OFFICE OF INSPECTOR GENERAL

U.S. Agency for International Development

Power Africa Coalesced Energy Efforts but Lacked Portfolio-Wide Risk Management and Consistent Measures of Progress

AUDIT REPORT 4-698-19-001-P

MARCH 7, 2019

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MEMORANDUM

DATE: March 7, 2019

TO: USAID Bureau for Africa, Coordinator for Power Africa, Andrew M. Herscowitz

FROM: USAID OIG Africa Regional Office, Audit Director, Robert W. Mason /s/

SUBJECT: Power Africa Coalesced Energy Efforts but Lacked Portfolio-Wide Risk Management and Consistent Measures of Progress (4-698-19-001-P)

This memorandum transmits the final report on our audit of Power Africa. Our audit objective was to determine whether Power Africa was on track to achieve its goals of adding 30,000 megawatts of cleaner, more efficient electricity generation capacity and expanding access by at least 60 million new households and businesses with on-grid, minigrid, and off-grid solutions. Specifically, we assessed (1) Power Africa's efforts to coordinate U.S. Government agencies; (2) the challenges it faced; and (3) the extent to which it has accurately reported results. In finalizing the report, we considered your comments on the draft and included them in their entirety, excluding attachments, in appendix D.

The report contains three recommendations to improve Power Africa's policies and procedures regarding risk management, data quality, and results reporting. After reviewing information you provided in response to the draft report, we consider recommendation 1 open and unresolved, recommendation 2 resolved but open pending completion of planned activities, and recommendation 3 closed. For recommendation 1, please work with us to resolve it; for recommendation 2, please provide evidence of final action to the Audit Performance and Compliance Division.

We appreciate the assistance you and your staff extended to us during this audit.

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INTRODUCTION

The short supply of electricity is one of Africa's greatest development challenges. Approximately 600 million sub-Saharan Africans (70 percent) lack access to electricity.[1] Nearly 30 African countries face pervasive power shortages, and approximately 70 percent of African businesses refer to unreliable power as a key constraint to growth. The lack of reliable electricity leads to using inefficient and toxic fuel sources for indoor cooking, heating, and lighting, "resulting in more than 3 million annual premature deaths from respiratory disease—more annual deaths than from HIV/AIDS and malaria in sub-Saharan Africa."[2] The International Energy Agency estimated in 2013 that sub-Saharan Africa would need more than $300 billion in investment to provide universal electricity access by 2030.

President Barack Obama announced the Power Africa Initiative in June 2013 and then expanded it in August 2014 with the goals of adding 30,000 megawatts of cleaner, more-efficient electricity-generating capacity and expanding access by 60 million new households and businesses with on-grid, minigrid, and off-grid solutions.[3] Power Africa works with African governments, the private sector, and other partners to increase the number of people with access to electricity in sub-Saharan Africa. The Electrify Africa Act of 2015,[4] enacted in February 2016, codified the U.S. Government's plans to increase the availability of power. In March 2018, the Trump Administration launched Power Africa 2.0, which seeks to make gains in the areas of power distribution and transmission.

The U.S. Agency for International Development (USAID) was designated as the lead agency responsible for U.S. Government interagency coordination of Power Africa in 2013. As the lead, USAID established the Coordinator's Office within the Agency's Africa Bureau. The Coordinator, currently located in Pretoria, South Africa, oversees implementation of Power Africa across all agencies and serves as its primary spokesperson.

We conducted this audit to determine whether Power Africa was on track to achieve its goals. Specifically, we assessed (1) Power Africa's efforts to coordinate U.S. Government agencies; (2) the implementation challenges it faced; and (3) the extent to which it has accurately reported results. The audit period extended from June 2013,

[1] International Energy Agency, Africa Energy Outlook 2014: http://www.worldenergyoutlook.org/media/weowebsite/africa/Africa_Energy_Outlook_2014_Electricity_database.xlsx.
[2] Bill for the Electrify Africa Act of 2014, H.R. 2548, 113th Congress (2013-2014).
[3] On-grid refers to the use of a national or regional power utility network to access electricity. A minigrid is a set of generators connected to a distribution network that supplies electricity to customers in one locality. Off-grid refers to stand-alone power systems, typically to provide smaller communities with electricity.
[4] Public Law No. 114-121.

when Power Africa began, to the end of our fieldwork in August 2017, with testing of Power Africa's 2015 results.[5]

Our conclusions are based primarily on auditing 30 energy projects (transactions) of 4 of the 12 participating U.S. agencies—USAID, the Millennium Challenge Corporation (MCC), Overseas Private Investment Corporation (OPIC), and U.S. African Development Foundation (USADF)[6]—in 5 of the initial 6 Power Africa countries—Ghana, Kenya, Liberia, Nigeria, and Tanzania. Of these 30 transactions, 25 accounted for about 70 percent of Power Africa's reported results in 2015, while the other 5 were transactions still in process in 2015 for which Power Africa had provided some assistance.[7] To gain an understanding of interagency coordination, we interviewed officials from other participating U.S. agencies, such as the Departments of State and Commerce; the Export-Import Bank; and the U.S. Trade and Development Agency. We met with officials from multilateral development finance institutions and other bilateral donors and aid agencies. During fieldwork, we held 225 interviews and conducted 21 site visits. Appendix A contains additional information on the audit's scope and methodology.

SUMMARY

Power Africa brought together diverse U.S. agencies to collaborate and share expertise on existing and new efforts in the energy sector while capitalizing on agencies' comparative advantages and minimizing duplication. It benefited from high-level political support and financial commitments to its goals of increasing electricity generation and access. Nearly all of the U.S. Government staff interviewed held a favorable view of the Power Africa Coordinator's Office and credited it with spearheading interagency collaboration.

Still, Power Africa faced significant implementation challenges. Its rapid expansion—extending to all of sub-Saharan Africa and tripling its goals—heightened its exposure to various risks, and in its push to advance Power Africa, the Coordinator's Office has not fully implemented a portfolio-wide risk management program. Such a program is important for Power Africa, which operates in fragile environments marked by political and economic uncertainty. For example, when disputed elections in Tanzania raised concerns about the Government's commitment to democracy, MCC had to suspend a $473 million program, and Power Africa had to reevaluate its activities in Tanzania and decide how to fill the gaps in energy sector assistance. In the absence of a fully implemented portfolio-wide risk management program, Power Africa relied on participating agencies to follow their individual risk assessment policies and procedures, which resulted in gaps. Also, Power Africa did not finalize policies and procedures for

[5] For Power Africa's 2016 and 2017 results, we reviewed the reporting methodology and calculations but did not verify reported results.
[6] The USAID Office of Inspector General also serves as inspector general for MCC, OPIC, and USADF.
[7] The 25 transactions represented 2,885 out of 4,129 megawatts reported by Power Africa in 2015.

monitoring progress on energy projects. Compounding these problems, budget uncertainty hindered Power Africa's efforts to fill key positions.

Power Africa reported results that overstated its impact at the time. Although Power Africa's 2017 annual report stated that it was on track to add 30,000 megawatts of electricity by 2030, this figure was based on potential results and not on actual increases in capacity. Power Africa has counted megawatts foreseen when deals were made instead of power generated, and projects that were envisioned but never built. It also frequently changed how it counted connections, and defined them in a way that overstated its impact. For example, almost 80 percent of the 10.6 million reported new connections made by 2017 consisted of solar lanterns that, while improving the lives of recipients, have limited utility in driving large-scale economic growth and sustainable development. We also found some reported results, mostly from Nigeria, that could not be verified. Basically, Power Africa lacks a systematic data quality program to routinely verify the accuracy and reliability of results data. Because of these limitations on Power Africa's reporting methodology and data quality, we were unable to conclude whether it was on track to meet its goals.

We are making three recommendations to strengthen Power Africa's management of program risks and improve results reporting.

BACKGROUND

In June 2012, President Barack Obama announced the U.S. Strategy Toward Sub-Saharan Africa. Among other things, the strategy sought to expand opportunities for trade and investment—including in the energy sector—while fostering broad-based, sustainable economic growth and development. The U.S. strategy laid the foundation for Power Africa, which President Obama announced on June 30, 2013.

Power Africa's Goals

Power Africa originally targeted six countries—Ethiopia, Ghana, Kenya, Liberia, Nigeria, and Tanzania—and promised to "add more than 10,000 megawatts of cleaner, more efficient electricity generation capacity" while increasing electricity access "by at least 20 million new households and commercial entities."[8] Power Africa officials explained that "cleaner, more efficient" electricity meant increasing the amount of electricity generated from renewable power sources (e.g., wind, solar, hydro), natural gas, or fuel cell power (e.g., hydrogen).

Although Power Africa officials characterized the original goals as ambitious, just after the initiative started the U.S. Government began raising Power Africa's targets. During the August 2014 U.S.-Africa Leaders Summit, President Obama expanded Power Africa throughout sub-Saharan Africa, increasing its goals from 10,000 to 30,000 megawatts of

[8] White House, FACT SHEET: Power Africa, June 30, 2013, https://obamawhitehouse.archives.gov/the-press-office/2013/06/30/fact-sheet-power-africa, accessed on February 20, 2019.

generation capacity and from 20 million to 60 million new households and commercial entities with electricity access, although Power Africa lacked a strategy or roadmap for how or when it would achieve these tripled goals. The roadmap came in January 2016 and set a timeline for achievement by 2030. The announcement also came with a pledge to fund Power Africa at $300 million annually. According to Power Africa officials, however, Power Africa only received this level of funding once (in 2016); for all other years, funding averaged around $76 million per year.

Power Africa's Structure

In March 2013, USAID was designated as the lead agency to coordinate efforts among participating agencies to develop Power Africa. To lead these efforts, USAID appointed a Coordinator to serve as the overall point of contact, manager, and overseer of all aspects of implementation. The Coordinator, however, only has authority over how U.S. Government funds are spent for USAID's energy projects. The Coordinator's Office is a unit within USAID's Africa Bureau, and the Coordinator reports formally to the head of the Africa Bureau and informally to National Security Council staff. In August 2013, the Coordinator's Office opened its headquarters office in Nairobi, Kenya; a year later in September 2014, it relocated to Pretoria, South Africa, because of Embassy Nairobi's staff reduction due to security concerns. Power Africa also has an office and staff in Washington, DC. The Coordinator has two deputies (one in Pretoria and one in Washington, DC) who oversee team leads on program operations, contracting, communications, energy, and partnership development.

Power Africa incorporates the efforts of 12 U.S. Government agencies shown below.

- Export-Import Bank
- MCC
- OPIC
- USAID
- USADF
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Energy
- U.S. Department of State
- U.S. Department of Treasury
- U.S. Trade and Development Agency

The assistance provided by these agencies can generally be categorized as either technical or transaction assistance. Technical assistance includes helping African countries with power sector reforms, while transaction assistance is geared toward helping project developers sign contracts with lenders for complete packages of permanent financing (referred to as "financial closure" by Power Africa). The support provided by the agencies in our scope—USAID, MCC, OPIC, and USADF—is summarized in table 1. Appendix B presents the audited transactions by Agency.

Table 1. USAID, MCC, OPIC, and USADF Support for Power Africa

Agency	Activities	Commitment as of March 31, 2017[a]
USAID	Helps coordinate the 12 agencies' activities. Has committed to provide African governments technical assistance, grants, and risk mitigation services to implement the policy, regulatory, and other reforms that will attract private investment in the energy and power sectors.	$1,785,000,000
MCC	Invests in African countries' energy infrastructure, policy and regulatory reforms, and capacity building to increase the access, reliability, and sustainability of electricity supply.	1,503,000,000
OPIC	Offers financing, loan guarantees, and political risk insurance to mobilize private investment in the African power sector.	2,500,000,000
USADF	Provides grants of up to $100,000 to African-owned/-operated enterprises to help develop or expand proven technologies for providing electricity to rural and marginal populations.	2,000,000
Total		**5,790,000,000**

[a] The commitment amount includes the total value of the loans that selected agencies are guaranteeing—i.e., $2.3 billion from OPIC and $218.5 million from USAID's Development Credit Authority, which provides partial-credit guarantees to mobilize commercial debt capital.

Source: Power Africa Coordinator's Office.

As shown in the table, the total commitment from these four agencies approached $5.8 billion, with obligations totaling over $1.7 billion and disbursements of nearly $466 million as of March 31, 2017.

Executive Order 13746, signed in November 2016, formalized the President's Power Africa Working Group, cochaired by the Coordinator and a member of the National Security Council. The order encourages participating agencies to collaborate, identify best practices, and share lessons learned. Appendix C presents a timeline of key events in Power Africa's history.

POWER AFRICA HELPED SYNCHRONIZE U.S. GOVERNMENT AGENCIES' EFFORTS TO ADVANCE ENERGY PROJECTS

From the start, the Coordinator's Office focused on outreach and collaboration among U.S. agencies on existing and new efforts in the energy sector and sought opportunities where the U.S. Government could catalyze deals or break down regulatory obstacles.

Since then, the office has continued to work with the 12 participating U.S. agencies through the interagency Power Africa Working Group and U.S. Embassy country teams to capitalize on considerable U.S. Government expertise and existing energy sector efforts. Almost all of the OIG-audited on-grid energy projects that reached financial closure had received some level of U.S. Government assistance before the formal announcement of Power Africa. Power Africa used existing energy sector assessments

and concluded that building on these early efforts, as opposed to starting from scratch, could achieve greater energy generation and access.

In the early stages, the Coordinator's Office reviewed U.S. agencies' technical and transaction assistance, identifying each agency's strengths and comparative advantage, coordinating efforts, and minimizing duplication. Among the U.S. Government staff we interviewed, 97 percent (28 of 29 respondents) viewed the Coordinator's Office favorably, and most believed interagency collaboration had improved because of its efforts. Some examples follow:

- An MCC official said that during the development of the Tanzania compact, he regularly participated in meetings at the Power Africa offices in Dar-es-Salaam and witnessed broad coordination between power and development stakeholders. Another MCC official said funding and resources from Power Africa had helped by providing transaction advisers and technical expertise.[9]
- Members of the OPIC deal team said they used MCC's studies to understand the energy market in Ghana. OPIC also worked closely with the U.S. Embassy and its economic officer through Power Africa's interagency country team during site visits to Ghana, and when performing due diligence on transactions.
- A senior USAID official in Tanzania said Power Africa mandated that U.S. agencies coordinate work together, whereas before, coordinating efforts was like "herding cats." This official also noted that, Power Africa, as a whole-of-Government effort, is a good approach because it gives the U.S. Government more "bang for its development buck" by leveraging donor and partner commitment and money.

POWER AFRICA LACKS A FULLY IMPLEMENTED PORTFOLIO-WIDE RISK MANAGEMENT PROGRAM

Once created, Power Africa quickly grew in complexity. As it began operations, it faced numerous implementation challenges that it was not fully prepared to mitigate—not only because it was new, but also because it focused on demonstrating and reporting immediate results rather than on establishing a portfolio-wide approach to risk management, even though doing so would be in line with the Coordinator Office's mandate to provide overall program management support.

[9] Transaction advisers work as impartial advisers to African partner governments and with officials from U.S. Power Africa agencies in each country. They provide technical and financial advice and monitor transactions throughout implementation.

Risk management is a "series of coordinated activities to direct and control challenges or threats to achieving an organization's goals and objectives."[10] While an organization cannot respond to all potential risks related to achieving strategic objectives and performance goals, Federal managers are required to identify, analyze, and assess major risks; respond to them; and monitor the results continuously. A risk management program entails the policies, procedures, and people that are put in place to carry it out. An effective risk management program prepares management to respond to external risks by considering different scenarios and response options while taking into account the level of risk it is willing to accept.

In its push to advance Power Africa, the Coordinator's Office did not fully implement a risk management program. The lack of a comprehensive risk management program that takes a portfolio-wide view of risk hinders Power Africa from proactively identifying, analyzing, responding to, and monitoring risks and opportunities throughout its portfolio to achieve its goals while minimizing the impact of challenges. A risk management program is important for Power Africa, which operates in fragile environments marked by political and economic uncertainty. Some events that characterize these risks include:

- ***Ebola outbreak in Liberia.*** The epidemic delayed MCC's $257 million effort to promote power sector reform and rehabilitate a hydropower plant by 9 months. During the outbreak, MCC officials were unable to travel to Liberia and perform site visits for proposed projects.
- ***A disputed presidential election in Tanzania.*** Concerns over the Tanzanian Government's commitment to free and fair elections, prompted by legislation that limited freedom of expression and association, led MCC to suspend its planned $473 million energy compact. The Tanzania compact was intended to help reform public power utilities to improve reliability and expand access to electricity.
- ***Vandalism of oil and gas pipelines prompted by ethnic conflict and economic disparity in Nigeria.*** Gas supplies and energy generation were interrupted and investor confidence shaken.
- ***The lapse in the U.S. Export-Import Bank's authorization.*** The EXIM Bank had committed $5 billion to Power Africa, and the lapse in the bank's authorization in July 2015 resulted in questions about Power Africa's viability and delays in programming.[11]
- ***U.S. Government budgetary uncertainty.*** Uncertainty has been a significant risk since Power Africa's expansion. In the fourth quarter of fiscal year (FY) 2017, USAID and other participating agencies were still awaiting approval of their final FY 2017

[10] Office of Management and Budget, OMB Circular No. A-123, "Management's Responsibility for Enterprise Risk Management and Internal Control," July 15, 2016. The prior version of OMB Circular No. A-123, issued December 21, 2004, and in effect at the time of our audit, said that "management should identify internal and external risks that may prevent the organization from meeting its objectives"; the revised version emphasizes enterprise risk management.

[11] EXIM was reauthorized in December 2015 until September 2019.

budget and FY 2018 appropriation, delaying planning and funding of activities to support Power Africa's goals. For example, the Coordinator's Office was unable to identify available resources to fund transaction adviser positions at USAID missions.

Instead of taking a portfolio-wide perspective, the Coordinator's Office relied in large part on participating agencies to follow their individual risk assessment policies and procedures, resulting in gaps:

- Because OPIC did not consult with its Office of Accountability on environmental considerations for either the Amandi and Azura Edo natural gas power plants in Ghana and Nigeria or the Kipeto wind farm in Kenya, the projects did not have risk mitigation plans in place.[12] According to OPIC officials, its policy only requires teams to inform the Office of Accountability of their intent to support high-risk projects.
- USADF did not have documentation showing that it had assessed potential environmental consequences of its grantees' electricity-generating technologies, as its policy required. Likewise, it did not ensure that safeguards were included in project design and implementation or that it monitored and enforced mitigation measures that grantees themselves said were needed. For example, grantees in Ghana, Kenya, and Nigeria using solar batteries did not have disposal plans in place even though they considered the batteries an environmental risk.
- Although the Coordinator's Office has conducted portfolio reviews since 2014 in accordance with USAID policy, they have been limited to USAID-funded activities and interagency transfers. These reviews did not consider Power Africa's broader portfolio of assistance across U.S. agencies to inform strategic, programmatic, and funding decisions to achieve its goals. For example, portfolio reviews did not take into account OPIC's transaction support, USADF's off-grid grants, or MCC's efforts to promote energy sector reform.

Compounding these problems, the Coordinator's Office did not provide its transaction advisers, partners, or country teams with formal written guidance, policy, and processes to monitor projects during construction, identify pertinent problems, and follow up on them after completion. A case in point was the handbook for transaction advisers, outlining their responsibilities related to due diligence, environmental screening, risk assessment, and monitoring and evaluation for transactions: it remained in draft 3 years into implementation until it was finalized in November 2016.

Furthermore, Power Africa, in part because of Federal Government budget uncertainty, had not filled all positions that entailed monitoring at the time of our audit. For example, the transaction adviser position in Nigeria, where Power Africa has reported the majority of its energy generation results, was vacant for 18 months until it was subsequently filled in May 2015. The Coordinator's Office also had staffing challenges

[12] In a separate audit issued in February 2019, OIG examined OPIC's risk mitigation measures for its energy portfolio in Chile and its broader monitoring practices: "OPIC Investments Increased Chile's Energy Capacity, but Weak Processes and Internal Controls Diminish OPIC's Ability To Gauge Project Effects and Risks" (9-OPC-18-002-P).

including numerous vacancies and turnover, as did participating USAID missions, including the one in Tanzania. As the Acting USAID Mission Director in Tanzania put it, "Only 4 percent of staff time is spent in field visits."

POWER AFRICA REPORTED GREATER IMPACT THAN IT HAD AND LACKS A SYSTEMATIC DATA QUALITY PROGRAM

Power Africa's published results conveyed greater impact than the program had demonstrated at the time of reporting. Although Power Africa stated in August 2017 that it was on track to add 30,000 megawatts of electricity by 2030, this was based on potential future results, not on actual increases in capacity to date.[13] Power Africa has counted anticipated megawatts when deals were made, even though some of these projects were never built, and others remained under construction. Likewise, Power Africa stated that it was on track to expand access to 60 million new customers by 2030. However, nearly 80 percent of the 10.6 million reported new connections made by 2017 consisted of handheld solar lanterns, not connections to a functioning power grid. Power Africa frequently changed how it counted connections and defined them in a way that overstated its impact on access. We also identified some 2015 reported results, almost exclusively from Nigeria, that could not be verified and found that Power Africa lacks a systematic data quality program to verify the accuracy and reliability of results data. Because of these limitations on Power Africa's reporting methodology and data quality, we were unable to conclude whether it is on track to meet its goals.

As managers of a Federal program, Power Africa officials should use relevant data from reliable sources to make informed decisions and evaluate the initiative's performance in achieving key objectives.[14] USAID policy also states that data should be valid, precise, reliable, and timely to be useful for monitoring, credible reporting, and decision making.[15] Just as important, these principles for sound, consistent data are also critical for informing policy and budgetary discussions among Members of Congress, the executive branch, and the public.

Power Africa Assumed Transactions Would All Reach Completion and Reported Accordingly

Power Africa reported in its 2015 annual report that it helped financially close energy projects that would add 4,129 megawatts of generating capacity and provide access to 5 million households. But projects such as CenPower Kpone in Ghana and Azura Edo in

[13] In its 2017 annual report, Power Africa stated that it had helped secure financing for projects that would produce 7,200 megawatts of electricity.
[14] U.S. Government Accountability Office, "Standards for Internal Control in the Federal Government," September 2014.
[15] Automated Directives System (ADS) 203, in effect at the time of this audit, listed these data attributes; they now appear in ADS 201.3.5.8.a, "Data Quality Standards," dated June 2017.

Nigeria—reportedly contributing 350 and 459 megawatts of that amount—remained unfinished several years later. As of August 2018, according to a Power Africa official, the CenPower Kpone plant was not yet operational, while the Azura Edo plant was completed in May 2018.

More significantly, although Power Africa counted results when deals closed, some deals never led to completed projects and actual power generation, leading to overstated results. For example, the following projects were never finalized:

- In Nigeria, privatization of the 440-megawatt Afam natural gas power plant was not finalized. The preferred bidder paid 25 percent for the asset but never paid the remaining 75 percent and therefore the asset was still owned by the government. The plant was inoperable for more than 10 months while awaiting handover to a private company. The preferred bidder (the private company) later pulled out of the deal in May 2016 because of the economic situation in Nigeria.
- In Kenya, the 60-megawatt Kinangop wind farm was cancelled because of community protests over what landowners considered insufficient compensation. According to the transaction adviser, a community engagement plan was not in place for the project, and the necessary due diligence was not performed. The project eventually devised a land compensation scheme for the 400 residents and landowners affected by the wind farm. However, community members did not agree to the scheme, and intervention by local politicians led to a court injunction that stopped work. In December 2015, the project sponsors decided to cancel the project given the costly delays.

These two transactions accounted for 17 percent of the energy-generating capacity of the transactions we audited and were included in Power Africa's 2015 results even though they were ultimately not built.[16]

Similarly, Power Africa frequently changed its methods for reporting the number of new connections. In 2014, Power Africa reported projected connections based on the 2,792 megawatts estimated to result from deals that were financially closed. In 2015, Power Africa refined its calculation for projected connections to consider country-specific residential electricity consumption data and household size, among other factors, and it also reported projected connections from off-grid projects. In 2016 it changed methods and reported projected connections only from off-grid projects and partners. In 2017, Power Africa changed its approach again and reported actual connections. Table 2 shows by year Power Africa's reporting methodologies for connections.

[16] According to Power Africa officials, the results for the Afam power plant were removed from the reported totals once it was discovered that the project would not be finished. Officials also stated that results for the Kinangop wind farm are in the process of being removed.

Table 2. Methods for Reporting Connections, by Year

Year	Methodology for Reporting	Reported Connections [a]
2014	1 megawatt = 2,000 connections	5,584,000
2015	Inferred calculation based on the average number of households that could be served by new on-grid megawatts financially closed and projected connections from off-grid solutions	5,000,000
2016	Counting projected connections from off-grid projects and partners	3,500,000
2017	Counting actual connections from on-grid and off-grid projects and partners	10,600,000

[a] The reported connections are shown as cumulative results; the fluctuation in reporting is a result of the changes in methodology.

Source: OIG analysis based on Power Africa's annual reports from 2014 to 2017 and interviews with officials on methodological changes.

Toward the end of our audit, Power Africa officials said they had started reporting on the number of megawatts associated with operational energy projects in a publicly available blog since April 2017. However, the FY 2016 and 2017 annual reports gave projected megawatt results only, not the number of megawatts online. In its 2018 annual report, Power Africa reported a total of 9,500 megawatts, of which 2,393 megawatts were actually online.

Counting Solar Lanterns as Connections Suggests Greater Impact Than Power Africa Had

Power Africa defines its off-grid connections as "new connections . . . or installation of stand-alone power systems, typically to provide a single household or business with electricity." This includes devices that provide very low levels of access, such as small solar panel systems providing a light and a phone charger, in the number of new connections.[17] Of the 10.6 million connections Power Africa reported in 2017, 8.3 million or 78 percent were from partners' distribution of solar lanterns—basic access to a single light (like the one held in the following photo).[18] While this basic access provides some help to those far beyond the grid, Power Africa officials acknowledged that larger solar home systems and minigrids are needed to run appliances and create businesses. Consequently, including solar lanterns in total new

[17] Such devices are Tier 1 connections under the United Nations' Sustainable Energy for All (SE4ALL)'s Multi Tier Tracking Framework, which measures energy access from Tier 0 (no access) to Tier 5 (the highest level of access); https://www.esmap.org/node/55526. Solar lanterns are also considered Tier 1 connections.

[18] In 2018, Power Africa reported 12.5 million connections, of which 11.8 million were off-grid connections.

connections overstates the program's success in providing access to the sources of electricity that can foster sustainable development, which was the vision behind the creation of Power Africa.

Man holding a solar lantern provided by Power Africa. (Photo: Power Africa)

Power Africa Reported Some Unverified Data

Power Africa also reported transaction results that it did not verify. Of the reported results in our sample, 20 percent (568 of 2,885 megawatts) lacked adequate supporting documentation. Nearly all of the unsupported results related to transactions in Nigeria.

Power Africa relied on the transaction information from USAID/Nigeria to prepare its 2015 annual report, including the number of expected megawatts from privatization. The mission, in turn, had relied on old requests for proposals, in which megawatt values differed significantly from those found in performance agreements used for closing transactions.[19] For example, the Egbin power plant's preprivatization generation capacity dated back to a May 2007 technical document that cited the plant's generating capacity in 1994, resulting in an overstatement of 220 megawatts. Ultimately, Power Africa did not verify the data before reporting it to the public.

In other cases, Power Africa reported results based on assertions by contractors or transaction advisers. Power Africa personnel could not verify the assertions because they were denied access to proprietary, supporting transaction documents. Power Africa officials said they have since improved verification and use alternative sources of information when denied access. For example, they told us they may seek verification through press releases, third-party reporting, or communications from the host government or other development partners.

[19] Performance agreements included power purchase agreements, ancillary services agreements, gas sales agreements, share sales agreements, and related documentation.

Power Africa Lacks a Systematic Data Quality Program

Power Africa lacks a systematic data quality program—one with a finalized monitoring, evaluation, and learning plan with procedural guidance, a training program, and routine data quality assessments. Power Africa's data collection and validation processes changed significantly throughout the audit, from spreadsheets requiring manual updates to information systems. Its reporting methodologies, data verification processes, and guidance continue to evolve. It has reacted to issues raised during this audit but has not completed plans to address them. For example, Power Africa revised its monitoring, evaluation and learning plan to reflect its connections methodology, which aligns with its plans to meet targets.[20] However, at the time of our audit, the plan remained in draft, and Power Africa officials indicated that they were still deciding which performance measures are useful. Similarly, the Coordinator's Office drafted standard operating procedures to collect, validate, and report on megawatts generated and connections added; however, those standard operating procedures had not been approved—heightening the risk that problems in data quality will persist. A Power Africa official explained that these are "living" documents that frequently change. Without finalized guidance, however, it is more difficult to ensure a common understanding among USAID and interagency officials who play a key role in Power Africa's monitoring and evaluation system. Training provided to staff charged with monitoring and evaluation responsibilities was based on outdated plans and procedures.

In addition to standard procedures, another element of a sound data quality program is routine data quality assessments. Such assessments are used to inform whether data are being accurately collected, validated, and reported. However, these assessments were not always conducted when methodological changes occurred because it was not a priority to do so.

Without a systematic data quality program, Power Africa's ability to validate results needed to inform risk monitoring and demonstrate that it is making progress on achieving its goals is hampered.

CONCLUSION

Power Africa was created to address one of the continent's greatest development challenges—increasing generation and access to electricity. The Coordinator's Office has forged a unified effort among 12 U.S. Government agencies to advance energy projects in Africa. Power Africa has also faced numerous challenges operating in risky environments on large-scale infrastructure projects whose results take years, if not decades, to achieve. Since Power Africa is now 5 years old, identifying and addressing implementation challenges proactively becomes even more important to achieving the program's ambitious goals. Furthermore, in order to demonstrate its impact to U.S.

[20] This plan, required by USAID policy (ADS 201.3.4.10), outlines the monitoring approach for activities, including the use of performance indicators (outputs and outcomes) and roles and responsibilities for monitoring actions.

taxpayers in an era of limited resources, Power Africa must place greater emphasis on reporting the megawatts generated with its assistance and continue its efforts to improve monitoring, evaluation, and data quality.

RECOMMENDATIONS

We recommend that Power Africa Coordinator's Office take the following actions:

1. Develop and implement a portfolio-wide risk management program to ensure that risks are regularly identified, analyzed, monitored, and mitigated.
2. Develop and implement a data quality program to systematically verify the accuracy and reliability of reported results. This program should include (1) a finalized monitoring, evaluation, and learning plan and associated standard operating procedures, (2) a training program for USAID and interagency officials involved in data reporting, and (3) a plan for routine data quality assessments and associated procedures for correcting data.
3. Include in Power Africa's annual report (1) the number of megawatts of energy-generating capacity added online and (2) the numbers of on-grid and off-grid connections.

OIG RESPONSE TO AGENCY COMMENTS

We provided our draft report to USAID on October 23, 2018, and received its response on December 7, 2018.

The report included three recommendations, and we acknowledge management decisions on all three. Having reviewed Agency comments, we consider recommendation 1 open and unresolved for the reasons below and recommendation 2 resolved but open pending completion of planned actions. We consider recommendation 3 closed based on those comments and our review of the 2018 Power Africa annual report.

Recommendation 1

In its comments, management agreed with recommendation 1 and listed 12 internal processes that contribute to risk management. While these individual processes facilitate communication, coordination, and monitoring of on-going projects, they do not lend themselves to identifying and mitigating aggregate risks across the portfolio in a structured way. To that end, management also said it performed the enterprise risk management (ERM) exercise required by USAID policy and developed its own ERM risk profile in 2018.

Although we acknowledge the management decision on recommendation 1, we disagree with it because, in our view, the risk profile missed key elements of OMB Circular A-

123, "Management's Responsibility for Enterprise Risk Management and Internal Control."

Contrary to A-123, Power Africa's risk profile does not include any reporting and compliance objectives, and has only one operational and one strategic objective, to help analyze risks and develop appropriate responses. The profile identified only two risks—one related to staffing and another related to its funding. Without including all required objectives, the profile likely did not identify all significant risks, including those that are unavoidable and beyond Power Africa's ability to reduce to a tolerable level.

To resolve recommendation 1, Power Africa should review and update its risk profile so that it includes all required objectives; significant risks and risk responses; and where appropriate, contingency plans to manage risks against those plans. According to A-123, a risk profile "is a prioritized inventory of the most significant risks identified and assessed through the risk assessment process versus a complete inventory of risks." In our opinion, a robust risk profile developed in accordance with A-123 is Power Africa's best means of ensuring that risks are regularly identified, analyzed, monitored, and mitigated, which is the goal of a fully implemented risk management program and recommendation 1.

General Comments

Management also offered general comments on the report. In response to those, we revised the text as we thought appropriate and clarified our position. For example:

- On the title, we replaced "reliable" with "consistent" to better reflect our intent, but otherwise kept the wording intact, using "portfolio-wide" to reflect the real, collective financial risk embodied in the commitments shown in table 1.
- As for the measures Power Africa uses and reports on, we recognize their legitimacy but maintain that using only those measures in reporting gives stakeholders incomplete information. For example:
  - Reporting megawatts added based on financial close obscures projects that are not completed. We found that 17 percent of the megawatts added based on financial close in our sample did not reach fruition. Full disclosure of non-fruition rates would enhance the credibility of Power Africa's reporting and help stakeholders make better assessments of Power Africa's results at the time they are published. Improved reporting by Power Africa since 2015 – such as reporting the actual number of megawatts online in the 2018 annual report and making available its mobile app for tracking deals – should also help in this regard.
  - Reporting solar lanterns in the total off-grid connections overstates their economic impact. Power Africa's decision to cap the number of solar lanterns included in connections at 12 million should facilitate its focus on providing higher-level access to electricity and useful information to stakeholders.

APPENDIX A. SCOPE AND METHODOLOGY

We conducted our work from April 2015 through October 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

The objective of the audit was to determine whether Power Africa was on track to achieve its goals of adding 30,000 megawatts of cleaner, more efficient electricity generation capacity and expanding access by at least 60 million new households and businesses with on-grid, minigrid, and off-grid solutions.

We focused our audit on the program's Coordinator's Office, whose staff are located in the United States and South Africa, and on activities implemented by USAID, MCC, OPIC, and USADF in five of the six original Power Africa countries[21]—Ghana, Kenya, Liberia, Nigeria, and Tanzania. Auditors conducted fieldwork in Ghana from July 27 to August 13, 2015; in Nigeria from September 28 to October 9, 2015; in Kenya from November 2 to 20, 2015; and in Tanzania from January 11 to 25, 2016. We did not visit Liberia because its compact with MCC was in the early stages of development. The audit period extended from June 2013, when Power Africa began, to the end of our fieldwork in August 2017, with testing of Power Africa's 2015 results. (For Power Africa's 2016 and 2017 results, we reviewed the reporting methodology but did not test reported results.) We did not review budgeting of Power Africa's activities as part of the audit.

After gaining an understanding of how Power Africa reported its 2015 results, we used data from the Power Africa Transaction Tracker (PATT) database to make scoping decisions. The PATT database is used by Power Africa officials, transaction advisers, partners, and other stakeholders to manage and report transaction-related information. To understand the reliability of the data in this system, we met with the database developer (contractor Tetra Tech) and the staff in the coordinator's office tasked with monitoring and reporting results. We also sought to identify discrepancies with results observed during fieldwork. However, because of the problems found with data reliability as expressed in the audit's findings, we did not rely on the data from this system for our final conclusions.

To answer the audit objective, we assessed (1) Power Africa's efforts to coordinate U.S. Government agencies; (2) the challenges it faced; and (3) the extent to which it has accurately reported results. Specifically, we:

- Gained an understanding of (1) the role, responsibilities, and authorities of the Power Africa Coordinator and his office, (2) how Power Africa's goals were set and

[21] We did not audit activities in the sixth original country, Ethiopia, because Power Africa had not yet reported results for Ethiopia when the audit began.

initial countries selected, and (3) Power Africa's reported results by reviewing supporting documentation and conducting interviews with Power Africa officials based in Pretoria, South Africa, and Washington, DC; members of the Power Africa Working Group; country team members; and transaction advisers.

- We reviewed bilateral memorandums of understanding, energy sector assessments, and other relevant documents, and interviewed U.S. Government officials to determine how USAID, MCC, OPIC, and USADF were contributing to Power Africa's goals in selected countries.
- We selected 30 transactions to audit (25 closed and 5 pipeline transactions) out of a population of 128 U.S. Government-supported transactions.[22] Appendix B lists the audited transactions. In selecting our sample, we considered (1) U.S. agency participation, (2) stage of implementation, (3) associated megawatts and connections results, (4) type of energy technology (natural gas, solar, wind, biomass, geothermal), and (5) transaction size.
  - The 25 closed transactions accounted for about 70 percent of reported megawatt results (2,885 of 4,129 megawatts) in 2015).
  - The 5 pipeline transactions were transactions for which Power Africa provided some assistance but had not yet reached financial close.

We reviewed MCC's energy projects to understand how they would support the energy sector in Ghana, Liberia, and Tanzania.

- We reviewed underlying due diligence and supporting documentation to validate the status of selected transactions and energy compacts.
- We conducted 21 site visits between July 2015 and January 2016 to verify the status of Power Africa transactions and activities included in our audit scope.
- We conducted 225 interviews with officials in participating U.S. Government agencies, private sector stakeholders, local organizations, and other participating donor institutions for a broad perspective on implementing Power Africa.
- We identified internal controls significant to the audit objective that related to Power Africa's control environment, risk assessments, information and communications, and monitoring.

We selected the audited transactions based on a number of criteria, using auditor judgment. Therefore, we cannot project audit results onto unaudited activities. Nonetheless, we believe evidence gathered during fieldwork provided a reasonable basis for our findings and conclusions. We communicated discrete audit observations specific to USAID, MCC, OPIC, and USADF to the appropriate agency officials.

[22] Our audit sample was derived from the transaction data available in the PATT database as of July 1, 2015, for Ghana transactions and as of August 27, 2015, for transactions in Kenya, Nigeria, and Tanzania.

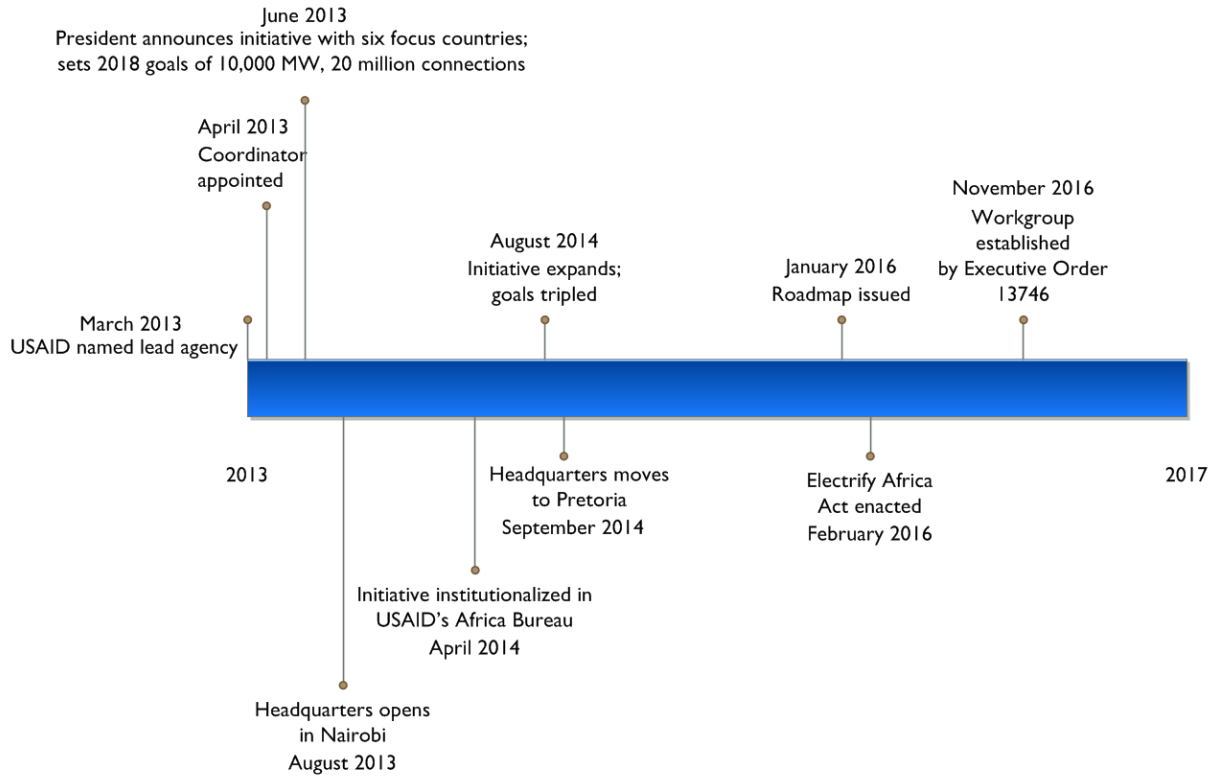
APPENDIX B. LIST OF AUDITED TRANSACTIONS

Agency	Country	Transaction	Technology
USAID			
	Ghana	CenPower Kpone	Natural Gas
	Ghana	Ghana 1000	Natural Gas
	Ghana	Upwinds Ayitepa (Mainstream Actis)	Wind
	Nigeria	Afam	Natural Gas
	Nigeria	Egbin	Natural Gas
	Nigeria	Kainji—Kainji	Hydropower
	Nigeria	Ughelli	Natural Gas
	Nigeria	Azura Edo [a]	Natural Gas
	Kenya	Kinangop	Wind
	Kenya	Cummins-Baringo	Biogas
	Kenya	Akiira	Geothermal
	Tanzania	Kinyerezi I	Natural Gas
	Tanzania	Tulila	Hydropower
OPIC			
	Ghana	Amandi	Natural Gas
	Nigeria	Azura Edo[a]	Natural Gas
	Nigeria	Nova Lumos	Solar
	Kenya	d.Light	Solar
	Kenya	Lake Turkana	Wind
	Kenya	Kipeto	Wind
	Kenya	M-KOPA	Solar
USADF			
	Ghana	New Energy	Solar
	Ghana	Kumasi Institute of Tropical Agriculture	Biogas
	Ghana	Solar Light Ltd.	Solar
	Nigeria	Trans-Africa Gas and Electric	Solar
	Nigeria	Afe Babalola University	Hydropower
	Nigeria	GVE Projects	Solar
	Kenya	Mibawa	Solar
	Kenya	Afrisol	Biogas
	Kenya	SCODE limited	Solar
	Kenya	Boma Safi	Solar
	Kenya	Solar World EA	Solar

[a] This transaction appears twice because it involves two agencies.

NOTE: Because MCC has energy projects through its compacts, not transactions, it does not appear in this table.

APPENDIX C. TIMELINE OF KEY EVENTS



APPENDIX D. AGENCY COMMENTS

MEMORANDUM

Date: December 7, 2018

To: Regional Inspector General/Pretoria, Robert W. Mason

Through: USAID Bureau for Africa, Senior Deputy Assistant Administrator, Ramsey Day

From: USAID Bureau for Africa, Coordinator for Power Africa, Andrew M. Herscowitz

Subject: USAID Response to the October 23, 2018 Draft Audit Entitled, "Power Africa Coalesced Energy Efforts but Lacked Portfolio-Wide Risk Management and Reliable Measures of Progress" (4-674-18-00X-P)

The U.S. Agency for International Development (USAID) appreciates the thoughtful recommendations provided by the Regional USAID Office of the Inspector General/Pretoria (OIG) in the draft report entitled, "*Power Africa Coalesced Energy Efforts but Lacked Portfolio-Wide Risk Management and Reliable Measures of Progress*." The timing of the audit work took place during the first three years of establishing the Power Africa Initiative (2013-2015), which when combined with close collaboration and ongoing feedback between Power Africa and the OIG over the last several years, has allowed Power Africa to take steps to address all of the vulnerabilities identified in the draft report, including already fully meeting one of the recommendations.

As Power Africa has matured and continued to improve the way it operates, the initiative has made significant progress toward achieving its goals. Specifically, Power Africa has successfully done the following:

- Helped an estimated 57 million people across sub-Saharan Africa gain some level of access to electricity for the first time;
- Helped 119 power-generation projects (which represent more than $18 billion in mostly private-sector investment) reach financial close that are expected to produce 9,635 megawatts (MW) of electricity, 2,423 MW of which have become operational; and
- Built a global partnership with 145 private-sector partners and 17 development partners that have collectively committed more than $54 billion in coordinated support for the energy sector in sub-Saharan Africa; and

- Power Africa achieved these results with roughly one-third of the funding that was initially anticipated to be appropriated and allocated for the Initiative.

Building on these results, Power Africa has increased generation and connections while improving the regulatory and policy environment for energy investment in a number of African countries. After the audit period, a significant development for Power Africa was a review by the White House and National Security Council (NSC) of Power Africa's performance, which resulted in an update to the initiative's focus and mission, termed "Power Africa 2.0," and published in March 2018.

Power Africa 2.0 emphasizes providing opportunities for U.S. companies in the energy sector, improving the enabling environment, and firming up the transmission and distribution networks in countries, which will help expand American influence and improve economic conditions across the continent. Power Africa is developing new metrics to track progress on these objectives, which will be in place by February 28, 2019.

USAID welcomes the OIG's contributions to assist us in improving the performance and impact of Power Africa's activities which will help us become more effective in our private-sector engagement and reach the initiative's established goals.

Nevertheless, Power Africa respectfully disagrees with several overarching assertions in the draft report. First, we request that the OIG change the title of the report to: "**Power Africa Coalesced Energy Efforts, but Lacked Formalized Portfolio-Wide Risk Management to Offset Reputational Risk and Clear Measures of Progress.**" As explained later in this document, Power Africa has multi-layered risk management processes in place; however, we acknowledge that we must do more to formalize our risk profile. These processes are primarily designed to mitigate reputational risk, as we see that as the biggest threat to the U.S. Government through this effort; the financial risk is relatively small, given the size of our budget and the type of work we perform directly (*i.e.*, technical assistance). The current title implies greater financial risk than the initiative actually faces. Also, changing the word "Reliable" to "Clear" clarifies that our "Measures of Progress" during the period under review (2013-2015), while needing additional clarification, have become quite reliable.

USAID also finds misleading the assertion in the draft report that, "Power Africa Reported Greater Impact than it had." The report makes this assertion because (1) Power Africa reports on deals that have reached financial close (*i.e.*, not deals that have actually become operational); and, (2) it counts solar lanterns as connections. USAID contends that reporting on financial close is a standard industry-wide metric. Specifically, the term "financial close" describes the very significant milestone in the power-generation life-cycle when all parties have completed due diligence, negotiated long-term financing, settled on long-term power-purchase arrangements (up to 30 years), arranged for appropriate credit enhancements or sovereign protections, and reached agreement on all other material-risk allocations to move to the next-step of actually constructing the facility. Parties regularly take longer (many years) to reach financial close than to build the plant and make it operational. Working with private-sector companies, development partners, and government counterparts to help deals reach financial close is almost always the most-important role Power Africa can play in generation, given our broad, multi-agency tool kit and expansive network of partners. Without Power Africa's

interventions, numerous deals would be delayed significantly, potentially not reach financial close, or never be built. For this reason, our work places a heavy emphasis on helping deals reach financial close, especially given that most deals that reach this milestone become operational. It also is extremely important to track and report on projects that become operational, which Power Africa does, as the ultimate goal of 30,000 megawatts of new generation capacity by 2030 is a measure of production.

Once a deal reaches financial close it could be years before it reaches commissioning. The report cites Power Africa's counting of the CenPower project in Ghana and the Azura Edo project in Nigeria as examples of Power Africa misleading the public because we reported them as reaching financial close, but they were still not operating after several years.

The report includes a photo of the bare CenPower site in 2015 as evidence that nothing has happened. CenPower and Azura Edo are actually very typical examples of how a project takes years to become operational. Azura Edo became operational earlier this year, and CenPower will be commissioned in the first quarter of calendar year 2019. To the right is a photo of the CenPower site as of July 4, 2018.

In regard to counting solar lanterns, Power Africa supports sustainable, market-driven energy-access solutions where consumer needs, affordability, and the availability of products determine which off-grid products are sold. Solar lanterns represent an important, and widely-accepted, entry point[23] for off-grid companies to engage low-income customers and move them toward better solutions by providing progressively higher-capacity systems. Solar lanterns constitute Tier 1 access to electricity on the internationally accepted "Sustainable Energy for All" power-access classification system published by the World Bank and the United Nations, in which Tier 0 represents no access and Tier 5 is full service. Because solar lanterns represent life-changing, first-level access for people who previously had no electricity in their lives, the impact can be dramatic, as demonstrated in a recent Power Africa video of actual beneficiaries (https://www.youtube.com/watch?v=8mealmFb9Uo&feature=youtu.be). Recent studies confirm this impact as well.[24]

[23] Global Off-Grid Lighting Association (GOGLA), Powering Opportunity: The Economic Impact of Off-Grid Solar, https://www.gogla.org/sites/default/files/resource_docs/gogla_powering_opportunity_report.pdf

[24] Mercy Corps, Wajir d.Light Pilot Evaluation, https://www.mercycorps.org/sites/default/files/Mercy_Corps_Wajir_Solar_Pilot_Fact_Sheet.pdf

Power Africa prioritizes funding for solutions that can provide Tier 2 access to power and above, so that individuals can, at a minimum, power multiple lights and operate efficient appliances. Power Africa's broader access program focuses on building a diverse commercial market for access solutions by helping to expand the availability of solar home systems and mini-grids, and on enabling the cost-effective expansion of functional central grids so all consumers can have access to sustainable solutions. For this reason, Power Africa decided in 2017 to cap the number of solar lanterns in its connections results at 12 million (20 percent of Power Africa's 60 million connections goal) so the initiative can channel additional resources to greater access (higher Tier) as the market matures.

Recommendation 1. "Develop and implement a portfolio wide risk-management program to ensure that risks are regularly identified, analyzed, monitored, and mitigated."

Management Comments: USAID agrees with this recommendation. Since inception, the Power Africa initiative has built components of risk-management into all of its activities. Currently, there are 12 separate internal processes to mitigate risk associated with the portfolio. Initiating some new risk-management approaches, while at the same time consolidating our existing processes, provides us with an opportunity to make Power Africa stronger.

To identify risks and develop mitigating plans for those risks, Power Africa: (1) diligently maintains communication with partners and teams in the field; (2) thoroughly vets both partners and the power-generation projects we support; (3) critically reviews programs on a regular basis, including by performing site visits; and, (4) conducts regular meetings of a Management Control Review Committee (MCRC). In addition, Power Africa performed the new Enterprise Risk-management (ERM) exercise according to USAID's new policy on risk-management, including creating its own ERM Risk Profile in 2018. Below are the current risk-mitigation efforts in effect for Power Africa:

1. Relationship managers assigned to each partner;
2. A Power Africa Working Group in Washington, D.C., and at posts with an interagency presence;
3. Power Africa Country Desk Officers (CDOs) assigned to each Power Africa country;
4. Bi-monthly field updates in which posts report on their latest activities and challenges;
5. Monthly video conferences with each Power Africa country;
6. The Power Africa Tracking Tool, which has relevant data on all Power Africa deals (800+);
7. The Qualified Transactions Assistance Tool used to vet every potential project;
8. A standard due-diligence rubric used to vet every potential partner;
9. Semi-annual portfolio reviews of all implementing mechanisms and countries;
10. Annual meetings of a budget working group in which posts pitch proposals for funding;
11. Bi-monthly review of issues by senior leadership; and
12. Site visits by senior staff, CDOs, and Power Africa staff at post.

An example of how these mechanisms work together to identify and mitigate risk was when the Ebola crisis erupted in Liberia and Power Africa suspended its programs. Power Africa reacted

to early information on the epidemic, and rapidly worked with the USAID Field Mission in Liberia, with the USAID Office of Foreign Disaster Assistance, and with Power Africa's partners to reprogram funds quickly and purchase and supply diesel generators to the country for use in health clinics. Within a matter of weeks, Power Africa reprogrammed funds in Liberia to pay for electrification in the Ebola Health Treatment Units, which allowed health care workers to sterilize and wash instruments and clothing, and permitted operations to have electricity 24 hours per day. Once the outbreak was contained, Power Africa resumed its former operations.

All of the above mechanisms and actions constitute a robust and active risk-management program; however, we acknowledge we can do more to memorialize these processes into a comprehensive, formal risk-management program.

Management Comments: Power Africa will formalize its risk-management effort through its existing monthly interagency working groups that meet regularly to assess and address risk-related and other matters, and will review and update its Risk Profile on a quarterly basis.

Target Completion Date: March 31, 2019.

Recommendation 2. "Develop and implement a data quality program to systematically verify the accuracy and reliability of reported results. This program should include (1) a finalized monitoring, evaluation, and learning plan and associated standard operating procedures, (2) a training program for USAID and interagency officials involved in data reporting, and (3) a plan for routine data quality assessments and associated procedures for correcting data."

Management Comments: USAID agrees with this recommendation, and we acknowledge the importance of a robust, transparent, and clear system for monitoring and evaluation (M&E) to accurately track progress toward our goals of providing power to beneficiaries around the African continent. Power Africa's Monitoring, Evaluation, and Learning (MEL) team has that specific task, and has instituted procedures around counting the topline metrics, as well as the other indicators that have been in place since late 2016. Power Africa is a learning organization, and we constantly adapt as we face new situations. For example, Power Africa never contemplated temporary power in the beginning, but as crises arose in which temporary power was needed, Power Africa recognized the importance of these systems and their impact on people. Power Africa would count the megawatts (MWs) the same as any other, but also would work to remove the MWs from the totals when the temporary power was removed.

Power Africa can improve its M&E systems in several ways. When Power Africa began with six focus countries and 40 partners, the operating environment was relatively simple to monitor. Today, Power Africa monitors more than 20 countries, and over 145 partners. In addition, as Power Africa has evolved over the past five years, it has begun tracking additional sub-objectives, especially under the Power Africa 2.0 strategy.

To satisfy this recommendation, Power Africa will undertake two important exercises. The first will be to finalize and publicize a new MEL Plan by March 31, 2019. Part of this plan will consider a dedicated M&E mechanism that would have continent-wide capacity to capture a higher level of detail on transactions. This platform will provide on-demand data-quality analysis, analytical support, evaluations, and other learning-related services.

Second, Power Africa will complete an internal review of its indicators, data-quality standards, and compliance scheme. In October 2018, Power Africa drafted a report on environmental practices as part of its effort to ensure compliance with U.S. regulations and global best practices. In addition, Power Africa has begun mandated data-quality assessments of existing indicators, along with new indicators developed in connection with the Power Africa 2.0 strategy. The results of this review will help develop a training and familiarization program that the MEL team will provide to all Power Africa stakeholders (*i.e.*, the Coordinator's Office, Agency counterparts, and Power Africa personnel stationed around the world) to help strengthen accountability through a robust M&E process. Training will begin around February 2019.

Target Completion Date: March 31, 2019.

Recommendation 3. "Include in Power Africa's annual report (1) the number of megawatts of energy-generating capacity added online and (2) the numbers of on-grid and off-grid connections."

Management Comments: USAID agrees with this recommendation, and has been supplying this information publicly since October 2016. The most-recent example is Power Africa's 2018 Annual Report, which contains the number of MW that have reached financial close, and from that total the number of MW that are commissioned (*i.e.*, "online" and/or "in operations"). Additionally, it includes the number of off-grid and on-grid connections reached to date. Based on the actions taken by the Power Africa Coordinator that meet the criteria of Recommendation 3, Power Africa considers this recommendation closed.

Target Completion Date: N/A, based on the closure of this recommendation.

ATTACHMENTS:

1. Comments on the Text of the Report – USAID
2. Comments on the Text of the Report – OPIC
3. Comments on the Text of the Report – USADF
4. Comments on the Text of the Report – MCC

APPENDIX E. MAJOR CONTRIBUTORS TO THIS REPORT

The following made major contributions to this report: John Vernon, former audit director, OIG Africa Regional Office; Rameeth Hundle, assistant director, OIG Africa Regional Office; Brianna Schletz, assistant director, Global and Strategic Audits Division; Christopher "Reid" Featherstone, auditor; Christopher Marotta, auditor; John "Jack" Nelson, auditor; Benjamin Owusu, auditor; Karen Sloan, communications officer; Andrian Smith, auditor; Paola Tejada, program analyst; and Catherine Trujillo, auditor.