



USAID
FROM THE AMERICAN PEOPLE

Power Africa Transactions and Reforms Program
(PATRP)
FY 2014 Annual Report
For the Period Ending September 30, 2014

This report was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech ES, Inc.

Power Africa Transactions and Reforms Program (PATRP)

FY 2014 Annual Report

For the Period Ending September 30, 2014

Contract No.: AID-623-C-14-00003

Prepared for: United States Agency for International Development

Prepared by: Tetra Tech ES, Inc.,
1320 N. Courthouse Rd
Suite 600
Arlington, VA 22201

Disclaimer

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government

EXECUTIVE SUMMARY

This Annual Report documents the activities of the USAID Power Africa Transactions and Reforms Program (PATRP) activities in FY2014, through September 30, 2014. Since May 16, 2014 was the effective date of the contract, this report covers only a few months.

For the first month after contract signing, most activities were on hold at USAID request, pending clarification of the change in the project office venue and the release of additional funding. The original venue – Nairobi, Kenya – was changed for security concerns that led to the closing of USAID’s East Africa Office and the relocation or reassignment of its staff. The location of the Power Africa Coordinator’s office was also changed, although a decision on the new venue was not finalized until late June, during which time USAID requested that Tetra Tech not enter into any subcontracts.

The change of venue was determined to be either Johannesburg or Pretoria in Contract Modification No. 1 dated June 26, 2014. While the contract ceiling was set at \$64,226,715, the authorized obligated funding was an initial allocation of \$508,373. The activities covered in this report include (i) early start-up activities funded by the initial obligation; and (ii) a more robust slate of activities initiated upon the release of additional funding, which occurred late in the period described herein.

Activities during the reporting period focused on responding to the consequences of the change of venue, including practical issues such as finding suitable office accommodations, renegotiating a contract with BDO South Africa (a major subcontractor), the initial recruiting of new staff in light of the changes prompted by local USAID missions in the initial priority countries and USAID’s subject-matter leaders in Washington, and the addition of staff from USAID’s Africa Infrastructure Project (AIP), among other matters.

Meanwhile, beyond the original six focus countries, more work areas were being authorized (e.g., new countries (e.g. Djibouti), geothermal work stream, and support to the East Africa Power Pool and NEPAD) with the need for additional staff and related recruiting. A complication was that two of PATRP’S four key personnel were unable to mobilize until the reporting period was over, and it became apparent that the senior transaction advisor would not be able to relocate, which triggered an urgent recruitment for a replacement. This recruitment was successful, but PATRP’s resident senior transaction advisor only started in early October 2014, after the reporting period was over.

FOREWORD

This document reports on the Power Africa Transactions and Reforms Program (PATRP) performed under USAID Contract No. AID-623-C-14-00003 in fulfillment of Section F.6 to “... describe how the Contractor is meeting the minimum required deliverables as well as the any additional agreed upon requirements.” In addition to discussing the minimum required deliverables, Section F.3 of the first year’s annual report was to “... document power sector trends and developments and obstacles and barriers to private sector participation and investment in the energy sector in priority Power Africa countries and at the regional level and any lessons learned. Each subsequent annual report shall include updates in these areas.”

As described in Section F.6 g., PATRP is required to produce an annual report in addition to quarterly reports for each fiscal year. The report describes the activities during the period from contract award through September 30, 2014, including actions taken to achieve the contract deliverables.

1. BACKGROUND AND PERSPECTIVE

The purpose of the Power Africa Transactions and Reforms Program (PATRP) is to provide technical assistance, capacity building and project transaction support services under the U.S. President's Power Africa Initiative. The program includes a three-year base period and a two-year optional extension, and will focus initially on six countries: Liberia, Ghana, Nigeria, Ethiopia, Kenya and Tanzania (collectively, the priority or focus countries). Additionally, the program will focus on selected regional institutions in Sub-Sahara Africa (SSA) during the beginning years of the initiative. They include the Economic Community of West African States (ECOWAS), East African Commission (EAC), African Union Commission (AUC), and the East and West Africa Power Pools (EAPP and WAPP). The program consists of four programmatic areas that are being implemented simultaneously:

1. Institutional Support to Power Africa Coordinator's Office
2. Late Stage Transaction Support
3. Small-Scale Projects and Rural Electrification/Mini-Grids Support
4. Regulatory and Institutional Strengthening and Policy Reform.

Ultimately, the success of Power Africa will rest on two key results: 1) the combined total Megawatts (MW) of new capacity of all transactions that reach financial close and where Power Africa made a contribution to moving them forward and 2) the creation of new connections in the target countries. The overarching goals for Power Africa are now the addition of 30,000 MW of new capacity and 60,000,000 new connections by the year 2020. There are other derivative and ancillary issues, but Megawatts of capacity is the defining standard, with customer connections a corollary standard.

New connections will depend on transmission and distribution as well as generation capacity, but the primary goal is MW of installed capacity. The corollary goal of adding new connections is also taken to mean the number of households, not the number of people. That is significant since a household typically includes 4-5 people. We estimate that each 1,000 MW of capacity will provide access to about 1,375,000 households, if 85% of those with access actually connect to the new supply. Thus, 30,000 MW of new capacity would provide access to 60 million households at an average annual consumption rate of 340 kWh per capita.¹ That is 2.8 times the current average consumption per capita (122 kWh per capita p.a.) for the focus countries.²

¹ At 500 kWh per capita per annum, noticeable improvements in the UN's Human Development Index have been observed. Such increases are consistent with continuing growth toward the countries' common goal of joining the ranks of middle-income nations. In view of the cause and effect relationship between economic growth and growth in electricity consumption, and the high rates of GDP growth in SSA, this calculation assumes an aggressive rate of growth in kWh consumption per capita.

² This calculation was made by PATRP to present a plausible link between the 30,000 MW goal and the 60,000,000 new connections announced for Power Africa. It may not represent the thinking of USAID or Power Africa.

2. PROJECT CHRONOLOGY

May 16 to June 30, 2014

USAID signed the PATRP contract on May 16, 2014 and Tetra Tech counter-signed on May 23, 2014. In an introductory telephone kick-off meeting shortly after contract signing, USAID's Contracting Officer's (CO) instructed Tetra Tech not to enter into any subcontracts nor to mobilize to Kenya. The initial obligated funding was \$508,373.

Soon, it became apparent that the recent and increasing terrorist activity in South Sudan and the high exposure of a large contingent of Americans in Nairobi warranted significant action. Thus, the locus of USAID's Power Africa Coordinator and staff, including the PATRP project office, were reassigned to Pretoria, South Africa. PATRP's first contract modification (dated June 26, 2014) confirmed that South Africa would be the base, although it would be several more weeks before a final decision (i.e., Pretoria vs. Johannesburg) would be reached. This unforeseen development made it difficult to move forward with project mobilization.

Highlights of the month's activities included:

- The USAID contracting officer (CO) who signed the PATRP contract was reassigned immediately afterwards and went on leave. An acting CO was assigned from USAID's Nairobi office pending the arrival of a new CO in Pretoria in July.
- The official kick-off meeting was held at USAID's office in Washington, DC on June 12 and included seven senior members of the PATRP team (including all four of the contractually mandated Key Personnel of the Tetra Tech team) plus the Power Africa coordinator, the COR, and many other members of USAID's Power Africa team.
- Team staffing issues and recruitment activities quickly became major focus areas. It became apparent that the remix and re-staffing of the country transaction advisors would be required to absorb many Africa Infrastructure Program (AIP) staff who were known to the local USAID Missions and who had developed significant local knowledge and a rapport with their counterparts. This evolved differently in each of the priority countries. All parties devoted considerable effort to staffing. Furthermore, some additional countries (Djibouti) and areas (East Africa) were raised as areas requiring transaction advisors. Additionally, issues arose that would potentially affect several of PATRP's key staff, including urgent family matters and concerns from USAID's Beyond The Grid (BTG) about small scale renewable energy (SSRE) requirements. These ultimately led to the need to recruit replacements for two of the four key personnel and delayed the deputy chief of party's (DCOP) arrival in Pretoria until early October. In the end, all but one of the six country transaction advisors on PATRP's originally approved team at the contract signing date were replaced or moved to different positions, while 10 advisors and specialists not previously included in Tetra Tech's proposed team were

absorbed from the AIP Project in Nigeria, Ghana and Tanzania. The expansion of the teams had knock-on effects on the facilities and support requirements of the country-based teams.

July 2014

During the month of July the Tetra Tech team – primarily PATRP’s team leaders and contracts manager – worked on the mobilization of the team. Until several weeks before the mobilization date, there was still uncertainty about the project location. The decision to locate in Pretoria was confirmed only a couple of weeks before the due date (July 25) to have staff in the field.

- PATRP’s chief of party (COP) travelled to London to meet the responsible BDO partners from South Africa and, afterwards, to Johannesburg and Pretoria to meet with senior partners there and to survey the local facilities and support capabilities.
- The final decision on the project location had a significant impact on project mobilization. If, for example, Johannesburg had been selected as the project base, BDO could have absorbed the entire PATRP team in its spacious new facility there. However, the decision to locate in Pretoria led to the discovery that the BDO office there could provide space for only one or two people until their new office was completed in a year’s time. That, in turn, led to the two-step solution we pursued: moving into a temporary office while we searched for a dedicated facility that could serve as PATRP’s project office.
- Another impact of the change of venue was that it required the renegotiation of the BDO subcontract to shift the prime responsibility from BDO’s Nairobi-based East Africa practice to BDO South Africa.
- A roll-out plan reflecting the date and location changes was developed and sent to USAID.
- The Monitoring and Evaluation (M&E) Plan received high priority and the consideration of a new tool (e.g., ePORT) as well as the development of an appropriate methodology for the unique needs of Power Africa. As of the end of the reporting period (September 30) the M&E Plan submitted by PATRP was awaiting approval or modification by USAID’s M&E Team.
- Similarly, the Communications Plan was under development. Tetra Tech had hired a communications specialist under the contract to support this work stream. He was based in Nairobi and had worked for the Power Africa Coordinator on a prior assignment as well as with USAID’s communications director, who took the lead in developing the communications protocols for Power Africa and PATRP.
- In late July, PATRP agreed to retain an independent contractor to focus on geothermal development strategy issues as a separate new issue area.
- On July 25 Tetra Tech’s COP arrived in Pretoria.

August 2014

The search for a project office and also for lodging that could provide “safe landing” options for incoming Pretoria-based staff was a focus during August. Likewise, organizing facilities, cars and support for country transaction advisors who began to arrive in field locations (e.g., Nigeria) required increased attention.

Another major activity was the ongoing staffing and recruitment exercise. In some countries, the finalization of staffing was straightforward, but in others it was necessary to present over a dozen candidates before finding the right one. Recruitment in the Pretoria office continued as well as the hiring of contract staff to support USAID in Washington, DC.

Other highlights include:

- A revised subcontract with BDO was finalized in early August.
- The Ebola crisis began to have an impact on activities in Liberia. Many donor-sponsored organizations and NGOs began evacuating all nonessential personnel and, in some cases, project staff. That made it increasingly difficult to recruit internationals into that country.
- PATRP developed a tool kit in response to a request from USAID's BTG team leader.
- The possibility of adding a transaction advisor for West Africa (to be based inside the World Bank office in Senegal) was raised by the Power Africa Coordinator's Office.
- PATRP submitted a proposed Conflict-of-Interest Mitigation Plan to USAID.
- PATRP submitted a loss-reduction proposal for Liberia, but this task was put on hold by USAID/Liberia because of Ebola.
- Other internal project issues involved regularizing housing and car policies.
- On August 22, the COR approved PATRP's proposed Branding and Marketing Plan, but it was held in abeyance by USAID's Power Africa Team in Washington, DC. The plan underwent further internal review by USAID's Washington team to address the many unique features of the Power Africa "All of Government" program. As of the end of the reporting period (September 30, 2014) clarification of the plan had not been released.
- On August 24, PATRP submitted a draft Communications Plan. As of the end of the reporting period (September 30, 2014) the plan had not been accepted nor had modifications been requested.
- Late in the month, the issue of long-stay visas in South Africa for PATRP's international staff reached a critical point when it was learned that the recently revised visa regulations were draconian in comparison to those of the prior regime. The new Visa Law passed in April 2014 required that international team members return to their home countries to obtain a long-stay visa from the nearest South African consulate and the filing requirements had become much more onerous. Changes to the "visa upon entry" program that had been in place for many years, and the USG's inability to intervene, caused an unforeseen crisis. It was resolved satisfactorily, but not before taking up a considerable amount of time on the part of many team members.
- An issue that emerged late in the month was the need to conduct country research in all SSA countries as the basis for selecting additional Power Africa countries. A spin-off of this request was a request for the development of a prioritization tool to enable the Power Africa Coordinator to have instant access to a broad array of useful statistics and information concerning 45 countries in SSA.
- The proposed replacement SSRE expert was approved on August 28.

September 2014

The pace of activities increased during September after USAID committed significant funding to PATRP in mid-August. One of the month's first priority activities was a visit by the USAID Assistant Administrator, who was coming to South Africa for a signing ceremony to officially recognize a new USAID relationship for Power Africa. The New Partnership for Africa's Development (NEPAD) is a product of the African Union and it developed a strategic framework for pan-African socio-economic development. NEPAD is a new intervention, spearheaded by African leaders, to address critical challenges facing the continent: poverty, development and Africa's marginalization internationally. NEPAD provides an opportunity to cooperate more effectively with international partners, and Power Africa welcomed it enthusiastically. NEPAD manages a number of programs and projects in six theme areas, including power sector development. The signing ceremony was held at NEPAD's headquarters in Midrand on September 11 and PATRP provided support by drafting memoranda of agreement, coordinating with NEPAD staff and organizing logistics for this high-visibility ceremony.

The move to the new PATRP office went smoothly with a modicum of settling-in issues. Another work area involved the development of a survey instrument for a survey of U.S. embassies in Sub-Saharan Africa for a State Department specialist and the Power Africa Coordinator's Office. The survey instrument was developed on an iterative basis and was deemed acceptable at the end of the month.

The issue of conducting due diligence on environmental issues was raised by USAID's Power Africa team. One of PATRP's SSRE specialists provided insight and guidance on how this issue could be addressed. Meanwhile, a U.S. Government Inter-Agency M&E Sub-Group meeting was held in Washington, DC to further the "internal" (to Power Africa) discussion of how best to manage the program's monitoring and evaluation activities.

Likewise, recruitment continued with the hiring of a legal and regulatory specialist, and an environmental management leader, and discussions were held with a promising gender specialist.

The month also saw the approval of a new senior transaction advisor who would join the team in mid-October. The end of the month witnessed the ramp-up of the PATRP team's efforts to provide intensive support to the preparations for USAID's Budget Working Group meeting, to be held in Johannesburg in late October. That would be coupled with a two and one-half day internal PATRP team meeting.

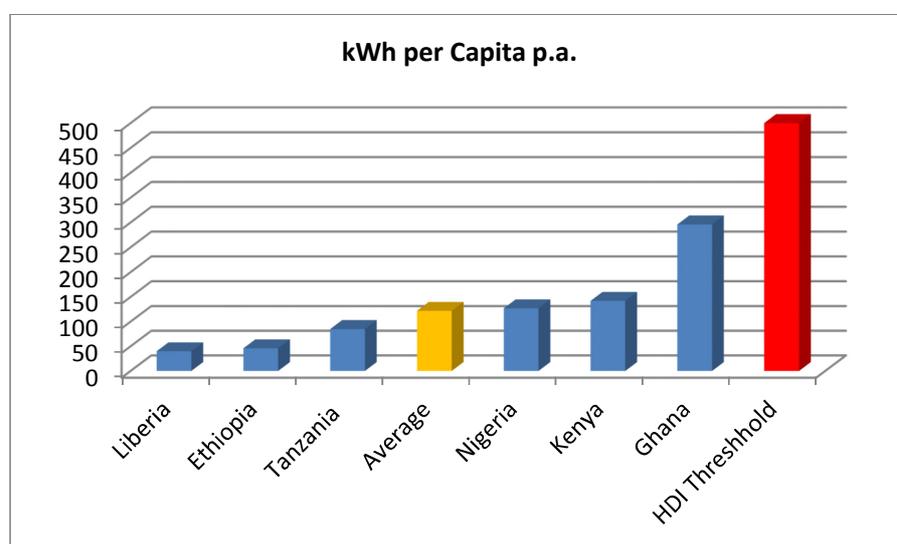
Other highlights included:

- PATRP's COP was resident in Pretoria.
- PATRP's other key personnel were supporting from USA (DCOP and Senior Transaction Advisor) and Johannesburg (SSRE).
- On September 8, PATRP's assistant COP and operations manager arrived in Washington, DC to begin work and took up his posting in Pretoria, joining the COP on September 11.

- Plans were developed for an October scoping mission to the EAPP by two of PATRP's senior experts to support senior USAID and State Department experts.
- PATRP analyzed a potential project in Northern Uganda for London-based Berkeley Energy at the request of the U.S. Embassy in Uganda.
- PATRP had in place resident transaction advisors in Ghana, Tanzania, Ethiopia, Kenya and Nigeria.
- PATRP began to prepare for an October workshop on public private partnerships for electricity in Djibouti.
- Two local South African consultants were hired to support the Power Africa Coordinators Office.
- PATRP refined the Work Order and Administrative Tracker showing the status of major activities for use as a project monitoring tool.

3. POWER SECTOR TRENDS IN THE PRIORITY COUNTRIES

The countries of Sub-Saharan Africa (SSA) have very low levels of electricity consumption per capita. Compared to the global average of about 3,000 kWh per capita per annum, the priority countries have consumption levels ranging from 40 kWh in Liberia to a high of 296 kWh in Ghana. The priority country average of 122 kWh is low relative to the UN’s Human Development Index, which has identified 500 kWh per capita p.a. as the point at which measurable improvements in longevity, infant mortality and other measures of well-being can be observed.



Source: CIA Factbook 2012

The recent economic growth in Africa has raised hopes that the continent will be home to the next batch of developing economies. Electricity consumption in high-growth emerging countries (the average of the so-called BRIC countries) is approximately the same as the world average of 3,000 kWh per capita per year. Thus, the challenge – and the potential gain – is clear, if daunting. The situation in each of the priority countries has its own uniqueness, including:

In East Africa –

Ethiopia: The economy here has begun to emerge from decades of statist-socialist governance (which still exerts a powerful influence), but many have high expectations for future growth. An interesting goal is to develop the country’s enormous geothermal and hydro potential to enable it to become a major exporter of electricity.

Kenya: In most respects, Kenya is a star in Sub-Saharan Africa. Its economy continues to exhibit strong growth and it has served as the informal capital of the region for many years. However, its proximity to terrorist groups operating in neighboring countries

and recent terrorist strikes inside Kenya have had an unsettling effect on security and, potentially, on economic development.

Tanzania: Offshore gas fields offer potential economic growth, but a technically insolvent utility with a record of financial losses and (mostly) negative cash flow from operations is problematic. The Government's commitment to providing universal access to electricity by 2025 is a daunting, if worthy, challenge.

In West Africa

Ghana: This country has demonstrated strong growth aided by the discovery of offshore gas fields, but with a more balanced mix of economic growth than some resource-rich countries.

Liberia: As one of the poorest of the poor nations of the world, the economy of this tiny (4 million population) country was devastated by 20 years of civil war that ceased less than a decade ago. The Ebola crisis was a major setback. Although there are some remnants of a power sector that can be rehabilitated (e.g., a hydro facility) but – with an electrification ratio estimated at only 1-2% of the population – the challenge here is to create an electric supply industry as much as to accelerate its development.

Nigeria: This is the largest and strongest economy of the priority countries with the largest population. Oil and gas revenues provide export potential, but this enormous natural resource has been prone to mismanagement. The privatization of the electricity sector offers a unique opportunity for Power Africa.

4. REQUIRED DELIVERABLES

This section discusses the deliverables listed in the PATRP contract:

Objective 1: Institutional Support to the Office of the Coordinator

This objective includes a broad range of support activities and the provision of other resources as well as the performance of tasks that may be requested from time-to-time by the Office of Power Africa's Coordinator. This covers a broad range of tasks and activities, including recruiting and outsourcing staff required by USAID, providing specialized staff for budgeting, program analysis, communications and writing, providing office space, meeting support (logistics, set up, etc.) and conference planning and logistics. These activities include many tasks that will be defined as the work of the Power Africa Coordinator's Office evolves and as needed to support the program. Responsibility resides with the project office based in Pretoria.

Objective 1 Minimum Required Deliverables: Activities and Accomplishments

1.1 Within six months of the award, present to USAID for its review a system to track and benchmark key energy and power sector issues and Power Africa targets, goals and objectives and government and private sector Power Africa commitments.

A considerable amount of effort was invested in these issues. A transaction slide deck was adopted from the Africa Infrastructure Project (AIP) and revised and refined based on a collaborative effort led by a USAID contractor and the local USAID Missions in the priority countries, and with support from PATRP towards the end of the reporting period. PATRP took the lead responsibility for devising a diagnostic tool and the so-called "one pager" requested by the Power Africa Coordinator. Also, PATRP's M&E specialist and COP worked with USAID's M&E director to develop a Monitoring and Evaluation Plan. PATRP submitted its proposed M&E Plan, which was with USAID Washington for review pending approval at the end of the reporting period. An internal USAID/Project Africa working group had been convened to develop M&E protocols that would satisfy the unique needs of Power Africa. The results of that initiative had not been released at the end of the reporting period. PATRP was tasked with supporting USAID/Washington in the development of a Power Africa partner's profile. Tetra Tech's IP3 unit focused on this activity, which was a work-in-progress at the end of the reporting period.

1.2 In the first year annual report, document power sector trends and developments and obstacles and barriers to private sector participation and investment in the energy sector in priority Power Africa countries and at the regional level and any lessons learned. Each subsequent annual report shall include updates in these areas.

See Section 3, "Power Sector Trends in Priority Countries"

1.3 Provide USAID with material at least quarterly to update the Power Africa web-site.

The Power Africa web site was under development during the start-up phase. PATRP assigned the web site concept to its newly-hired communications specialist (who had provided communications support to the Power Africa Coordinator on a prior assignment) and others, including USAID's communications director for Power Africa, who led this issue.

1.4 Prepare with USAID a quarterly Power Africa newsletter.

PATRP's communications specialist provided regular (bi-weekly) input to the Power Africa Coordinator's Office and USAID's communications director on this and other matters. USAID's communications director is responsible for all Power Africa communications products. PATRP hired an experienced communications specialist who worked under his direct supervision.

1.5 Organize an annual Power Africa work planning meeting with USAID Power Africa missions and representatives from Washington, DC.

A PATRP team meeting was planned for late October 2014 to be held in conjunction with USAID's Budget Working Group session. Both meetings were to be held in Johannesburg during the same week to maximize the potential for overlap and interaction among PATRP team members and USAID staff from Washington, local Missions and Pretoria.

1.6 Document on a yearly basis the partnerships that the Contractor has developed with industry and relevant institutions showcasing how power sector lessons learned, best practices and scientific and technological information has been successfully accelerated and transferred.

PATRP helped develop a template for Power Africa partners, and began to work with USAID to develop a partner relationship management task. This task was still being formalized at the end of the reporting period.

Objective 2: Late-Stage Transaction Support (for projects greater than 10 MW)

This objective has two main components: 1) the development of a pipeline of power generation projects from the concept phase up through late stage transactions, and 2) transaction project support to bring late-stage power generation, transmission and distribution projects to financial closure.

This objective seeks to shift the typical development paradigm to a transaction-centered approach that provides host-country governments in the Power Africa focus countries, the private sector, and donors with a focal point to galvanize collaboration around priority electricity generation, transmission and distribution transactions, with a focus on those that involve private sector participation and finance, helping to bring them to close and go on-line in an expedited time frame. In the process, PATRP must simultaneously help governments to drive systemic changes and fundamental reforms in the power sector that will facilitate even greater private sector involvement and investment over the long term.

The required interventions will be most effective if associated with a specific transaction and a

defined project. As such, efforts to affect the enabling environment will gain context, be associated with project milestones, and gain momentum in view of the tangible project outputs envisaged. Much of our advisory role will focus on the government rather than well-informed and well-funded developers.

Objective 2: Minimum Required Deliverables Activities and Accomplishments

2.1 As part of its annual reports, the Contractor must document its efforts to: bring to financial closure new generation projects above 10 MW capacity, leverage investment in the power sector, and develop a portfolio of late-stage generation projects.

During this reporting period the principal focus was on finalizing the teams in each of the six priority countries. This involved interaction with the local USAID Mission in each country as well as with the Power Africa Coordinator's Office in Washington to decide how best to assign or reassign the incumbent transaction advisors from AIP (which was not scheduled to finish until December 31, 2014), who had been working with the local Missions for several years. Some of these advisors would not be available to PATRP, whereas others had developed good working relationships with government, ministry and company officials and were familiar with the power sector situation as well as with the concerns of the Missions.

The PATRP team's leadership worked with local USAID Missions and Power Africa to make the trade-off decisions between its originally-proposed country transaction advisors and the incumbent AIP transaction advisors (some of whom would be absorbed as part of PATRP's team) and, in some cases, the need to recruit a new advisor. Each country and its USAID Mission had its own unique needs. In some cases, the decision was straightforward and quick, whereas in others it required the identification and recruitment of new candidates and the negotiation of contracts with the finalist approved by the local Mission. In one case, this process required the screening of 14 candidates. As of the end of the reporting period, the status of identifying, recruiting and obtaining approval for a country transaction advisor in each priority country was as follows:

East Africa

- Ethiopia – On August 1, 2014, the incumbent AIP advisor was approved by USAID's CO to assume responsibility as PATRP's country transaction advisor.
- Kenya – On August 1, 2014, the incumbent AIP advisor was approved by USAID's CO to assume responsibility as PATRP's senior energy advisor. The country transaction advisor's position was still a work-in-progress at the end of the reporting period. In the PATRP contract, the senior transaction advisor (key personnel) was also to serve as the country transaction advisor in Kenya, but the relocation of the project office to Pretoria made that unworkable. Thus, a new country transaction advisor had to be recruited for Kenya.
- Tanzania – This situation was unique in that there were two transaction advisors under AIP, one who worked with the Rural Electrification Agency in addition to a principal transaction advisor. The advisor for rural electrification agencies (REAs) was added to PATRP's staff plan and approved by USAID as of the end of the reporting period. However, the recruitment of a country transaction advisor was still a work-in-progress.

Several candidates had been proposed, but the local mission had not made a decision as of the end of September 2014.

West Africa

- Ghana – On August 1, 2014, the incumbent AIP advisor was approved by USAID’s CO to assume responsibility as PATRP’s country transaction advisor and was on station in September.
- Nigeria – A transaction advisor had been recruited and approved, and he was at post in Abuja in mid-August.
- Liberia – The Ebola crisis complicated this posting. As of the end of September 2014, several candidates had been identified but, for a variety of reasons, had declined the posting. During September a local Liberian expert (who had been part of Tetra Tech’s proposed team for Liberia) was proposed and as of the end of the reporting period, his approval and contract signing was imminent.

Also, the need for additional transaction advisors had been identified and work was in progress to identify, recruit and obtain approval for the following:

- Geothermal – This would be a regional position. Tetra Tech had secured a candidate.
- EAPP – The need for a full-time (or part-time) advisor for the East Africa Power Pool was a topic of discussion at the end of September 2014, although an initial scoping mission had not yet been conducted. Tetra Tech had secured a candidate.
- WAPP – The West Africa Power Pool, too, had been mooted as a possible location for a full-time advisor.
- Djibouti – A search had been conducted and a candidate identified as of the end of the reporting period.
- Senegal – The World Bank offered to house an advisor who could serve Senegal and perhaps also WAPP. Tetra Tech had secured a candidate.

2.2 As part of its quarterly reports, the Contractor must update the pipeline and document the status of generation projects that it is supporting from the concept phase up through late stage projects.

PATRP adopted the pipeline analysis of late-stage transactions originally developed under AIP. Modifications and improvements were under discussion and implementation in a collaborative effort that included staff from PATRP, AIP and USAID.

Objective 3: Support for Small-Scale Projects (less than 10 MW), Mini-Grids and Rural Electrification

Small-scale power projects in SSA face many barriers, not the least of which are high project transaction costs and the lack of creditworthy off-takers in the eyes of traditional lenders. Because of the high transaction costs, development finance institutions and international banks often deem smaller projects ineligible for funding. There are also challenges associated with

obtaining local debt finance for smaller projects. Meanwhile, the low probability of success of early-stage small-scale projects also causes many financiers to wait to commit their capital until projects are better defined, limiting the availability of early-stage financing (equity, in particular). Project developers may also lack the business skills to demonstrate the feasibility of their projects to financial institutions and the financial resources needed to close technical gaps, negotiate power purchase agreements, and acquire legal services. At the same time, financial institutions lack access to projects and the specialized knowledge required to confidently invest in clean energy.

PATRP will emphasize support, where appropriate, to existing rural electrification agencies (REAs) to improve planning and facilitate medium- and low-voltage grid extensions, as well as updates, upgrades, and new installations of mini-grids and isolated systems. Key factors in achieving a high level of access to electricity are the adoption of a national strategy followed by the development of a detailed and realistic plan to increase access, and the systematic execution of that plan with a clear identification of the required funding sources. Our intention is to assist governments in the development and execution of access plans and strategies, with a flexible approach that will vary by country.

Objective 3 Minimum Required Deliverables: Activities and Accomplishments

3.1 As part of its annual reports, the Contractor must document its efforts to bring to financial closure clean energy projects of less than 10 MW of capacity.

USAID gave verbal approval to PATRP’s proposed replacement small scale and rural energy expert on August 28. His start date was early October. Thus, the unplanned departure of PATRP’s proposed SSRE expert, the time required to recruit and obtain approval of a replacement, and the need to allow him to finalize his prior commitments delayed the start of work on Objective 3 until after the end of the reporting period. Comments on the activities and accomplishments that contribute to progress toward achieving the minimum required deliverables for Objective 3 will be provided in subsequent quarterly and annual reports.

3.2 As part of its quarterly reports, the Contractor must update the pipeline and document the status of small-scale generation projects from the concept phase up through the late stage.

Same as for 3.1

3.3 Develop a practical and achievable five-year business plan and marketing plan for the development of a small-scale renewable energy support platform before the end year three of the contract.

Same as for 3.1

3.4 Report in year three on the development and operationalization of local or regional small-scale renewable energy project support platform(s) which should be fully self-sustaining by year 5 of the program.

Same as for 3.1

3.5 Report yearly on the progress made to remove critical barriers to investment in clean energy projects in at least two countries and improve the management capacity in at least two REAs.

Same as for 3.1

3.6 Document before the end of year three of the contract the innovative, gender sensitive and alternative frameworks developed in at least two countries to carry out rural electrification in areas not likely to be connected to the grid and efforts made to develop a sustainable platform for sharing information on best practices and success stories from rural electrification and off-grid activities from Power Africa priority countries and other parts of the world.

No. 3.6 is not applicable to the annual report dated September 30, 2014

Objective 4: Regulatory and Institutional Strengthening and Policy Program

This umbrella objective aims to work with host country governments and regional institutions to implement reforms and build the capacity required for long-term investment and growth. This work will go beyond a transactions focus and help governments address other issues. Objective 4 is composed of four sub-objectives:

- Sub-Objective 4A: Electricity Transmission & Distribution / Regional Trade and Institutional Strengthening of Power Pools
- Sub-Objective 4-B: Policy and Regulatory Reform
- Sub-Objective 4-C: Natural Gas
- Sub-Objective 4-D: Mobilizing Finance and Building Institutional Capacity.

Sub-Objective 4-A: Electricity Transmission & Distribution/Regional Trade, and Institutional Strengthening of Power Pools

In this sub-task, our approach is to dedicate specialized teams to address each challenge. Each team will be a task force consisting of short-term advisors in collaboration with local experts from the country where the work will be done. The work packages will be identified by the country transaction advisors in collaboration with USAID Missions and counterparties (Ministry of Energy, regulator, utility company, etc.) as Power Africa proceeds. The focus will be on eliminating impediments to reaching financial close and creating the preconditions necessary to create a hospitable environment for private developers.

Sub-Objective 4-A Minimum Required Deliverables: Activities and Accomplishments

4-A.1. Facilitate at least 500,000 household and commercial connections

Mobilization and start-up activities, including assignment of staff and development of work plans, occupied the reporting period.

4-A.2. Reduce technical, commercial, and collection (aggregate losses) losses by an average of 10 percentage points in at least one high-loss focus country (with aggregate losses greater than 30%).

Talks were opened with a prominent South African power sector engineering and consulting firm to expand PATRP's resources and add cost-effective depth to the team. The firm has specific experience in Liberia, and was asked to submit a proposal for a loss reduction program at Liberia Electricity Corporation.

4-A.3 Increase the number of countries engaged in cross border energy trade by at least 6

A stock-taking review of the East Africa Power Pool was being formulated during the reporting period, for a visit to EAPP in October. Additionally, there was an ongoing discussion about the possibility of posting an advisor in Rwanda, perhaps with a regional remit that might include EAPP. Tetra Tech had secured a candidate.

Sub-Objective 4-B: Policy and Regulatory Reform

Our original plan was to dedicate six country-specific delivery units (DUs) to tackle issues under Objective 4-B, plus two regional DUs for EAC and ECOWAS. That approach will be modified as appropriate to meet the evolving needs of the project.

Sub-Objective 4-B Minimum Required Deliverables: Activities and Accomplishments

4-B.1. Develop IPP tendering procedures in at least two Power Africa priority countries.

This deliverable will be addressed after a plan and budget for the policy work called for under Power Africa are approved. Transactions are the principal thrust of Power Africa and, as such, the policy and regulatory issues – while important – will be taken up after the transaction-specific activities (and the resources required to accomplish them) are well in hand.

4-B.2. Develop or improve a REFIT in at least two Power Africa priority countries.

The possibility of helping to design a REFIT in one of the priority countries (Kenya) was explored but not taken up because the European donor organization that was to fund the project decided to select its own consultant.

Sub-Objective 4-C: Natural Gas

This sub-task will focus first on Ghana and Nigeria, and then Tanzania and perhaps Kenya. PATRP will assess the situation of each market by reviewing the: 1) current stage of gas market development and the interactions/impacts on the power sector, 2) status of gas (or energy) regulatory and institutional framework, 3) existing or expected gas master plans, 4) on-going/planned reform or restructuring of the gas (energy) market, 4) status of current/planned gas and gas-to-power projects, 5) gas-to-power supply chain and its challenges, especially the credit worthiness issue, and 6) associated relevant gas flaring reduction programs

Sub-Objective 4-C Minimum Required Deliverables: Activities and Accomplishments

4-C.1 Develop a financial security package in Ghana to accelerate the development of the country's natural gas sector and the import of LNG.

Work on this sub-objective was in abeyance pending the recruitment of a gas advisor.

4-C.2 Develop incentives and market-oriented mechanisms in Nigeria to capture, channel, and redirect currently flared associated gas.

Work on this sub-objective was in abeyance pending the recruitment of a gas advisor.

4-C.3 Develop policy, legal, regulatory and incentive frameworks in at least two focus countries to attract greater private investment in the natural gas sector.

Work on this sub-objective was in abeyance pending the recruitment of a gas advisor.

4-C.4 Develop policy, legal, regulatory and incentive frameworks for the importation and use of LNG in Ghana.

Work on this sub-objective was in abeyance pending the recruitment of a gas advisor.

4-C.5 Develop a framework for a regional LNG market involving one or more Power Africa countries.

Work on this sub-objective was in abeyance pending the recruitment of a gas advisor.

Sub-Objective 4-D: Mobilizing Finance and Building Institutional Capacity

The key to reaching financial closure in power projects is to meet the motivations of the stakeholders to the maximum extent possible during contract negotiations. Projects, particularly in Africa, where the institutional environment needs enhancement to enable private sector deals, may take two or more years to prepare and another two to four years to construct. Usually, project finance-structured projects involve multidisciplinary (i.e., technical, commercial, financial, economic, environmental, regulatory, legal, and political) challenges.

The solutions require the buy-in by multiple stakeholders with diverse and sometimes conflicting objectives. Accordingly, the solutions developed under Objective 2 (for late-stage transactions) and Objective 3 (for small-scale power) must be fair and transparent in order to have longevity. Sub-objective 4-D will build on the results of other projects – those that have gone before and those assisted under PATRP – to ensure that institutional capacity is developed to allow a further progression, or “take-off” of financing to the power sector.

Local investors will often seek to match their local operating know-how with foreign technology, market channels, and long-term financing. In turn, foreign investors will seek a local partner as a matter of prudence. A judiciously chosen local partner, in good standing, increases the local operating know-how of the project entity, expands its local commercial and political network overnight, gives a stronger message of commitment to the transfer of technology for development, and aligns the foreign and local partners’ resources against any future political attacks. Appropriate structuring of the projects should mobilize these alliances and local funding along with them. The recent wave of privatizations in Nigeria shows that its private sector is interested in power assets.

USAID’s Development Credit Authority (DCA) program is certain to find traction in multiple countries given the bankable projects PATRP will be structuring. There will be significant benefits to the projects accessing DCA. First, it is a credit enhancement that bypasses the risk profile of the project, thus mobilizing investor groups otherwise reluctant to finance the project. Second, the same credit enhancement allows for the structuring of longer loan tenors. Third, in times of liquidity crisis, it allows for loan payments to continue while giving extra time to cure the guarantee payment. In sum, the overall credit enhancement reduces the cost of financing,

benefiting the project's cash flows and returns. Finally, the novelty of the instrument adds depth to the local financial market to be extended to other projects.

In addition to the traditional multi- and bilateral sources, along with their commercial syndicate banks that benefit from preferred creditor status under the "political umbrella" of such official sources, there is room to expand into new sources of financing such as institutional investors (pension funds, insurance companies). Typically, institutional investors need to match their long-term liabilities with long-term assets that have predictable cash flow and low correlation to their traditional portfolios (i.e., government bonds). These investors are turning to emerging markets, and so bankable projects emerging from Power Africa should be of particular interest to such investors.

Sub-Objective 4-D Minimum Required Deliverables: Activities and Accomplishments

4-D.1 Leverage at least \$2.5 billion in public and private funds for energy projects by the end of the three (3) year base period

This sub-objective was not launched during this reporting period.

4-D.2 Initiate or support USAID DCA Loan Guarantee Programs in at least two Power Africa focus countries.

This sub-objective was not launched during this reporting period.
