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SECTOR REFORM AND UTILITY COMMERCIALIZATION PROJECT ANNUAL PERFORMANCE REPORT Q1 FY2016–Q4 FY2016

October 1, 2015–September 30, 2016

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**SECTOR REFORM AND UTILITY
COMMERCIALIZATION
PROJECT
ANNUAL PERFORMANCE
REPORT
Q1 FY2016–Q4 FY2016**

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SECTOR REFORM AND UTILITY COMMERCIALIZATION PROJECT
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ACRONYMS

Acronym	Term
CARCEP	Caribbean Clean Energy Program
CIP	Caracol Industrial Park
CLEER	Clean Energy Emission Reduction
CMS	Commercial Metering Strategy
CPU	Caracol Power Utility
COR	Contracting Officer's Representative
DRC	Democratic Republic of the Congo
E3	Office of Energy & Infrastructure within the Bureau for Economic Growth, Education, and Environment
EdM	Electricidade de Moçambique
GEI	Government Electrical Inspectorate
GoH	Government of Haiti
Gol	Government of Indonesia
GWe	Gigawatt Equivalent
HR	Human Resources
ICED II	Indonesia Clean Energy Development II
IPP	Independent Power Producer
JPS	Jamaica Public Service Co., Ltd.
JSIF	Jamaica Social Investment Fund
MEF	Ministere de l'Economie et des Finances
MEMR	Ministry of Energy and Mineral Resources
MIGA	Multilateral Investment Guarantee Agency
MPCE	Ministère de la Planification et de la Coopération Externe
MTPTC	Ministère des Travaux Publics, Transports et Communications
NRECA	National Rural Electric Cooperative Association
OAA	Office of Acquisition and Assistance
OGC	Office of General Counsel
PPSELD	Pilot Project for Sustainable Electricity Distribution
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PT PLN	Perusahaan Listrik Negara
RED	Readyboard Electrification Demonstration

Acronym	Term
SONAPI	Société Nationale des Parcs Industriels
SOW	Scope of Work
SRUC	Sector Reform and Utility Commercialization
TO	Task Order
USEA	United States Energy Association
USG	United States Government
UWI	University of West Indies

INTRODUCTION

The United States Agency for International Development (USAID) Office of Energy & Infrastructure within the Bureau for Economic Growth, Education, and Environment (E3) has contracted Deloitte to implement the Sector Reform and Utility Commercialization (SRUC) Program from April 30, 2014, to April 29, 2019.

The objective of the SRUC Task Order (TO) is to promote utility commercialization and equitable and effective reforms that will enhance the financial viability and long-term sustainability of developing countries' electricity systems, and thereby enable their expansion and growth, and establish the necessary preconditions for clean energy investments. To do so, SRUC will assist countries with assessing existing sector conditions and preparing new strategies and plans; designing and implementing new market structures and models for private sector participation; building institutional capacity; testing new commercialization technologies; and reporting lessons learned and results. Through this work, SRUC will also empower women and reduce gender gaps in the energy sector.

In order to meet the above objectives, the SRUC Program has a defined set of core activities through which it can assist country governments, power utility companies, electricity and energy sector entities, and other stakeholders. These core activities are as follows:

1. Third-party evaluations;
2. Hosting sector reform workshops and forums;
3. Preparing program designs and evaluations;
4. Designing and implementing new market structures;
5. Developing appropriate legal and regulatory frameworks;
6. Designing and implementing new models for private sector participation;
7. Improving corporate governance;
8. Utility financial modeling and planning and tariff analyses;
9. Customer regularization and metering;
10. Utility organization and capacity;
11. Training and technical assistance; and
12. 'Best practice' analyses, reports, and media.

The SRUC Program also identifies the following work assignments as indicative of the type of task that will be requested under the contract:

13. Sector Reform Assessments
14. Sector Reform Plans
15. Sector Reform Workshops
16. Evaluations
17. Training
18. Analytical Reports
19. Advisory Assistance

USAID has engaged Deloitte Consulting LLP¹ (Deloitte) to implement SRUC to pursue the SRUC Program's objective through the activities mentioned above.

Our Approach

The Deloitte team implements the SRUC Program by carrying out the core activities described above to contribute to SRUC in each of the countries selected for assistance and for any headquarters-based work in Washington DC.

¹ Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Deloitte's approach to implement the SRUC Program is based on the following principles:

- **Flexible program framework** that allows the SRUC Program to scale technical activities up or down to match evolving program priorities and time-sensitive demands. Our workplan, staffing structure, and monitoring and evaluation indicators reflect the need to focus on priority areas while maintaining enough versatility to respond to altered circumstances or conditions.
- **A geographically dispersed approach to implementation** to match the worldwide reach of the SRUC Program. Depending on which countries are receptive to sector and utility reform initiatives, the SRUC Program will have to balance an international portfolio of projects. We will utilize our network of member firms around the globe to bring a local understanding to each sector reform project.
- Utilizing Deloitte's **deep technical experience and leading energy sector expertise**. The SRUC Program requires deep technical knowledge to deliver the assessments, analyses, training, and other technical thought leadership. We will bring to bear a team of subject matter experts with experience working in all of the areas of power sector and utility reform, utility commercialization, private sector participation, and electricity regulatory issues across different geographies.
- **Visually appealing and creative presentations of data and results**. In order to appeal to a wide variety of audiences, we will utilize our numerous tools and resources to produce highly visual, engaging, and interactive presentations of data and results. The resources at SRUC's disposal include our Creative Services design and media team; Tableau and other visual data programs; and our immersive visual laboratories. The USAID Smart Utilities website will be a repository for this information and for dynamic marketing.

YEAR 2 SUMMARY

In Year 2, the Deloitte team drafted nine Scopes of Work (SOWs) and implemented USAID teams at headquarters in Washington DC or counterparts at USAID Missions overseas. The activities in these scopes aligned with the scope of technical services described above, which the program provides to USAID Missions and electricity entity counterparts in countries undergoing sector reforms. Throughout the year, Deloitte drafted SOWs for engagements in Haiti, Jamaica, Democratic Republic of the Congo (DRC), Mozambique, and Indonesia.

The Deloitte team's major work overseas brought SRUC engagements to a diverse set of countries, including Haiti, Jamaica, Indonesia, and Mozambique. In Haiti, the team began its transaction advisory scope providing assistance to the Government of Haiti (GoH) with public-private partnership (PPP) options as well as preparation for the competitive bidding for the management of the Caracol Power Utility (CPU). In Jamaica, Deloitte continued to support Jamaica's private utility company, Jamaica Public Service Co., Ltd. (JPS), to mitigate high levels of nontechnical losses with the Readyboard Electrification Demonstration (RED) pilot project, providing both best practices in loss reduction as well as implementing a procurement for readyboard materials for high-loss communities. In Indonesia, the SRUC team was engaged to support the government-owned electric utility, Perusahaan Listrik Negara (PT PLN), in the renegotiation of eligible Independent Power Producer (IPP) geothermal projects according to parameters set out by the Indonesian Ministry of Energy and Mineral Resources (MEMR), creating the 'Internal Guidelines for Conducting Geothermal Electricity Price Renegotiations' that act as a guiding framework and process for undergoing geothermal power purchase agreement (PPA) renegotiations. In Mozambique, the Deloitte team is working to strengthen Electricidade de Moçambique's (EdM) Commercial Department by drafting a commercial loss reduction strategy, improving staff technical capacity, and recommending infrastructural upgrades in order to reduce losses.

In the home office, a number of smaller knowledge-based activities were carried out, including:

- A study exploring the incentive structures that utilities use to motivate their employees to combat energy theft and other nontechnical losses;

- An updated Clean Energy Emission Reduction (CLEER) module for regularization, including data related to electricity consumption reduction from regularization; and
- Initial development of a training covering the future utility business models for USAID/United States Government (USG) staff.

On reporting, at the beginning of the contract, the team generated a workplan to guide its activities under the contract and ensure they tracked to specific program goals. According to the contract, Deloitte has submitted quarterly reports and accruals summarizing the work under the contract. In order to maintain clarity on the various SOWs and project activities, Deloitte and the SRUC TO Contracting Officer's Representative (COR) have maintained a weekly tracking system providing short updates on current tasks, challenges, and the week's work for both USAID and Deloitte.

CHALLENGES

On technical delivery, the Deloitte team has encountered several challenges throughout the year, which they tried to solve quickly and efficiently to mitigate the impact on program delivery.

Related to the team, [removed, PII], the chief of party, resigned from Deloitte and had to be replaced. [PII], the engagement director, worked directly with the COR and suggested [PII] as the replacement chief of party. [PII]'s background in the electricity sector, previous work on distribution and demand-side management, and tenure managing USG energy programs complied with the Key Personnel requirements. Given that [PII] has been working on the USAID/SRUC TO since its inception and had been working closely with [PII] to manage the team and budget, there was minimal impact to program delivery, and Deloitte continued to implement its ongoing statements of work.

In Jamaica, the team experienced delays due to Hurricane Matthew, plus other procurement and availability issues with several readyboard component suppliers, including L.S. Duhaney & Co. Ltd. on electrical materials and FosRich on lumber materials. [PII] and [PII] met with managing director of L.S. Duhaney & Co. Ltd. in Kingston to rectify the issue and continue to stay in contact on replacements and upgrades to the supplies. They have stipulated that there will be no impact on the cost of the supplies and that the invoice will not be paid until all supplies are delivered in full. The SRUC team has engaged Deloitte employees working in Kingston under the USAID/CARCEP to help with receiving the materials locally in order to mitigate travel costs.

In Indonesia, the SRUC team also encountered several challenges. Deloitte found the communication of the SOW and any limitations of the ability to provide assistance in analysis therein was limited by the communication between PT PLN and US Treasury on PT PLN's behalf. Compounding this issue were complicated communication layers and changes in the activity manager overseeing the work, adding difficulty for the SRUC team to provide the delivery most helpful to the counterpart. Additionally, counterpart schedules were in flux throughout the program, which Deloitte was able to accommodate but led to unanticipated in-country support and significant pressure on deliverable timelines. Security was also an issue in Indonesia as some subcontractors were unable to travel due to terror activities in the region in December 2015.

The work with the CPU in Haiti has several contextual challenges, given the investment climate, the interdependencies on the Haitian government, and the preferences of the investment community. The team spent significant time working with the USAID and Deloitte's internal Quality and Risk Management (QRM) group to design the scope so that it advanced the fundamental underpinnings of a transaction and positioned CPU for a private sector partner, without predicated success on factors outside the control of the SRUC team. The team managed the challenges in the following manner. First, the investment climate presents a challenge due to the high levels of poverty and economic circumstances of Haiti; the political uncertainties, especially with ongoing elections; and corruption and rule-of-law issues throughout the country. Since the specific characteristics of the CPU (i.e., its location, its current operation by a USAID-funded private operator, high levels of willingness to pay in the service territory) insulate it from those risks, the SRUC team has highlighted that in its external

investor materials and PPP structure that the team recommended to the government. Second, there are many facets of the way CPU is and will be operated under the purview of the Haitian government. Our team has worked closely with the Ministry of Public Works to illustrate the benefit to the government and to the plant for maintaining the tax incentives and tax holidays. The SRUC team has contracted a local Haitian lawyer to ensure that communications with GoH related to these issues are clear, compelling, and squarely within the legal framework. Our team has worked directly with the Energy Cell within the Ministry of Public Works on the most central component, the tariff increases, to explain and clearly illustrate how and why these benefit the CPU and GoH. The letter of intent on the tariff increase was submitted and discussed with the GoH on November 29, 2016, and looks likely to be approved. Structuring the PPP so that it is palatable to outside investors and minimizes these risks is critical to overcoming the challenges on this workstream. The team's composition—with seasoned advisors who have worked in similarly challenging PPP environments and with local Haitian experts—will help guide GoH in the right direction so that this structure and process come to fruition.

On a couple of home office-based knowledge products, the team has experienced delays and difficulty extracting data and responses from utilities in a timely manner. Oftentimes, this is because the information is not tracked by the utility company and the SRUC contract is asking in a relatively informal manner (i.e., there is no memorandum of understanding in place with the company). This challenge has presented itself on the HR incentive study and the CLEER tool. The Deloitte team has worked to solve the issue by engaging utilities that Deloitte employees work closely with through other engagements and/or engaging consultants who have worked closely with the utility company in the past (i.e., [PII] and [PII]). Additionally, several USAID Missions helped connect the Deloitte team to the appropriate counterparts at the electric utility company or directed the Deloitte team to another donor team working on loss reduction issues as a potential source of data.

The part-time or short, full-time engagements typical of SRUC can be challenging to staff and execute in a timely fashion. Effective staffing and speedy mobilization has been an area of intense focus in Year 2 and, as the program continues to grow, we expect this to continue to ensure the right people are staffed on all tasks at the right time, thereby maintaining the high standard of delivery that Deloitte has been able to achieve throughout the year.

At the outset of the contract and occasionally throughout the year, administrative delivery was slowed by the complexity of the Office of Acquisition and Assistance (OAA) approvals process on consultant rate approvals and procurement assistance, albeit without delays to programmatic deliverables. Nonetheless, momentum has been maintained and SRUC has been gaining speed steadily since kickoff. This has been achieved by working to streamline the approvals process on both Deloitte and USAID side of the project, and Deloitte is confident that this situation will continue to improve in the future.

CORE ACTIVITIES

The following section lays out the core activities led by Deloitte through the duration of Year 2 of the program, which spanned from Q1 FY2016 to Q4 FY2016, to implement the USAID SRUC TO to achieve its technical goals, as outlined in the approved workplan. The activity descriptions have estimated dates of performance throughout the year and call out the Deloitte professionals acting in support of the activity.

Previous quarter's activity has been abbreviated from previous reports, while full updates have been included for Q4 FY2016.

Jamaica In-Country Implementation: April 2015–Ongoing

JPS, Jamaica's privatized electric utility and the sole provider of electricity on the island, has faced pervasive challenges related to system losses. Total system losses currently stand at approximately 26.5% and are driven by both technical losses (power losses due to equipment inefficiencies) of 8.6% and nontechnical losses (power losses due to commercial and consumer behavior) of 17.9%, primarily due to power theft. As part of the SRUC TO, USAID, in cooperation with JPS and Jamaica Social Investment Fund (JSIF), has launched the RED pilot in June 2015 to develop, test, and evaluate a new readyboard technology in approximately 400 houses within the Majesty Garden community in Kingston, Jamaica, from July 2015 through June 2017. The RED pilot aims to reduce nontechnical losses and electrify low-income urban households in substandard housing conditions that would otherwise not be legally eligible to be wired for electricity, per the Jamaican Electrical Code.



Q1 FY2016

- Organized a community engagement Knowledge Exchange Working Session with JSIF and JPS on learning modules tailored to community engagement, brainstorming a plan and priorities for the upcoming year, and understanding how to improve current customer programming on loss reduction.
- Prepared and released two “request for quotes” (RFQs) for a set of 400 electrical and lumber components for the readyboard assembly. This involved working with JPS to get a list of qualified vendors and advertising in the Jamaican newspaper, per Jamaica procurement rules.
- Finalized subcontract with Hope Caribbean Ltd. (“Hope”) and held kickoff meetings between Hope, the Jamaican counterparts, and USAID/Deloitte. The SRUC team worked with Hope to draft a baseline instrument and implementation plan to carry out the survey. Deloitte also collaborated with World Bank's survey subcontractor, University of West Indies (UWI) who was conducting a similar survey, in order to make the results comparable to other Kingston communities. The baseline survey was designed to collect information on the Majesty Garden residents' electricity consumption patterns, demographics and income levels, quality of life, attitudes and understanding of electricity services, and understanding of the RED program. The survey was designed to provide statistically significant results and an aggregated socioeconomic description for the community.
- Deloitte worked with JPS and JSIF to build out a database of recipients and their addresses in order to pinpoint which households would initially be part of the survey and subsequently receive readyboards. This exercise functioned as a preregistration for the program.

Q2 FY2016

- Received bids resulting from the RFQs publicized in Q1 for a set of 400 electrical and lumber components for the readyboard assembly, guided per the bill of materials and specification submitted by JPS. The successful bidders were L.S. Duhaney & Co. Ltd., FosRich, and Lumber Depot.
- Began work on an implementation plan for the installation, electrification, and monitoring phases of the readyboard demonstration project. Plan covered a process for the materials delivery, assembly, recipient registration, service mapping, installation and structure reinforcement, customer payment, electrification, and JPS follow-up in the community.
- The Knowledge Exchange Working Session was captured in a photo blog for distribution on the SRUC USAID website (<https://www.usaid.gov/smartutilities>). Additionally, a marketing pamphlet for the readyboard installations was developed for JPS in order to communicate the details of the readyboards effectively to the Majesty Gardens community.
- HOPE Research Group conducted a survey of 400 households in Majestic Garden, with 351 surveys completed, utilizing a survey instrument that they finalized and agreed with Deloitte, USAID, JPS, and JSIF. HOPE Research Group was managing the data collected, and establishing basic insights based on the data collected, and will deliver the final report and database in Q3.

Q3 FY2016

- Provided an outline to JPS and JSIF on “Engaging Communities in Electrification Programs. A Manual for Management and Field Workers.” The document provided some structure for discussing the readyboard program with residents in the community, particularly around safety, payment, and their new relationship with JPS.
- Delivered final versions of the letter of support (outlining the engagement for the pilot) and the property transfer letter (signifying the turnover of the equipment to the Jamaican counterparts) between Deloitte, JPS, and JSIF after final agreement on language by Deloitte Office of General Counsel (OGC) and JPS OGC.
- Final survey report and database were delivered in Q3 along with an executive summary of the results, transcripts of interviews with residents, and additional analysis of the data provided by Hope on the current electricity usage and an approximation of the load in the community. These final results were submitted to USAID and the counterparts.

Q4 FY2016

In Q4, the Deloitte team focused on the procurement of the readyboard materials. With the letter of support signed in Q3, procurement of the materials was finalized with L.S. Duhaney & Co. Ltd. and Arc Manufacturing. [PII] and [PII] of the Deloitte team received the majority of the materials in the country on September 12, 2016, confirming the quantity and match to the requested materials. Select items were not accepted by the team:

1. **Plywood**—The plywood was originally delivered by FosRich on September 12, 2016, but did not have the required pressure treatment. Another lumber supplier—Arc Manufacturing—was selected for delivery of the treated plywood at a lower cost. Materials were expected to be delivered early in the following quarter.
2. **Load Center**—The load center that was delivered did not meet the UL specifications outlined in the procurement request and thus was not accepted. Arrangements were made to procure load centers with the appropriate certifications early in the following quarter.
3. **Lightbulbs and Safety Lights**—Lightbulbs and safety lights were delayed in their delivery and subsequently expected for delivery in Q1 FY2017.



The Deloitte team provided a rough draft to USAID, JPS, and JSIF on “Engaging Communities in Electrification Programs: A Manual for Management and Field Workers,” also known as the Engagement Manual. The document’s intentions are to provide some structure for the community facilitators and leadership team to discuss the readyboard program with residents in the community, particularly around safety, payment, and their new relationship with JPS. The draft will be revised, printed, and delivered by the SRUC team in the following quarter.

In concert with the Engagement Manual, the SRUC team established a Frequently Asked Questions handout for both community facilitators and community residents. Energy efficiency tips were also developed to help facilitate the reduction in electricity consumption as community members begin paying for electricity. These materials will be finalized, printed, and delivered as ‘customer information packets’ when residents receive readyboards.

The SRUC team supported JSIF on its development of a sensitization guide. The guide will be used to provide more step-by-step sensitization of the regularization program, including the removal of illegal wiring, introduction of the readyboard, and the establishment of the JPS customer account. Revisions were made in the quarter, and JSIF will produce a final draft in the following quarter.

Throughout the quarter, the Deloitte team and USAID corresponded regularly with the Jamaican counterparts on questions related to the process and applicability of the readyboard project. This included regular phone calls and discussions on the project details and timeline.

Looking Forward

Q1 and Q2 FY2017 will be an active period for the SRUC Program in Jamaica. The Deloitte team will continue to support JPS and JSIF to procure the full list of materials. Readyboard assembly at UTech is scheduled for the month of November, and UTech professors anticipate 10 readyboards per day (with a goal of 200 readyboards in the month of December). JPS and JSIF continue to reach out to the community to collect customer information to create accounts and enroll residents in the program. Post-assembly, the



readyboards are to be energized after approval from the Government Electrical Inspectorate (GEI) and illegal wiring to be removed after the initial set is installed (approximately 260 readyboards). Many of these activities are under the management of JPS and JSIF, but the SRUC team will act as advisors throughout the assembly and installation period to help guide the process.

Early in Q1, the Deloitte team will deliver the Community Outreach Materials (Frequently Asked Questions, Energy Efficiency Tips, and Readyboard Quick Info Stickers) and the Engagement Guide to help support community engagement activities in Majesty Gardens. Additionally, Deloitte will be contracting a local videography company to begin capturing the assembly, installation, and electrification of the community. Early December will mark the next planned trip to Jamaica to check on progress on the readyboard assembly and installations in Majesty Gardens, coordinate the videography in country, begin discussions on the post-regularization survey, and attend the community engagement meeting on December 8.

In the longer term, work will begin on collecting the necessary input from both JPS and JSIF to conduct a baseline financial analysis to determine the ROI of the readyboard project. Alongside the financial analysis, a post-project survey will be conducted in the community to determine the changes in customer behavior and receptiveness to the readyboard technology, and provide key metrics of the success of the project. Both of these deliverables will provide necessary inputs to the final report, which will capture a comprehensive look at the RED pilot to support the justification for continued implementation of the technology or adjustment for future community engagements around nontechnical losses.

Potential challenges include difficulty soliciting granular information from JPS on customer electricity usage/payment and infrastructure investment figures, potential delays on installation due to GEI inspection due to the holiday season, and ensuring customers are educated on the readyboard and prepayment process when they become official customers.

Indonesia In-Country Implementation: June 2015–July 2016

With more than 29 GWe in potential capacity, Indonesia is home to one of the most abundant sources of geothermal power. Having utilized less than 5% of that potential capacity, the Government of Indonesia (GoI) has set targets to increase utilization nearly fivefold by 2025. In June 2015, the SRUC team was approached by USAID Indonesia to bolster the growth in geothermal power through support of the government-owned electric utility, PT PLN, in the renegotiation of eligible IPP geothermal projects according to parameters set out by the MEMR. Recognizing the need to renegotiate with developers on the tariff in order to move geothermal projects forward, MEMR had recently established Permen 17 ESDM/2014, which directs PT PLN to conduct negotiations with eligible IPPs on the adjustment of a given project's established electricity price, set in its original PPA, after exploration. USAID Indonesia requested that SRUC assist in developing the framework and

process for this tariff renegotiation. In the second stage of the work, the SRUC team assisted the PT PLN team to apply this framework in its first set of renegotiations.

Q1 FY2016

- [PII], [PII], and [PII] traveled to Jakarta from October 18, 2016, to October 30, 2016, and from December 14, 2016, to December 18, 2016 (only [PII]), to meet with PT PLN to continue to build out the renegotiation guidelines. Designed the renegotiation process and built a presentation to share key points with the broader PT PLN audience.
- Submitted the Final Best Practices Report, which contained an additional case study for PT PLN to reference.
- Continued to work on the renegotiation guidelines, the financial model for renegotiation through the quarter, and the guidelines and templates for communicating with IPPs—some of which were refined further in Jakarta.
- Developed a scope for Phase II of work and prioritized certain sections of the guidelines and templates to prepare for the live renegotiation of Phase II.

Q2 FY2016

- Submitted a draft version of the renegotiation guidelines for review and comment by USAID's Indonesia Clean Energy Development II (ICED II) team and PT PLN. The review by PT PLN and ICED II required multiple weeks, and in order to provide the most expedient delivery of the guidelines, subsequent revisions to the guidelines were continued by the Deloitte team parallel to USAID ICED II team's and PT PLN's review.
- In addition to the guidelines, the Deloitte team submitted three deliverables:
 1. Data Collection and Application of Guidelines: A summary of major compliance issues found with the IPP submission, as it pertains to the guidelines, and recommended measures to be taken to improve adherence.
 2. Technical Analysis: A review of PT PLN's technical due diligence and a comparison of PT PLN's process of analysis with the process set out in the guidelines.
 3. Financial Analysis: Review of, and recommendations related to, PT PLN's financial analysis.
- Developed a draft Prefeasibility Study Outline based on best practices in building prefeasibility studies as well as Indonesia-specific requirements from the MEMR Regulation No. 11 of 2008.

Q3 FY2016

- The final deliverables submitted included:
 1. Final Guidelines and Procedures Report for PT PLN (including templates).
 2. Data Collection and Application of Guidelines: A summary of major compliance issues found with the IPP submission, as it pertains to the guidelines, and recommended measures to be taken to improve adherence.
 3. Technical Analysis: A review of PT PLN's technical due diligence and a comparison of PT PLN's process of analysis for the IPP submission with the process set out in the guidelines.
 4. Financial Analysis: A review of, and recommendations related to, PT PLN's financial analysis on the costs submitted by the IPP and its adherence to the guidelines.
 5. A summary training deck on the guidelines and ideas for the format and structure of the geothermal training.

Q4 FY2016

The Deloitte team also developed the below deliverables for submission in Q4:

- A Prefeasibility Study Outline based on best practices in building prefeasibility studies as well as Indonesia-specific requirements from the MEMR Regulation No. 11 of 2008.
- Risk Allocation Tools and Framework for PT PLN's reference in finalizing its counterproposal as outlined in the guidelines.
- A finalized financial model, including an internal independent review of the model and how it functions, and discussion on its parameters with Deloitte's QRM group.

While an in-person training on the financial model was not provided, a virtual training was provided along with a user guide and a training deck sent on August 8, 2016, to direct users on appropriate use. Awaiting a response from USAID Indonesia Mission on an in-person training; if this is no longer required, the activity will be closed out.

Looking Forward

The SRUC Program is awaiting a response from the USAID Indonesia Mission on its preference for conducting an in-person model training. Depending on the response from the USAID Indonesia Mission, SRUC will either conduct the training at an appropriate date for PT PLN and the USAID Indonesia Mission or close the project if the training is no longer necessary.

Mozambique In-Country Implementation: July 2016–Ongoing

Under the USAID-funded SRUC Program, Deloitte is assisting EdM, the state-owned electric utility responsible for providing power across country, in improving overall commercial performance. The overarching objective of the EdM Loss Reduction Project is to reduce commercial (nontechnical) losses in the electricity sector and lay the foundation for EdM's improved financial viability. Deloitte's support includes evaluating EdM's capabilities to measure and mitigate commercial losses through existing and planned staffing levels, operational processes, and technical infrastructure. From this assessment, Deloitte will work with EdM to propose new efforts to optimize loss reduction efforts at the distribution network level. Deloitte is working closely with the EdM's Commercial Department to produce a Commercial Metering Strategy (CMS) as well as to design a meter-testing laboratory. Once implemented, the CMS and testing lab framework will result in decreased system losses—from their current estimated level of 17%—and improved financial performance. This activity began in July 2016 and will be completed in January 2017.

Q4 FY2016

During Q4, the Deloitte team began design and delivery of the loss reduction project with EdM. In July, the Deloitte team prepared the project workplan and received buy-in from the SRUC COR team, USAID/Mozambique, and EdM's senior management. From July 18, 2016, to July 29, 2016, [removed, PII] traveled to Maputo to work with Mario Fernandes and Santiago Goicoechea from Deloitte Mozambique and EdM's senior management on kickoff activities. Activities included reviewing the project scope, confirming key resources to be dedicated from EdM, and beginning data collection. The EdM Director of the Commercial Directorate, [PII], requested that Deloitte revise the project delivery schedule to provide final deliverables by the end of 2016. This involved compressing the delivery schedule from initially proposed eight months to roughly four and a half months.



A second trip to Maputo took place from September 4 to 17, 2016, during which [PII] was joined by [PII], commercial metering expert. [PII] and [PII] conducted interviews with EdM's Commercial Department and other stakeholders to better understand the problems EdM hopes to address by establishing a meter-testing laboratory. Meetings were held to assess capabilities of current EdM staff assigned to meter testing, installation, and repair; to gather information on existing processes and procedures related to meter management; and to assess the scope of future meter procurement and installations that the metering lab will need to support. During meetings, it was made clear that the purpose of the metering lab is to test: 1) samples from newly procured batches of meters or 2) meters pulled from the field that are poorly performing. The Deloitte team traveled with EdM staff to meet utility customers, to learn about the types of meters used with different customer classes, and to evaluate meter installation processes used by installation crews in the field.

In parallel, [PII] and Santiago [PII] collected information from the EdM's Commercial Department staff on roles and responsibilities for CMS development, energy efficiency program design and delivery, technical and nontechnical loss data collection and calculation, operational procedures for installing and maintaining customer meters, and other relevant operational processes.

At the end of Q4, the Deloitte team had prepared and delivered draft deliverables for the quarter, including the project workplan, workplan briefing presentation used for the kickoff meeting with EdM, a revised delivery schedule reflecting changes from the kickoff meeting with EdM, and a draft of the Commercial Metering Strategy Concept Paper.

Looking Forward

In Q1 2017, Deloitte, working with our subcontractor Enerweb, will complete collection and assessment of needed commercial metering information across a range of issues, including 1) available metering and commercial system data; 2) information on the operation and interoperability of IT systems, including communications systems, meter data management systems, commercial billing systems, etc.; and 3) current utility operational processes and organizational structures (including department roles and responsibilities, staffing capabilities, etc.) specific to metering system management and customer billing systems. Deloitte will meet with the departments responsible for developing and managing the utility's approach to calculating system losses to discuss the methodology used, data needed, personnel roles, among other factors. Deloitte will then undertake an assessment of EdM's capability to accurately calculate losses by type (technical, commercial), by geographic area (region, city, feeder, and/or transformer level), and/or by customer category. Based on primary findings, Deloitte will present EdM senior management with a concept paper describing at a high level the team's initial approach to the CMS. Using feedback from that briefing, Deloitte will develop and present to EdM full versions of both the "Commercial Metering Strategy & Road Map" deliverable and the "Meter Testing Laboratory & Road Map" deliverable for review and discussion. This is anticipated in December 2016. Based on feedback received from EdM on draft deliverables presented in late Q1, Deloitte will finalize both project deliverables for handover during a workshop in early Q2.



Haiti In-Country Implementation: March 2015 – Ongoing

The SRUC team is currently supporting USAID/Haiti Mission and the GoH to provide transaction advisory services to the GoH to assess the feasibility for and facilitate the establishment of a PPP for the sustainable management of the CPU. Key components of this activity are to:

- i. **Component 1:** Determine and conduct the necessary research, assessments, and studies to assist the GoH in exploring options and in selecting the appropriate PPP model(s) to pursue; and
- ii. **Component 2:** Provide tailored transaction advisory technical assistance to support the GoH in the preparation of PPP documents and leading a competitive bidding process for the private sector management of the CPU.

This activity is focused on providing assistance to the GoH to achieve its goal of contracting a private sector entity through a lease/concession basis that will manage the CPU for a term of at least 20 years. All work will be done in compliance with Haiti's Procurement Law, leading international practices for competitive procurement, and other applicable Haitian and international laws and regulations.

To achieve these objectives, work directly involves and is coordinated with the USAID/Haiti Mission; the GoH's Ministries of Planning and External Cooperation (Ministère de la Planification et de la Coopération Externe – MPCE), Economy and Finance (Ministère de l'Économie et des Finances – MEF), and Public Works, Transport, and Communication (Ministère des Travaux Publics, Transports et Communications – MTPTC); Ministry of Environment; the National Procurement Commission (Commission Nationale des Marchés Publics); the local government officials and customers in the CPU's existing and potential services areas; and the Pilot Project for Sustainable Electricity Distribution (PPSELD) implementing partners.



Q1 FY2016

- Drafted the CPU Transaction Support SOW, including the teaming arrangements, for initial comments from USAID.

Q2 FY2016

- Kicked off the CPU Transaction Advisory Project by reengaging with the USAID/Haiti team in a March 2 project kickoff meeting, and with other stakeholders during a three-week trip in March to Cap-Haitien and Port-au-Prince, Haiti.
- Organized a number of meetings with relevant stakeholders in the country:
 1. Met with stakeholders at the Caracol Industrial Park (CIP) in the north. The first week was focused on working with the CPU operator the National Rural Electric Cooperative Association (NRECA) to understand plant operations and to gather data that would inform financial models which will be required for the eventual tender.
 2. Met with other CIP tenants (SAE-A and Sisalco) along with other governmental entities involved in park operations (State Department, Société Nationale des Parcs Industriels (SONAPI)).

3. Met with key decision makers in the Haitian energy sector, establishing report, and began to assess options for an eventual PPP, which would bring private investment to the CPU.
 4. Met with a wide range of stakeholders from the GoH, Donor Organizations, US government actors, and private sector actors in an effort to gain a full understanding of the ecosystem in which this PPP transaction must take place.
- Delivered the workplan, comprehensive feasibility study outline, trip report (along with weekly trip reports), and a preliminary description of the proposed PPP framework for the CPU transaction with barriers to be considered.

Q3 FY2016

- Continued to collaborate with the USAID/Haiti mission and NRECA on CPU transaction priorities.
- Made contact with the United States Energy Association (USEA) to investigate the possibility of having the USEA develop a workshop for Haitian stakeholders in line with the issues facing the CPU transaction.
- Conducted critical meetings around exploring potential collaboration on risk guarantees, financing, and Haitian policy reform.
 1. Met with World Bank on potential financial guarantee support if financial commitments from the Haitian government are required for a successful PPP.
 2. Met with Multilateral Investment Guarantee Agency (MIGA) on Breach of Contract and other potential MIGA guarantees to support eventual PPP.
- [PII], [PII], and [PII] undertook a four-week TDY in May for meetings with stakeholders and in-country data collection. During this May trip, in Caracol, the team focused on updating the CPU's financial model, developing the cost-of-service study, completing the CPU Asset Register, and determining potential areas for expansion of service.
- Submitted the updated long-term financial model (Deliverable 3), the CPU Asset Registry (Deliverable 5), and completed significant work on the Cost of Service Study (Deliverable 4) and the assessment of PPSELD's possible expansion of services (Deliverable 6).
- Along with [PII], began preparing materials to provide GoH counterparts with examples of leading practice procurement methods (Deliverable 9) and potential criteria for bid section (Deliverable 10).

Q4 FY2016

During Q4, the Deloitte team effectively finalized deliverables under Component 1 (financial analysis) while continuing close collaboration with the USAID/Haiti mission and NRECA. Furthermore, the Deloitte team was able to conduct critical meetings exploring potential collaboration on risk guarantees, financing, and Haitian energy sector policy reform in support of Component 2 (transaction advisory).

During Q4, the Deloitte team, led by [PII] and supported by [PII] and [PII], completed a third trip from August 21, 2016, through September 24, 2016. During the trip, the team gave a series of presentations to GoH stakeholders describing the implications of various PPP decisions that the GoH will have to make and updated stakeholders on the project's progress to date. The Ministry of Finance later prepared a document recommending a long-term concession as the preferred model for the CPU PPP, including significant references to elements of the Deloitte team presentations. The Deloitte team worked closely with NRECA and USAID to support the analysis on the proposed tariff changes that would allow the CPU to recover costs, and become a financially viable entity. USAID Haiti submitted its tariff plan to GoH on November 29, 2016. Additionally, the team worked closely with the Ministry of Public Works and the Ministry of Finance to evaluate options for removing legal and regulatory barriers to an eventual tender of the CPU.

Throughout Q4, the SRUC team has made significant progress on the CPU transaction advisory, working closely with USAID and our Haitian counterparts. Fundamental to this progress was the finalization of the second Implementation Letter between USAID and the GoH, which was signed on August 12, 2016. The letter gives USAID the authority to set cost reflective tariffs in the areas served by the CPU, subject to GoH having 30 days to respond and object. Moreover, the letter explicitly recognizes a PPP as an advantageous long-term model for CPU. At the end of the quarter, the Deloitte team focused on the finalization of the comprehensive feasibility study (Deliverable 7) and additional Component 2 inputs will be ready for delivery in Q1 2017.



On August 30 and August 31, 2016, the team delivered presentations to GoH counterparts on detailed descriptions of potential PPP models, referencing the findings of the Comprehensive Feasibility Study; examples of leading practice procurement methods; potential criteria for bid selection; and recommendations on conducting a competitive procurement process. The presentations were principally related to Deliverables 7, 8, 9, 10, and 11 in the Work Plan.

Looking Forward

Reports and presentations related to Deliverables 7, 8, 9, 10, and 11 will be submitted in Q1. Additional work related to Deliverables 9 and 10 involve providing, as needed, ongoing assistance and advice to the GoH on the preparation of tender documentation. The PPP model for CPU should be selected by GoH in Q1, after which they should begin to draft tender documentation. The roadshow to pitch to potential investors can only be conducted after tariff reforms proposed by USAID are accepted by the GoH, and such approval can be no sooner than the end of December given the stipulations in the Implementation Letter. Tariff increases will then begin as early as January 2017, with gradual quarterly implementation over two years, as designed by NRECA and USAID.

The tender documentation should be approved by GoH in Q2. Requests for Expressions of Interest will then be advertised internationally to initiate the period of prequalification, which should span approximately six weeks. Early in Q3 2017, requests for proposals would be submitted to prequalified candidates with the Tender Rules and Information Memorandum. Candidates will have access to a data room on the CPU website. Bidders should have four months to submit bids; in that timeline, the winning bidder would be determined in Q4 2017. This would be followed by contract signing, the transfer of assets, and an estimated transition period of two months in collaboration with NRECA.

Significant challenges and uncertainties remain, primarily: 1) the willingness of GoH to accept commercially viable tariffs and 2) the willingness of potential private partners to accept the commercial and country risks.

Regulatory Gap Analysis for the DRC

The primary objective of this task was to review and analyze the DRC's Electricity Code as well as two decrees issued by the Ministry of Energy related to the electricity sector to assess the regulatory environment for increased renewable and hydro penetration in the country. This review assisted USAID with better articulating the need for assistance associated with utility commercialization, energy sector reform, and rural electrification activities in the DRC.

Q1 FY2016

Submitted the final deliverables for the Regulatory Gap Analysis for the DRC in early Q1, which included a review of several decrees, the electricity sector law and the Inga law. Deloitte's Energy Governance Specialist, Rob Taylor, provided a final copy of the Gap Analysis Report and the Review of the Legal and Regulatory Framework to USAID in October.

Looking Forward

The project was closed within the quarter with deliverables completed. No further work is currently planned.

Utilities of the Future Training

Description: The Utilities of the Future Training was designed to facilitate knowledge and skills development among USAID energy program managers in a subject area of the highest importance in energy SRUC, namely an investigation of the challenges and opportunities presented by new technologies in electric utilities. The learning objectives of the training and the output from the implementation of the training will lead to a more complete knowledge development to lay the groundwork for implementation of SRUC across USAID priority regions. This training will be taking place as a part of USAID's energy fundamentals training sessions taking place in December. The Utilities of the Future training is scheduled to take place on December 12 and December 13 in Washington, D.C.

Q4 FY2016

In FY2016, the Deloitte team prepared and submitted an outline for the training to facilitate knowledge and skills development among USAID energy program managers on the future business models for power utilities companies in the developing world. The training will provide a deeper dive on the role and impact of factors including (1) changing supply technologies and storage, (2) increasing grid digitization, (3) microgrids and localized power supply, (4) increasing role of the customer, and (5) policy and new legal and regulatory frameworks. The Deloitte team also began preparing pre-reading materials for training attendees to prepare them for the workshop content. As part of this effort, Deloitte coordinated with Engility, which led the logistical and site coordination, as well as NREL, which has organized two parallel trainings for USAID staff in early December. At the end of Q4, Deloitte had begun to secure its speakers, panelists, and facilitators for the training sessions.

Looking Forward

The training will take place at the end of Q1 FY2017. In anticipation of the training, the Deloitte team, led by Carol Mulholland, will finalize speakers, presentation, and prereading materials as well as design interactive segments to keep participants engaged and reacting to the training sessions. The Deloitte team will execute the training in mid-December 2016 and deliver a short post-training lessons learned report shortly afterward.

Human Resource Incentives Study: August 2015 – Ongoing

SRUC's Human Resources (HR) Incentives Study is focused on understanding the human resource incentives that can be put in place by electric utility companies to encourage their employees to combat nontechnical electricity losses. The study's goal is to identify, and inform others of, approaches currently used by power utilities to draw out leading practices that can be implemented by other utility companies facing similar challenges. The report is intended to be a tool for power utility leadership and managers in countries with high commercial losses, and part of the focus of the study will be on how to best disseminate the findings.

Q1 FY2016

- Finalized the workplan and developed an initial list of 43 electric utilities to be considered for the study. Developed our down-selection methodology based on 10 qualitative and quantitative metrics.

Q2 FY2016

- Selected two pilot outreach utilities: TATA Power and AES Eletropaulo and designed the Emailing documents/Questionnaire to Utilities and the Draft Outline of Report on Approaches to Employee Incentives for Loss Reduction used for outreach.

Q3 FY2016

- Collected responses from TATA Power and AES Eletropaulo, coupled with USAID's completion of an informative interview with senior TATA Power stakeholders.
- Made several minor revisions of the questionnaire to clarify questions, eliminate redundancies, and streamline the questionnaire.
- Translated the questionnaire to local languages (Spanish and Portuguese) and distributed to the Latin and South American utilities (CEMIG –Brazil, Chilectra – Chile, CODENSA – Colombia, and Del Sur – El Salvador). The updated questionnaire was also distributed to additional Indian utilities (JVVNL, GUVNL, and CESC).

Q4 FY2016

In Q4, the Deloitte team continued to coordinate with USAID and utility stakeholders to reach out to additional utilities for feedback. During Q4, all coordination with appropriate USAID missions was completed. At this point, the questionnaire has been distributed to all 16 utilities proposed for the study and Deloitte focused on follow-up with the utilities in order to solicit the completed questionnaires. In Q4, Deloitte has received an additional two responses from CEMIG (Brazil) and Eko (Nigeria). Given the initial feedback, Deloitte coordinated with several additional utilities with the goal of having a total of seven to eight utility responses for inclusion in the study.

Looking Forward

The Deloitte team plans to deliver a first draft of the report to USAID in Q1 2017, which will be circulated to USAID missions and through senior experts at Deloitte. Once feedback is received, the final report is planned to be delivered to USAID in early January along with a short presentation on the study's findings and a list of potential outlets for the report.

Smart Utilities Website: November 2014 – Ongoing

Given the collaborative nature of the SRUC Program with multiple USAID missions and its unique technical area, the Deloitte and USAID team established the www.usaid.gov/smartutilities website for marketing materials and technical resources for USAID staff and other development practitioners working on electricity sector reform. The Smart Utilities website is updated with new content from ongoing SRUC work including, but not limited to, project blog posts, short videos, and photography from in-country engagements.

Q1 FY2016

- Developed an implementation plan for the Smart Utilities Website that detailed potential strategies to best promote the website and increase Web traffic. The communications plan was presented to USAID in December.
- On the Smart Utilities Website, the Deloitte team provided updates for the Events page to USAID. The updates were published on December 2, 2016.

Q2 FY2016

- Updated Communications Engagement Plan/baseline Action Plan for the Smart Utilities Website, and reviewed the website in full and provided a suggested timetable for updating and maintaining the site.
- Included a draft blog from Ryan Daly's work on SRUC in Jamaica that focused on the technical exchange working sessions we help with JPS in November.

Q3 FY2016

- Reviewed the Smart Utilities Website in full and suggested updates to the website.

- Finalized a blog on the SRUC Readyboard work in Jamaica that focused on the technical exchange organized between the Jamaican counterparts and Rio LIGHT in November 2015.

Q4 FY2016

- Ongoing review of website content and traffic to identify and align with 2017 needs.

Looking Forward

Early in Q1 2017, the SRUC team plans to restructure the website to better highlight the ongoing work under the contract. Deloitte will continue to provide content for the website over the next project year, focusing on the impact from the in-country implementations as well as home office efforts. Moving forward, the Deloitte team will provide updates to the website along with the SRUC quarterly reports in order to ensure the content remains relevant. Other multimedia, such as videos produced through the execution of other SRUC projects, will be added to the website as they are finalized.

CLEER Module Progress: July 2014 - Ongoing

In 2015, Deloitte drafted a new module of the CLEER tool that calculates emission reductions associated with nontechnical loss reduction activities such as the provision of prepayment meters, customer regularization, and energy efficiency. Deloitte's draft tool employs existing primary research to establish a per capita regularization effect. Strengthening this module, Deloitte is sourcing new data related to nontechnical loss interventions and associated energy consumption drops on a per capita basis from utility companies around the world. The end result of this task will be a more rigorous CLEER module informed by a wider variety of case studies.

Q1 FY2016

- Data request was sent to eight utilities: Kenya Power, Empresas Públicas de Medellín, JPS, TATA Power and Light, Eskom, Central Electricity Board, EdM, and RIO Light.
- Received two datasets from participating utilities (TATA Power and Light)

Q2 FY2016

- Raised the concern about the availability of cleanly disaggregated data with its subject matter expert.
- Regularization activities have to be defined at a high level and cannot be broken down into independent interventions (prepaid metering, community engagement, social tariffs, increased community investment, demand side management training, and appliance subsidies).
- Proposed that the tool be delivered with the disaggregated data, but also plan a working session with the USAID GCC and E3 team, who are familiar with the larger CLEER protocol to determine other methods for providing an effective solution.

Q3 FY2016

- No significant activity.

Q4 FY2016

The Deloitte team continued outreach in Q4, resulting in a number of new data points, as well as high potential leads on additional data. New data was sourced primarily from ANEEL, the Brazilian regulator, providing three additional sets of data to add to the tool. Additional responses came from Kenya, Nepal, Bangladesh, and Vietnam but the studies were not viable for the CLEER tool given the lack of detailed regularization information and/or baselined results. Desk research was also conducted by the Deloitte team, which drove additional outreach to ESKOM.

Looking Forward

This work has represented a challenge to the team over the last year, as utilities have been difficult to engage and many utilities do not collect data compliant to the needs to the module. Deloitte has

employed a number of consultants and utility experts to help solicit information from utilities, but there continue to be roadblocks on data collection. The Deloitte team is hoping to finalize the CLEER module early in Q1 2017 with an additional dataset from a country apart of India and Brazil. Additional data on the impact of prepaid metering will also be added to the module to supplement the regularization data currently included. ‘

RATE & SOW APPROVALS

As part of the day-to-day implementation of the contract, the Deloitte team drafts and revises SOWs for all the work ongoing under the contract. The Deloitte team also requests rate approvals for new staff members advising on those SOWS. Table I below describes all of the SOWs approved by the USAID COR to date as well as all the individual rate approval from the USAID CO to date.

Table I: SRUC SOWs, Related Activities, Dates and Resourcing

SOW #	Activity	Date of Technical SOW Approval	Date of Labor/Rate Approval	Total # of Resources on SOW
1	Home Office Support	June 17 2014	July 25, 2014 ([PII], [PII], [PII]) August 29, 2014 ([PII], [PII], [PII], [PII], [PII]) May 17, 2016 ([PII])	8
2	New Module for CLEER	July 10 2014	July 25 2014 ([PII])	4
3	SRUC Video	July 10 2014	July 25 2014 ([PII])	3
4	Haiti CARACOL Plant Review	Sept. 22 2014	Oct 6 2014 ([PII] [additional rate increase in FY2016 Q3], [PII], [PII])	5
5	Electricity Sector Reform Toolkit	Oct. 17 2014	N/A	6
6	Innovation Prize Competition	Oct. 22 2014	Dec 5 2014 ([PII], [PII], [PII], [PII])	7
N/A	IPP Literature Review	Home Office	N/A	2
7	Jamaica Scoping			
8	Smart Utility Website	Dec. 11 2014	Jan 6 2015 ([PII])	4
10	Jamaica Workshop SOW	Feb. 2 2014	March 18, 2015 ([PII])	6
12	Jamaica RED Pilot	May 19, 2015	July 17, 2015 ([PII], [PII]) December 1, 2015 ([PII]) October 5, 2016 ([PII])	3
13	Southern Africa Scoping	May 13, 2015	May 1, 2015 ([PII]) June 26, 2015 ([PII])	6

SOW #	Activity	Date of Technical SOW Approval	Date of Labor/Rate Approval	Total # of Resources on SOW
14	Indonesia Geothermal	June 8, 2015	July 17, 2015 ([PII])	7
15	Y2 Home Office Support	June 16, 2015	July 17, 2015 ([PII], [PII])	8
16	DRC Energy Sector	Aug. 17, 2015	N/A	3
17	New CLEER Module Part 2	Aug. 3, 2015	N/A	2
18	Utility HR Incentive Study	Oct. 2, 2015	<i>Submitted October 13, 2015</i> January 1, 2015 ([PII])	1
19	Indonesia PT PLN Geothermal Phase 2	Aug. 3, 2015	September 24, 2015 (Hirsch) June 29, 2016 ([PII])	2
20	Haiti Caracol Plant Transaction Assistance	Feb. 17, 2016	March 3, 2016 ([PII], [PII]) April 22, 2016 ([PII])	6
21	Mozambique EdM Loss Reduction	Jun. 16, 2016	May 17, 2016 ([PII])	5
22	Utilities of the Future Training		November 1, 2016 ([PII], [PII], [PII], [PII], [PII])	8

DELIVERABLE TABLE

Jamaica In-Country Implementation			
Deliverables	Date Delivered	Status	Uploaded to DEC
Draft Memorandum of Understanding	<ul style="list-style-type: none"> June 2015 	Complete	No, Proprietary
Readyboard Cost-Benefit Analysis (Make or Buy Analysis)	<ul style="list-style-type: none"> 08/12/2015 	Complete	Yes
Draft Readyboard Specification	<ul style="list-style-type: none"> JPS completed specification 06/19/2015, List of Materials delivered 11/06/2015 	Complete	Yes
Procurement Plan (Program to Track & Manage Materials)	<ul style="list-style-type: none"> 3/25/2016 	Complete	Yes
Draft Survey Instrument & Final Report	<ul style="list-style-type: none"> 1/07/2016 	Complete	Yes
Demonstration Project Database	<ul style="list-style-type: none"> Delivered after completion of the post-project survey 	In Progress	No, In Progress
Community Outreach Materials (Engagement Guide, Readyboard FAQs, Energy Efficiency & Safety Tips)	<ul style="list-style-type: none"> To be delivered 11/02/16 	Completed	Yes
Implementation Plan	<ul style="list-style-type: none"> To be delivered 11/02/16 	Completed	Yes
Post-Project Survey	<ul style="list-style-type: none"> To be completed Q3 FY 2017 	In Progress	No, In Progress

Final Report	<ul style="list-style-type: none"> To be completed Q3 FY 2013 	In Progress	No, In Progress
Financial Analysis	<ul style="list-style-type: none"> To be completed Q3 FY 2013 	In Progress	No, In Progress
Indonesia In-Country Implementation			
Phase I Deliverable	Date Delivered	Status	Uploaded to DEC
Work Plan	<ul style="list-style-type: none"> 6/30/2015 7/9/2015 Approved by USAID Updated 10/28/2015 	Complete	Yes
Roadmap	<ul style="list-style-type: none"> 7/22/2015 	Complete	No, Proprietary
Draft Excel-Based Financial Model	<ul style="list-style-type: none"> 10/28/2015 	Complete	No, draft
Draft Report on Best International Practices	<ul style="list-style-type: none"> 10/28/2015 	Complete	Final was Uploaded
Draft Guidelines and Procedures Report for PT PLN	<ul style="list-style-type: none"> 10/16/2015 – initial DRAFT submitted 12/15/2015 – updated version shared in Indonesia with U.S. Treasury 2/14/2016 – PT PLN feedback on technical sections 	Complete	No, draft
Excel-Based Financial Model	<ul style="list-style-type: none"> Delivered to U.S. Treasury (for PT PLN) on 1/26/2016 and 1/31/2016 Plan to deliver final during Training in May 	Complete	No, Proprietary

Training Materials and Case Studies	<ul style="list-style-type: none"> Plan to deliver for review in May 	Complete	Approval from PT PLN and USAID/Indonesia Required
Final Report on Best International Practices	<ul style="list-style-type: none"> 12/22/2015 	Complete	Yes
Final Guidelines and Procedures Report for PT PLN (Including the Templates)	<ul style="list-style-type: none"> Delivered Draft to USAID 4/27/16 Final sent 7/27/16 Model Guide sent 8/8/16 	Complete	Approval from PT PLN and USAID/Indonesia Required
Phase II Deliverable	Date Delivered	Status	Uploaded to DEC
Data Collection and Application of Guidelines	<ul style="list-style-type: none"> Submitted 3/28/16 	Complete	No, Proprietary
Technical Analysis	<ul style="list-style-type: none"> Draft 2/3/2016 Submitted 7/14/16 	Complete	No, Proprietary
Financial Analysis	<ul style="list-style-type: none"> 7/14/16 	Complete	No, Proprietary
Sample Pre-Feasibility Study	<ul style="list-style-type: none"> 7/19/16 	Complete	No, Proprietary
Risk Allocation Tools and Framework for PT PLN's reference in finalizing its counter proposal as outlined in the Guidelines	<ul style="list-style-type: none"> 4/30/2016 	Complete	No, Proprietary

Final technical presentation (or memo) on tariff renegotiation process recommendations	<ul style="list-style-type: none"> Draft 2/3/2016 Presentation to USAID In country trip, June 2016 	Completed	No, Proprietary
Mozambique In-Country Implementation			
Deliverable	Date Delivered	Status	Uploaded to DEC
Work Plan	<ul style="list-style-type: none"> Submitted 8/24/16 	Complete	Yes
Commercial Metering Strategy Concept Paper	<ul style="list-style-type: none"> To be delivered 10/12/2016 	In progress	Yes
Commercial Metering Strategy Concept Paper Slide Deck	<ul style="list-style-type: none"> To be delivered 10/14/2016 	In progress	Yes
Final Commercial Metering Strategy and Road Map Report	<ul style="list-style-type: none"> To be delivered 01/15/2016 	In progress	No, In Progress
Final Meter Testing Laboratory Road Map Report	<ul style="list-style-type: none"> To be delivered 01/15/2016 	In progress	No, In Progress
Haiti In-Country Implementation			
Management Deliverable	Date Delivered	Status	Uploaded to DEC
Work Plan	<ul style="list-style-type: none"> Delivered 4/22/2016 	Complete	Yes
Monthly Progress Reports	<ul style="list-style-type: none"> Ongoing - delivered monthly 	Ongoing	No
Component I	Date Delivered	Status	Uploaded to DEC

Updated Financial Model	<ul style="list-style-type: none"> Final model submitted June 2016 	Complete	No, Proprietary
Updated Cost of Service Study	<ul style="list-style-type: none"> Final study submitted June 2016 	Complete	No, Proprietary
CPU Asset Register	<ul style="list-style-type: none"> Submitted June 2016 	Complete	No, Proprietary
Assessment of CPU's Expansion Options	<ul style="list-style-type: none"> Submitted June 2016 	Complete	No, Proprietary
Comprehensive Feasibility Study	<ul style="list-style-type: none"> Final study submitted November 2016. USAID Comments received, translating final version to French. 	Complete	Yes
Component II	Date Delivered	Status	Uploaded to DEC
PPP model recommendation (PPT)	<ul style="list-style-type: none"> Submitted October 2016 	Complete	Yes
PPP best practices report	<ul style="list-style-type: none"> Plan to Deliver draft to USAID in Early December 	In Progress	No, In Progress
Example tender documentation and Ranking criteria, and tender support	<ul style="list-style-type: none"> Planned for December 2016 	In Progress	No, In Progress
Guidelines and Recommendations for conducting a competitive procurement in Haiti	<ul style="list-style-type: none"> Planned for December – January 2016 	In Progress	No, In Progress
Training for GoH Representatives	<ul style="list-style-type: none"> Ongoing August 2016 – May 2017 	In Progress	No, In Progress
Examples of leading practice in PPP contracts	<ul style="list-style-type: none"> Planned for January 2017 	In Progress	No, In Progress

Regulatory Gap Analysis for the DRC

Deliverables	Date Delivered	Status	Uploaded to DEC
Initial Desk Review of the Electricity Code, the draft ADEPI Law, and the two decrees of the Prime Minister	<ul style="list-style-type: none"> 10/07/2015 	Complete	Yes
Gap Analysis of the Electricity Code, the draft ADEPI Law, and the two legal decrees in English and French	<ul style="list-style-type: none"> 10/22/2015 	Complete	Yes

Utilities of the Future Training

Deliverables	Date Delivered	Status	Uploaded to DEC
Utilities of the Future Training Agenda	<ul style="list-style-type: none"> 7/25/2016 	Complete	Yes
Utilities Training Preparation Materials	<ul style="list-style-type: none"> 12/09/16 	Complete	No, Proprietary
Utilities Trainings	<ul style="list-style-type: none"> 12/13/16 	Complete	Yes
Post-Training Lessons Learned Report	<ul style="list-style-type: none"> To be delivered January 2017 		No, In Progress

HR Incentive Study

Deliverables	Date Delivered	Status	Uploaded to DEC
Kickoff	<ul style="list-style-type: none"> Kickoff meeting held 11/2/2015 	Complete	No
Work Plan	<ul style="list-style-type: none"> Workplan Submitted: 11/13/2015 	Complete	Yes

Pool of potential utilities for interview	<ul style="list-style-type: none"> Submitted: 11/27/2015 	Complete	No
Proposed methodology for down selecting	<ul style="list-style-type: none"> Submitted: 11/27/2015 	Complete	Yes
Call Plan for each SME for the target utilities	<ul style="list-style-type: none"> Submitted: 12/4/2015 	Complete	Yes
E-Mailing document to send to each utility	<ul style="list-style-type: none"> Submitted: 12/4/2015 	Complete	Yes
Draft Outline of Report on Approaches to Employee Incentivization	<ul style="list-style-type: none"> Submitted: 1/29/2016 	Complete	No
Draft Report on Approaches to Employee Incentivization	<ul style="list-style-type: none"> Submitted: 12/5/2016 	Complete	No
Summaries of Interviews	<ul style="list-style-type: none"> Included in draft report submitted 12/5/2016 	Complete	No
Final Report on Approaches to Employee Incentivization	<ul style="list-style-type: none"> Planned for 1/10/2017, pending USAID and other feedback 	In Progress	No, In Progress
Presentation Material/Slide Deck	<ul style="list-style-type: none"> Planned for 1/10/2017 	In Progress	No, In Progress
List of Potential Outlets	<ul style="list-style-type: none"> Planned for 1/10/2017 	In Progress	No, In Progress
Smart Utilities Website			
Deliverables	Date Delivered	Status	Uploaded to DEC
Content Updates	<ul style="list-style-type: none"> Ongoing 	Ongoing	No, In Progress

CLEER Module

Deliverables	Date Delivered	Status	Uploaded to DEC
2-3 page summary of new data identified by Ms. Smyser's research	<ul style="list-style-type: none">3/25/2016	Complete	No, Proprietary
Revised CLEER module in Excel format	<ul style="list-style-type: none">Planned for January 2017	In Progress	No, In Progress

MONITORING AND EVALUATION

Deloitte Monitoring and Evaluation Framework for SRUC Project

Measurement Indicators: Standard Foreign Assistance Indicators SRUC Program Indicators						
Standard Foreign Assistance Indicator	Description & Unit of Measurement	Data Source	Reporting Frequency	Expectations for FY2016	Progress in FY2016	Cumulative Progress to Date from Contract Start
1. EG.7.1-1 Number of beneficiaries with improved energy services due to USG assistance	Number of people	Beneficiary utility coverage areas; utility descriptions of population size affected by SRUC programming	Quarterly, Annually, Final	1600	14 ²	28
2. EG.7.2-1 Amount of investment mobilized (in USD) for energy projects as supported by USG assistance	U.S. Dollars	Partnership statements; letters of commitments	Quarterly, Annually, Final	\$300,000	\$100,000 ³	\$100,000 ⁴
3. EG.7.3-2 Number of people trained in technical energy fields supported by USG assistance	Person-hours (also captured as number of people)	Training activity final schedules; attendance from trainings	Quarterly, Annually, Final	N/A ⁵	43	N/A ⁵
Males	Number of Persons Trained			N/A ⁵	21	N/A ⁵
Females	Number of Persons Trained			N/A ⁵	22	N/A ⁵
4. EG.12-6 Greenhouse gas (GHG) emissions, estimated in metric tons of CO ₂ e, reduced, sequestered, or avoided through clean energy as supported by USG assistance	Number of metric tons CO ₂ e for reporting period	Estimate based on changes made to generation. Original project/program level information used in line with CLEER protocol and best practices.	Annually, Final	605.24 tCO ₂ e	322 tCO ₂ e ⁶	322 tCO ₂ e
5. EG.12-4 Amount of investment mobilized (in USD) for clean energy as supported by USG assistance	U.S. Dollars (USD)	Financial commitments from stakeholders	Annually, Final	\$1.9B	\$1.76B ⁷	1.76B

² 10 Readyboards were delivered in Q4, and households average ~2.75 individuals per household, split results with Jamaica mission at 50%

³ Cost of the infrastructure build in Majesty Gardens included. Significant additional amount of private funding mobilized, specific amount not available due to NDA

⁴ Significant amount of private funding mobilized, specific amount not available due to NDA. 50% results share with USAID Jamaica Mission (Total \$200,000)

⁵ Per request of USAID the gender disaggregation by number of persons trained was included in this annual report, but was not assigned expectations or tracked in prior reporting periods.

⁶ Anticipated 261.34 tCO₂e for 420 readyboards divided by only 10/420 having been delivered in Q4 equals 6.22 tCO₂e. Based on the CLEER tool, 440 MW of geothermal comes online as a result, 318.56 is the amount of tCO₂e avoided.

⁷ Assuming \$4m a megawatt and an estimate of 440 MW that comes online (see note below) this is the amount of funding that would on average be deployed for developing the geothermal power in Indonesia from these renegotiations.

Measurement Indicators: Standard Foreign Assistance Indicators SRUC Program Indicators

Standard Foreign Assistance Indicator	Description & Unit of Measurement	Data Source	Reporting Frequency	Expectations for FY2016	Progress in FY2016	Cumulative Progress to Date from Contract Start
6. EG.12-5 Clean energy generation capacity supported by USG assistance that has achieved financial closure	Number of MWs	Recipient utility records of generation portfolio	Quarterly, Annually, Final	475 MW	440 MW ⁸	440 MW
7. EG.7.3-1 Number of laws, policies, regulations, or standards to enhance energy sector governance formally proposed, adopted, or implemented as supported by USG assistance	Number of policy reforms \ laws \ regulations \ administrative procedures	Responses from counterpart agencies and governments	Quarterly, Annually, Final	3	5 ⁹	5
8. Number of original publications on SRUC released to public (Custom Indicator)	Number of published pieces	Articles, web sites, periodicals, conference proceedings, etc.	Quarterly, Annually, Final	12 ¹⁰	5 ¹⁰	5 ¹⁰

M&E Discussion

The M&E for the SRUC Program in FY2016 was based on a number of assumptions about the scope of programs, timelines for delivery, as well as:

- EG.7.1-1: This metric was not met due to the delay in the procurement discussed earlier. Additionally, the original assumption of four people a household (Jamaica Social Development Corporation, Annual Survey, January 2009) turned out to be elevated for the Majesty Gardens community, which has around 2.75 persons per household given the survey conducted under the project. Given this new information, it is anticipated that 1,100 beneficiaries will be the subject of the support from the readyboards.
- EG.12-4: This indicator was not met due to the delayed delivery of the readyboards, and the lower-than-expected capacity brought to financial close in Indonesia. These numbers will likely increase to account for project successes in future quarters.

⁸ The guidelines has been applied for geothermal tariff pricing renegotiation, especially for PT. Supreme Energy Muara Laboh, 220 MW in Solok Selatan, West Sumatra and PT. Supreme Energy Rantau Dedap, 220 MW in Muara Enim, South Sumatra. This number is expected to reach 1.9GW at the conclusion of all renegotiations.

⁹ Includes 1 Recommended Tariff & Service Area Reform from USAID to GoH during Q4 of Haiti Activity

¹⁰Indicator will not be reported on in future publications.