaggregation:<br>● Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas)<br>● Transaction types<br>● Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization) transmission | Number | Quarterly | TAs and USG partners verify the number from project proposals, draft deal agreements, or negotiation documents and update the transaction data in PATT | TAs, RM Sector Leads, Interagency Liaisons, and the DP's POC |
| 4.1.6 | Transactions Commissioned: *Number of transactions that have been commissioned* | ▪ Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas)<br>▪ Transaction types<br>o Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization) | MW | Quarterly | ● Quarterly submissions by IM staff into the PATT. IP staff take the lead on inputting information on transactions that they are directly | MEL POC of IPs choosing to contribute to this indicator |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | ▪ Transaction stage (Stage 1 - Pre-feasibility; Stage 2 - Feasibility/Project Development; Stage 3 - Project Structuring/Financing)<br>▪ Country<br>▪ USG vs Partner Power Africa Transaction | | | supporting or they think the USG should consider supporting. Missions review and prioritize transactions using the Qualified Transaction Assistance Tool (QTAT)<br>● Obtain additional data through quarterly reports submitted by DFC, USTDA, Ex-Im and MCC<br>● Updates from USG agencies, DP RMs, PSP Sector Leads, and/or USAID Implementing Mechanism | |

| # | Performance Indicator | Description | Unit of Measure | Reporting Frequency | Method/Source | Responsible Party |
|---|---|---|---|---|---|---|
| | | | | | staff after communication with developers<br>• ** See Transaction Update Standard Operating Procedure (SOP) | |
| 4.1.7 | Electricity transmission capacity (MW) supported by USG assistance | Disaggregation:<br>➢ New vs. upgraded vs. rehabilitated | MW | Quarterly | FC document or fund disbursement report, commissioning report | MEL POC of IPs choosing to contribute to this indicator |
| 4.1.8 | Number of Power Africa-supported utilities with improved performance (reduction in frequency of outages and duration of outages) | Disaggregation:<br>➢ Utility<br>➢ Country<br>➢ Transmission vs. distribution<br>➢ System Average Interruption Duration Index (SAIDI) vs. System Average Interruption Frequency Index (SAIFI) vs. Momentary Average Interruption Frequency Index (MAIFI) | Number of utilities | Annually | Utility documentation | MEL staff of IPs choosing to contribute to this indicator |

## Data Quality Assessment Procedures

Power Africa will comply with Agency guidelines for data quality, as outlined in the ADS 201. We will use consistent DQA procedures to verify and validate the measured values of the actual performance information. As required, DQAs will be conducted for all externally reported indicators within three years of submission to USAID/Washington. DQAs that did not have a successful outcome will be repeated until the data meet the required data-quality standards.

The PIRS for each indicator has a section devoted to data-quality issues and the date for when a DQA is scheduled (see Annex I for all PIRS). The PIRSs are intended to capture information related to specific indicator characteristics and procedures for data collection as well as immediately identifiable data limitations. Thus, each PIRS serves as a key source of information regarding data quality.

Every three years, Power Africa will examine data quality through structured, periodic assessments to ensure that performance data reasonably meet these five standards of data quality:

- **Validity:** Data should clearly and adequately represent its intended monitoring function;
- **Reliability**: Data should reflect stable and consistent collection processes and analysis methods over time;
- **Integrity**: Data collected should have safeguards to minimize the risk of transcription error or manipulation;
- **Precision**: Data should have a sufficient level of detail to permit management decision-making; and
- **Timeliness**: Data should be available at a useful frequency, should be current, and should be timely enough to influence management decision-making.

These assessments will utilize a DQA Worksheet that applies a series of related questions to the data for each performance indicator (see Annex V). When necessary, Power Africa will supplement the DQA Worksheet with other tools for performance monitoring system assessment. Completed DQA worksheets will be filed with each relevant PIRS. The DQA Worksheet facilitates a better understanding of the data collection process and system for each indicator.

## Evaluation Plan

Power Africa's evaluation plan seeks to build an evidence base and knowledge around energy programming that can support activity implementation and adaptive management, as well as inform new activity design. Each programmatic evaluation serves as a systematic assessment of the effectiveness of a program in reaching its aims and objectives and explores "why" a certain result occurred, as well as provides learning opportunities that can inform future programming.

Power Africa will conduct a series of evaluations consistent with ADS 201 and USAID's Evaluation Policy at critical junctures in programming and implementation to be used as a regular part of planning and managing its program.

Overall, Power Africa will implement different evaluations in the coming five years that can support Power Africa's efforts of learning and adaptive management. The monitoring data, partner engagements and performance reviews will inform which programs to evaluate. Below are some of the proposed evaluations (this plan is subject to change, based on shifts in programmatic priorities and/or constraints):

- Southern Africa Energy Program (SAEP) Implementing Mechanism Endline Evaluation
- West Africa Energy Program (WAEP) Implementing Mechanism Endline Evaluation
- Nigeria Power Sector Program (NPSP) Implementing Mechanism Endline Evaluation
- East Africa Energy Program (EAEP) Implementing Mechanism Endline Evaluation
- Power Africa Off-Grid Program (PAOP) Implementing Mechanism Endline Evaluation
- Power Africa Senior Advisors Group (PA-SAG) Programme Endline Evaluation

Finally, the MEL team is exploring means of evaluating the results of activities beyond their completion date, in support of long-term planning via activity pipeline development and management.
A detailed evaluation plan, including a summary of each planned evaluation, can be found in Annex II.

## Collaboration, Learning, and Adapting Plan

Learning and adaptation are fundamental to Power Africa's corporate approach and in line with the ADS 201 guidance for the program cycle. The following paragraphs outline PA priorities and objectives for learning. For Power Africa to effectively achieve its development objectives, the initiative centers on a learning strategy that supports its work.
Power Africa's CLA Plan aims to ensure that Power Africa's efforts are evidence-based and able to evolve and adapt based on the successes and challenges faced by previous activities. This will be achieved through a set of activities that both foster a process and culture of CLA at various levels (activity-level, portfolio-/office-level, and initiative-level) and facilitate effective and efficient knowledge-sharing and transfer initiative-wide. Through a focus on strategic collaboration, effective use of technology and resources, and fostering a learning culture, Power Africa is positioned to effectively manage adaptation and leverage feedback loops into supporting program design, redesign of activities, as well as sharing best practices in the sector on how to achieve universal access to energy across SSA.
Planned CLA activities include:

- Facilitate learning activities (e.g., pause-and-reflect workshops at the activity and/or office-level, biannual portfolio reviews)
- Use technology and human resources (e.g., design, maintenance, and data and knowledge management systems)
- Promote a culture of collaboration and continuously being adaptive to changing in context and based on results (e.g., CLA events, integration of CLA tenets and processes within new activities)

A detailed CLA Plan and a timeline of CLA activities, is included under Annex III.

## Reporting

Power Africa has a number of regular reports authored in coordination between the MEL team and the Communications team. To enhance learning within Power Africa, among partners and other stakeholders, Power Africa will regularly report and share findings on its performance toward expected results. Reporting will be based upon quantitative and qualitative performance information gathered through the monitoring systems, evaluations, special studies, and other relevant sources.

These are detailed in Table 3 below by fiscal year.

*Table 3. Power Africa MEL Reporting Schedule*

| REPORT | AUDIENCE | WHEN | CONTENT | TEAM RESPONSIBLE |
|---|---|---|---|---|
| Performance Plan and Report (PPR) | Congress | November/Dec | Progress on performance indicators | MEL Specialist |
| Portfolio Review (Strategic level) and Issues Paper | Power Africa | November | A strategic-level review of the Power Africa portfolio involving all relevant stakeholders. The issues paper will provide analysis of lessons learned and items to follow up | MEL (MEL Team Lead/Power Africa Program Office [PRO] Director) |
| Portfolio Review Issues Paper | Power Africa | November/December | Identification and analysis of lessons learned/issues/follow-up | MEL (MEL Team Lead/PRO Director) |
| Budget Review | Power Africa | March August | Performance data and portfolio review issues paper | Budget team with data from MEL |
| Annual Report | Public, Government Stakeholders, including Congress and the White House | February | Progress on performance indicators and transactions | PRO in coordination with MEL and the Communications team |
| Portfolio Review (activity focus) & Issues Paper | Power Africa | May | An activity-level review of the Power Africa portfolio involving all relevant | MEL (MEL Team Lead/PRO Director) |

| | | | | |
|---|---|---|---|---|
| | | | stakeholders. The issues paper will provide analysis of lessons learned and items for follow-up | |
| Q1 data call | Power Africa | Jan, 30 days following the end of the quarter | Performance indicator data and verification documentation | MEL (MEL Specialist and MEL Team Lead) |
| Q2 data call | Power Africa | April, 30 days following the end of the quarter | Performance indicator data and verification documentation | MEL (MEL Specialist and MEL Team Lead) |
| Q3 data call | Power Africa | July, 30 days following the end of the quarter | Performance indicator data and verification documentation | MEL (MEL Specialist and MEL Team Lead) |
| Q4 data call | Power Africa | October, 30 days following the end of the quarter | Performance indicator data and verification documentation | MEL (MEL Specialist and MEL Team Lead) |

For these reports, Power Africa carefully vets all transaction and connection data through SOPs, which are detailed in Annex IV (Precise Indicator Definitions).

## Roles and Responsibilities

Performance monitoring is the ongoing and routine collection of performance indicator data to reveal whether desired results are being achieved and if implementation is on track. Power Africa analyzes performance by comparing actual results achieved against the targets initially set at the beginning of a project or activity. This analysis is critical, as it will enable Power Africa to learn and adapt in ways that can strengthen its activities and achieve maximum results. The process is collaborative and includes the participation of the Power Africa Coordinator's Office, the interagency partners, USAID Missions, IPs, and other stakeholders.

Power Africa technical teams, the Program Office, interagency partners, USAID Missions, and IPs each have specific roles and responsibilities in implementing, maintaining, and updating the overall performance management system. More detail about roles and responsibilities for all stakeholders is detailed in Annex VI. Roles and responsibilities of the following stakeholders are detailed below:

### Contracting Officer's and Agreement Officer's Representatives

CORs/AORs oversee partner performance on a regular and ongoing basis by reviewing partner reports, verifying data, and conducting site visits.

### Activity Managers

Activity managers are primarily responsible for ensuring that the terms of the agreement are being met and will monitor the performance indicators that are stipulated in the partner agreements. Details on the technical specification of data collection efforts and responsibilities are clearly specified in the individual PIRS.

### MEL Team

Led by the team lead, the MEL team is primarily responsible for overseeing data collection, reporting, and learning for the whole Power Africa portfolio, as well as designing assessments and evaluations to detail outcomes of Power Africa activities. The primary responsibilities of the unit are outlined below. While responsibilities for these efforts may be led by various individuals, the unit will contribute to various aspects of:

Monitoring

1. Keep the organization up to date on progress towards Power Africa goals
2. Lead regular reporting and respond to ad hoc data calls
3. Enforce consistency of reporting and data quality
4. Contribute to indicator development, tools, monitoring process, ensuring accountability in monitoring

Evaluation and Analysis

1. Select projects to evaluate; set evaluation scopes, methodology, and type; manage evaluation teams; and disseminate findings
2. Provide data-driven program/project analysis on a regular basis to inform implementation in coordination with AOR/CORs
3. Identify activities to conduct process evaluations as needs determine

Collaboration, Learning, and Adapting

1. Create learning products and events to improve programs, institutionalize knowledge, and identify and showcase innovations in the field
2. Incorporate evaluation findings and lessons learned in projects/activity designs
3. Lead the knowledge management processes using good practices

Capacity-Building

1. Build M&E and reporting capacity across Power Africa Coordinator's Office and Missions to institutionalize reporting processes
2. Build the capacity of the Power Africa staff to use data effectively

## Data Collection

Power Africa relies on various internal teams to collect performance data in order to report on results from all of our partners. Given the partnership-based nature of the initiative, there is a considerable variance in what data are collected, frequency, and scope. The type of Implementing Mechanism in place determines the data to collect and when this should be done. The process must include consultations with the MEL team to ensure consistency and comparison of results across Power Africa.

There are specific considerations related to data collection for each type of implementation mechanism, including the following:

Contracts: Contractual agreements normally give Power Africa the highest degree of control over what data is collected and when. From a reporting perspective, data submitted under a contract mechanism is most likely to align with the PA requirements and reporting schedules.

Grants: Similar to contracts, grantees report according to USAID's requirements or negotiate such a grant agreement.

Cooperative Agreements: A cooperative agreement is a legal instrument used when the principal purpose is the transfer of anything of value to a recipient to accomplish a public purpose of support or stimulation authorized by federal statute and when substantial involvement by USAID is anticipated. As such, Cooperative Agreements function identically to grants with respect to data collection.

Memoranda of Understanding: MOUs are negotiated between Power Africa and another partner entity, such as other donors, governments, or institutions. The MOU lays out a framework for understanding or cooperation. It is unlikely that the other party will have any reporting requirements under an MOU; however, these could and should be worked into the initial negotiations when possible.

Interagency Agreements and Transfers: Under Power Africa, interagency transfers between USAID and other USG agencies are typically completed using a process outlined by part 632 of the Foreign Assistance Act. Like MOUs, the reporting requirements included under either a 632(a) or a 632(b) transfer should be part of the MOU negotiations and captured at the time of transfer.

With respect to partnerships with the private sector or governmental entities, Power Africa's two primary reporting sources are the RMs sector leads and TAs. Power Africa uses the following SOP for reporting, verifying, and reporting on the headline indicators, transactions, megawatts, and connections.

### Standard Operating procedure for MegaWatt Reporting

The Standard Operating Procedure (SOP) ( Annex IV) outlines how Power Africa collects, verifies, validates, and reports on transactions and generation data related to work under Pillar 1 ("Getting to 30,000 Megawatts"). The SOP defines and clarifies those responsible for clearing the data collected on a regular basis. This procedure will be reviewed and updated regularly to reflect upcoming changes to Power Africa's reporting requirements and data management processes.

### Standard Operating Procedure for Counting and Verifying Connections Data

The SOP (as detailed in Annex IV) outlines how Power Africa collects, verifies, validates, and reports on connections data related to work under Pillar 2, "Getting to 60 Million Connections." The SOP defines, in order, the steps followed by various members of the Power Africa staff to report on connection data and identifies those responsible for clearing the numbers. This procedure will be reviewed and updated

regularly to reflect any changes to Power Africa's reporting requirements and data management processes.

## CLEARANCE SHEET (TO BE REMOVED ONCE APPROVED)

Drafted: DHollander (+27-76-480-2192) (04/14/2022); YNair

| Clearances | Status | Date |
|---|---|---|
| AFR/PA/Coordinator: MCarrato | Clear, w/ edits | 6/3/22 |
| AFR/PA/DCoordinator: DThompson | Clear | 5/31/22 |
| AFR/PA/EO: LWalker | Clear | 5/25/22 |
| AFR/PA/PAPO: GAndersen | Clear | 5/27/22 |
| AFR/PA/PRO: LWitte | Clear | 5/25/22 |
| AFR/PA/DCoordinator: JIrons | (Info) | |
| AFR/PA/SAdvisor: LStoddard | (Info) | |
| AFR/PA/OAA: | (Info) | |
| AFR/PA/GC: | (Info) | |

# ANNEX I – Performance Indicator Reference Sheets (draft)

## PIRS INDEX

leveraged by USG for energy projects

3.2.3. Name of Indicator: Training and Capacity-Building Activities: Number of people trained in technical energy fields a result of USG assistance

3.2.4. Name of Indicator: Policy Reforms: Number of national or regional laws, policies, regulations, or standards to enhance energy-sector governance formally proposed, adopted, or implemented as a result of USG assistance

3.2.5. Name of Indicator: Number of Institutions with improved capacity to address Clean Energy Issues as supported by USG assistance (EG. 12-2)

3.3.1. Name of Indicator: MW and MWh of energy storage from new advanced energy technologies that reach Financial close as a result of USG assistance

3.4.1. Name of Indicator: Number of institutions adopting policies or procedures to promote gender equity in the workforce as a result of USG assistance

4.1.1. Name of Indicator: Kilometers of Transmission and Distribution Power Lines that Reached Financial Close as a result of USG assistance, development partner, or private-sector partner support

4.1.2. Name of Indicator: Kilometers of Constructed or Rehabilitated Power Lines The sum of linear kilometers of new, reconstructed, rehabilitated or upgraded transmission and distribution lines that have been energized, tested, and commissioned/installed as a result of USG assistance, development partner, or private-sector partner support

4.1.3. Name of Indicator: Aggregate Losses: Aggregate Technical, Commercial and Collection electricity losses reduced / avoided as a result of USG assistance

4.1.4. Name of Indicator: Regional Electricity Trade: New electricity capacity in MW and MWh committed for regional trade through power purchase agreements as a result of USG assistance

4.1.5. Name of Indicator: Additional Power Capacity Commissioned: Number of MW from transactions that have been commissioned

4.1.6. Name of Indicator: Transactions Commissioned: Number of transactions that have been commissioned

4.1.7. Name of Indicator: Electricity transmission capacity (MW) supported by USG assistance

4.1.8. Name of Indicator: Number of Power Africa-supported utilities with improved performance (reduction in frequency of outages, and duration of outages)

| **Power Africa Performance Indicator Reference Sheet** |
| --- |
| **1.1.1. Name of Indicator: Electricity Access: Number of new grid and off-grid actual direct connections** |

**Is this a Performance Plan and Report indicator?** Yes

## DESCRIPTION

**Precise Definition(s):**

Actual direct connections reflect the actual number of new households, businesses, and public institutions that have access to electricity through on-grid and off-grid connections, through interventions provided by Power Africa. Power Africa counts actual direct connections from projects that we support and from our private-sector partners via RMs sector leads to demonstrate progress toward our goal of alleviating energy poverty (DO 1). The term "new" does not only mean households and businesses accessing electricity for the first time, but also includes regularization of existing users specifically through metering activities.

This indicator refers to the number of actual direct connections resulting from:

*On-grid connections* are any new connections in which customers are connected to the national or regional power utility network to access any portion of their electricity, including new connections associated with grid expansion, densification, intensification, rehabilitation, and/or regularization. Note that if a mini-grid is distributing power to/from (buying/selling) a central utility grid, it is counted as an on-grid connection. The mini-grid should be counted as the number of end users connected to it. This fits the definition of "getting a portion of their power" from the national grid.

*Power Africa's contribution to on-grid connections*: Power Africa will claim credit for all on-grid connections deriving from significant technical support, including regularization of unauthorized connections that results in positive increased connections for the utilities. Power Africa will also claim credit for on-grid connections for which the program supported the utility in planning, design, operations, process improvement, finance or financial advisory services, and/or in any other advisory capacity. Power Africa will claim connections from the point at which technical assistance is provided, which may include one or more of the following:

Supporting planning, specifically:

- Optimizing on-grid electrification plans
- Collecting and using geospatial data to more accurately inform planning
- Master planning for service territories

Enabling financing for distribution infrastructure, specifically:

- Funding the modernization and expansion of distribution infrastructure
- Designing and/or implementing strategies to crowd in capital for grid extension, intensification, densification, and/or rehabilitation
- Providing or guaranteeing loans to support grid extension, intensification, densification, and/or rehabilitation

Facilitating end-user affordability, specifically:

- Establishing revolving funds for connections
- Identifying cost savings for connection and/or grid extension through design, installation, procurement, and standards improvement
- Identifying opportunities for innovations, such as in payment structures, to increase affordability

Strengthening utility management and operations, specifically:

- Improving operational efficiency
- Improving management structures and/or processes
- Reducing technical, commercial, and collections losses
- Designing performance indicators, roadmaps, or operations manuals

- Supporting policy and regulatory changes including tariff reform

Connections resulting from Power Africa-supported grid expansion, intensification, densification, and/or rehabilitation will be counted when the distribution/transmission line is commissioned and the planned connections to that distribution/transmission line have been energized (that is, the connection has been established). The number of connections will be obtained from documentation of the new connections from the utilities or supported developers. Grid expansion, intensification, and densification are types of on-grid activities to increase access to the grid. The definition for these on-grid activities is provided below

*Expansion* refers to connecting customers farther than 2.5 km from the grid.

*Intensification* refers to connecting customers between 1 km and 2.5 km from the grid.

*Densification* refers to connecting customers closer than 1 km from the grid.

*Regularizing* refers to converting a range of informal users to metered, bill-paying customers.

*Off-grid connections* are new connections through acquisition or installation of standalone power and mini systems, typically to provide a single household or business or a number of households or businesses with electricity within a clearly defined boundary. This includes devices and systems that offer everything starting from Tier 1 access as defined by the Global Tracking Framework. These include, for example, small solar photovoltaic (PV) systems providing a light and a phone charger up to larger community-scale mini-grids and mini-grid systems providing a grid for a small, unconnected city.

This indicator includes a mini-grid disaggregate:
*Mini-grid connections* include metro-grids and micro-grids and are any new connections where a household or business is connected to a mini-grid. Any small-scale, localized station with its own power resources, generation, loads, and, in some cases, distribution network with a definable boundary qualifies as a mini-grid.

**Methodology:**

The attribution for actual connections to Power Africa will be guided by the methodology described below:
Actual connections achieved through access to finance support and any of the aforementioned technical assistance programs facilitated by Power Africa will be treated similar to infrastructure transactions, and Power Africa will attribute 100 percent of the actual connections achieved by the project.

**On-grid:**

An on-grid system is based on methodology used to achieve the actual connection provided by either the national utility or private utility or as agreed upon with Power Africa for an intervention or a suite of interventions provided by Power Africa.

**Off-grid:**

1. Solar Home System
   Solar home systems are based on the methodology for the number of actual connections established as provided by the off-grid company or as agreed upon with Power Africa for an intervention or a suite of interventions provided by Power Africa. Alternatively, attributable connections can be calculated for each quarter over the reporting period (between the start and end dates of support), using the following formula: Actual Connections = total quarterly sales from the reporting period – total quarterly sales from the baseline period for the corresponding quarter. Negative results would be reported as zero.

   *Note that in the case of a newly established company (i.e., a zero baseline) or companies entering a new market or geography, this calculation yields 100-percent attribution of sales to Power Africa.*

2. Mini-Grids

Mini-grids are based on methodology used to achieve the actual connection provided by either the mini-grid company mini-grid or as agreed upon with Power Africa for an intervention or a suite of interventions provided by Power Africa.

**Justification:** This measures actual progress towards DO I (see results framework).

**Direct Connections Reporting Hierarchy:**

There will be companies/transactions for which multiple sources will report the same direct connections. Note that Power Africa and its IPs will use the definition of "significant technical assistance" to guide their reporting.

**Reporting Sources and Location:**

- Power Africa private-sector partner report via RMs sector leads in PAIS
- USG-funded mechanisms report via MEL POCs/AORs/CORs/AMs in PAIS
- Implementing Mechanism that provided technical assistance to the off-grid company report via its MEL POCs in PAIS (see significant technical assistance definitions section below)

Power Africa reviews connection submissions quarterly and resolves double counting using the reporting hierarchy outlined below. For each source (awards), notes are added stating what was originally reported and what was subtracted for final reporting.

Power Africa IPs can report connections in PAIS by providing significant technical assistance under their contract with USAID. Some, all, or none of these will ultimately be aggregated for public Power Africa reporting given the below hierarchy. This will need to be checked and verified with IPs by the coordinator's office Power Africa MEL team to ensure double counting is minimized.

*Significant technical assistance is defined as providing technical assistance to a company after completing the company's assessment questionnaire and QTAT that includes, but is not limited to, any of the following (for both Power Africa and non-Power Africa partners) and will be determined on a case-by-case basis:

- Market intelligence
- Business development
- Local company introductions (with follow-up support)
- Introductions to potential financiers (with follow-up support to receive finance)
- Assistance with refinancing and strengthening marketing and retail strategies
- Supply chain assistance, review of grant/financial applications
- Support to regulatory and policy issues and other enabling environment activities

**Reporting Hierarchy:**

1. Received USG funding – Y/N. If yes, this is the final source of the reported connections. If no, move to 2.
2. Received significant technical assistance* – Y/N. If yes, this is the final source of the reported connections. If no, move to 3.
3. Power Africa partner – Y/N. If yes, this is the final source of the reported connections. If no, move to 4.
4. Reported by DP – Y/N. If yes, this is the final source of the reported connections.

**Unit of Measure:** Number

**Disaggregation:**

Type of Connection:

a. # of actual new or regularized on-grid connections

b. # of actual or metered off-grid connections

i. # of new mini-grid connections
ii. # of new solar home system connections
iii. # of new solar lantern connections

- USG vs Partners
- Type of Enterprise:
  - # Residential connections
  - # Business (commercial and/or industrial) connections
  - # of Other or Unknown
- Country

## PLAN FOR DATA COLLECTION

**Data Source:**

*On-grid connections* (actual) will be sourced from national and private utilities' customer profiles and connection documents; procurement documents for meters associated with grid expansion; and project documents including government-negotiated agreements, financial documents, and investment agreements. Attribution Source documents must be provided to the Power Africa MEL team.

*Off-grid connections* (actual) – Power Africa will count sales or installation of systems for which support has been provided even if Power Africa did not directly fund the connection project. An example would be when Power Africa provided significant technical assistance, such as tailored geospatial analysis, market expansion strategies, hiring, and strategic partnerships. In these cases, the company receiving the technical assistance will report the sales figures and describe the attribution to Power Africa.

**Method of Data Collection/Construction:**

Review of project documents provided by TAs, Implementing Mechanisms, project sponsors, government entities and review of national and private utilities' information on customer connections, and uploaded by IMP MEL POC staff into PAIS.

Power Africa IMsPs will send emails to supported companies on a quarterly basis requesting data on actual connections. They will then enter the results into their own standardized electronic data collection template. Off-grid connections will be sourced primarily from the off-grid companies.

**Reporting Frequency:** Quarterly

**Individual(s) Responsible at Power Africa USAID:**
Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs sector leads of Agencies collecting data from the private sector as well as donor partners

**Individuals Responsible at Activities:**
MEL POC staff of Implementing Mechanisms that contribute to this indicator

## DATA QUALITY ISSUES

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**

**Validity:** Data for direct actual connections will be obtained from both formal Power Africa private-sector partners and those who are not off-grid company developers and Implementing Mechanisms through self-reporting, so there may be issues of inaccuracies**.** Securing the source documentation for projects will help mitigate this limitation; however, there is no obligation on the private sector to submit source documentation, and ultimately these partners' reporting will be vetted against available public data.

**Reliability:** In the case of direct actual connections, data can be obtained from both formal Power Africa private-sector partners and those who are not Power Africa Implementing Mechanisms through self-reporting. This could cause inflating or under-reporting of the numbers. Securing the source documentation for projects will help mitigate this limitation. Furthermore, with data taken from utilities or regulators, there may be issues with timely and accurate reporting given the variations in capacity to collect connections or metering information for on-grid connections. Data will need to be evaluated on a case-by-case basis.

**Integrity:** Numbers reported from Power Africa private-sector partners and donor/DPs is very difficult to verify as there is no contractual obligation to provide the Power Africa MEL team unit with source documents. We will rely solely on the numbers provided by the sector leads during the formal partners annual reporting.

**Precision:** Data is obtained from utilities through self-reporting. There may be inaccurate input of original data into reporting systems. Securing the source documentation used during a data call can help to mitigate this difference between reported data and original data. This does not, however, ascertain the validity of the reported data.

**Timeliness:** With data taken from utilities or regulators, there may be issues with timely reporting given the variations in capacity to collect on-grid connections number or metering information for on-grid connections. Data will need to be evaluated on a case-by-case basis.

**Completeness**: With data taken from utilities or regulators, there may be issues with completeness of the data regarding missing variables. The minimum variable that satisfies the reporting requirement will be defined on a case-by-case basis.

**BASELINE / TIMEFRAME: 35,934,716 as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheets**

**1.1.2. Name of Indicator: Estimated number of Beneficiaries: Number of beneficiaries with current access to connections**

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):**

Number of beneficiaries refers to the approximate number of individuals who get actual direct energy access due to new or regularized on-grid or off-grid actual direct connections as a result of Power Africa programming, technical, or financial assistance. Connections could be a metered on-grid connection or an off-grid solution.

The term "new" does not only mean households and businesses accessing electricity for the first time, but also includes regularization of existing users, specifically through metering activities.
**Justification:** The Electrify Africa Act requires reporting on the number of Power Africa beneficiaries.

Note that Power Africa stakeholders are not expected to report on this indicator. Power Africa's MEL team will calculate the beneficiary numbers using the methodology described below.

**Unit of Measure:** Number

**Disaggregation:**

- Type of beneficiaries:
  - # of new on-grid beneficiaries
  - # of new off-grid beneficiaries
    - # of new mini-grid beneficiaries
    - # of new solar home system beneficiaries
    - # of new solar lantern beneficiaries
- Countries
- USG vs partners

## PLAN FOR DATA COLLECTION

**Data Source:**
The source of this data will be the number of new on-grid and off-grid actual direct connections. For off-grid connections from solar products sold, such as lanterns and solar home systems, the GOGLA methodology will be applied.

**Method of Data Collection/Calculation:**

On-grid connections

Based on average household sizes in SSA, Power Africa will assume that any new on-grid household connection will provide electricity to five beneficiaries, resulting in the below methodology:

*[Number of household connections x household size (5)] = beneficiaries*

Off-grid connections

To calculate this from the direct connection component, Power Africa will use the direct residential connections disaggregated by technology type. This number will be obtained using the GOGLA methodology, which involves multiplying the number of residential connections by the average number of people per household, while accounting for the type of technology.

GOGLA developed the below methodology to measure standardized impact metrics for the off-grid energy sector for all off-grid connections:

*[Number of units sold (S) x discount for loss (SL) x discount for repeat sales (Srep) x household size (HH)]*

The GOGLA discount factor for repeat sales is 10 percent; for sales channel loss, 3 percent. The household size used is five. In terms of calculations for number of people reached through lanterns connections, the formula is:

*Sales* = 0.9 x 0.97 x 5*

To calculate this from the direct connection component, the direct connection disaggregated by the number of residential connections will be multiplied by the average number of people per household and then have the GOGLA discount methodology applied. This number will be added to the direct connection disaggregate number of business connections to provide the number of beneficiaries from direct connections. The formula for calculation is:

Country-level beneficiary calculation:

*[(# of actual direct connections from indicator 1.1.3) x (World Bank average country household size)]+ # of business connections (which always equals one beneficiary) = beneficiaries*

The Power Africa-level beneficiary calculation would be the sum of all beneficiaries from all countries.

Electrical connections typically do not serve individuals, but rather households, housing compounds, or complexes. This formula allows Power Africa to calculate the approximate number of total beneficiaries. Power Africa will also apply the GOGLA discount methodology for off-grid connections to make sure that these figures are realistic and grounded in industry-wide standards:

GOGLA discount methodology for all off-grid connections is:

*[Number of units sold (S) x discount for loss (SL) x discount for repeat sales (Srep) x household size (HH)]*

*This methodology recognizes that some products are lost and some products are purchased by repeat customers.

**Reporting Frequency:** Quarterly

**Individual(s) Responsible at Power Africa:**

The Power Africa MEL team will calculate the data based on the connections data.

**Individuals Responsible at Activities:**
N/A. The Power Africa MEL team will calculate the data based on the connections data.

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**

**Validity:** Data for direct connections will be obtained from off-grid companies and Implementing Mechanisms through self-reporting, so there may be issues of inaccuracies**.** Securing the source documentation for projects (via regular DQAs) will help mitigate this limitation.

**Reliability:** In the case of direct connections, data can be obtained from off-grid companies and utilities through self-reporting. This could cause inflating or under-reporting of the numbers. Securing the source documentation for projects will help mitigate this limitation.

**Integrity:** Number reported may be inflated.

| BASELINE / TIMEFRAME: 172,053,580 as of the first quarter of fiscal year 2023 |
|---|
| THIS SHEET LAST UPDATED ON: April 2022 |

| Power Africa Performance Indicator Reference Sheet |
|---|
| **1.1.3. Name of Indicator: Number of productive-use devices or systems sold as a result of USG assistance** |
| **Is this a performance plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s)**<br><br>**NB. This indicator includes on-grid only with reference to e-mobility and charging stations that are linked to productive use**<br><br>Number of productive-use off-grid devices or systems sold as a result of support provided by USG to off-grid companies includes agriculture processing machines, water pumps, and refrigerators.<br><br>Productive use refers to an activity that uses energy to earn income or generate other non-leisure benefits. Common productive uses of energy include agricultural processing, lighting for institutions, and water pumping.<br><br>The productive-use off-grid devices or systems are sold by off-grid companies that have received support from Power Africa and will be typically used by entrepreneurs, businesses, or institutions to create value or improve services in the areas of agriculture, health, education, water, and more. The use of productive-use off-grid devices or systems can include processing or storing agricultural products, lighting in schools or clinics, refrigeration of medicine in health centers, and water pumps to access clean water.<br><br>The productive-use off-grid devices or systems will be disaggregated by country and type of device or system (e.g., water pump, refrigerator, ICT hub, agriculture processing machines, institutional lighting).<br><br>Justification: This indicator measures the number of productive-use off-grid devices or systems sold to individuals, businesses, or institutions in the development sectors of agriculture, health, education, water, and other sectors (new innovations that come into the market sporadically).<br><br>This will be viewed favorably by the host governments as it improves adoption and use of off-grid powered technologies in development sectors that are the core public interventions. This indicator is also aligned with the USAID goal of self-reliance by developing economies that are currently receiving assistance from the USG. |
| **Unit of Measure:** Number |
| **Disaggregation:**<br>• Country<br>• Type of device or system |

- Solar Water Pumps–Health
- Solar Water Pumps–Domestic/Business
- Refrigerators–Health
- Refrigerators–Domestic/Business
- Solar Energy Storage System
- Schools–Institutional Solar Power System
- Health–Institutional Solar Power System
- Water Purification Device
- Fishing Lights
- Maize Mills
- Welding Equipment
- Carpentry Equipment
- Business Entertainment System
- Salon Equipment
- Micron Sprayers
- Battery Stick Kits
- Solar Power System/Solar generator
- E-mobility (e-bikes; e-buses)
- Solar charging systems (e-bike & e-bus charging stations)
- Public Address Kit
- Sewing Machine Kit
- Phone Charging Station Kit
- Solar-Powered Agro-Processing Machines
- Solar Irrigation Equipment
- Other

**Data Source(s):** Sales records from USG partner off-grid companies that sell productive-use electric appliances

**Method of Data Collection:** Count of productive-use off-grid devices or systems (e.g., food processing machines, water pumps, refrigerators) sold as a result of support provided by USG to off-grid companies

**Reporting Frequency:** Output data will be collected on a rolling basis and reported quarterly.

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners

**Individuals Responsible at Activities:**

- The MEL staff of IMs that contribute to this indicator are responsible for uploading IM data in PAIS

**PLAN FOR DATA COLLECTION**

**Data Collection Method:**

- Off-grid advisors will collect data on a quarterly basis from off-grid stakeholders supported by USG and submit their data via the standardized electronic data collection template.

| |
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| • The off-grid companies will provide the data to the relevant off-grid advisor in each country, who will then share the data with the MEL POC; this person will centralize and analyze the compiled data for reporting. |
| **DATA QUALITY ISSUES** |
| **Date of Past Data Quality Assessment:** November 2015, October 2021 |
| **Date of Future Data Quality Assessment:** October 2024 |
| **Known Data Limitations: N/A** |
| **BASELINE / TIMEFRAME : 92,138 as of the first quarter of fiscal year 2023** |
| **Baseline Timeframe/Notes:** 0 as of 2018. |
| **THIS SHEET WAS LAST UPDATED ON: April 2022** |

| **Power Africa Project Performance Indicator Reference Sheet** |
|---|
| **1.2.1. Name of Indicator: Number of public facilities electrified** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition:**<br>Public facilities are defined as facilities that provide services to the general public at large, often/sometimes constructed by the government (e.g., hospitals, clinics, schools, community halls, food distribution centers, safe drinking water points, shelters for indigent communities).<br>The public facilities should have improved reliable and affordable electrical energy available to improve the provision of essential services (e.g., increased hours of public facilities, hours of operation or increased number of services at the public facility that are electricity dependent).<br>The results for this indicator will be attributed from direct USG funding (i.e., grants) or technical assistance provided to stakeholders.<br><br>**Justification:** This indicator measures progress towards electrification of public facilities goal, as it is counting the number of public facilities with improved and affordable electrical energy and related electrical installations. |
| **Unit of Measure:** Number of public facilities |

**Disaggregation:**

# Grid connected vs. off-grid

# Type of public facility

# For healthcare facilities

- With maternity/delivery care
- With in-patient treatment capacity
- With outpatient treatment capacity

# Country

**PLAN FOR DATA COLLECTION**

**Data Source:** Approved grants, commissioning reports, email confirmation

**Method of Data Collection/Construction:** Count of public facilities with improved energy-production equipment and related electrical installations

**Reporting Frequency:** Quarterly

**Individual(s) Responsible at Power Africa/USAID:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RM of agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners

**Individuals Responsible at Activities:**

MEL POC of the IMs contributing to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** Not applicable; this a new indicator

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:** N/A

**BASELINE/FRAMEWORK: Not applicable; this a new indicator**

**THIS SHEET WAS LAST UPDATED ON**: March 2022

**Power Africa Performance Indicator Reference Sheet**

## 1.3.1. Name of Indicator: Number of women benefiting from on-the-job, technical or professional development training in the energy sector as a result of USG assistance

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**

On-the-job-training is a workforce development strategy in which employees learn a new skill set by performing the skill set on the job. This might include an apprenticeship, internship, job rotation, job shadowing, mentoring, coaching, or any other strategy to provide a new or existing employee with new skills while employed.

Technical training is in-person or virtual training or workshops that build specific expertise or competencies needed

to perform energy-sector jobs. This can include vocational training.

Professional development training is in-person or virtual training or workshops that build professional development skills. A training is considered a single "event" based on its advertised duration, whether a week long or day long.

Professional development skills are career competencies that often are not required technical qualifications of a given position. Professional development skills are not necessarily taught as part of professional or vocational education. Professional skills, such as leadership, mentoring, project management, and conflict resolution, are value-added skills essential to any career.

Training can include long-term academic degree programs, short- or long- term non-degree technical courses in academic or in other settings, seminars, workshops, conferences, on-the-job learning experiences, observational study tours, distance learning, or similar activities that include the previous three elements.

Coaching and mentoring, meetings, or other efforts that could have educational value but do not have a defined curriculum or objectives are generally not considered to be training unless they meet the three definitional standards for training identified above.

Only people who complete the training course are counted for this indicator. People who attend multiple, non-duplicative training may be counted once for each training they completed in the reporting period.

This indicator focuses on delivery of training that was made possible through full or partial funding from the USG. This may include the provision of funds to pay instructors or lead persons, provide hosting facilities, or other key contributions necessary to ensure the delivery of the training. This indicator does not include courses for which the USG only helped develop the curriculum. USG staff and implementers should not be included in the calculation of people trained.

USAID ADS standards require that participants attend a minimum 90 percent of total course hours to be considered as completing a course.

| |
|---|
| **Unit of Measure:** Number of women receiving training |
| **Disaggregation:** Country of origin of the participant, type of training (e.g., technical training, professional development training, professional development skills) |
| **PLAN FOR DATA COLLECTION** |
| **Data Source:** Data to be collected by IMs offering training |
| **Method of Data Collection / Construction:** Training/event participants ledger |
| **Reporting Frequency:** Quarterly |
| **Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and name of reviewer:** Not applicable; this is a new indicator |
| **Date of Future Data Quality Assessments*:*** October 2024 |

**Known Data Limitations:** There is a strong possibility for double counting if the same person participates in multiple professional development trainings scheduled in the same quarter. Note that people who attend multiple, non-duplicative training may be counted once for each training they complete during the reporting period.

Attendance records may be incomplete or inaccurate, especially in the case of determining whether a participant completed an entire course. To the extent possible, we request that IMs make an effort to limit double counting of participants on a quarterly basis.

There is also a strong possibility for training of different quality or intensity to be counted as equals; i.e., a single, one-week course would be considered an "event," as would a single day-long course of study.

It may be difficult to assess if a given training supports a clean-energy-focused job. If, for example, training is given to an employee of a utility, a portion but not all of the electricity from the utility may be "clean energy."

**BASELINE / TIMEFRAME: Not applicable; this a new indicator**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheet**

## 2.1.1. Name of Indicator: Greenhouse Gas Emissions Reduced, Sequestered, or Avoided: Greenhouse gas (GHG) emissions, estimated in metric tons of $CO_2e$, reduced, sequestered, and/or avoided through clean energy as a result of USG assistance

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):**

This indicator reports the quantity of GHG emissions on an annual basis, estimated in metric tons of $CO_2e$ reduced, sequestered, and/or avoided, as a result of USG activities, as compared to a baseline level of GHG emissions. The baseline is the "business-as-usual" reference for GHG emissions that would have occurred during the reporting period if there had been no USG intervention.

This indicator is a calculated estimate and typically not a result of direct emissions measurements.

Many projects to which this indicator applies may result in GHG emissions reductions from carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride gasses. Relevant sectors for projects that may apply this indicator include, but are not limited to, climate change, natural resource management, agriculture, biodiversity, energy, industry, urban, and transport.

**Unit of Measure:** *Number of metric tons of CO2e on an annual basis*
Global Warming Potential (GWP) of gases from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report should be used for calculations, and are as follows:

- Gas GWP
- $CH_4$ 21 (methane: has a 21 times greater impact than $CO_2$ over a 100 year period)
- $N_2O$ 310 (nitrogen dioxide: has 310 times greater impact than $CO_2$ over a 100 year period)

Note: $N_2O$ is a common gas emitted by diesel motors and should be factored in to avoid emissions.

**Disaggregation:**

- USG agencies clean-energy-funded activities
- IMs clean-energy-funded activities
- Country

**PLAN FOR DATA COLLECTION BY USAID**

**Data Source:**

For generation capacity (MW), the primary data source will be Power Africa and USG-agency commissioned projects cleared by PRO. The data will be calculated using the CLEER tool.

Operating units (OUs) should use standard, internationally accepted electricity and fuel emission factors found below. If a recent and robust local emission factor is available or a program-specific emission factor is developed, OUs can use it instead and document the factor in their indicator narrative.

International Energy Agency *$CO_2$ from Fossil Fuel Highlights*:
https://www.iea.org/data-and-statistics/data-product/emissions-factors-2022
Fuel emission factors – IPCC 2006 *Guidelines for National Greenhouse Gas* Inventories: http://www.ipcc.ch/report/ar5/

**RESOURCES:**

GHG emissions/CLEER Protocol: https://pages.usaid.gov/E3/GCC/ghg-accounting-tools

**Method of data collection / construction:**
Primary calculation will be displacing GHG emissions from commissioned power generation. Other calculations or types of GHG reductions will use the standard indicator toolkit/calculators available from USAID/Global Climate Change.
For **off-grid**, see below under "other notes."

**Reporting Frequency:** Annually

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, and RMs of USG agencies supporting this indicator

**Individuals Responsible at Activities:**
MEL POC staff of Implementing Mechanisms that contribute to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**

**Validity:** This calculation for Power Africa purposes will strongly assume that local, small diesel generation will be the counterfactual for power supply. This will not necessarily be true in all cases; however, unless strong indications or reliable information is available that specific generation will displace certain other technologies, diesel shall be the default assumption.

**Reliability:** Consistent methodologies should be applied. Any revisions to standard USG GHG estimation methods should be clearly documented to ensure time series consistency and comparability.

**Precision:** (Standard Indicator language): There could be some imprecision due to variances in reporting methodologies. Using the standard GHG accounting methodologies in the CLEER Protocol will enhance consistency and address variances in reporting from the use of diverse methodologies.

*(Power Africa language):* There will also be some variance due to national and local variations in generation efficiency that will be acceptable for reporting purposes.

**Integrity**: The choices of possible values for emission factors, carbon sequestration rates, and other variables affect calculations. To ensure integrity, the GHG calculation methods, data inputs, data sources, and assumptions should be clearly and completely documented.

**Other Notes*:***

For off-grid-specific GHG emissions, Power Africa has a specific methodology that is based on GOGLA's sales data for 2019 and 2020 as well as its Impact Metrics for Kerosene Replacement and $CO_2$e Reduction. This off-grid methodology takes into account off-grid solar PV systems ranging in size from 0 Wp to 50+ Wp and also includes mini-grids. This methodology is based on the assumption that in SSA, GHG emissions come primarily from kerosene and not diesel and new electricity connections that are counted for this indicator do not have access to diesel or grid electricity, nor will they in the near future.

The formula below estimates GHG emissions reduced or avoided by assuming that in the absence of off-grid electricity, consumers would use kerosene lanterns as their primary lighting source. GOGLA estimates that a kerosene lantern emits 0.431 tons of $CO_2$e ($tCO_2e$) per year. This methodology takes the total number of sales for an Implementing Mechanism (S), applies a discount rate to factor in losses such as when a solar home system breaks and a consumer has to revert to using kerosene lanterns for part of the year (D), and multiplies it by the $tCO_2e$ that would be emitted by a kerosene lantern in a year (G). This number can be multiplied by the longevity of a solar product (P) in order to get the tCO2e over the course of a solar product's lifetime.

The $tCO_2e$ avoided for lanterns, solar home systems, and mini-grids is calculated as:

$$tCO2e = S * (1 - D) * R * G * P$$

where:

$S =$ number of solar product sales;

$D =$ discount rate;

$R =$ the replacement ratio of kerosene lanterns;

$G =$ annual $tCO_2e$ emissions per kerosene lantern; and

$P$ = Solar product lifespan in years

- The discount rate, $D$, varies based on the payment method used (pay as you go [PAYGO] or cash). For cash sales, the discount rate is 3 percent; discount rates for PAYGO sales vary based on the size of system sold and are calculated as:

$$\frac{2}{3} * \left(1 - 0.98^{12*W}\right) + 0.01$$

where $W$ is the average length in years of the warranty for the solar product's main unit.

For the replacement of diesel pumps with solar PV pumps in the productive use of energy sector, Power Africa has developed a methodology that also is based on GOGLA's Impact Metrics for Kerosene Replacement and $CO_2$e Reduction and uses average pump sizes from three commonly sold models of solar PV pumps—Ennos, Futurepump, and SunCulture. These three have the highest reported pump sales to PAOP of all reporting companies. The methodology provides a low, middle, and high estimate of the potential GHG emissions avoided, and for reporting purposes, PAOP will use the low estimation based on the smallest pump size sold by the companies in order to provide the most conservative estimate.

The formula below estimates GHG emissions reduced or avoided by assuming that in the absence of off-grid electricity, consumers would use diesel to power their water pumps for agriculture purposes. The $tCO_2e$ emitted by one diesel pump (G) are estimated based on the pump's average capacity (in Wp), the amount of diesel required to produce one kWh of electricity, the emission factor of diesel used by pumps (gram of $CO_2$e produced per kilogram of diesel consumed), and assuming that pumps are operated ten hours per day for 365 days a year. This methodology then takes the total number of pump sales for an Implementing Mechanism (S * R) and multiplies it by the $tCO_2e$ that would be emitted by one diesel pump in a year (G). This number can be multiplied by the longevity of a solar product (P) in order to get the tCO2e over the course of a solar product's lifetime.

The $tCO_2e$ avoided for pumps is calculated as:

$$tCO2e = S * R * G * P$$

where:

$S$ = number of solar product sales;

$R$ = the estimated percent of customers replacing a diesel irrigation pump (rather than purchasing a pump for the first time);

$G$ = annual $tCO_2e$ emissions per diesel pump; and

$P$ = Solar product lifespan in years

Detailed assumptions and definitions are found in the Emissions avoided calculations used for the estimations and Pumps – Emissions Avoided calculation.

**BASELINE / TIMEFRAME: 7,605,910 CO2 as of fiscal year 2022 (annual reporting)**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheet**

**2.1.2. Name of Indicator: Projected greenhouse gas emissions reduced or avoided from adopted laws, policies, regulations, or technologies related to clean energy as a result of USG assistance**

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):** Power Africa programming enables countries to accelerate their transition to low-emissions development.

This indicator measures the cumulative projected GHG emissions reduced, avoided, and/or sequestered over a period of 15 years, in metric tons of $CO_2$-equivalent, from the time the policy took effect or action was taken. The measure, technology, or action may be supported in full or in part by USG assistance. It is acceptable to calculate the projected emissions reductions from a combination of adopted policies and/or actions to which USG assistance contributed. Policies and actions adopted since 2015 that have not been previously reported may be included.

Relevant clean energy technologies include any product, process, or infrastructure with USG assistance that is installed or adopted that can reduce, avoid, or sequester greenhouse gas emissions.

This indicator is applicable to all types of clean energy policies and actions, including but not limited to nationally appropriate mitigation actions (NAMAs), energy efficiency or renewable energy policies, regulations and standards, GHG reporting programs, emissions trading programs, and deployment of technologies that result in emission reductions.

Results should be divided into three disaggregates: emissions reduced or avoided from the time action was taken or the policy took effect through year five, from year 6 to year 10, and from year 11 to year 15. The sum of the three should be the total projected reduction in or avoided emissions.

Implementers may report on this indicator only once per adopted policy or action. Reporting may occur in the year the policy was adopted or the year the action was taken or implemented. Assessments of previously supported policies and actions, adopted since 2015, can be reported under this indicator. In such cases, they may involve both ex-post and ex-ante estimates.

**FOR USAID ACTIVITIES:**

OUs can refer to the World Resources Institute (WRI) 2014 Policy and Action Standard for guidance on how to generate a ten-year projection http://www.ghgprotocol.org/policy-and-action-standard. However, this is a significant exercise and is not standardized across all programs. USAID OUs can contact USAID/Washington for additional technical assistance on developing a projection of emission reductions. Standardized calculations for reporting under this indicator for certain types of policies and technologies are under development as part of the CLEER Protocol and CLEER tool (http:/www.cleertool.org).

This indicator may be used in conjunction with EG2.1.1 GHG emission reductions, as this indicator represents projected emission reductions, and EG2.1.1 measures ex-post emission reductions. Activities that use this indicator may also report on 3.4.13, Laws and Policies, and 4.1.4, Megawatts (MWs) of clean energy capacity, as emission reductions may be expected as a result. In such cases, they may involve both ex-post and ex-ante estimates.

| |
|---|
| **Unit of Measure: Metric tons of CO2 equivalent (tCO2e)** |
| **Disaggregation:**<br>• Years 1 to 5<br>• Years 6 to 10<br>• Years 11 to 15 |
| |
| **Data Source:**<br>The primary data source will be Power Africa and USG agency-commissioned projects cleared by the PRO for PPR purposes. |
| **Reporting Frequency:** Annually |
| ***Individual(s) responsible at Power Africa:*** Power Africa MEL team and Power Africa partnership team |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and name of reviewer:** October 2021 |
| **Date of Future Data Quality Assessments:** October 2024 |
| **Known Data Limitations: N/A** |
| **BASELINE / TIMEFRAME: Not applicable; this a new indicator** |
| **THIS SHEET LAST UPDATED ON:** April 2022 |

| **Power Africa Performance Indicator Reference Sheet** |
|---|
| **21.3. Name of Indicator: Number of competitive procurements for new power generation, transmission, and/or distribution capacity implemented as a result of USG assistance.** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):**<br>This indicator captures the technical assistance, advisory services, and capacity-building provided by Power Africa in support of competitive procurements.<br>"Competitive procurements" are those that advance transparency, competition, and international best practices in procurements, such as fair and competitive bidding, life-cycle cost analysis, and best value determination, that will increase investor confidence, lower costs, and facilitate sustainable, long-term energy infrastructure investments. |

In this context, assistance to support competitive procurements may include supporting adherence to international best practices; providing technical assistance and advisory services to design and/or transition to competitive processes; and supporting the review and selection of bids and related capacity-building for government, private sector, and/or utility officials. For example, if an Implementing Mechanism is supporting a solar competitive procurement and provides support in both the review and development of model agreements (two separate activities), the number of competitive procurements supported is one.

"USG assistance" refers to USG agencies or Power Africa/USG Implementing Mechanisms involved in the project. Assistance related to competitive procurement processes can include any of the following:

- Review of procurement documents including tender criteria, bids, or contracts
- Review of competitive procurement processes and planning to ensure compliance with best practices
- Review of/or assistance with procurement documents, including standard documents, PPAs, and regulations
- Assistance to structure, establish, or build capacity of a procurement unit within a government agency
- Provision of embedded advisor support to a procurement unit
- Provision of assistance to set up competitive procurement processes

The indicator narrative should include the following:

- Brief description of the support provided and the processes supported to enhance a particular procurement
- Which USG agency supported the process
- If USAID, which Implementing Mechanism

**Unit of Measure:** Number of competitive procurements

**Disaggregation:**

- On-grid (generation, transmission, distribution) or off-grid (e.g., mini-grid meters) procurement
- Type of procurement process (e.g., reverse auction)
- Country
- USG agency that supported assistance (including Power Africa Implementing Mechanism if USAID)

## PLAN FOR DATA COLLECTION BY USAID

**Data Source:**
Public announcement of procurement process

**Method of data collection and construction:**

- Implementing Mechanisms will provide a description of the support provided and how it enhances competitive procurement.
- Interagency Liaisons will offer a description of the support provided and how it is intended to enhance competitive procurements.

**Reporting Frequency:** Annual

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RM of USG agencies, DP, and PSP supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms choosing to contribute to this indicator

## DATA QUALITY ISSUES

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|---|
| **Dates of Previous Data Quality Assessments:** DQA conducted in November 2015, October 2021 |
| **Date of Future Data Quality Assessments: October 2024** |
| **Known Data Limitations:**<br>**Validity:** As this indicator counts the number of procurements receiving support, it does not reflect the quality of each of those procurements in practice or the follow-on development impacts.<br>**Reliability:** USAID results will be reliably captured through standard reporting processes. Other USG agencies will be more sporadic and potentially incomplete, as there are no contractual reporting requirements. |
| **BASELINE/TIMEFRAME: 40 as of the first quarter of fiscal year 2023** |
| **THIS SHEET LAST UPDATED ON: April 2022** |

| Power Africa Performance Indicator Reference Sheet |
|---|
| **2.1.4. Name of Indicator: Transactions Reached Financial Close: Number of transactions that have achieved financial close as a result of USG assistance** |
| Is this a Performance Plan and Report indicator? No |
| DESCRIPTION |
| Precise Definition(s): This indicator refers to the number of Power Africa transactions that have achieved FC.<br><br>This indicator refers to the number of transactions of Qualified Power Africa transactions that have achieved FC.<br><br>This indicator supports our understanding of the extent of Power Africa's pipeline of current and potential transactions and will also provide information that may be used during Power Africa's impact evaluation to inform whether Power Africa's assistance was critical to transactions reaching FC.<br><br>Transaction: A transaction is a specific technically, commercially, and financially viable power-sector project—generally driven by private developers/sponsors, but can also include public-sector investment—in which capital investment or the necessary technical assistance is required to bring a specific project to FC.<br><br>Qualified Transactions: A qualified transaction must be a specific:<br><br>▪ Generation<br>▪ Renewable power generation investment (wind, solar, hydro, geothermal, biomass, or tidal)<br>▪ Investment that increases access to electricity, including mini-grids, and rural electrification<br>▪ Natural gas power investment, for example associated gas, gas pipeline and associated infrastructure investment, non-associated gas, or liquefied natural gas in combined-cycle configuration<br>▪ Capturing of associated gas and reduction of gas flaring investment<br>▪ Gas investments that will eventually support gas-fired power generation<br>▪ Fuel cell power investment (i.e., one that uses the chemical energy of hydrogen or other fuels to cleanly and efficiently produce electricity)<br>▪ Energy storage application (battery, compressed air, flywheel, pumped hydro)<br>▪ Green hydrogen project |

- Transmission investment

There are two types of qualified Power Africa transactions:

- USG Power Africa Transactions: Occurs when one or more USG interagency partners has substantive involvement[4] such as technical assistance, grant, financing, political support, advocacy. USG Power Africa transactions do not require a QTAT to be counted as a Power Africa transaction.

- Partner Power Africa Transactions: Occurs when a Power Africa partner has invested/is investing capital, services, or equipment in a qualified transaction—without any involvement of an interagency Partner—and when such Power Africa partner allows Power Africa to report on the transaction publicly and is willing to give credit to Power Africa for having played a critical role in moving a qualified transaction forward and when Power Africa consents to branding the qualified transaction as a partner Power Africa transaction. The transaction can only be counted towards Power Africa's goals if it reached FC after the partner officially became a Power Africa partner.[5]

FC: Occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met. For transactions such as public-sector investments that are not structured as above, "FC" will be considered to mean the signing of a works or technical assistance contract.

Generation Expansion: Refers to increase in installed generation capacity. The installed capacity is the tested capacity measured during commissioning. The generation operation is the source of the installed capacity. The amount of increased capacity is based on the feasibility study, which can be updated when an upgraded plant is commissioned.

Rehabilitation or Optimization of Existing Power Generation: Refers to an increase in effective capacity (up to a level less than or equal to the installed capacity) caused by upgrading generation and/or resource effectiveness and fuel supply. Increased effective capacity due to rehabilitation should be defined as capacity resulting from improvements expected to increase capacity on the low-voltage side of the generation connection substation. The source of effective capacity should be the generation operator. The amount of increased effective capacity should be based on a compelling technical assessment—average or current generation incorporated in the feasibility study undertaken to support the decision to undertake the work to achieve the increase in effective capacity, which can be updated when the upgraded plant is commissioned. The feasibility study should include a historic assessment of current effective capacity. The difference between current effective capacity and increased effective capacity would be counted as MW toward this indicator.

Justification: This indicator helps Power Africa track its pipeline and anticipated power generation capacity expected to come online. It also helps dedicate resources to moving transactions forward in order to achieve Power Africa's 2030 goals.

Unit of Measure: Number of Transactions

[4] **Substantive involvement: A result is attributable when the program can plausibly claim that without the specified intervention, the result would not have occurred as it did.**

[5] **The exception to the rule is when the Power Africa partner wants to attribute the transaction towards Power Africa's goals and at the time of attribution has a vested interest in the transaction.**

Disaggregation:

- Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)
- Transaction types
    - Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization)
    - Transmission
    - Distribution
    - Off-grid
    - Energy storage systems
- Transaction stage (Stage 4 Project completion)
- Country
- USG vs. partner Power Africa transaction

In addition, transactions will be disaggregated by "cross-border power transactions." This will complement PA Indicator No. 12 "The volume of electricity in MWh committed for regional cross-border power trade through bilateral agreements with USG assistance."

PLAN FOR DATA COLLECTION

Data Source: IP staff and USG partners verify the number of MWs from project proposals, draft deal agreements or negotiation documents, and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team.

Method of Data Collection / Construction:

- Quarterly submissions by IP staff into the PATT. IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using QTAT
- Additional data through quarterly reports submitted by DFC, USTDA, Ex-Im, and MCC
- Updates from RMs Sector Leads, and/or USAID IP staff after communication with partners
- ** See Transaction Update SOP

Reporting Frequency: Quarterly

Individual(s) responsible at Power Africa: Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

Individuals Responsible at Activities:
MEL staff of IMs choosing to contribute to this indicator

DATA QUALITY ISSUES

Dates of Previous Data Quality Assessments: November 2015, October 2021

- Date of Future Data Quality Assessments: October 2024

Known Data Limitations:
Validity: Relies on TAs, IM staff, USG agencies, and posts to report in a timely and accurate manner. Data may not be completely up to date or accurate.

Integrity: Number reported may be inflated. Number reported from Power Africa private sector as well as donor/DPs is very difficult to verify as there is no contractual obligation to provide the Power Africa MEL team with source documents. We will rely solely on the numbers provided from RMs sector leads during quarterly data calls with partners.

BASELINE/TIMEFRAME: 145 as of the first quarter of fiscal year 2023

THIS SHEET LAST UPDATED ON: 30 August 2021

Power Africa Performance Indicator Reference Sheet

**2.1.5 Name of Indicator: Additional Power Capacity Reaching Financial Close: Number of MW from power generation transactions that achieved financial close**

Is this a Performance Plan and Report indicator? Yes

DESCRIPTION

Precise Definition(s): This indicator refers to the number of MW of qualified Power Africa transactions that achieved FC.
This indicator supports PAs understanding of the extent of Power Africa's pipeline of current and potential transactions and will also provide information that may be used during Power Africa's impact evaluation to inform whether Power Africa's assistance was critical to transactions reaching financial close.

Transaction: A transaction is a specific technically, commercially, and financially viable power-sector project—generally driven by private developers/sponsors, but can also include public-sector investment—in which capital investment or the necessary technical assistance is required to bring a specific project to FC.

Qualified Transactions: A qualified transaction must be a specific:

- Generation
- Renewable power generation investment (e.g., wind, solar, hydro, geothermal, biomass, or tidal)
- Investment that increases access to electricity, including mini-grids, and rural electrification
- Natural gas power investment, for example associated gas, gas pipeline and associated infrastructure investment, non-associated gas, or liquefied natural gas in combined-cycle configuration
- Capturing of associated gas and reduction of gas flaring investment
- Gas investments that will eventually support gas-fired power generation
- Fuel cell power investment (i.e., one that uses the chemical energy of hydrogen or other fuels to cleanly and efficiently produce electricity)
- Energy storage application (battery, compressed air, flywheel, pumped hydro)
- Green hydrogen project
- Transmission investment

FC: Occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met. For transactions such as public-sector investments that are not structured as above, "FC" will be considered to mean the signing of a works or technical assistance contract.

Generation Expansion: Refers to increase in installed generation capacity. The installed capacity is the tested capacity measured during commissioning. The generation operation is the source of the installed capacity. The amount of increased capacity is based on the feasibility study, which can be updated when an upgraded plant is commissioned.

Rehabilitation or Optimization of Existing Power Generation: Refers to an increase in effective capacity (up to a level less than or equal to the installed capacity) caused by upgrading generation and/or resource effectiveness and fuel supply. Increased effective capacity due to rehabilitation should be defined as capacity resulting from improvements expected to increase capacity on the low-voltage side of the generation connection substation. The source of effective capacity should be the generation operator. The amount of increased effective capacity should be based on a

compelling technical assessment—average or current generation incorporated in the feasibility study undertaken to support the decision to undertake the work to achieve the increase in effective capacity, which can be updated when the upgraded plant is commissioned. The feasibility study should include a historic assessment of current effective capacity. The difference between current effective capacity and increased effective capacity would be counted as MW toward this indicator.

Justification: This indicator helps Power Africa track its pipeline and anticipated power capacity expected to come online. It also helps dedicate resources to moving transactions forward in order to achieve Power Africa's 2030 goals.

Unit of Measure: Number of MW

Disaggregation:

- Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)
- Transaction types
- Transaction stage (Stage 4 Project completion)
- Country
- USG vs. partner Power Africa transaction

PLAN FOR DATA COLLECTION

Data Source: IM staff and USG partners verify the number of MWs from project proposals, draft deal agreements or negotiation documents, and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team.

Method of Data Collection / Construction:

- Quarterly submissions by IM staff into the PATT. IM staff takes the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using the QTAT
- Additional data through quarterly reports submitted by DFC, USTDA, Ex-Im, and MCC
- Updates from USG agencies, DP RMs, PSP Sector Leads, and/or USAID Implementing Mechanism staff after communication with developers
- ** See Transaction Update SOP

Reporting Frequency: Quarterly

Individual(s) responsible at Power Africa: Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

Individuals Responsible at Activities:
MEL staff of IPs choosing to contribute to this indicator

DATA QUALITY ISSUES

Dates of Previous Data Quality Assessments and name of reviewer: November 2015, October 2021

Date of Future Data Quality Assessments: October 2024

Known Data Limitations:
Validity: Relies on TAs, IM staff, USG agencies, and posts to report in a timely and accurate manner. Data may not be completely up to date or accurate

Integrity: Number reported may be inflated. Number reported from Power Africa private sector as well as donor/DPs is very difficult to verify as there is no contractual obligation to provide the Power Africa MEL team with source documents. PA will rely solely on the numbers provided from RM's during quarterly calls with partners.

| BASELINE/TIMEFRAME: 13,952 as of the first quarter of fiscal year 2023 |
| --- |
| THIS SHEET LAST UPDATED ON: August 2021 |

**Power Africa Performance Indicator Reference Sheet**

## 2.2.1. Name of Indicator: Number of host-government power-sector strategic planning documents formally proposed or revised, adopted, or implemented as a result of USG assistance

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**

This indicator captures the technical assistance, advisory services, and capacity-building provided by the Power Africa USG interagency and USAID IMs in support of more integrated power-sector planning based on sound data analysis. Effective planning helps ensure the development of a resilient and least-cost power system that continues to meet demand over time. Effective planning will prioritize an optimal mix of energy resources to meet the expected load, new or extended transmission and distribution infrastructure, energy efficiency measures, and off-grid solutions. Power-sector planning should consider and integrate key development goals, as well as interactions with water, land-use, and air quality, and take into account the long-term impacts of climate change.

In this context, Power Africa considers assistance for integrated power-sector planning to include any input provided to advance more strategic planning, embedded advisor support, document review, stakeholder consultation, and related capacity as assistance to "propose, adopt, or implement" an energy-sector plan.

"Strategic planning documents" can include any of the following:

- Integrated resource plans
- Demand analyses
- National, regional, or local generation plans
- Electrification plans
- Transmission and distribution plans
- Any document that utilizes data and analysis to inform government strategy for energy-sector development in the coming years

Each process or document can only be counted once each as "formally proposed," "revised," "adopted," or "implemented," if applicable.

- *Formally proposed* means that a relevant government official or agency, organization, or NGO with decision-making authority has proposed the measure, according to established procedures, preferably publicly when this is appropriate to the given context.
- *Revised* means that an existing document has been substantially altered to include measures enhancing the accuracy and transparency of energy-sector planning.
- *Adopted* means officially codified or enacted by the national government entity with decision-making authority in its national legal, regulatory, or policy system.
- *Implemented* is when the entirety of its provisions is consistently and justly put into full and enforceable effect according to, or by means of, a definite plan or procedure. Implementation is a largely qualitative

measure and a matter of professional judgment and should be described in the narrative as to extent, impact, and enforceability of given reform.

Power Africa contribution to this indicator will include an indicator narrative to justify progress and explain when each measure is counted. For example, if the same measure is counted once under the "adopted" disaggregate AND once in the "implemented" disaggregate in the same reporting year because the measure went through both stages in the same year, the indicator narrative should describe this circumstance.

The narrative should be specific about what the reported number represents, including information detailing:

- The precise title of the measure
- Stage in the process: Multiple milestones may be achieved between "adoption" and "implementation." To the extent possible, the narrative should describe what milestones have been achieved and expectations of forward milestones
- What institutions will be implementing and/or enforcing the measure
- What USG institutions supported the reform process
- How the measure contributes to enhancing energy-sector planning and more transparent governance

**Unit of Measure:** Number

**Disaggregation: Just energy transition/Other**

- Formally proposed, revised, adopted, and implemented
- Type (demand analysis, generation plan, electrification plan, master plan, transmission/distribution plan, other)
- On-grid, off-grid, or both
- Regional, national, sub-national
- Country

**PLAN FOR DATA COLLECTION**

**Data Source:**
Name of planning document

**Method of data collection and construction:**

- IPs will report on the planning documents that they are affecting and the impact that their activities are having.
- Interagency Liaisons will request reports on planning documents that their agencies are supporting. Interagency partners currently include DOE, MCC, Department of State

**Reporting Frequency:** Biannually

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RM of USG agencies, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms contributing to this indicator

**DATA QUALITY ISSUES**

| |
|---|
| **Dates of Previous Data Quality Assessments:** November 2015, October 2021 |
| **Date of Future Data Quality Assessments: October 2024** |
| **Known Data Limitations:**<br>**Validity**: If the intended result is an improved enabling environment, then official plans provide only a partial measure of success, given that effective implementation and accountability are also critical. Effectiveness of the plan can only be measured in the lon term, so there will be limited value in short-term assessments. While transparency and publication are important elements of the planning process, the ultimate quality of the plan will also matter.<br>**Timeliness:** Planning processes are often long and drawn out depending on the number of government entities involved. Preparatory studies and data analysis may be required prior to drafting, which could also delay the process. |
| **BASELINE/TIMEFRAME: 0 (no data reported on since the indicator was developed)** |
| **THIS SHEET LAST UPDATED ON: April 2022** |

| **Power Africa Performance Indicator Reference Sheet** |
|---|
| **3.1.1. Name of Indicator: Number of U.S. companies participating in Power Africa Projects/Transactions as a result of USG assistance** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):**<br>This indicator measures the number of U.S. companies that participate in Power Africa projects by providing goods (equipment) and/or services (legal, financial, engineering) or act as a project developer, financier, EPC firm, or through research and development. This indicator carries a broader definition of "U.S. Company" and will capture companies headquartered in the United States, companies incorporated in the United States, and companies that manufacture in the United States related to the project.<br><br>Through this indicator, Power Africa will better understand the trends, types, and volume of U.S. companies participating in the value chain of Power Africa projects beyond measuring exports. For example, U.S. companies are very competitive in providing services as well as developing innovative technologies that are not captured in export data but still benefit the U.S. economy. This indicator will help Power Africa better design interventions, tools, and program resources to improve the participation of U.S. companies.<br><br>Small Business/Small Organization: A U.S. business or organization that Power Africa considers a small business (or small organization) is an entity that is registered as a for-profit (or not-for-profit), has an equal or less annual average of $15 million of revenue for the last three years, is independently owned and operated, is not dominant in the field of operation, and meets size standards as prescribed by the U.S. Small Business Administration. If the organization has fewer than three years of creation, the entity automatically qualifies as a small business. Definition Source: www.SBA.gov |

| |
|---|
| **Unit of Measure:** Number of U.S. companies participating in Power Africa projects/transactions |
| **Disaggregation:**<br>• Organization type (association, foundation; non-governmental organization (NGO), consulting services, developer/sponsor, engineering/procurement/construction (EPC), equipment supplier, private equity/debt provider, transmission and distribution company)<br>• Small business or not a small business<br>• Participation pursuant to a USG supported project |
| **PLAN FOR DATA COLLECTION** |
| **Data Source:** Semiannual data calls**,** TAs, Implementing Mechanisms, project developers, RMs sector leads, USG agencies, DPs, PATT, PAIS |
| **Method of Data Collection and Construction:** Upon financial close and upon operation of a Power Africa project, Power Africa will collect information from its information systems (PATT, PAIS), from TAs, IP staff, and from its partners. |
| **Reporting Frequency:** Biannually |
| **Individual(s) Responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, DPs, and PSPs supporting this indicator, Power Africa team leads |
| **Individuals Responsible at Activities:**<br>MEL POC of Implementing Mechanisms contributing to this indicator |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments**: DQA conducted in November 2015, October 2021 |
| **Date of Future Data Quality Assessments: October 2024** |
| **Known Data Limitations:** Power Africa's intervention varies by project and collecting data from project implementer and developer may be difficult. Some developers or EPCs may not choose to disclose their supply chain. |
| **BASELINE/TIMEFRAME: 287 as of the first quarter of fiscal year 2023** |
| **THIS SHEET LAST UPDATED ON: April 2022** |

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| **Power Africa Performance Indicator Reference Sheet** |
| **3.2.1. Name of Indicator: Amount Mobilized: Amount of investment mobilized for (USD) for clean energy as a result of USG assistance (EG 12-4)** |

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):**

This indicator includes finance mobilized (or leveraged), enabled by USG and/or Power Africa partner assistance, for actions, activities, projects, or programs that avoid, reduce, or sequester GHGs from clean energy activities. Finance may be mobilized from the public sector (e.g., other governments or public multilateral entities), the private sector (e.g., corporate investments), DPs and should help to advance the objectives established by Power Africa.

In the context of this program, PA considers mobilizing mainly as pooled funding for a variety of purposes. Examples of what mobilized funds may support include improving the enabling environment and funding the costs of energy project activities advanced by the program. This approach is to be distinguished from the term leverage (see note below), as it is used by other development agencies to measure a narrow scope of investments, which usually covers loans, equity, and risk management products. Power Africa looks at its investments in direct comparison to the value of transactions that have reached FC, as additionality in terms of value for money.

Mobilized finance reported under this indicator should be disaggregated as domestic or international. Domestic finance is investment which originated within the country in which it is implemented (e.g., national government funds to support implementation of a project within that country), and international finance is cross-border finance (e.g., a private company based in one country contributing funds for a project in a different country).

Finance can be mobilized through a variety of instruments and vehicles, including common funding instruments, parallel investments, or in-kind funding as a result of USG mobilization. Examples of the types of U.S. assistance that could mobilize finance include:

*Finance interventions,* such as:

- Grants (or in-kind support) for technical assistance;
- Loans;
- Equity or investment shares;
- Support for the development and structuring of other financial instruments such as Green Bonds or Real Estate Investment Trusts;
- Political, regulatory, or credit risk insurance and guarantees; and
- Acting as arranger or financial advisor in a debt and equity capital raise.

In measuring the Power Africa Transmission Roadmap target of "3 billion in transmission-related investment mobilized," one shall include funds that contribute to the development, construction, and/or commissioning of the transmission or interconnection project, including:

- Environmental and social impact studies, way leave, load flow, and other early stage pre-feasibility and feasibility studies;
- Funding for transaction support including project structuring, financing, and negotiation;
- Funding for construction, owners engineers, or any costs associated with operationalizing a cross-border transmission and/or interconnection project.

**Unit of Measure:** US dollar

**Disaggregation:**

- Public, domestic
- Public, international
- Private, domestic
- Private, international
- Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, gas)

**PLAN FOR DATA COLLECTION BY USAID**

**Data Source:** To report observed mobilization, Implementing Mechanisms, TAs, RMs for USG agencies, and RMs sector leads and DP will gather data on the amount of finance mobilized and report through PAIS and PATT.

Amount mobilized of transactions that have reached FC will be sourced from project documents, such as the project agreement. Data sources will include power pools (West Africa Power Pool (WAPP), East Africa Power Pool (EAPP), Southern Africa Power Pool (SAPP)), DPs, and PSPs.
Source documentation for amount mobilized should include a rationale for how U.S. support has facilitated the mobilization of reported resources and include information such as methodology used to assess mobilization, source of funds by project name, the type of project and financial instrument, and use of funds.

**Method of data collection and construction:**

- Quarterly submissions by USAID Implementing Mechanisms into the PATT
- Quarterly reports submitted by the DFC, Ex-Im, USTDA, MCC
- Power Africa private partners
- Power pools

**Reporting Frequency:** Quarterly

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of USG agencies, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms contributing to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**
**Integrity:** U.S. support for mobilized funds may involve an assumed causal or catalytic contribution of U.S. assistance.
**Precision:** Measuring mobilized finance is not intended to indicate the magnitude of impact or results achieved. Confidentiality restrictions related to precision: Some organizations providing funding may consider some information on their funding support to be proprietary and/or sensitive and limit the extent to which it can be publicly reported. In these instances, it may be necessary to report mobilization at an appropriate level of aggregation.

**Reliability:** Remote possibility that contributing partners and relevant stakeholders may provide inaccurate information.
**Timeliness:** Potential time lag of investments from USG assistance.

**BASELINE/TIMEFRAME: 7,132 million (USD) as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON: October 2021**

**Power Africa Performance Indicator Reference Sheet**

**3.2.2. Name of Indicator: USG Investment Leverage: Total public and private funds leveraged by USG for energy projects**

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**
The term "leverage" is used by development agencies as the ability of a public financial commitment to mobilize a larger multiple of private capital for investment in a specific project or undertaking. Financial leverage ratios are not proportional across industrial sectors or across different sized firms, and private leverage achieved by different instruments varies, depending on the definition and context. While there are no agreed measures across agencies on methodology, mostly, leveraging denotes additionality, which could take the following forms:

1) Financial additionality (new money)
2) Operational and institutional additionality (improvement in social/environmental/institutional management standards)
3) Development additionality (total investment contribution to sustainable development)

Using the term leverage in the Power Africa context, therefore, may inaccurately capture the process by which funds are mobilized through the program. Therefore, whereas the following examples may not be considered as leveraged, in other development contexts, Power Africa may factor them in its calculations:

1) Catalytic investments
2) Pooled financing
3) Inducing policy reform

For the purposes of disaggregation, "Gender Lens Investing" (GLI) is defined as an investment strategy that deliberately integrates gender analysis and the application of gender-focused criteria into investment decision-making. GLI criteria typically consider:

- Is the business owned by women or does it have women represented in leadership?
- Is the business committed to a gender equitable workforce and energy industry?
- Does the business offer and design products or services that meet the needs of women and ensure that its operations do no harm to women?

The exact criteria applied by a given fund manager may differ.

Examples of USG assistance that will leverage GLI dollars include but are not limited to technical assistance to companies for gender-focused workforce and leadership development, assistance to women entrepreneurs, and assistance for funds and investors developing GLI criteria or strategies.

**Unit of Measure:** US dollars

**Disaggregation:**

- Country
- GLI or non-GLI
- On-grid power generation
- Off-grid power generation
- Generation capacity
- Transmission
- Distribution
- Technology (wind, tidal, solar, geothermal, hydro, biomass, biogas and green hydrogen)
- USG, public (DP) vs private partner

**PLAN FOR DATA COLLECTION**

**Data Source:**
USAID Implementing Mechanisms
USG interagency
The total cost of transactions will be sourced from project documents, such as the project proposal.

**Method of data collection and construction:**
IPM staff and RMs sector leads will collect data from PSPs and DPs contributing to the project.

**Reporting Frequency:** Quarterly

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of Power Africa Implementing Mechanisms reporting on this indicator, RMs of USG agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms choosing to contribute to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**
**Reliability:** Remote possibility that contributing partners may provide inaccurate information.
**Timeliness:** Potential time lag of investments from USG assistance.

**BASELINE/TIMEFRAME: 242.87 million (USD) as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON: April 2022**

| Power Africa Performance Indicator Reference Sheet |
|---|
| **3.2.3. Name of Indicator: Training and Capacity-Building Activities: Number of people trained in technical energy fields a result of USG assistance** |
| **Is this a Performance Plan and Report indicator?** Yes |
| **DESCRIPTION** |
| **Precise Definition(s):**<br><br>Training can include long-term academic degree programs, short- or long-term non-degree technical courses in academic or in other settings, seminars, workshops, conferences, on-the-job learning experiences, observational study tours, distance learning, or similar activities as long as it includes the three elements below.<br><br>Coaching and mentoring, meetings, or other efforts that could have educational value but do not have a defined curriculum or objectives are generally not considered to be training unless they meet the three definitional standards for training identified below.<br><br>Only people who complete the training course are counted for this indicator. USAID ADS standards require that participants attend a minimum of 90 percent of total course hours to be considered as completing a course.<br><br>People who attend multiple, non-duplicative training may be counted once for each training they completed in the reporting period.<br><br>This indicator focuses on delivery of training that was made possible through full or partial funding from the USG. This may include the provision of funds to pay instructors or lead persons, hosting facilities, or other key contributions necessary to ensure the delivery of the training. This indicator does not include courses for which the USG only helped develop the curriculum. USG staff and implementers should not be included in the calculation of people trained.<br><br>Technical energy fields are those that increase the efficiency, reliability, diversity, and transparency of energy services and promote investment in the development, transport, processing, and utilization of indigenous energy sources and imported fuels.<br><br>Training is defined as a learning activity involving:<br><br>1) A setting intended for teaching or transferring knowledge, skills, or approaches;<br>2) A formally designated instructor or lead person; and<br>3) A defined curriculum, learning objectives, or outcomes.<br><br>Examples of Power Africa energy training include strengthening the individual capacity of staff in the regulator's tariff review department, training utility staff in gender equity and human-resource development, working with a utility's staff to improve the performance of the commercial department, and training utility staff and other stakeholders in community engagement and environmental safeguards. |
| **Unit of Measure:** Number of people |
| **Disaggregation:** |

1. Sex – number of men and number of women
2. Country

**PLAN FOR DATA COLLECTION**

**Data Source:**
USAID IMs: Power Africa Implementing Mechanisms, NARUC, USEA, CLDP, PFAN, Lighting Africa, ALSF, PAAP
USG agencies: USAID, DOE, DOC, USTDA

**Method of Data Collection / Construction:** IMs and USG agencies capture information from attendance records and capture onto PAIS. The data will be supported/documented by registration and sign-in data sheets maintained by the IMs.

**Reporting Frequency:** Quarterly

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners

**Individuals Responsible at Activities:**
MEL POC staff of Implementing Mechanisms that contribute to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments: October 2024**

**Known Data Limitations: Validity:** Attendance records may be incomplete or inaccurate, especially in the case of determining whether a participant completed an entire course.

**BASELINE/TIMEFRAME: 14,346 as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheet**

**3.2.4. Name of Indicator: Policy Reforms: Number of national or regional laws, policies, regulations, or standards to enhance energy-sector governance formally proposed, adopted, or implemented as a result of USG assistance**

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):** For Power Africa, reforms, laws, regulations, and standards to be considered under this indicator include but are not limited to those that encourage investment in renewable or low-emission energy technology, distributed energy/off-grid options, energy access, support gender integration in the energy sector, and/or promote community engagement and/or environmental best practices within the sector.

Policy reforms, laws, regulations, technical codes, and administrative procedures that enhance governance and encourage investment might include but are not limited to measures that mitigate risks and promote transparency to strengthen the business environment, standards for improved infrastructure, policies to conserve or allocate energy more effectively, regulations to encourage the development of renewable energy sources, as well as regulations stipulating the assessment and mitigation of social and environmental impacts.

Energy plans or strategies and other nationally significant measures should not be reported under this indicator.

In the off-grid sector, policy reforms may include but are not limited to taxation/duty policies, subsidy policies, quality assurance requirements, licensing procedures, e-waste policies, and mini-grid regulatory frameworks.

"Formally proposed" means that a relevant government official or agency, organization, or non-governmental entity with decision-making authority has proposed the measure, according to established procedures, preferably publicly when this is appropriate to the given context. One example of a non-governmental entity initiating a proposal could be a standard-setting body for a profession or industry.

"Adopted" means officially codified or enacted by a government, organization, or non-governmental entity with decision-making authority in its respective legal, regulatory, policy, or non-governmental system.

"Implemented" means that a measure is in force or being executed in the intended geographic locations and at the intended administrative levels.

"USG assistance" means USG agencies or Power Africa/USG Implementing Mechanisms involved in the project.

If a measure is not yet adopted, it must at least be formally proposed within an official process to be reported.

Each measure can be counted once as "proposed," once as "adopted," and once as "implemented," if applicable, within the same reporting period or across multiple reporting periods. The indicator narrative should include an explanation of when each measure is being reported.

Legal, regulatory, and policy reform and new industry standards that enhance sector governance may include such measures that, for example, protect consumer interests, enhance transparency, attract private-sector investment, and stimulate more efficient and competitive markets.

The indicator narrative should include an explanation of when each measure is counted. For example, if the same measure is counted once under the "proposed" disaggregate AND once in the "adopted" disaggregate in the same reporting year because the measure went through both stages in the same year, the indicator narrative should describe this circumstance.

The narrative should be specific about what the reported number represents, including information detailing:

- The precise title of the measure
- Stage in the process: Multiple milestones may be achieved between "proposed" and "adopted." To the extent possible, the narrative should describe what milestones have been achieved and expectations of forward milestones
- What institutions will be implementing and/or enforcing the measure
- What USG institutions supported the reform process and their involvement
- How the measure contributes to enhancing energy-sector governance

Each policy reform should include a disaggregation. The indicator narrative should include an explanation of all disaggregates. For example, if the same policy reform is counted under both "clean energy investments" AND "distributed energy/off-grid energy," the indicator narrative should explain this.

**Unit of Measure:** Number

**Disaggregation:**

- Formally proposed, adopted, or implemented
- Laws, policies, regulations, or standards
- Regional or national, note which region and country
- Focus of reform:
    - Private-sector participation
    - Regional power pools
    - Energy efficiency
    - Renewable or low-emission energy technology
    - Distributed energy/off-grid
    - Gender equity
    - Community engagement
    - Environment
- USG agency providing assistance

## PLAN FOR DATA COLLECTION

**Data Source:**

- Official title of law, policy, and regulation and confirmation of its proposal, adoption, or implementation in public announcement.

**Method of Data Collection/Construction:**
IMs and interagency partners will report on the policies, laws, regulations, and administrative procedures that they are affecting and the impact that their activities are having on these measures.

**Reporting Frequency:** Biannually

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL staff of IPs choosing to contribute to this indicator

## DATA QUALITY ISSUES

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments: October 2024**

**Known Data Limitations:**

**Validity:** If the intended result is an improved enabling environment, then the laws, policies, strategies, plans, regulations, and procedures provide only a partial measure of success, given that effective implementation and enforcement are also critical. Effectiveness of policy reform can only be measured in the long term, so there will be limited value in short-term assessment. Measures might also not be well designed or effective.
**Timeliness:** Preparatory studies may be required prior to proposal, adoption, or implementation of the measure, which may delay adoption and implementation.

**BASELINE/TIMEFRAME: 446 as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON:** April 2022

**Power Africa Performance Indicator Reference Sheet**

**3.2.5. Name of Indicator: Number of Institutions with improved capacity to address Clean Energy Issues as supported by USG assistance (EG. 12-2)**

**Is this a Performance Plan and Report indicator?** Yes

**DESCRIPTION**

**Precise Definition(s):**

Clean energy programming enables countries to accelerate their transition to low-emissions development through investments in clean energy.
Institutions with improved (i.e., better, additional, or greater) capacity to assess or address clean energy issues are institutions that have new or increased ability to use approaches, processes, strategies, or methodologies to mitigate climate change.

Relevant institutions may include national, sub-national, or regional government institutions (such as ministries, departments, or commissions), private-sector entities, local civil society organizations (such as women's groups or farmers' cooperatives), and trade unions, among other governmental, non-governmental, and private-sector institutions.

Indications of increased institutional capacity to engage with clean energy include, but are not limited to:

- Using climate-change data, information, or analysis to inform decisions and actions
- Improving administrative or organizational capacity of climate-focused institutions
- Improving access to equipment or data
- Engaging stakeholders and building networks
- Building in-house technical expertise

This indicator measures both improvements in capacity to address climate change in institutions that do not focus exclusively on climate change as well as general institutional capacity improvements in climate institutions.

An institution can be reported as having its capacity improved in multiple years if it achieves meaningful improvement in each of the years it is reported. However, each institution should only be reported once per fiscal year. IMs may support improved institutional capacity by engaging with institutions through a variety of methods and over varying timeframes. Implementers may be asked to provide supporting documentation as requested below in the Data Source section.

**Unit of Measure:** Number of institutions

**Disaggregation:**

- National governmental
- Sub-national governmental
- Utilities
- Others (private, NGO, etc.)

**PLAN FOR DATA COLLECTION**

**Data Source:**
Data sources are implementers and USAID Missions.
The following information may be requested for each institution counted toward this result: 1) the name of the institution; 2) the established need for and type of additional capacity being targeted; 3) the nature and extent of the interventions utilized to improve capacity; and 4) a summation of the nature of the improved capacity for the institution(s) as a result of the specific approaches to address climate-change issues.

**Method of Data Collection/Construction:**

IMs and interagency partners will report on the number of institutions with improved capacity to address clean energy issues that they are affecting and the impact that their activities are having on these measures.

**Reporting Frequency:** Annually

**Individual(s) Responsible at Power Africa:**
Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL staff of IMs choosing to contribute to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** Not applicable; this a new indicator

**Date of Future Data Quality Assessments: October 2024**

**Known Data Limitations:** N/A

**BASELINE/TIMEFRAME: Not applicable; this a new indicator**

**THIS SHEET LAST UPDATED ON: June 2022**

**Power Africa Performance Indicator Reference Sheet**

**3.3.1. Name of Indicator: MW and MWh of energy storage from new advanced energy technologies that reach Financial close as a result of USG assistance**

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):** This indicator refers to the number of MW and MWh produced from an energy storage system (ESS). ESS refers to the device of converting electrical energy from power systems into a form that can be stored for converting back to electrical energy when needed.

ESSs can be co-located with power generation systems. ESSs can also be standalone systems located throughout an electricity system depending on the "use-case." There are a variety of use-cases for an ESS; for example, standalone storage for ancillary services, standalone storage for energy or capacity services, renewable-plus-storage for energy or capacity services, customer-sited batteries, transmission and distribution grid stabilization, and mini-grids. ESSs can be used to supply customer, utility and independent system operators, or regional transmission operators for residential, commercial, and industrial electricity consumers.

ESSs technology is nascent and evolving. As a result, Power Africa is technology-neutral for ESSs; the market, policies, and environmental factors will shape the adoption of various ESS technologies.

**Justification:** This indicator is critical to supporting the next generation of electricity technologies and follows global trends that support a low-carbon-emission future (e.g., an ESS can support electricity systems with intermittent demand from renewable energy sources such as solar and wind).

**Unit of Measure:** MW and MWh

**Disaggregation:**
Power Generation: (utility scale and off-grid power systems)

- ESS technology type
- Co-located
- Standalone
- Behind the meter
- In front of the meter
- All transaction stages
- Location

Transmission and Distribution

- ESS technology type
- Level of interface (transmission or distribution)
- Service offered (energy, frequency, voltage regulation)
- Location

**PLAN FOR DATA COLLECTION**

**Data Source:**
IP staff and USG partners verify the number of MWs and MWhs from project proposals, draft deal agreements, or negotiation documents and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team.

**Method of Data Collection / Construction:**

- Quarterly submissions by IP staff (PATT). IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using QTAT
- Additional data obtained through quarterly reports submitted by USG agencies
- Quarterly updates from RMs of agencies and/or Sector Leads (PATT)
- ** See Transaction Update SOP

**Reporting Frequency:** Quarterly

- **Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, and RMs Sector Leads collecting data from the private sector as well as donor partners reporting to this indicator

**Individuals Responsible at Activities:**
MEL staff of IMs choosing to contribute to this indicator, RM Sector Lead, Interagency Liaisons, and the DP's point of contact (POC)

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments and name of reviewer:** Not applicable; this a new indicator

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**
**Validity:** Relies on TAs, IP staff, USG agencies, and posts to report in a timely and accurate manner. Data may not be completely up to date or accurate.

**Integrity:** Number reported may vary, particularly with donor/development and PSPs given that neither is contractually obligated to provide Power Africa's MEL team with source documents.

**BASELINE/TIMEFRAME: Not applicable; this a new indicator**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheet**

**3.4.1. Name of Indicator: Number of institutions adopting policies or procedures to promote gender equity in the workforce as a result of USG assistance**

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**
"Partner institutions" are entities that Power Africa collaborates with; they might include but are not limited to utilities, PSPs, and host-government agencies.

"Policies/operating procedures" refer to instructions compiled by an organization or institution providing guidance to staff on its operations.

"Gender equity" refers to the process of being fair to women and men. To promote gender equity, strategies and measures must often be available to compensate for women's historical and social disadvantages that prevent women and men from otherwise operating on a level playing field.

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| "Adopted" refers to revising existing policies or creating a new policy and implementing the policy. A policy will not be considered as adopted if it is not implemented. |
| **Unit of Measure:** Number of institutions |
| **Disaggregation:**<br>• Public vs private institution<br>• Country (country/ies where policy is implemented)<br>(Request that name of institution be listed in PAIS comment section) |
| **PLAN FOR DATA COLLECTION** |
| **Data Source:** Data to be collected by IMs who are working with energy-sector institutions in support of their adopting policies and procedures to promote gender equity. |
| **Method of Data Collection / Construction:** Report from institution to IM listing the policy/ies by name |
| **Reporting Frequency:** Annually |
| **Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator |
| **Individuals Responsible at Activities:**<br>MEL staff of IMs choosing to contribute to this indicator |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and name of reviewer:** Not applicable; this a new indicator |
| **Date of Future Data Quality Assessments*:*** October 2024 |
| **Known Data Limitations:** Due to the potentially private nature of policies, Power Africa may not see or access the policies itself, but may be reliant on institutions' willingness to share their information. |
| **BASELINE/TIMEFRAME: Not applicable; this a new indicator** |
| **THIS SHEET LAST UPDATED ON: April 2022** |

| **Power Africa Performance Indicator Reference Sheet** |
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| **4.1.1. Name of Indicator: Kilometers of Transmission and Distribution Power Lines that Reached Financial Close as a result of USG assistance, development partner, or private-sector partner support** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |

**Precise Definition(s):**
*Transmission lines* are conductors that serve as paths for transmitting electricity at a voltage of 66 kilovolts (kV) and above from one place to another. The length of transmission power lines is the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded transmission lines that have reached FC with USG, DP, and/or PSP support. Electricity transmission consists of all lines and associated infrastructure connecting generation sites to transmission substations and from one substation to another.

*Distribution lines* are conductors that serve as paths for transmitting electricity at a voltage below 66 kV from one place to another within a community. The length of a distribution power line is the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded distribution lines that have reached FC with USG, DP, and/or PSP support. Electricity distribution consists of all lines and associated infrastructure connecting from transmission substations or generation sites (in the case of distributed electricity generation) down to end consumers or close to end customers (typically they include 33 kV, 11 kV and 0.4 kV).

FC occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met at which time funds may be disbursed. For transactions such as public-sector investments that are not structured as above, "FC" will be considered to mean the signing of a work or technical assistance contract resulting in construction and build-out commencing.

**Unit of Measure:** Kilometers

**Disaggregation:**
1. Transmission vs. distribution
2. Country
3. Name of project (if applicable)
4. Start and end point (geographic location, i.e., name of town, city, province, country)
5. Date of FC

**PLAN FOR DATA COLLECTION**

**Data Source:**
USAID IPs
USG agencies
DPs
PSPs

**Method of Data Collection / Construction:** Verified reports from relevant Power Africa Implementing Mechanisms, USAID IPs, USG entities, DPs, and PSPs

**Reporting Frequency:** Quarterly

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RM of USG Agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms contributing to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:** Relies on documentation from third parties (i.e., project sponsors, developers, investors, and other stakeholders).

**BASELINE/TIMEFRAME: 201 KM as of the first quarter of fiscal year 2023**

**THIS SHEET LAST UPDATED ON: April 2022**

**Power Africa Performance Indicator Reference Sheet**

**4.1.2. Name of Indicator: Kilometers of Constructed or Rehabilitated Power Lines The sum of linear kilometers of new, reconstructed, rehabilitated or upgraded transmission and distribution lines that have been energized, tested, and commissioned/installed as a result of USG assistance, development partner, or private-sector partner support**

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**

*Transmission lines* are conductors that serve as paths for transmitting electricity at a voltage of 66 kV and above from one place to another. The kilometer of transmission power line is the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded transmission lines that have been energized, tested, and/or commissioned with USG, DP, and/or PSP support. Electricity transmission consists of all lines and associated infrastructure connecting the generation sites to transmission substations and from one substation to another. The line shall not be considered as commissioned until it is energized and has a test report or supervising engineer's certificate.

*Distribution lines* are conductors that serve as paths for transmitting electricity at a voltage below 66 kV from one place to another within a community. The kilometer of distribution power line is the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded distribution lines that have been energized, tested, and/or commissioned with USG, DP, and/or PSP support. Electricity distribution consists of all lines and associated infrastructure connecting from transmission substations or generation sites (in the case of distributed electricity generation) down to end consumers or as close to end customers (typically they include 33 kV, 11 kV and 0.4 kV).

**Unit of Measure:** Kilometers

**Disaggregation:**

- Transmission vs. distribution
- Country
- Name of project (if applicable)
- Start and end point
- Commissioning date

**PLAN FOR DATA COLLECTION**

**Data Source:**

USAID IMs

USG agencies

| |
|---|
| DPs<br>PSPs |
| **Method of Data Collection / Construction:** Verified reports from relevant Power Africa Implementing Mechanisms, USG agencies, DPs, and PSPs |
| **Reporting Frequency:** Quarterly |
| **Individual(s) Responsible at Power Africa/USAID:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSP supporting this indicator |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and name of reviewer:** DQA conducted in November 2015 and 2018 |
| **Date of Future Data Quality Assessments:** October 2021 |
| **Known Data Limitations:** Relies on documentation from third parties (i.e., project sponsors, developers, investors, and other stakeholders). |
| **BASELINE /TIMEFRAME: 3,565 KM as of the first quarter of fiscal year 2023** |
| **THIS SHEET LAST UPDATED ON: September 31, 2022** |

| **Power Africa Performance Indicator Reference Sheet** |
|---|
| **4.1.3. Name of Indicator: Aggregate Losses: Aggregate Technical, Commercial and Collection electricity losses reduced / avoided as a result of USG assistance** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):**<br>*Aggregate* technical, commercial, and collection losses are defined as the difference between the electricity that is generated and enters a grid (in MWh) and the amount of electricity that is delivered, billed, and paid for by the end user (in MWh).<br><br>Aggregate technical, commercial, and collection loss is the key loss measurement indicator in the utility industry that fairly represents electricity distribution company performance and makes it easy for benchmarking. Technical and non-technical losses represent both a need for, and a barrier to, investment in power-sector infrastructure. Electricity losses can represent physical deficiencies in the system or indicate larger systematic issues around the willingness of energy recipients to pay. Tracking this indicator will allow utilities, as well as external stakeholders, to see the impact of project interventions and outcomes as they pertain to transmission and distribution efficiency and overall security of the system. Reducing losses can significantly improve the financial viability of utilities, a critical barrier to both public and private investment in the energy sector. For evaluating performance improvement in losses and additional revenue (collection), Power Africa will compare fiscal data for the same periods during the fiscal year.<br><br>Technical losses are inherent losses that occur between the generation source and end users due to electrical principles. They can become larger than usual if the system is extensive, old, or poorly maintained. Reducing technical losses can also result in GHG emissions reductions if the generation sources include fossil fuels. |

Commercial losses occur when billing processes fail to capture all billable energy through theft, meter tampering, or incomplete/variable collection of revenue.

Collection losses are losses associated with the utility's inability to recover revenues (customer payments) for all energy consumed and billed.

Aggregate technical, commercial, and collection losses can be calculated by tracking the following data:

- Total electricity generated, purchased, and/or delivered to the utility (MWh)
- Energy billed to customers (MWh)
- Percent or MWh or dollars of the different losses provided by utilities (usually calculated)

**Percentage technical losses** = 1 – (numerator ÷ denominator)
Numerator – total MWh transmitted out from a substation or transformer
Denominator – total MWh received from the generator or transmission substation

**Percentage commercial losses** = 1 – (numerator ÷ denominator)
Numerator – net energy sales, i.e., paid for by customers in a network area
Denominator – total MWh dispatched from a transformer by the utility. This denominator could also be calculated as (total energy received in the network - total energy export from the network). This is to account for both receiving and exporting energy on the same network

**Distribution System Losses** = percentage technical losses + percentage commercial losses
**Billing efficiency** is 100 percent – distribution losses. That is, energy billed divided by energy received.

**Percentage collection losses** = 1 – (numerator ÷ denominator)
Numerator – the total revenue collected by the utility from customers within a defined period from a network area
Denominator – the total billed amount for equivalent energy used by customers within a defined period for a network area

**Collection efficiency** is the inverse of collection losses, that is, 100 percent – percentage collection losses

**Aggregate losses (ATC&C)** = 100 percent – (billing efficiency * collection efficiency)
All the losses avoided/reduced can be presented as MWh. It can be based on information provided from the utilities where such data are available.

A baseline should be established to track improvement. Percentages by themselves do not account for both scale of losses avoided and measurement of absolute losses avoided. This indicator will help guide the development and implementation of performance improvement programs to strengthen utility financial, technical, and commercial operations; help to reduce commercial, collection, and technical losses; and help to improve the financial viability of the utilities. Implementing Mechanisms will collect data directly from partnering utilities and capture metrics from the utilities using uniform methodology established by Power Africa.

**Unit of Measure:** Percent

**Disaggregation:**

- Total MWh generated
- Percent and/or MWh and/or dollar of calculated or estimated technical losses avoided
- Percent and/or MWh and/or dollar of calculated or estimated commercial losses avoided
- Percent and/or MWh and/or dollar of calculated or estimated collection losses avoided
- Percent and/or MWh and/or dollar of aggregate losses
- Utility

- Transmission vs. distribution
- Country

**PLAN FOR DATA COLLECTION**

**Data Source:**
Utility records, rural electrification agencies, or Ministries of Energy, as appropriate and as available

**Method of data collection and construction:** Utility records

**Reporting Frequency:** Annually

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL POC of Implementing Mechanisms contributing to this indicator

**DATA QUALITY ISSUES**

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations: Validity:** Many utilities are not tracking the data needed to calculate technical and commercial losses and will not be able to disaggregate technical and commercial losses. In addition, they usually use estimations for technical losses.
**Timeliness:** Since this is sourced from utilities/ministries, it will likely be a lagging indicator.
**Integrity:** Reluctance to share data or deliberate misrepresentation may occur since losses may make the utility look bad.
**Precision:** There could be some imprecision due to variances in reporting methodologies and data collection methods by power producers and technologies, but industry standards will be used to minimize this risk.

**BASELINE/TIMEFRAME: AT&C losses of 25 percent as of fiscal year 2022 (annual reporting)**

**THIS SHEET LAST UPDATED ON:** April 2022

**Power Africa Performance Indicator Reference Sheet**

**4.1.4. Name of Indicator: Regional Electricity Trade: New electricity capacity in MW and MWh committed for regional trade through power agreements as a result of USG assistance**

**Is this a Performance Plan and Report indicator?** No

**DESCRIPTION**

**Precise Definition(s):**
"Megawatt (MW)" is one million watts.

The electrical capacity is the maximum capacity of power in MW committed for trade that can be called upon by parties as specified in the PPA.

Cross-border PPAs involving two or more countries are structured for the purpose of buying and selling electricity across national borders. Any USG assistance that contributes to the consummation of a PPA for the sale of power across borders will be counted. Such support need not be directly affiliated with the PPA but may include, by way of example, helping to establish the procedures or protocols for trade, facilitation of the negotiation process, capacity-building for one or more of the parties to help them understand the benefits and/or risks of entering into a bilateral power trade agreement, supporting the drafting or negotiating of the PPA or other necessary ancillary agreements (such as interconnection or the wheeling agreements), modeling support to look at the impacts that the proposed power trade may have on the utility's network, or capacity-building for the dispatch center or utility to be able to reliably interconnect.

"USG assistance" refers to USG agencies or Power Africa/USG Implementing Mechanisms involved in the project.

This indicator will measure the USG's contribution to advancing power trade. This indicator will be a measure of how much electrical power capacity may be available for regional trade and also measure the strength of the regional power pool.

The indicator narrative should include a description of the assistance provided that contributed to the completion of the cross-border power trade agreement and, to the extent possible, specify the term of the PPA (short, medium, or long term).
• Long term (5–25 years. )
• Medium term (1–4 years)
• Short term (<1 year)
• Short term exchange (1 day or less)

**Unit of Measure:** MW and MWh

**Disaggregation:**
- Country X to Country Y (MW and MWh)
- Duration of the power trade (long, medium, or short)

**PLAN FOR DATA COLLECTION**

**Data Source:**
Cross-border PPAs or national utilities, regional power pools, and/or national electricity regulators

**Method of data collection / construction:**
CORs for USAID Implementing Mechanisms:
IMs will report on the cross-border power trades that they are affecting and the impact that their activities are having on such agreements.
Interagency Liaisons to request this data from interagency partners:
Data will be requested from the national utilities, regional power pool, and/or the national regulators.

**Reporting Frequency:** Annually

**Individual(s) Responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**

| |
|---|
| MEL POC staff of Implementing Mechanisms that contribute to this indicator |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and name of reviewer:** November 2015, October 2021 |
| **Date of Future Data Quality Assessments: October 2024** |
| **Known Data Limitations:** Not yet established |
| **BASELINE/TIMEFRAME: N/A. No data report since 2014** |
| **THIS SHEET LAST UPDATED ON: April 2022** |

| **Power Africa Performance Indicator Reference Sheet** |
|---|
| **4.1.5. Name of Indicator: Additional Power Capacity Commissioned: *Number of MW from transactions that have been commissioned*** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):** This indicator refers to the number of MW of *Qualified* Power Africa transactions that are commissioned.<br>This indicator refers to the number of MW of *Qualified* Power Africa transactions that have been commissioned. This indicator supports our understanding of the extent of Power Africa's pipeline of commissioned projects and will also provide information that may be used during Power Africa's impact evaluation to inform whether Power Africa's assistance was critical to transactions reaching commissioning.<br>Transaction: A transaction is a *specific* technically, commercially, and financially viable power-sector *project*—generally driven by private developers/sponsors, but can also include public-sector investment—in which capital investment or the necessary technical assistance is required to bring a *specific* generation project to commissioning.<br><br>Qualified Transactions: A qualified transaction must be a specific:<br>▪ Generation<br>▪ Renewable power generation investment (e.g., wind, solar, hydro, geothermal, biomass, or tidal)<br>▪ Investment that increases access to electricity, including mini-grids, and rural electrification<br>▪ Natural gas power investment, for example associated gas, gas pipeline and associated infrastructure investment, non-associated gas, or liquefied natural gas in combined-cycle configuration<br>▪ Capturing of associated gas and reduction of gas flaring investment<br>▪ Gas investments that will eventually support gas-fired power generation |

- Fuel cell power investment (i.e., one that uses the chemical energy of hydrogen or other fuels to cleanly and efficiently produce electricity)
- Energy storage application (battery, compressed air, flywheel, pumped hydro)
- Green hydrogen project
- Transmission investment

There are two types of qualified Power Africa transactions:

- *USG Power Africa Transactions*: Occurs when one or more USG interagency partners has substantive involvement[6] such as technical assistance, grant, financing, political support, advocacy in a qualified Power Africa transaction. USG Power Africa transactions do not require a QTAT to be counted as a Power Africa transaction.

- *Partner Power Africa Transactions*: Occurs when a Power Africa partner has invested/is investing capital, services, or equipment in a qualified transaction—**without any involvement of an interagency Partner—**and where such Power Africa partner allows Power Africa to report on the transaction publicly and is willing to give credit to Power Africa for having played a critical role in moving a qualified transaction forward and when Power Africa consents to branding the qualified transaction as a partner PA transaction. The transaction can only be counted towards Power Africa's goals if it reached FC after the partner officially became a Power Africa partner.[7]

*Commissioning: O*ccurs when the process of ensuring that the systems are designed, installed, functionally tested, and capable of being operated (General Administration, State of Washington).

*Generation Expansion:* Refers to increase in installed generation capacity. The installed capacity is the tested capacity measured during commissioning. The generation operation is the source of the installed capacity. The amount of increased capacity is based on the feasibility study, which can be updated when an upgraded plant is commissioned.
*Rehabilitation or Optimization of Existing Power Generation:* Refers to an increase in effective capacity (up to a level less than or equal to the installed capacity) caused by upgrading generation and/or resource effectiveness and fuel supply. Increased effective capacity due to rehabilitation should be defined as capacity resulting from improvements expected to increase capacity on the low-voltage side of the generation connection substation. The source of effective capacity should be the generation operator. The amount of increased effective capacity should be based on a compelling technical assessment—average or current generation incorporated in the feasibility study undertaken to support the decision to undertake the work to achieve the increase in effective capacity, which can be updated when the upgraded plant is commissioned. The feasibility study should include a historic assessment of current effective capacity. The difference between current effective capacity and increased effective capacity would be counted as MW toward this indicator.

**Unit of Measure:** Number of MW

[6] Substantive involvement: A result is attributable when the program can plausibly claim that without the specified intervention, the result would not have occurred as it did.
[7] The exception to the rule is when the Power Africa partner wants to attribute the transaction towards Power Africa's goals and at the time of attribution has a vested interest in the transaction.

**Disaggregation:**

- Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)
- Transaction types
    - Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization)
    - Transmission
    - Distribution
    - Off-grid
    - ESSs
- Transaction stage (Stage 4 completion)
- Country
- USG vs. partner Power Africa transaction

New Cross-Border Interconnector Transmission Capacity (MW) will be counted toward the Power Africa Transmission Roadmap target of "7,500 MW of transmission capacity installed." Power Africa will deem transmission capacity to be "installed" when it has been "commissioned." All too often, transmission lines are constructed and installed but not energized. The very purpose of the Power Africa Transmission Roadmap target of "7,500 MW of transmission capacity installed" is that power is actually flowing across borders and being actively traded.

## PLAN FOR DATA COLLECTION

**Data Source:** IM staff and USG partners verify the number of MWs from project proposals, draft deal agreements or negotiation documents, and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team.

**Method of Data Collection / Construction:**

- Quarterly submissions by IP staff into the PATT. IM staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using the QTAT
- Additional data through quarterly reports submitted by DFC, USTDA, Ex-Im, and MCC
- Updates from Relationship Managers, Sector Leads, and/or USAID IM staff after communication with Partners
- ** See Transaction Update SOP

## DATA QUALITY ISSUES

**Dates of Previous Data Quality Assessments:** November 2015, October 2021

**Date of Future Data Quality Assessments:** October 2024

**Known Data Limitations:**

**Validity:** Relies on TAs, IM staff, USG agencies, and posts to report in a timely and accurate manner. Data may not be completely up to date or accurate.

**Integrity:** Number reported may be inflated. Number reported from Power Africa private sector as well as donor/DPs is very difficult to verify as there is no contractual obligation to provide the Power Africa MEL team with source documents. PA will rely solely on the numbers provided from RMs sector leads during quarterly data calls with partners.

| BASELINE/TIMEFRAME: 6,501 MW as of the first quarter of fiscal year 2023 |
|---|
| **THIS SHEET LAST UPDATED ON:** April 2022 |

| Power Africa Performance Indicator Reference Sheet |
|---|
| **4.1.6. Name of Indicator: Transactions Commissioned: *Number of transactions that have been commissioned*** |
| **Is this a Performance Plan and Report indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):** This indicator refers to the number of MW of q*ualified* Power Africa transactions that are commissioned.<br>This indicator refers to the number of MW of *qualified* Power Africa transactions that have been commissioned.<br>This indicator supports PAs understanding of the extent of Power Africa's pipeline of commissioned projects and will also provide information that may be used during Power Africa's impact evaluation to inform whether Power Africa's assistance was critical to transactions reaching commissioning.<br>Transaction: A transaction is a *specific* technically, commercially, and financially viable power-sector *project*—generally driven by private developers/sponsors, but can also include public-sector investment—in which capital investment or the necessary technical assistance is required to bring a *specific* generation project to commissioning.<br><br>Qualified Transactions: A qualified transaction must be a specific:<br><br>▪ Generation<br>▪ Renewable power generation investment (e.g., wind, solar, hydro, geothermal, biomass, or tidal)<br>▪ Investment that increases access to electricity, including mini-grids, and rural electrification<br>▪ Natural gas power investment, for example, associated gas, gas pipeline and associated infrastructure investment, non-associated gas, or liquefied natural gas in combined-cycle configuration<br>▪ Capturing of associated gas and reduction of gas flaring investment<br>▪ Gas investments that will eventually support gas-fired power generation<br>▪ Fuel cell power investment (i.e., one that uses the chemical energy of hydrogen or other fuels to cleanly and efficiently produce electricity)<br>▪ Energy storage application (battery, compressed air, flywheel, pumped hydro)<br>▪ Green hydrogen project<br>▪ Transmission investment<br><br>There are two types of qualified Power Africa transactions:<br><br>▪ *USG Power Africa Transactions*: Occurs when one or more USG interagency partners has substantive involvement[8] such as technical assistance, grant, financing, political support, advocacy in a qualified Power Africa transaction. USG Power Africa transactions do not require a QTAT to be counted as a Power Africa transaction. |

[8] Substantive involvement: A result is attributable when the program can plausibly claim that without the specified intervention, the result would not have occurred as it did.

- *Partner Power Africa Transactions*: Occurs when a Power Africa partner has invested/is investing capital, services, or equipment in a qualified transaction—**without any involvement of an interagency Partner—**and where such Power Africa partner allows Power Africa to report on the transaction publicly and is willing to give credit to Power Africa for having played a critical role in moving a qualified transaction forward and when Power Africa consents to branding the qualified transaction as a partner PA transaction. The transaction can only be counted towards Power Africa's goals if it reached FC after the partner officially became a Power Africa partner.[9]

*Commissioning:* Occurs when the process of ensuring that the systems are designed, installed, functionally tested, and capable of being operated (General Administration, State of Washington).

**Unit of Measure:** Number of transactions

**Disaggregation:**

- Technology (e.g., hydro, solar, geothermal, wind, renewable biomass, biomass and biofuels, gas, other)
- Transaction types
    - Power generation (new generation [clean energy vs. other], generation expansion, rehabilitation/optimization)
- Country
- USG vs Partner Power Africa Transaction

**PLAN FOR DATA COLLECTION**

**Data Source:** IM staff and USG partners verify the number of MWs from project proposals, draft deal agreements or negotiation documents, and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team.

**Method of Data Collection / Construction:**

- Quarterly submissions by IM staff into the PATT. IP staff take the lead on inputting information on transactions that they are directly supporting or they think the USG should consider supporting. Missions review and prioritize transactions using the QTAT
- Additional data through quarterly reports submitted by DFC, USTDA, Ex-Im, and MCC
- Updates from USG agencies, DP RM, PSP Sector Leads, and/or USAID Implementing Mechanism staff after communication with developers
- ** See Transaction Update SOP

**Reporting Frequency:** Quarterly

**Individual(s) Responsible at Power Africa/USAID:**
Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of Agency partners, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**
MEL staff of IPs choosing to contribute to this indicator

**DATA QUALITY ISSUES**

[9] The exception to the rule is when the Power Africa partner wants to attribute the transaction towards Power Africa's goals and at the time of attribution has a vested interest in the transaction.

| |
|---|
| **Dates of Previous Data Quality Assessments and name of reviewer:** November 2015, October 2021 |
| **Date of Future Data Quality Assessments:** October 2024 |
| **Known Data Limitations:** The data can be confirmed through public record so are more easily verifiable than pre-commissioning indicators |
| **BASELINE & PERFORMANCE VALUES:** |
| **THIS SHEET LAST UPDATED ON:** November 2022 |

| **Performance Indicator Reference Sheet** |
|---|
| **4.1.7. Name of Indicator: Electricity transmission capacity (MW) supported by USG assistance** |
| **Is This a Performance Plan and Report Indicator?** No |
| **DESCRIPTION** |
| **Precise Definition(s):**<br>"Megawatt (MW)" is one million watts.<br><br>The electrical capacity is the maximum capacity of power in MW that a transmission infrastructure can transmit. However, the transmission infrastructure is never operated at that maximum capacity.<br><br>*Transmission lines* are conductors that serve as paths for transmitting electricity at a voltage of 66 kV and above from one place to another. The kilometer of transmission power line is the sum of linear kilometers of new, reconstructed, rehabilitated, or upgraded transmission lines that have reached FC with USG, DP, and/or PSP support. Electricity transmission consists of all lines and associated infrastructure connecting the generation sites to transmission substations and from one substation to another.<br><br>This indicator counts the MW capacity of the transmission line, an indication of the electricity generation capacity that can be connected to the line should it be available. Typically, the transmission maximum capacity should be greater than the combined generation capacity connected to the line. This MW capacity can be new capacity or capacity enabled through rehabilitation, reconstruction, or upgrade of the line and associated infrastructure such as substation, transformers, or switching station.<br><br>"USG assistance" refers to USG agencies or Power Africa/USG Implementing Mechanisms involved in the project.<br><br>**Justification**: This indicator will measure the USG's contribution to advancing availability and reliability of supply. This indicator will be a measure of how much electrical power capacity may be available should all generation plants connected to the appropriately sized transmission line become operational. |
| **Unit of Measure: Megawatt (MW)** |
| **Disaggregated by:**<br>● New vs. upgraded vs. rehabilitated |
| **Rationale for Indicator** *(optional)***:** To improve on Power Africa electrification target and enhance utility's capacity to evacuate more electricity from existing and new generation sources including the integration of variable renewable energy |
| **PLAN FOR DATA COLLECTION** |

| |
|---|
| **Data Source:**<br>**IM staff** and USG partners verify the number of MWs from project proposals, draft deal agreements, or negotiation documents and update the transaction data in PATT. Whenever possible, source documents should be uploaded into the PATT or shared with the Power Africa MEL team. |
| **Method of Data Collection and Construction:**<br>FC document or fund disbursement report<br>Commissioning report |
| **Reporting Frequency:**<br>Annually |
| **Individual(s) Responsible at Power Africa:**<br>Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of agencies, DPs, and PSPs supporting this indicator |
| **Individuals Responsible at Activities:**<br>MEL POC of IPs choosing to contribute to this indicator |
| **BASELINE/TIMEFRAME: not applicable; this is a new indicator** |
| **DATA QUALITY ISSUES** |
| **Dates of Previous Data Quality Assessments and Name of Reviewer(s): N/A** |
| **Date of Future Data Quality Assessments** *(optional)***:** |
| **Known Data Limitations:**<br>**Retrieval:** Data can be retrieved from design documents or financial documents on the maximum design capacity. Operational capacity may fluctuate from time to time and may be difficult to collect accurately.<br>**Validity:** Relies on TAs, IM staff, USG agencies, and posts to report in a timely and accurate manner. Data may not be completely up to date or accurate<br>**Reliability:** Lack or limited capacity to collect the data may result in data reliability issues.<br>**Integrity:** Number reported from Power Africa private sector as well as donor/DPs is very difficult to verify as there is no contractual obligation to provide the Power Africa MEL team with source documents. PA will rely solely on the numbers provided from RMs sector leads during quarterly data calls with partners. |

| **Power Africa Performance Indicator Reference Sheet** |
|---|
| **4.1.8. Name of Indicator: Number of Power Africa-supported utilities with improved performance (reduction in frequency of outages, and duration of outages)** |
| **Is this a performance plan and Report indicator?** Yes |
| **DESCRIPTION** |

**Precise Definition(s)**

Continuous power supply is an important indicator of utility performance. Common measures of utility performance include System Average Interruption Frequency Index (SAIFI) for frequency of power supply interruptions, System Average Interruption Duration Index (SAIDI) for duration or severity of power supply interruptions, and Momentary Average Interruption Frequency Index (MAIFI). SAIFI describes how often the average customer experiences an interruption while SAIDI describes the total duration of the average customer interruption. MAIFI is conceptually similar to SAIFI but only includes disruptions of less than five minutes. These metrics are aggregated across a system and then divided by the number of customers served to provide distinct measures of reliability.

A utility with an improved performance will be assessed as one that sees an improvement in one or more of the following three metrics year on year:

SAIDI is calculated by taking *the total number of minutes in which the number of customers experiencing an outage multiplied by the number of customers affected,* divided by *the total number of customers connected to the utility company over the same period of time.*

SAIFI is calculated by taking the total *number of customers affected by an outage* divided by the *number of customers connected to the utility company over the same period of time.*

MAIFI is calculated by taking *the total of the number of customers affected by momentary interruptions for a group of customers* divided by *the total number of customers connected.*

These metrics can be measured considering three different scenarios; namely, with major events, without major events, minus loss of supply. For ease of comparison of results, the same scenario should be used across activities or programs.

**Unit of Measure:** Number of utilities showing improvements, as evaluated by those that show improvements using the SAIDI, SAIFI, and/or MAIFI

**Disaggregation:**

- Utility
- Country
- Transmission vs. distribution
- SAIDI vs. SAIFI vs. MAIFI

**Data Source(s):** Utility documentation. Documentation should include which metric or metrics were improved and the change in the value of the relevant metrics for reference.

**Method of Data Collection:** Utility documentation

**Reporting Frequency:** Annually

**Individual(s) responsible at Power Africa:** Power Africa MEL team, AOR/CORs of USAID Implementing Mechanisms reporting on this indicator, RMs of USG agencies, DPs, and PSPs supporting this indicator

**Individuals Responsible at Activities:**

- MEL staff of IPs choosing to contribute to this indicator

| PLAN FOR DATA COLLECTION |
| --- |
| **Data Collection Method:**<br>● Figures will be sourced from national and private utilities' (including mini-grid operators, if relevant) documents. Source documents must be provided to the Power Africa MEL team. The utility receiving the technical assistance will report the figures and describe the attribution to Power Africa.<br>● Power Africa MEL team will review utility documents provided by IPs, project sponsors, other donors, and/or government entities and review utility SAIDI, SAIFI, and/or MAIFI information. Power Africa Implementing Mechanisms will send emails to supported utilities on a semi-annual basis requesting data. The IMs will then enter the results into a standardized electronic data collection template.<br>● Not all utilities currently measure SAIDI, SAIFI, and/or MAIFI, but these are key indicators of utility performance, and Power Africa is encouraging utilities to start reporting these figures transparently and publicly.<br>● The World Bank Utility Performance and Behavior in Africa Today database has several years of data for several SSA utilities for SAIDI and SAIFI, but there is a lag in the data reported, so it currently cannot be used to track progress quarterly. |
| **DATA QUALITY ISSUES** |
| **Date of Past Data Quality Assessment:** N/A |
| **Date of Future Data Quality Assessment:** N/A |
| **BASELINE/TIMEFRAME: Not applicable, new indicator.** |
| **Baseline Timeframe/Notes:** IPs in new regional programs will obtain baseline data from the utilities. For utilities not currently measuring these metrics, IPs will support them to start officially measuring one or more of these metrics and preferably also to start reporting data publicly. |
| **THIS SHEET WAS LAST UPDATED ON: May 2022** |

# ANNEX II – Evaluation Plan

The following section details an evaluation plan to identify key projects that will be subject to external evaluations to support learning and adaptation, as well as support tracking progress of previously conducted evaluations. Power Africa technical teams and Power Africa management will use these results to make programmatic adjustments, inform future project redesign efforts and strategies, and support evidence-based decision-making.

All evaluations will be designed, and evaluation questions developed through an involved, consultative process with the Power Africa technical teams (Coordinator's office and Missions) and CORs.

Currently, this evaluation plan details six evaluations of Power Africa projects to take place between fiscal year (FY) 2022 and FY 2026:

1. Southern Africa Energy Program (SAEP) Implementing Mechanism Endline Evaluation
2. West Africa Energy Program (WAEP) Implementing Mechanism Endline Evaluation
3. Nigeria Power Sector Program (NPSP) Implementing Mechanism Endline Evaluation
4. East Africa Energy Program (EAEP) Implementing Mechanism Endline Evaluation
5. Power Africa Off-Grid Program (PAOP) Implementing Mechanism Endline Evaluation
6. Power Africa Senior Advisors Group (PA-SAG) Programme Endline Evaluation
7.

## Capturing Post-Activity Results and Impacts

The MEL team is exploring innovative ways to capture the impacts and results of Power Africa activities beyond their completion. This will serve two purposes: (i) to capture the mid- and long-term results of Power Africa efforts, given the oft long-term nature of energy-sector development, reform, and expansion, and (ii) to support long-term planning, such as the development of activity pipelines for sector expansion, and the building of continuity across multiple, five-year activities.

There are a variety of models and approaches that can capture such long-term impacts, which the MEL team is exploring. These may include:

1. The use of indicators that capture "anticipated" and/or "planned" impacts. This will aid in Power Africa telling a fuller picture of the impacts of PA efforts. It does, however, create challenges with duplication of reporting if activities are reporting on both realized and anticipated results. Areas of applicability might include (i) understanding the full potential and/or scale of new electrical connections, (ii) capturing the full generation capacity, even if unrealized, and/or (iii) reporting on emissions reductions.
2. Undertaking evaluations far beyond (3+ years later) the completion of an activity. This is a model used elsewhere within USAID. While it does not typically include the collection of indicators that can be reported as performance, it provides an effective means of assessing the impacts of an approach and the validation of a theory of change. Such evaluations (referred to as "ex-post" evaluations) would support the development and management of a pipeline of critical activities, as well as help to gather meaningful and actionable lessons learned from past activities that can inform future efforts.

It is anticipated that a new MEL/CLA activity would support post-activity evaluations and/or data collection, which will be considered during such activity's design.

*Table 4. Evaluation Timeline*

| Year | FY22 | | | | FY23 | | | | FY24 | | | | FY25 | | | | FY26 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quarter | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| SAEP | | X | X | X | | | | | | | | | | | | | | | | |
| WAEP | | | | | X | X | X | | | | | | | | | | | | | |
| NPSP | | | | | X | X | X | | | | | | | | | | | | | |
| EAEP | | | | | X | X | X | | | | | | | | | | | | | |
| PAOP | | | | | X | X | X | | | | | | | | | | | | | |
| TBI-SAG | | | X | X | X | | X | X | X | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| Evaluation 1 - Southern Africa Energy Program (SAEP) Implementing Mechanism Endline Evaluation | | | |
|---|---|---|---|
| Project/Activity Name | **Southern Africa Energy Program (SAEP)** | Project Start/End Dates | 03/15/2017 - 06/14/2023 |
| AOR/COR/AM | Akinwale Aboyade<br>Jennifer Baldwin | Award Number | AID-674-C-17-00002 |
| Implementing Partner | Deloitte LLC | POC | Liz Pfeiffer<br>lpfeiffer@southernafricaenergy.org |
| Required/Optional | Required – one evaluation per project. The evaluation to be conducted meets the ADS 201.3.5.13 Requirement 1 that each Mission and Washington OU that manages program funds and designs and implements projects as described in 201.3.3 must conduct at least one evaluation per project. | | |

| | | | |
|---|---|---|---|
| Purpose and projected use | To inform the future, follow-on design of SAEP by determining the effectiveness of the activities implemented over the past four years. Ideally this evaluation will include specific case studies in key countries of SAEP's work. | | |
| Evaluation type | Performance Evaluation – Endline | | |
| Illustrative evaluation questions | 1. What did SAEP do well? What enabling factors assisted SAEP to succeed?<br>2. What did SAEP not do well? What hindered implementation?<br>3. In which countries did SAEP have the most success vs. the least success (and why?)<br>4. Did SAEP's regional focus lead to its reaching greater scale and achievement of objectives versus having a bilateral country support focus? If so, how? If not, why not?<br>5. Did SAEP's regional focus lead to reaching greater scale and achievement of objectives versus having a bilateral country support focus? If so, how? If not, why?<br>6. Was the program able to pivot during unforeseen shifts in U.S. policy or global phenomenon (such as the COVID-19 pandemic)? What might have made the program more flexible?<br>7. How can the program better reach and serve non-participants? Hard-to-reach populations?<br>8. In which countries did SAEP have the most success vs. the least success (and why?)<br>9. The program undertook different off-grid interventions in Madagascar, Malawi, Mozambique, and Zambia to grow the market for solar home systems and/or mini-grids in those countries.<br>1. Which interventions were most successful in terms of direct impact, i.e., delivering new electricity connections or unlocking financing for companies?<br>2. What were the program's most notable successes in terms of improving the enabling (policy/regulatory) environment for off-grid energy?<br>3. Were there instances where off-grid enabling environment constraints impeded the program's success, and if so, what more could have been done to overcome them?" | | |
| Internal/External | External | Budget | $300,000 |
| Evaluation Timeline | July 2021 - TBD | | |

| **Evaluation 2 - West Africa Energy Program (WAEP) Implementing Mechanism Midline Evaluation** | | | |
|---|---|---|---|
| Project/Activity Name | **West Africa Energy Program (WAEP)** | Project Start/End Dates | 07/15/2019 - 07/14/2023 |
| AOR/COR/AM | Rockfeler Herisse<br>Michael Oppong-Adjei<br>Dorothy Adjei | Award Number | 72067418D00003,<br>TO - 72067419F00008 |
| IP | Deloitte LLC | POC | Adaku Ufere<br>aufere@powerafrica-waep.com |

| | | | |
|---|---|---|---|
| Required/Optional | Required – whole-of-project. The evaluation to be conducted meets the ADS 201.3.5.13 Requirement 3 that each Mission must conduct at least one "whole-of-project" performance evaluation within their Country Development Cooperation Strategy (CDCS) timeframe. | | |
| Purpose and projected use | To determine the effectiveness of WAEP's programming at the midpoint in order to make adjustments, where necessary, over the final two years of implementation. This midline evaluation could also inform future design of WAEP. | | |
| Evaluation type | Performance Evaluation – Endline | | |
| Illustrative evaluation questions | 1. To what extent have WAEP's technical approach and interventions been successful in achieving the program's intended outcomes for both CLINs? What additional interventions or strategies could have fully enabled the achievement of the intended outcomes?<br>2. What compelling narrative and evidence is there for WAEP (CLIN -Regional & CLIN 2 - Ghana) to indicate:<br>o What worked well? Please provide examples of how it was accomplished?<br>o What did not work well? Please concretely describe what did not work well and why?<br>o What was learned?<br>o What should be done differently in the future? Why?<br>o Please describe actions taken to ensure opportunities for regular strategic activity integration of national (Ghana) and regional programming and resource leveraging of WAEP assets.<br>3. To what extent has Power Africa available funds affected WAEP's implementation and/or its ability to achieve results?<br>4. How did the contractor monitor and document performance changes? What adjustments (if any) were made to adapt to or mitigate changing conditions?<br>5. How has WAEP worked with interagency partners to leverage resources with other Development Partners to extend its influence? Similarly, has private-sector engagement resulted in a significant leverage of resources or funding, and to what development results have this coordination and collaboration contributed?<br>6. How has the COVID-19 pandemic affected program implementation and the overall project performance? | | |
| Internal/External | External | Budget | $300,000 |
| Evaluation Timeline | August 2021 - TBD | | |
| **Evaluation 3 - Nigeria Power Sector Program (NPSP) Implementing Mechanism Endline Evaluation** | | | |
| Project/Activity Name | **Nigeria Power Sector Program (NPSP)** | Project Start/End Dates | 04/02/2018 - 03/31/2023 |
| AOR/COR/AM | Narlene Egu | Award Number | 720-674-18-D-00003 |

| | | | |
|---|---|---|---|
| | Abdul-Mumini Yakubu | | 720-674-18-F-00003 |
| Implementing Partner | Deloitte LLC | POC | Mary Worzala mworzala@deloitte.com |
| Required/Optional | Required – one evaluation per project. The evaluation to be conducted meets the ADS 201.3.5.13 Requirement 1 that each Mission and Washington OU that manages program funds and designs and implements projects as described in 201.3.3 must conduct at least one evaluation per project. | | |
| Purpose and projected use | To inform the future, follow-on design of NPSP by determining the effectiveness of the activities implemented over the life of the program. | | |
| Evaluation type | Performance Evaluation – Endline | | |
| Evaluation questions | 1. To what extent was NPSP able to meet its purpose and related outputs and outcomes (MWs, connections, enabling environment) and how did the project overcome key identified challenges to achieving outputs and outcomes?<br>2. How did the program design, target setting, and operational decision-making shape and contribute to:<br>1. private-sector involvement in gas supply in Nigeria?<br>2. the achievement of rural electrification goals through an emphasis on solar home systems and mini-grids?<br>3. an improved enabling environment for electricity access in Nigeria?<br>2. What have been the successes and challenges associated with gas generation and distribution for NPSP?<br>3. Were the Implementing Partner's program and financial tracking tools effective (in terms of timeliness and accuracy of reporting, tracking targets and burn rates, other)?<br>4. How did the COVID-19 pandemic impact overall performance and outcomes and how did NPSP monitor and document ongoing performance changes?<br>5. How did/does NPSP analyze and evaluate the annual and overall impact of technical and embedded technical advisors and the contribution of these advisors to the achievement of outputs and outcomes? Provide concrete examples.<br>6. What are the lessons learned, best practices, and recommendations that can help to improve future iterations of NPSP? | | |
| Internal/External | External | Budget | $200,000 |
| Evaluation Timeline | TBD | | |

| Evaluation 6 - Senior Advisors Group (TBI-SAG) Endline Evaluation | | | |
|---|---|---|---|
| Project/Activity Name | **Senior Advisors Group (TBI-SAG)** | Project Start/End Dates | 03/06/2014 - 03/31/2023 |

| | | | |
|---|---|---|---|
| AOR/COR/AM | Denise Mortimer<br>Jen Baldwin | Award Number | AID-623-A-14-00001 |
| Implementing Partner | Tony Blair Institute for Global Change (TBI) | POC | Urik Kristensen<br>u.kristensen@global.com |
| Required/Optional | | | |
| Purpose and projected use | The purpose of this performance evaluation is to understand the contribution of activities conducted under the Senior Advisor's Group award to the enabling environment for Power Africa's work. TBI's work supporting government leaders plan and implement power-sector initiatives in Power Africa partner countries proves crucial to several performance indicators. The lessons drawn from this evaluation will be important to the technical teams, activity managers, and senior management as they can potentially inform the strategic approach and the design of future Power Africa programs. | | |
| Evaluation type | Performance Evaluation - Endline | | |
| Illustrative evaluation questions | 1. The main results of the program are measured in terms of the number of laws & policies (PA 23) and the number of strategies & plans (PA 26) proposed, adopted, implemented, and/or revised. These quantitative indicators do not capture the qualitative impact of this work. In addition to reviewing these performance indicators, illustrative evaluation questions to address these issues might include:<br>- What are the qualitative stories or impacts of these results? Were these laws and strategies merely paper sitting on a shelf or are these critical foundational documents to advance the energy sector or somewhere in between?<br>- How have the countries used these policies and legal frameworks to advance the energy sector?<br>- What other results have been observed from the program not captured by these indicators?<br>2. In which countries did the program achieve the most success, and what may have contributed to that success?<br>3. We have seen a lot of political turnover or unrest in Africa, particularly in some West African countries where SAG worked. How might SAG ensure that progress is sustained in the face of political change?<br>4. TBI provided political support that was intended to be complementary to other Power Africa programs.<br>- How and where has SAG's work helped other Power Africa mechanisms (NPSP, WAEP, SAEP, EAEP, PAOP, SEFA) programs (for example the AfDB Desert to Power Program) and partners (development partners, private | | |

| | | | |
|---|---|---|---|
| | sector and interagency partners) achieve their results? achieve their results?<br>- Conversely, how and where was SAG duplicative?<br><br>5. TBI hired a mix of EU and local African advisors to deliver their technical assistance. What were the advantages vs. disadvantages of hiring expatriate vs. local advisors? Was one approach vs the other more effective? | | |
| Internal/External | External | Budget | TBD |
| Evaluation Timeline | TBD | | |

# ANNEX III – Collaborating, Learning, and Adapting Plan

This plan describes Power Africa's approach to Collaborating, Learning, and Adapting (CLA), a set of processes and activities that help ensure programming is coordinated, grounded in evidence, and adjusted as necessary to remain effective throughout implementation. This plan also includes descriptions of Knowledge Management efforts intended to support learning and effectiveness across Power Africa's work.

## Introduction

Learning and adaptation is fundamental to Power Africa's corporate approach and in line with the ADS 201 guidance for the program cycle. The following paragraphs outline the priorities and objectives for learning for the Power Africa team and initiative on an ongoing basis. For Power Africa to effectively achieve its development objectives: (1) Ending energy poverty, (2) Accelerating a carbon-free future, and, (3) Bolstering competitive private-sector investment and innovation in the energy sector, the initiative centers a learning strategy that supports its work.

Power Africa's CLA Plan aims to ensure that Power Africa's efforts are evidence-based, evolve and adapt based on the successes and challenges faced by previous activities. This will be achieved through a set of CLA activities that (i) foster a process and culture of CLA at various levels (activity-level, portfolio-/office-level, and initiative-level), and (ii) facilitate effective and efficient knowledge-sharing and transfer initiative-wide. Through a focus on strategic collaboration, effective use of technology and resources, and fostering a learning culture, Power Africa is able to effectively manage adaptation and leverage feedback loops into program design, redesign of activities, as well as sharing best practices. This approach to CLA will support PA achieve its goal on universal access to energy across sub-Saharan Africa.

The priorities outlined in this plan were informed by a CLA and Knowledge Management audit that was completed in FY 2022, as well as a CLA discussion hosted by TetraTech in 2019. The audits sourced input from across Power Africa's offices on current challenges and limitations to learning, as well as desired improvements and suggestions.

## CLA Activities and Timeline

In order to address Power Africa's learning priorities, the following efforts will advance strategic collaboration, build the effective use of technology and resources, and foster a culture of learning and adaptation. Please see Table A for the proposed timeline of activities and Table B for detailed descriptions of activities. CLA activities are designed to address the following three categories:

### Facilitated learning efforts

The primary efforts to support learning for Power Africa include the following interventions and are intended to promote learning, facilitate knowledge transfer, and ensure the evidence-based nature of Power Africa efforts:

- Facilitated reflection and learning activities at the (i) project, (ii) portfolio/office, and (iii) initiative levels
- Portfolio reviews

Effective use of technology and human resources

Power Africa utilizes a variety of systems in accomplishing its work, including the PAIS, PATT, Google Suite, and additional tools tailored to engagement with partners. To ensure effective use of technology and resources, the CLA Plan will ensure the execution of the following:

- Ongoing design and maintenance of the Power Africa Intranet
- Regular trainings and tutorials on utilizing Power Africa systems
- Development of a records and Knowledge Management strategy
- Google Drive "Laundry Days"
- Refinement of onboarding and off-boarding processes to ensure that institutional knowledge is transferred effectively

Learning culture

Crucial to the success of CLA within Power Africa is fostering a learning culture. In order to shift prioritization solely from performance and achievement, key activities outlined in this CLA Plan will support creating a dynamic learning environment within Power Africa.

- Integration of reflection processes into existing and/or newly designed activities
- Monthly CLA learning transmissions events
- Implementation of scheduled CLA reviews (PA Program Office)

*Table A. CLA Activity Timeline*

| **Fiscal Year** | **FY22** | | | | **FY23** | | | | **FY24** | | | | **FY25** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Quarter** | **Q 1** | **Q 2** | **Q 3** | **Q 4** | **Q 1** | **Q 2** | **Q 3** | **Q 4** | **Q 1** | **Q 2** | **Q 3** | **Q 4** | **Q 1** | **Q 2** | **Q 3** | **Q 4** |
| Portfolio Reviews | | | | | | | | | | | | | | | | |
| Reflection and Learning Activities (project, office, initiative levels) | | | | | | | | | | | | | | | | |
| Program Deep Dives | | | | | | | | | | | | | | | | |
| Learning Transmissions/EmPower Africa Series | | | | | | | | | | | | | | | | |
| Unplugged Retreats | | | | | | | | | | | | | | | | |
| CLA Reviews | | | | | | | | | | | | | | | | |
| Records/Knowledge Management Strategy Development & Roll Out | | | | | | | | | | | | | | | | |
| Google Drive "Laundry Days" | | | | | | | | | | | | | | | | |
| Systems trainings/tutorials | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEL Trainings for IPs | | | | | | | | | | | | | | | |
| Intranet Design and Maintenance | | | | | | | | | | | | | | | |

## CLA Support Services

In its role as Power Africa's CLA lead, the MEL team will provide the following services initiative-wide:

- Facilitate project-, office/portfolio-, and initiative-level learning and adapting activities, such as pause-and-reflect meetings, design/close-out workshop, knowledge exchange events, and other tasks
- Review and provide expert input to activity-level MEL plans, including the review of CLA plans and tasks, as required and/or appropriate
- Training and support on the use of Knowledge Management systems, including PATT, PAIS, and Google Drive organization and management

## Roles and Responsibilities

This CLA Plan will be implemented collaboratively, drawing in key personnel for different activities, and led by the MEL and Knowledge Management Specialist on the MEL team. For specific learning activities and expected participation, please refer to Table B. All learning and knowledge management activities will be planned for and resourced using dedicated funds.

## Expected Outcomes

Each CLA activity and action described within this Plan has expected outcomes that will contribute to improving Power Africa's working culture, ability to adaptively manage the work, and collaborate internally and externally in an effective manner. By committing time and resources as well as prioritizing these activities, Power Africa will be better positioned to support cross-program learning, strengthen relationships between offices and functions, comply with federal records management guidelines, preserve institutional knowledge, and have greater competency within Power Africa's systems.

By performing an initial CLA baseline assessment in FY 2022, followed by scheduled CLA reviews at two-year intervals, Power Africa will be able to measure progress over time and determine areas of progress in relation to supporting learning across Power Africa, as well as those for which we can prioritize improvement.

*Table B. CLA Activities Summary*

| Activity Name | Description | Desired Outcomes | Involved |
|---|---|---|---|
| Portfolio Reviews | The reviews provide an important venue to discuss progress against objectives and results, raise and discuss challenges and issues, and outline a vision and path forward. | -Illustrate project progress<br>-Cross-program learning<br>-All staff involvement | All Power Africa |

| | | | |
|---|---|---|---|
| Reflection & Learning Activities (activity, office, and initiative-level) | These activities include but are not limited to:<br>-Learning Groups for IPs (run by CORs/AORs/AMs on the following topics: (1) Gender, (2) Transmission, and (3) Utility Reform)<br>-Office "Unplugged" Retreats (held annually by each office to support increased collaboration, communication, and strategy setting for each office)<br>-After-Action Reviews or Pause-and-Reflect events | -Stronger reflective culture across Power Africa<br>-Identification of strategic areas for focused learning<br>-Evidence-based project design and adaptations<br>-Cross-IP learning on specific topics<br>-Generate learning for knowledge products to share with larger sector | All Power Africa IPs/Partners |
| Program Deep Dives | These are presentation-based activities that allow more focused learning on a particular project and to share progress, lessons learned, and information that may be valuable to other teams. These activities will be done in coordination with AORs/CORs/IMs and IPs. | -Cross-program learning | All Power Africa IPs/Partners |
| Learning Transmissions/EmPower Africa Series | Learning Transmissions are virtual "brown-bag"-esque discussions that occur monthly and can be presentation-based or discussion/activity based. These sessions will be designed to respond to current projects and needs arising for Power Africa staff and may include external presenters. | -Cross-program learning | All Power Africa |
| CLA Reviews | CLA reviews will take place every two years to support tracking progress and identifying areas for improvement in fostering a learning culture, supporting evidence-based adaptation and design, and refining a CLA-focused action plan. These reviews will utilize a tailored version of the USAID CLA Maturity Tool. | -Baseline assessment of current CLA<br>-Creation of CLA action plan | PRO with input from all Power Africa |
| Records Management Strategy Development & Roll Out | Per the Federal Records Act, Power Africa must preserve records containing adequate and proper documentation of the organization and our grant agreements. This strategy will outline a clear strategy for managing pre-existing records | -Clear protocol for document management in Drive<br>-Establishing improved information access to pre-existing materials | PRO, Front Office |

| | | | |
|---|---|---|---|
| | within Power Africa's Google Drive and prescribe a folder structure and other key processes (i.e., SOPs) to ensure document storage is conducive to collaboration and promotes ease-of-information access. | -Eliminate issues of version control<br>-Minimize risk of losing key information upon staff departure | |
| Google Drive "Laundry Days" | In tandem with the roll out of the Records Management Strategy, "Laundry Days" will support individual ownership of adopting and implementing prescribed document storage processes outlined in the strategy for documents that individuals are currently working on. | -Staff prioritization of document management<br>-Eliminating loss of institutional knowledge due to turnover | All Power Africa |
| Systems trainings/tutorials (including MEL trainings for IPs) | These will be on-demand trainings and tutorials to support utilization of Power Africa's different systems. These may take place in live presentation format, as recordings, as a learning transmission session, via emails, or the Intranet. Will focus on Power Africa staff competency with different platforms to improve internal collaboration, and will also include specific systems and MEL training for IPs. | -Clarity on use of systems<br>-Uniformity of use across PA<br>-Improved collaboration using shared systems/technology<br>-Increased competency for IPs/partners on data management/submitting data | Incoming staff, position-relev ant participation; IPs/partners |
| Intranet Design and Maintenance | The goal of the Power Africa Intranet, a part of "pages.usaid.gov," is to provide access to current, discoverable, and authoritative information resources and tools to enable PACO to find critical information resources effectively. Additionally, the PACO Intranet is the face of Power Africa to Agency (internal) staff, providing updated resources and media about what the Power Africa Initiative is and how we do our work. This central hub gives one-stop access to Communications materials, the latest quarterly data, master lists, PATT, PAIS, the Power Africa Toolbox, and country resources. | -Support inter-office collaboration<br>-Increased engagement with and regular use of Intranet resources by all staff | Intranet Governance Team/POCs |

## ANNEX IV – Precise Indicator Definitions

*Transaction*: A transaction is a *specific* technically, commercially, and financially viable power-sector *project*—generally driven by private developers/sponsors but can also include public-sector investment—in which capital investment or the necessary technical assistance is required to bring a *specific* generation, transmission, and/or distribution project to financial close.

***Qualified Transactions***: A Qualified transaction must be a specific:

- Generation, transmission, or distribution investment
- Renewable power investment (wind, solar, hydro, geothermal, biomass, or tidal)
- Investment that increases access to electricity, including mini-grids and rural electrification
- Natural gas power investment, for example associated gas, gas pipeline and associated infrastructure investment, non-associated gas, or liquefied natural gas in combined-cycle configuration
- Capturing of associated gas and reduction of gas flaring investment
  Gas investments that will eventually support gas-fired powered generation, or
  Fuel cell power investment (i.e., one that uses the chemical energy of hydrogen or other fuels to cleanly and efficiently produce electricity).

*There are two types of Qualified Power Africa transactions:*

1. ***USG Power Africa Transactions*** where one or more USG agency has substantive involvement, such as technical assistance, grant, financing, political support, and advocacy in a Qualified Power Africa transaction

   i. USAID provides technical assistance to a government that is addressing power-sector enabling environment issues related to a specific qualified transaction via a USAID Implementing Mechanism.
   ii. USAID, State, Commerce, or other USG agencies are involved in some form to remove obstacles to bring a Qualified Transaction to financial close (e.g., advocacy). Such assistance may or may not include Power Africa partners.
   iii. USAID, USTDA, Overseas Private Investment Corporation (OPIC), and USADF provide grants or other support to Qualified Transactions to demonstrate their technical and financial feasibility.
   iv. USTDA provides funding to support feasibility/market/technical analysis to help a project obtain financing.
   v. OPIC or Ex-Im provides financing, including loans/guarantees/insurance, to a Qualified Transaction.
   vi. MCC provides grant funding to partner governments for technical assistance or infrastructure works related to Qualified Transactions.

2. ***Partner Power Africa Transactions*** where a Power Africa partner has invested/is investing capital, services, or equipment to a Qualified Transaction (**without any involvement of any USG agency)**, and where such Power Africa partner allows Power Africa to report on the transaction publicly and is willing to give credit to Power Africa for having played a critical role in

moving a Qualified Transaction forward and where Power Africa consents to branding the Qualified Transaction as a Power Africa partner transaction. Before a transaction will be counted as a Power Africa partner transaction, it must also be reviewed and pass the following conditions:

1. Have a Qualified Transaction Assistance Tool Review completed.
2. Have a Power Africa Environmental and Social Review Methodology completed for all required projects.
3. USG concurs that this project should be counted as a Power Africa partner transaction.

The transaction can also only be counted towards Power Africa's goals if it reached financial close after the LOC/LOI was signed and the partner became an official Power Africa partner. Power Africa partners include:

Developers/sponsors, private equity/debt providers
Engineering Procurement and Construction firms (EPCs), Operations & Maintenance (O&M) service providers, equipment suppliers, transmission and distribution companies
Development Finance Institutions (DFIs), donor agencies, associations, foundations, and non-profit organizations

***Financial close*** occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met. For transactions, such as public-sector investments, that are not structured as above, '*financial close'* will be considered to mean the signing of a works or technical assistance contract.

***Commissioning*** occurs when all required transaction completion tests have been met (*e.g.*, legal, technical, operational, financial), and power is actually being delivered and sales commenced. This is also commonly referred to as commercial operations.

## ANNEX V – Data Quality Assessment Worksheet

Data Quality Assessment: [Insert OU / Office Name]

**Note 1:** This template contains five parts. Some for overall DQA and some for specific indicator(s) assessed. Please refer to the notes for each part.

**Note 2:** Use a separate template for each partner that contributes data to the same indicator.

### Part I. BACKGROUND INFORMATION

**[**For all indicators, if multiple indicators are assessed for the same partner**.]**

| | |
|---|---|
| **Name of the Partner Who Provided the Data:** | |
| **Activity/Mechanism Name:** | |
| **Award Type & Number:** | |
| **DQA Method** | *Describe the methods and procedures used, e.g., reviewing data collection procedures and documentation, interviewing those responsible for data collection and/or analysis, checking a sample of the data for errors, etc.* |
| **Name & Position of Interviewee(s):** | |
| **Assessor(s):** | |
| **Location of DQA:** | |
| **Date of DQA Conducted:** | |
| **Reviewer & Approver and Date of Approval:** | |

### Part II. PERFORMANCE MONITORING SYSTEM ASSESSMENT

**[**For all indicators if multiple indicators are assessed for the same partner**.]**

| # | Monitoring System Questions | Yes | No | N/A | Note/Comments |
|---|---|---|---|---|---|
| 1. | Does the implementer have at least one staff dedicated to M&E with a clear job description indicating M&E roles and responsibilities? | | | | *Review job description(s) if possible. Discuss roles & responsibilities of M&E related staff.* |
| 2. | Have the relevant staff (both program and M&E) who have to be involved in data recording, processing, and reporting received sufficient training on the | | | | *Discuss types of training received. Determine if the training received were sufficient. Any additional training required? Also determine if received training on USAID M&E policies & procedures* |

| | | | | | |
|---|---|---|---|---|---|
| | process and tools to be used for this Activity? | | | | |
| 3. | Does M&E staff demonstrate a good understanding of M&E, including data collection issues and data use? | | | | *Assess the M&E staff knowledge and understanding on purpose of performance monitoring, e.g.:*<br>*a. why monitoring;*<br>*b. what the partner organization tries to measure;*<br>*c. awareness on differences of indicators definitions between USAID and the organization and/or the staff).* |
| 4. | Is there any supervision system in place to provide support to relevant staff on data collection and management? | | | | *Determine who reviews the data and provide feedback to M&E staff and ensure the data quality prior to submission to USAID.*<br>*Ask for documentation that supports the data reported to USAID for review.* |
| 5. | Does the implementer have a written guidance or procedures for implementation of performance monitoring for this Activity? | | | | *Ask for the document and review. The procedures should also be accompanied by appropriate PIRSs.*<br>*Also check if the guidance or procedures are in line with the Mechanisms requirement.*<br>*a. Assess how the data is collected/recorded, to whom the data is reported to, when and how to report.* |
| 6. | Does the implementer have an appropriate data storage and management system? | | | | *Any standardized formats used for data recording?*<br>*Are data record formats stored in secured places (both at main and sub-offices)?*<br>*Is the data entered and aggregated by using appropriate computer software, e.g., Excel spreadsheet, MS Access?* |
| 7. | Is there a system in place to document data-quality problems and how the problems have been resolved? | | | | *Determine if any written guidance/procedures are in place for this purpose.*<br>*If so, have the guidance/procedures been followed and what were the results?* |
| 8. | Is the data collection and reporting system of the Activity in line with the national/regional system? | | | | *Any national/regional indicators used? If so, are data collection and reporting timeline harmonized with the national/regional system)?* |

| | | | | | |
|---|---|---|---|---|---|
| 9. | Has the implementer been using the data for management of the Activity? | | | | *Assess what data has been used and how? What are the results of the data use?* |
| 10. | About what percentage of the Activity overall budget is allocated to M&E vs. expenditure? | | | | *Determine the percentages for "M" vs. "E".63. Note: ADS 203.3.1.4 guides that 5-10% of total program resources should be allocated for both Monitoring and Evaluation. This includes the required 3 percent of program funds for evaluations.*<br>*For the purpose of this DQA, monitoring budget or expense should include M&E staff cost (full amount or proportionately if the staff spend part of his/her time on monitoring), direct costs (e.g., field monitoring visits, performance monitoring training), indirect cost and fee (as applicable by applying the organization's rates as agreed in the Award document).*<br>*Assess if the implementer feels that their M&E budget is sufficient. If not, how do you overcome this issue?* |

## PART III. DATA QUALITY ASSESSMENT

**Note:** The Tables below are to be used for each indicator. Please copy and insert a separate set of these tables for each indicator if multiple indicators are assessed during the same DQA implementation.

- **Background Information of the Indicator Assessed**

| | |
|---|---|
| **Name of Indicator:** | *Copy directly from the Performance Indicator Reference Sheet* |
| **Linkage to Results Framework:** | *Specify DO, IR, SIR that this indicator contributes/is related to* |
| **Type of Indicator:** | _____ Standard Foreign Assistance Indicator [Provide linkage, e.g., Program Area, Program Element, as applicable]<br>_____ Other Existing Indicator [Specify]_____<br>_____ Custom Indicator |
| **PPR Indicator:** | _____Yes (From Year ) _____No |
| **Data Source(s):** | |
| **Level of Data Collection:** | |
| **Reporting Period Assessed:** | |

| **Data Collection Method:** | *Assess method(s) used to collect data for this indicator.*<br><br>*Ask for the document and review available supporting documents, e.g., survey, commodity or stock management logbook, sign-up sheets for training/service uptake.* |
|---|---|

| **VALIDITY – *Data should clearly and adequately represent the intended result.*** | | | | |
|---|---|---|---|---|
| | | **Y** | **N** | |
| 1. | Does the data collected measure what it is supposed to measure? | | | *Assess the logical relationship between the intervention/task implemented by the Activity and what the indicator is measuring, e.g., a valid measure of nutrition is healthy variation in diet; age is not a valid measure of overall health.* |
| 2. | Is the data collection tool/instrument appropriate? | | | *Assess the appropriateness of the tool/instrument, e.g., whether the data form is self-explanatory, easy to fill out, and capture only necessary information; whether the formula used to estimate the GHG level is appropriate and standardized.* |
| 3. | If the data collection tool relies on self-reporting, are adequate instructions provided? | | | *For example: if pre-/post-tests are used before and after training, assess how well the tests were developed (e.g., if the questions/answers and instructions were clear).* |
| 4. | Is there reasonable assurance that the data collection methods/tools being used can produce accurate data? | | | *Assess if the methods/tools can lead to bias, e.g., over or under counting If so, are there any procedures in place to reduce the bias?* |
| 5. | Does the data collected fall within a plausible range? | | | *Look for outliers and check if the outliers were real or if they were errors that need to be corrected.* |
| 6. | If errors were found, have data errors been tracked to their original source and mistakes corrected? | | | *Determine if any data errors were found. If so, how they were found, and what/how/by whom actions were taken to correct the errors.* |
| ***[AS APPLICABLE] If the data is at aggregation level, please also assess the following.*** | | | | |

| | | | | |
|---|---|---|---|---|
| 7. | Is the final number reported accurate? | | | *Ask for disaggregation level data and re-aggregate to see if the final number matches the number reported.* |
| **RELIABILITY – *Data reflects stable and consistent data collection processes and analysis methods over time*** | | | | |
| 8. | Are the data collection procedures clear enough that someone new to the activity would be able to collect the data after reviewing existing procedures/guidance? | | | *Ask for the documentation for review* |
| 9. | Are there clearly defined and followed procedures to identify and reconcile discrepancies in reports? | | | *Ask for the documentation for review* |
| 10. | Are there procedures in place for periodic review of data source verification, data collection, maintenance, and processing and have the procedures been followed? | | | *Ask for the documentation for review* |
| 11. | Have the same procedures/methods used for each time of data collection, compiling, analysis and reporting? | | | *Look for documentation of procedures/methods for data collection, aggregation, and manipulation.*<br><br>*Assess:*<br><br>*Whether the same procedures/methods are used from year to year, location to location, source to source, and staff to staff within the same implementing organization each time of data collection and reporting; and* |

| | | | | |
|---|---|---|---|---|
| | | | | *Whether the same procedures/methods are used across different implementers if multiple partners implement the Activity.* |
| 12. | Has the same data collection tool/instrument been used for each time of data collection, analysis and reporting? | | | *Assess:*<br>*Whether the same tools are used from year to year, location to location, source to source, and staff to staff within the same implementing organization each time of data collection and reporting; and*<br><br>*Whether the same tools are used across different implementers if multiple partners implement the Activity.* |
| 13. | Have the operational indicator definitions been systematically followed? | | | *Interview different data collectors to see if they apply the same definitions* |
| 14. | Are the data reviewed for accuracy before sending to the next level (or to USAID)? | | | *Ask for evidence that the data were reviewed and corrected (if needed) for accuracy before submission at each level. Do not assume that this happened only because the partner has a written policy/guidance for data reliability.* |
| **INTEGRITY – *Data collected should have safeguards to minimize the risk of transcription error or data manipulation.*** | | | | |
| 15. | Are procedures or safeguards in place to minimize data transcription errors? | | | *Ask for the transcription procedures documentation for review;*<br><br>*Determine the process (who, how, and when the data were transcribed) to see if there is potential for data errors.* |
| 16. | Are data properly stored and readily available? | | | *Spot-check on where and how the data are stored. At least check the following:*<br><br>*Are the raw materials kept in a locked cabinet with appropriate labels/inventories?*<br><br>*Is the electronic data stored in a secured computer with locked codes?* |

| | | | | |
|---|---|---|---|---|
| | | | | *Are the raw and/or electronic data readily available?* |
| 17. | Is there protection in place for confidentiality? | | | *If the data were collected from human subjects, check:*<br><br>*If informed consent and confidentiality guidelines are in place;*<br>*If the personal identification data are separately kept from the data provided by relevant persons;*<br><br>*If the data are kept in a secure place.* |
| 18. | Are there proper mechanisms in place to prevent unauthorized changes to the data? | | | *Assess:*<br><br>*Who collects, enters, manages, and analyzes data? Note that it is not recommended for the same person to conduct all these functions for lack of checks and balances but small local partners might not have sufficient resources to assign different functions to different staff.*<br><br>*Are the person(s) independent from any person who would have an interest in changing/manipulating data?*<br><br>*Whether the staff thinks that there is a possibility for the data to be manipulated for political and/or personal reasons at all levels? If so, how s/he prevents unauthorized changes to the data?* |
| 19. | Has there ever been an independent review of this indicator data? | | | *Assess by who, when, what the findings were, and what actions were taken to improve the data integrity by who and when?* |
| **PRECISION – *Data has a sufficient level of detail to permit management decision-making*** | | | | |
| 20. | Are the data collected on the source document has sufficient details and precision to measure the indicator(s) | | | *Ask for the source documents (e.g., beneficiary or training records) to review if they contain sufficient and precise details.* |
| 21. | Are there procedures for avoiding double counting *within* each IP? | | | *Assess if there are means and/or procedures to identify double counting within an IP.* |
| 22. | Are there procedures for avoiding double counting *across* IPs in the same location? | | | *Assess if there are means and/or procedures to identify instances of double counting across a number of IPs/interagencies* |
| 23. | Are there clear documentations of | | | *Assess:* |

| | | | | |
|---|---|---|---|---|
| | aggregation and adjustment factors? | | | *How the data were aggregated at the higher levels? Are there clear documentations supporting the data aggregation?*<br><br>*If data were adjusted for aggregation, were the factors or sound justifications for adjustment clearly documented?* |
| ***TIMELINESS – Current data is available at a useful frequency and timely enough to influence management decision-making*** | | | | |
| | | Yes | No | |
| 24. | Is the date of collection clearly identified? | | | *Ask for the source documents (e.g., training records) to review if the date of data collection is clearly identified.*<br><br>*Check if the date for the data collection is clearly identified in the report.* |
| 25. | Are data from within the period of interest? | | | *Check:*<br>*If the data were collected after the intervention(s) has begun;*<br><br>*Whether the data collected are within the period of interest (e.g., the U.S. fiscal year data must be collected between October and September).* |
| 26. | Is a routine schedule of data collection in place to meet program management needs? | | | *Check if the schedule for data collection is in place and whether the frequency is appropriate.* |
| 27. | Is data reported as soon as possible after collection? | | | *Check how soon the data are reported to the next levels and to USAID and whether they are appropriate. Data types, data collection methods, and available resources should be considered when determining appropriateness.* |
| 28. | Was data reported from the most recently available reporting period? | | | *Check if the data reported are up to date. If no recent relevant data are available, why? What concrete actions are being taken to collect and report the data as soon as possible? When will the data be available?* |
| 29. | Was the last report given in time? | | | *Check how much percent of the data collectors reported this data to the next levels in time as per the schedule for the most recent report.* |
| 30. | Is data available frequently enough to inform program management decisions? | | | *Determine if the frequency of this data reporting is sufficient in informing management or programmatic decisions (e.g., is it meaningful to show change, to monitor the deliverables against budget, to determine if the set target should be reconsidered).* |

## PART IV. QUALITY OF DOCUMENTS REVIEWED and RE-AGGREGATED DATA RESULTS (For all indicators assessed for the same partner.)

List all the documents reviewed during the DQA and determine their completeness and accuracy. If the documents are incomplete and/or inaccurate, provide specific findings and your determination on how they might affect the reported data. If the data assessed is at aggregation level, data on the source documents should be recounted and compared against the aggregated data that were reported. If discrepancies are found, reasons for the discrepancies should be examined and recorded.

| List of Documents Reviewed | Completeness | | | Note/Comments |
|---|---|---|---|---|
| | Yes | No | N/A | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

## PART V. SUMMARY (For all indicators assessed for the same partner)

| SUMMARY |
|---|
| Based on the assessment relative to the five standards, what is the overall conclusion regarding the quality of the data? |
| Significance of limitations (if any): |
| Actions needed to address limitations prior to the next DQA: |
| Does the partner(s) have any recommendations for USAID about the indicators used for this Activity/Project? |

| IF NO DATA ARE AVAILABLE FOR THE INDICATOR | COMMENTS |
|---|---|
| If no recent relevant data are available for this indicator, why not? | |
| What concrete actions are now being taken to collect and report these data as soon as possible? | |
| When will data be reported? | |