



SOUTHERN AFRICA ENERGY PROGRAM EVALUATION REPORT

October 19, 2022

DISCLAIMER: This publication was produced at the request of the United States Agency for International Development. It was prepared independently by Social Impact, Inc.. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

CONTENTS

Acronyms	iii
Executive Summary	iv
Introduction	i
Design and Methodology	2
Evaluation Questions.....	2
Methodology.....	2
Data Analysis.....	5
Ethical Considerations.....	6
Gender and Social Inclusion Plan.....	6
Limitations and Biases.....	6
Findings and Conclusions	9
EQ1: To what extent was SAEP able to meet its purpose and related outputs and outcomes (MWs, Connections, Enabling Environment)?.....	9
EQ2: What enabled and/or hindered achievements, and how were any hindrances addressed?.....	11
EQ3: How did the program design, target setting, and operational decision-making shape and contribute to the achievements of the Program?.....	16
EQ4: What were the benefits and drawbacks of Power Africa setting the connections and MW targets for the program?.....	22
EQ5: In which countries did SAEP have the most success versus the least success, and why?	28
EQ6: How is the SAEP perceived and valued by the stakeholders of the Program?	30
Recommendations	32
Annex 1: Statement of Work	35
Annex 2: Bibliography.....	38
Annex 3: Informed Consent Statements	39
Annex 4: Data Collection Instruments.....	41
Annex 5: Conflict of Interest Disclosures.....	59
Annex 6: Evaluation Design Report	66

TABLES

Table 1: Evaluation Design Matrix.....	3
Table 2: Survey Sample Size by Respondent Type	4
Table 3: Relevant EQs for Each Respondent Type	4
Table 4: SAEP Contributions to the Sector	31

FIGURES

Figure 1: SAEP Actuals vs. Targets for Key Indicators.....	v
Figure 2: Countries Where SAEP Found the Most and Least Success	vii
Figure 3: Survey Respondent Perceptions of SAEP's Impact.....	vii
Figure 4: Original SAEP Design Summary	i
Figure 5: Total Respondents by Respondent Type.....	5
Figure 6: Total Respondents by Gender	5
Figure 7: Total Respondents by Country.....	5
Figure 8: Potential Partner Respondents and Organizations by Country.....	7
Figure 9: Actuals vs. Targets for Key SAEP Indicators.....	9
Figure 10: Seamstress using SAEP-supported off-grid solar lights.	19
Figure 11: Wind turbines from an SAEP partner	24
Figure 12: SAEP-supported Solar Home System Kick-Starter Program in Malawi.....	28
Figure 13: Satisfaction with SAEP by Respondent Type	32

ACRONYMS

COVID-19	Novel Coronavirus of 2019
ET	Evaluation Team
EQ	Evaluation Questions
GESI	Gender Equality and Social Inclusion
IP	Implementing Partner
KII	Key Informant Interview
MEL	Monitoring, Evaluation, and Learning
MW	Megawatt
PAIS	Power Africa Information System
PATT	Power Africa Tracing Tool
PMEP	Performance Management & Evaluation Plan
POC	Point of Contact
RFP	Request for Proposals
SADC	Southern Africa Development Community
SAEP	Southern Africa Energy Program
SAPP	Southern Africa Power Pool
SOO	Statement of Objectives
SI	Social Impact
USAID	United States Agency for International Development
USG	United States Government

EXECUTIVE SUMMARY

CONTEXT

Power Africa is a United States government (USG)-led partnership that launched in 2013. By 2030, Power Africa aims to achieve 30,000 megawatts (MW) of new generation capacity, 60 million new power connections for homes and businesses, and the unlocking of energy sector potential by improving the enabling environment.¹ The Southern African Energy Program (SAEP), a flagship Power Africa initiative funded by the United States Agency for International Development (USAID), aims to increase investment in electricity supply and access in Southern Africa by strengthening regulation; improving planning, procurement, and management of electricity trade; demonstrating and scaling energy efficiency technologies and practices; and providing capacity building to institutions and human resources.

PURPOSE

This evaluation provides USAID/Southern Africa and the USAID Power Africa team with feedback regarding SAEP successes, challenges, and areas for improvement, which could inform future programming in the energy sector and support programmatic adjustments. Other potential evaluation users include implementing partners (IPs), regional organizations, national ministries, private sector partners, and regulators, who can learn from SAEP's work.

EVALUATION METHODOLOGY

The SAEP evaluation addressed six core evaluation questions (EQs):

1. To what extent was SAEP able to meet its purpose, related outputs, and outcomes?
2. What enabled and/or hindered achievements, and how were any hindrances addressed (including but not limited to COVID-19 [*novel coronavirus of 2019*])?
3. How did the program design, target setting, and operational decision-making shape and contribute to the achievements of the program?
4. What were the benefits and drawbacks of Power Africa setting the connections and MW targets for the program?
5. In which countries did SAEP have the most success versus the least success, and why?
6. How is the SAEP perceived and valued by the stakeholders of the program?

To answer these EQs, the evaluation team (ET) employed a mixed-method design across SAEP's ten countries. On the qualitative side, the ET conducted a desk review of relevant documents and key informant interviews (KIIs). On the quantitative side, the ET administered a short, online survey and reviewed the Power Africa Information System (PAIS), Power Africa Tracking Tool (PATT), and program monitoring data. The Social Impact (SI) team conducted remote data collection to reduce potential risks related to COVID-19 and mitigate logistical constraints. As a result of small sample sizes, the ET reports findings for all SAEP partner respondents together rather than disaggregating the findings by type of partner (government, utility, etc.). Across the EQs, all respondent groups tended to provide similar feedback. Thus, unless otherwise noted, each finding is consistent across respondent groups (IPs, USAID, and partner organizations).

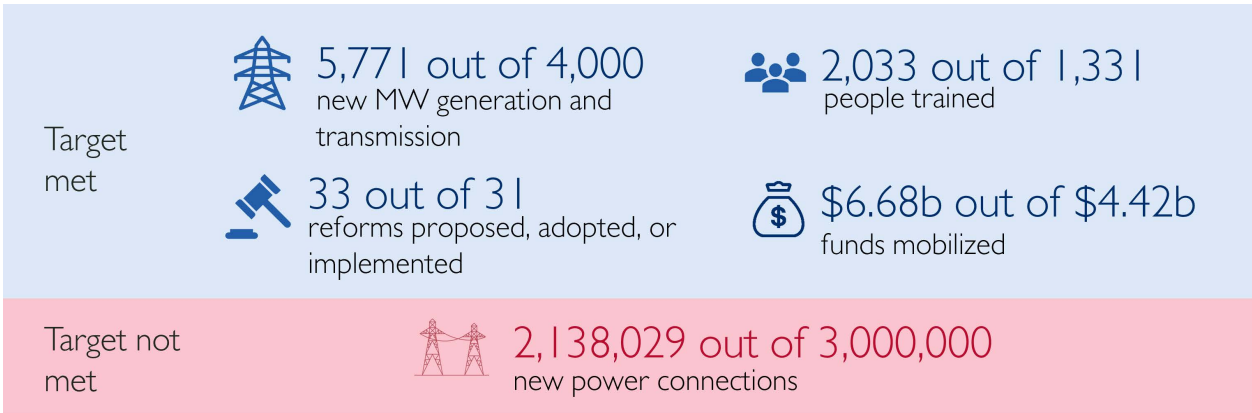
¹ USAID. 2022. Power Africa Website. <https://www.usaid.gov/powerafrica>

FINDINGS AND CONCLUSIONS

EQ1: TO WHAT EXTENT WAS SAEP ABLE TO MEET ITS PURPOSE, RELATED OUTPUTS, AND OUTCOMES?

SAEP met most of its performance targets, including for new generation and transmission. However, SAEP has not yet met its target of 3 million new electricity connections. Given the extension of the period of performance to June 2023, achieving this target remains possible. In interviews, respondents shared largely positive feedback regarding the results, feedback that aligned with the quantitative results tracked in the performance indicators. Despite SAEP’s focus on new generation, transmission, and connections, however, more respondents noted SAEP’s success in building capacity (mentioned in 27 interviews) than they did the generation, transmission, or connection outcomes (17, 11, and 13 interviews, respectively), suggesting stakeholders viewed SAEP’s capacity building work as particularly beneficial.

Figure 1: SAEP Actuals vs. Targets for Key Indicators (as of June 2023)



EQ2: WHAT ENABLED AND/OR HINDERED ACHIEVEMENTS, AND HOW WERE ANY HINDRANCES ADDRESSED?

Respondents shared numerous factors enabling and/or hindering SAEP achievements. In addition to the overarching impact of COVID-19, these factors fell into three main categories: SAEP-level factors, partner-level factors, and context-level factors (in decreasing level of importance).

COVID-19 posed a challenge to SAEP implementation through delays and slower operations (21 interviews) and negative effects from travel restrictions (19 interviews). SAEP adapted using virtual approaches (19 interviews), though many stakeholders (22 interviews) felt that in-person activities were more effective.

SAEP-level factors centered on SAEP’s technical capabilities across outcome areas (25 interviews) and the strength of their relationships with partner organizations (23 interviews), both of which most respondents viewed as SAEP strengths that enabled program achievements.

Partner-level factors, primarily noted by IP and USAID staff, centered on several interrelated factors: partner organizations’ willingness to engage with SAEP (19 interviews), their buy-in to the program’s activities (21 interviews), and the extent to which SAEP’s priorities aligned with those of its partners (14 interviews). Where SAEP and stakeholder priorities align, the ET found partners more likely to engage and more likely to have strong buy-in, all of which support strong success. Insufficient alignment and buy-in is a barrier to success, demonstrating the importance of meeting local needs to improve success. Given the large number of

SAEP countries and partners, these partner-level factors acted equally as often as drivers of success as hindrances, based on respondent feedback.

Context-level factors centered on political influences (12 interviews) and cultural and linguistic differences (ten and nine interviews, respectively). The former included large political events such as elections, political unrest, and other political changes, which fell outside of SAEP's control. Respondents noted cases where SAEP's response to cultural and linguistic differences bolstered success and where it remained a barrier, suggesting room for improvement.

EQ3: HOW DID THE PROGRAM DESIGN, TARGET SETTING, AND OPERATIONAL DECISION-MAKING SHAPE AND CONTRIBUTE TO THE ACHIEVEMENTS OF THE PROGRAM?

The ET examined several components of program design and implementation to answer this EQ, including SAEP's strengths and weaknesses, the effectiveness of decision making, SAEP's approach to gender equality and social inclusion (GESI), and respondents' recommendations for future programs. Overall, the SAEP design and implementation approach contributed positively to program achievements. SAEP strengths included strong staff (24 interviews), effective communication (23 interviews), and a flexible and adaptable approach to implementation (11 interviews). Weaknesses included staffing concerns (14 interviews), such as issues with specific staff, staff turnover, and staff continuity with partners, and insufficient localization and local input into design (12 interviews).

Overall, respondents applauded the SAEP team for its effective communication and decision-making processes (13 interviews). On the other hand, respondents noted that USAID's decision-making processes often acted as a hindrance to effective implementation (11 interviews); in particular, respondents highlighted negative impacts from frequent requests from USAID Offices and Missions to add activities or partners into SAEP's scope, which pulled SAEP staff in multiple, sometimes competing, directions; in some cases, these requests did not align well with SAEP's core objectives.

SAEP's GESI approach focused primarily on gender and not on other social groups, according to respondents (20 interviews). IP respondents noted GESI-related benefits related to the involvement of women in the sector (eight interviews) and stakeholder engagement (six interviews). Respondents felt that the effects were largely superficial (seven interviews), in part due to pervasive challenges within the male-dominated sector (12 interviews).

When asked for future programming recommendations, respondents shared a variety of technical and design suggestions. On the technical side, respondents often suggested that future programs continue to focus on the same core areas as SAEP such as new connections (29 interviews), capacity building (21 interviews), generation (19 interviews), transmission (16 interviews), and institutional strengthening (11 interviews). In terms of design, respondents recommended that future programming include more, early input on program design and planned activities from local stakeholders (24 interviews), increase the utilization of local experts (12 interviews), and address the funding/financing gap in the power sector (19 interviews).

EQ4: WHAT WERE THE BENEFITS AND DRAWBACKS OF POWER AFRICA SETTING THE CONNECTIONS AND MW TARGETS FOR THE PROGRAM?

Only four IP or USAID staff recalled how SAEP's original performance indicators, in particular the fee indicators, were selected or how the targets were set. Thus, the ET relied heavily on document review to answer this question, including the original SAEP request for proposals (RFP) and technical portions of the SAEP contract. The RFP shows that USAID set minimum requirements for bidders of 3 million new connections and 1,000MW of new, renewable energy generation capacity. In its proposal, Deloitte both

increased and modified the latter to reflect 4,000MW of generation and transmission capacity. Per the RFP requirements, Deloitte proposed the list of fee indicators. The fee indicators ultimately drove SAEP's focus given the financial incentive to reach the targets.

Overall, both USAID and IP respondents regarded USAID's use of fee indicators positively. The fee indicators helped the SAEP team remain focused (five interviews) and pushed them toward ambitious goals (five interviews). On the downside, however, they voiced several concerns with the indicators and targets, including the targets' unrealistic nature (particularly the new connections target) (11 interviews). Concerns included how attributable the MWs and new connections were to the SAEP-provided technical assistance (seven interviews), the timelines required to move from the direct benefits of SAEP's technical assistance to longer-term outcomes like generation, transmission, and connections (five interviews), insufficient local input and/or calibration of indicator selection and target setting to local needs (four interviews), and how the regional targets led SAEP to focus on the largest projects (and therefore the largest markets) even when smaller, beneficial projects existed (four interviews).

EQ5: IN WHICH COUNTRIES DID SAEP HAVE THE MOST SUCCESS VERSUS THE LEAST SUCCESS, AND WHY?

According to respondents, SAEP achieved the most success, as defined by the respondents, in Malawi and Mozambique (15 and 12 interviews, respectively) and the least success in Madagascar (six interviews), Lesotho (four interviews), Namibia, Botswana, and Eswatini (three interviews each). In addition, Zambia posed an interesting case as respondents included it on both the most (nine interviews) and least (three interviews) successful lists, due to SAEP's early, successful work in the country followed by significant political changes that hindered SAEP's later work in the country. The factors driving success mirrored those outlined in EQ2 such as alignment of priorities between SAEP and its partners, stakeholder buy-in, and the strength of relationships. For lack of successes in Lesotho, Botswana, Eswatini, and Namibia, respondents noted that the small size of the market in these countries acted as a barrier, in line with the EQ4 finding that larger projects received more attention.

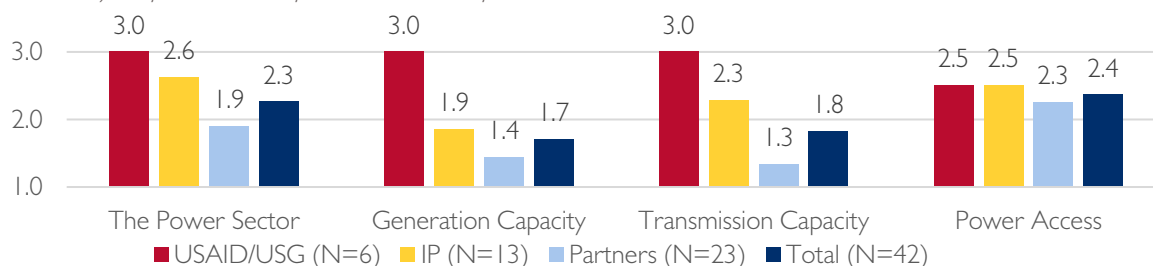
Figure 2: Countries Where SAEP Found the Most and Least Success



EQ6: HOW IS SAEP PERCEIVED AND VALUED BY THE STAKEHOLDERS OF THE PROGRAM?

Overall, stakeholders provided positive feedback regarding SAEP. They were satisfied with SAEP's services and believed that SAEP positively affected the power sector. Across stakeholder groups, USAID respondents provided the most positive feedback whereas SAEP partners provided the least positive feedback.

Figure 3: Survey Respondent Perceptions of SAEP's Impact



Interestingly, even though SAEP has yet to achieve its performance targets for new connections, stakeholders valued SAEP's impact on power access more highly than any other area. Meanwhile, feedback regarding SAEP's impact on generation and transmission received the lowest scores, even though SAEP met those targets. This dichotomy likely relates to stakeholder feedback under EQ4 that the new connection target was unrealistic and challenges linking SAEP's technical assistance with generation and transmission targets.

RECOMMENDATIONS

Based on the findings and conclusions of this evaluation, the ET recommends the following for USAID as it proceeds with designing the SAEP follow-on program:

1. **USAID should ensure the localization of future programs.** Localization involves active engagement with local stakeholders throughout the project life cycle so that the activities meet the needs of those it is intended to help. Though both USAID and Deloitte played parts in how localization occurred under SAEP, for future programming, USAID should begin the local engagement process early to ensure that local priorities and needs are taken into account even at the proposal stage. If engagement could not begin before the solicitation phase, then USAID should maintain sufficient flexibility to allow for anticipated partners to influence the design and implementation approach after award. Additionally, USAID should ensure that future programs are staffed in a way that addresses the different cultural and linguistic needs across the region, such as improved engagement of local staff and experts. *(The ET developed this recommendation based on localization findings from EQ2, EQ3, and EQ4.)*
2. **USAID should ensure that future indicator selection and target setting are based on clear criteria.** Given that the fee indicators drive program focus, USAID should ensure that the indicators represent the intended focus of future programs and that they link clearly with anticipated interventions. Additionally, the targets should have clear justifications based on realistic criteria that incorporate local input, needs, and priorities. This would ensure ambitious, yet realistic, targets given regional realities. USAID should consider ways to balance regional flexibility with ensuring greater distribution of benefits across countries, regardless of the size of the power market. *(The ET developed this recommendation based on indicator and target-related findings from EQ4.)*
3. **USAID should ensure that future programming improve on the GESI approach.** To ensure a cohesive GESI approach, USAID should first define its GESI goals for a power activity such as SAEP. They can then hold IPs accountable to that vision. *(The ET developed this recommendation based on GESI findings from EQ3.)*
4. **USAID should ensure that future programming addresses the financing gap in the power sector.** Though USAID could consider directly funding power investments, future programs could also address the financing gap via other means. Such programming should be based on a thorough study of the primary constraints of power sector financing in Southern Africa that identifies specialized programming requirements, such as credit guarantees or other lending de-risking mechanisms, to meet the needs of both credit seekers and financiers. *(The ET developed this recommendation based on design findings from EQ3.)*

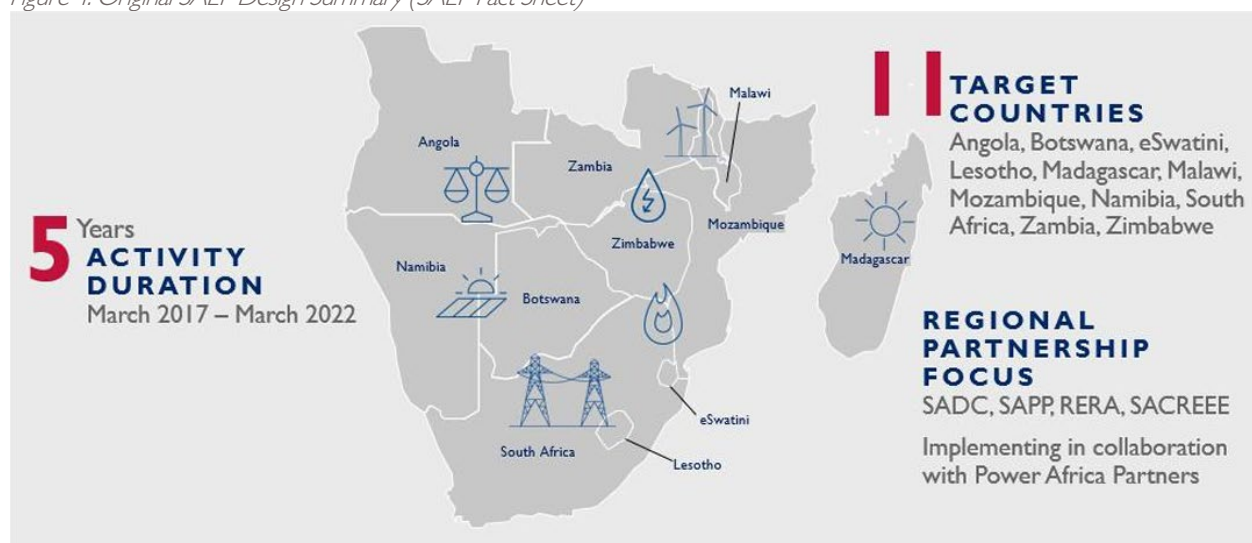
INTRODUCTION

CONTEXT

Power Africa is a United States government (USG)-led partnership that launched in 2013. By 2030, Power Africa aims to add 30,000 megawatts (MW) of new generation capacity, 60 million new power connections for homes and businesses, and the unlocking of energy sector potential by improving the enabling environment.²

A lack of adequate and reliable power in the Southern Africa region limits competitiveness and affects the livelihoods and health of the population, particularly those living outside urban areas. The five-year Southern African Energy Program (SAEP), a flagship program funded through a partnership with Power Africa and USAID/Southern Africa, aims to increase investment in electricity supply and access in Southern Africa by strengthening the regional enabling environment and facilitating power transactions. SAEP, implemented by Deloitte, launched in 2017 with activities in ten countries: Angola, Botswana, Eswatini, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, and Zambia.³ Working across all of these countries enabled SAEP to take a regional approach to addressing sector needs. In 2022, SAEP received a one-year extension, making it a six-year program expected to end in June 2023.

Figure 4: Original SAEP Design Summary (SAEP Fact Sheet)



Though SAEP aims to increase generation and access to electricity, SAEP does not directly fund major infrastructure investments. Rather, SAEP works to incentivize, facilitate, and enable investments through technical assistance, policy reform, capacity development, and transaction facilitation. Across the ten partner countries, SAEP's work ebbed and flowed, with some countries receiving more support in some years than in others.

To identify interventions during the annual work planning process, the SAEP team meets with key stakeholders in each partner country to discuss potential interventions and ways in which SAEP could

² USAID. 2022. Power Africa Website. <https://www.usaid.gov/powerafrica>.

³ SAEP originally targeted Zimbabwe as well, but ultimately did not implement activities in the country.

support their electrification, generation, and other sectoral improvement goals. SAEP's flexible and adaptable approach to implementation involves iterative changes and adaptations to the work plan.

SAEP's theory of change states that by strengthening regulation; improving planning, procurement, and management of electricity trade; demonstrating and scaling energy efficiency technologies and practices; and providing capacity building to institutions and human resources for energy sector management, SAEP aims to increase investment in electricity supply and access in Southern Africa. SAEP's support works to address reliance on electricity/energy imports. Long-term program targets include 3,000MW of new power generation, 1,000MW of new transmission capacity, and 3 million new connections (on- and off-grid).

EVALUATION PURPOSE AND AUDIENCE

The purpose of this evaluation is to provide USAID/Southern Africa and the USAID Power Africa team with feedback and recommendations for improving the SAEP activity and informing future programming in the energy sector. This evaluation equips USAID teams with evidence to support programmatic adjustments, inform future design efforts and strategies, and make informed decisions. Other potential users of the evaluation include implementers, regional organizations, national ministries, private sector partners, and regulators, who could adapt lessons learned from SAEP.

Commissioned by Power Africa and contracted via USAID/Southern Africa, Social Impact (SI) was selected to conduct a utilization-focused, mixed methods evaluation with an emphasis on broad stakeholder engagement to promote its use and evidence-based decision making. SI's technical design kept quality, utilization, and feasibility firmly in focus while ensuring broad coverage of all ten SAEP countries.

DESIGN AND METHODOLOGY

EVALUATION QUESTIONS

The Evaluation Team (ET) worked closely with USAID to refine and finalize the Evaluation Questions (EQs) in order to ensure mutual understanding and maximize utility and learning:

1. To what extent was SAEP able to meet its purpose, related outputs, and outcomes (MWs, Connections, Enabling Environment)?
2. What enabled and/or hindered achievements, and how were any hindrances addressed (including but not limited to COVID-19)? Provide specific examples.
3. How did the program design, target setting, and operational decision-making shape and contribute to the achievements of the program?
4. What were the benefits and drawbacks of Power Africa setting the connections and MW targets for the program?
5. In which countries did SAEP have the most success versus the least success, and why? (focus on off-grid interventions; unlocking financing for private sector companies; improving the enabling environment)
6. How is the SAEP perceived and valued by the stakeholders of the program?

METHODOLOGY

The SAEP evaluation relied on multiple methods to obtain data across the ten active SAEP countries. On the qualitative side, the ET conducted both a desk review of relevant documents and literature and key informant interviews (KIIs). On the quantitative side, the ET carried out a systematic review of the Power

Africa Information System (PAIS) and Power Africa Tracking Tool (PATT) as well as program monitoring data and administered a short, online survey that allowed key stakeholders across the region to have their perspectives heard. To reduce potential risks related to COVID-19, the ET only conducted remote data collection. The following sections describe SI's mixed methods approach to the evaluation, as outlined in Table 1. Annex 6: Evaluation Design Report provides the ET's full design report and methodology.

Table 1: Evaluation Design Matrix

EVALUATION QUESTIONS	DOCUMENT/ DESK REVIEW	SECONDARY DATA	QUANTITATIVE SURVEY	KIIS
Question 1: To what extent was SAEP able to meet its purpose and related outputs and outcomes (MWs, Connections, Enabling Environment)?	×	×	×	×
Question 2: What enabled and/or hindered achievements, and how were any hindrances addressed?	×		×	×
Question 3: How did the program design, target setting, and operational decision-making shape and contribute to the achievements of the Program?	×	×	×	×
Question 4: What were the benefits and drawbacks of Power Africa setting the connections and MW targets for the program?	×		×	×
Question 5: In which countries did SAEP have the most success versus the least success, and why?	×	×	×	×
Question 6: How is the SAEP perceived and valued by the stakeholders of the Program?			×	×

Document/Desk Review. The ET conducted a systematic document/desk review to understand the availability and quality of secondary data in each of the ten SAEP countries and the relationship of that data to the evaluation questions, as well as to identify key issues and constraints for further examination in primary data collection. The desk review included SAEP background documents, including quarterly and annual reports, programmatic documents, and relevant stakeholder documentation (see Annex 2: Bibliography for a full list of reviewed documents).

Secondary Data. The ET reviewed PAIS, PATT, and SAEP monitoring data. The ET used data from the PAIS to understand SAEP partners, commitments (and progress toward them), private sector engagement, and a broad range of other work completed through Power Africa. Data from the PATT provided insights on power transactions, the energy mix, and generation capacity. As in the document/desk review, the ET examined data for trends over time and to better understand both progress and challenges. The ET found these databases particularly useful in answering EQ 1 on SAEP's ability to meet its purpose and objectives.

Quantitative Survey. The SI team implemented a short, online quantitative survey to assess achievements, benefits, successes, and challenges during implementation. This survey enabled rapid collection of key perspectives from a broad set of stakeholders (across the same stakeholder groups noted below for the KIIs) in the ten active SAEP countries that may not have been otherwise reached through interviews. The survey tool contained questions to better understand perceptions of SAEP implementation, achievements, and challenges, with a particular focus on EQs 1, 2, 5, and 6. The data complemented the secondary data and document/desk review, and the ET triangulated it with the more in-depth interview data. Table 2 outlines the final sample size.

Table 2: Survey Sample Size by Respondent Type

RESPONDENT TYPE	NUMBER OF RESPONDENTS
USAID/United States Government Staff	6
Implementing Partner Staff	13
Utility Representatives	4
Partner Government Representatives	3
Regional Entities	1
Private Sector Actors	8
Other Donors	7
Total	42

Key Informant Interviews. The SI team held KIIs with a sample of stakeholders to provide context and document stakeholder experiences related to SAEP's interventions. Employing a semi-structured interview approach, KIIs included questions regarding stakeholder experiences with program implementation and perceived program effects, including respective contributions of different activities to USAID's results. The ET tailored interview protocols to the different stakeholder types to fit their roles. KIIs lasted approximately 60 minutes for all partner organizations and up to 120 minutes with USAID and IP respondents. Targeted stakeholder groups for KIIs included USAID and embassy staff, IP staff, utilities, regulators, government representatives, representatives of other donors, and private sector actors. The ET selected respondents purposively across countries and stakeholder types to include as broad a spectrum of experiences as possible.

Table 3 summarizes how the ET used feedback from each type of respondent to answer each of the EQs, based on each groups' relevant knowledge and familiarity with SAEP programming:

Table 3: Relevant EQs for Each Respondent Type

RESPONDENT TYPE	EQ1	EQ2	EQ3	EQ4	EQ5	EQ6
USAID/USG Staff	×	×	×	×	×	×
IP Staff	×	×	×	×	×	×
Utility Representatives	×	×				×
Regulator Representatives	×	×				×
Partner Government Representatives	×	×				×
Regional Entities	×	×			×	×
Private Sector Actors	×	×				×
Other Donors	×	×				×

The figures below outline the final respondent sample sizes, distributed across the ten active SAEP countries and stakeholder types (please refer to the Limitations and Biases section for additional information regarding sampling challenges).

Figure 5: Total Respondents by Respondent Type (n=79)

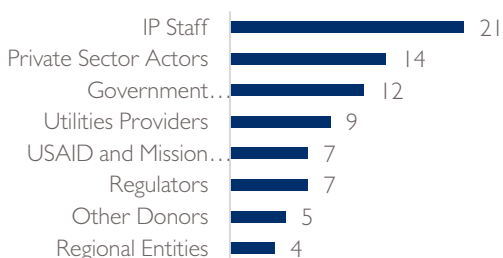


Figure 7: Total Respondents by Country (n=79)

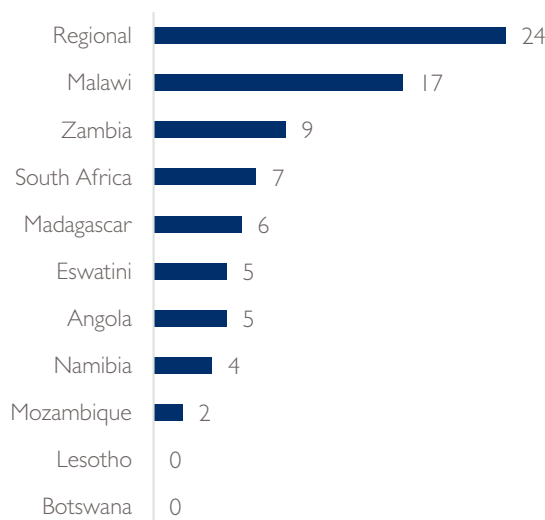
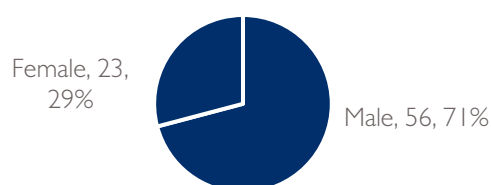


Figure 6: Total Respondents by Gender (n=79)



DATA ANALYSIS

The ET analyzed data through an iterative process during and after the data collection. Triangulation of the desk review documents, quantitative survey, and the KII data allowed the ET to assess trends, consistency, affinity, and contradiction between quantitative and qualitative data, in order to better answer the EQs, generate more reliable findings, and reach well-founded conclusions. The ET applied a gender equality and social inclusion (GESI) lens to understand how findings differed by gender.

Quantitative Data Analysis. The ET performed rigorous data quality checks and reviewed the data using SI's high frequency check protocols. These checks allowed the ET to identify survey logic, data range, missing values, implausible values, digit preference (for numeric responses), and outlier errors in the data. After the survey closed, the ET executed a final cleaning process before analysis. The ET utilized Excel software to explore trends and disaggregate by stakeholder type, country, and gender.

Qualitative Data Analysis. During data collection, the ET took detailed notes and recorded (with consent) all discussions. After data collection, the ET utilized a structured coding approach to conduct content and thematic analysis using Dedoose software for identification of emergent themes and contextual factors upon which to draw findings and conclusions and to develop evidence-based recommendations. The ET utilized a Findings, Conclusions, and Recommendations Matrix to triangulate data across data sources and to ensure an evidence-based, triangulated, and systematic analysis process. As a result of small sample sizes, the ET reports findings for all SAEP partner respondents together, rather than disaggregating the findings by type of partner (government, utility, etc.). Across the EQs, all respondent groups tended to provide similar feedback. Thus, unless otherwise noted, each finding is consistent across respondent groups (IPs, USAID, and partner organizations).

ETHICAL CONSIDERATIONS

SI's in-house institutional review board reviewed the evaluation tools, data collection instruments, and protocols prior to the start of data collection. All members of the ET and management team received ethical research training to ensure honesty and integrity, protection of respondents, and data security. All respondents provided verbal or written informed consent prior to their participation in the evaluation. The evaluation did not attribute any information collected through KIs to individual participants.

GENDER AND SOCIAL INCLUSION PLAN

As part of the evaluation, the ET assessed the extent to which SAEP implemented and/or adopted planned activities, such as gender-specific training, guidelines, indicators, policies, and strategies. With a GESI-sensitive approach, the ET reviewed secondary data and aimed to maintain gender balance in the KIs to the extent feasible. As is consistent with more males working across the power sector, the ET interviewed more male than female respondents. The ET used a GESI scorecard to maintain USAID's Automated Directives System 205 standards. This scorecard allowed the ET to assess gender sensitivity throughout the evaluation process, including within the submitted data collection instruments. The ET disaggregated its analysis in the following sections by gender and stakeholder type as necessary and possible to discern differences and similarities in experiences, perceptions, needs, barriers, and other findings.

LIMITATIONS AND BIASES

The potential limitations as well as mitigation measures for the SAEP evaluation include:

Effects of Short Evaluation Timelines. To meet the timeline of the evaluation USAID established, the ET combined methods and used a remote approach to mitigate this challenge and quickly collect data from a broad range of stakeholders.

Effects of Large Geographic Dispersion. SAEP's regional focus introduced a unique challenge for ensuring that the ET included the views and perspectives of all stakeholder groups in the evaluation. The dispersion created both logistical challenges for reaching key stakeholders via traditional, in-person data collection in each country and challenges for aggregating findings across widely varying contexts. The evaluation design and remote approach helped mitigate the logistical challenges while ensuring efficient data collection. The SAEP team assisted the ET in encouraging stakeholder participation in the survey and interviews. Regarding aggregation of findings, the ET spoke to a variety of stakeholders and examined data for any potential inter-country differences. To further enable participation, the ET conducted both the survey and interviews in English, French, or Portuguese (based on respondent preference).

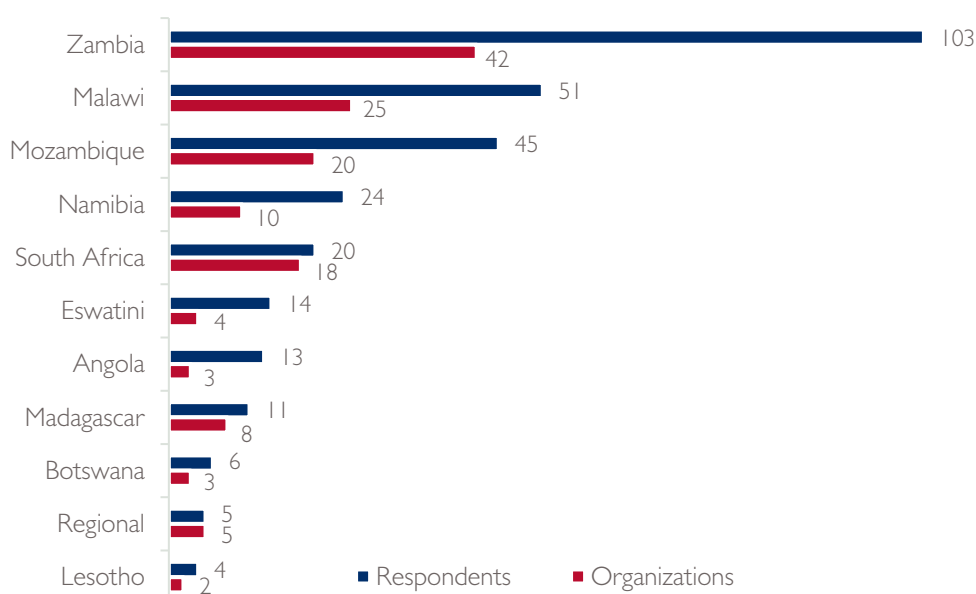
Response Bias. The ET recognized that SAEP stakeholders may carry unobserved biases specific to their role, cultural considerations, and/or other factors. This bias could influence their responses, such as being overly positive about achievements or saying what they think the ET or the Power Africa Program Office wants to hear. The SI team designed the instruments carefully and triangulated evidence across methods to minimize potential bias and ensure validity and reliability.

Selection Bias. Neither the interviews nor survey captured the views of all potential respondents, as some potential respondents did not reply to ET outreach and others chose not to participate in the evaluation. Thus, differences between who participated and who did not could introduce bias into the evaluation. To limit potential selection bias, the ET invited a wide range of stakeholders across all ten countries to participate and sought the support of SAEP staff to encourage participation. The ET invited all stakeholders with email addresses to participate in the survey and contacted more than 200 potential respondents for an interview.

(first via email, with follow-ups by phone if the ET did not receive an email response or if email addresses were unavailable). Despite the ET's efforts, however, final sample sizes fell short of expectations for several reasons:

- Fewer Potential Partner Respondents Than Expected:** Overall, the ET received names and contact information (phone and/or email) for 352 stakeholders involved to some extent with the program (including IP and USAID staff). Among SAEP partners, this included 296 individuals across 140 organizations. However, the number of potential partner respondents and organizations varied widely across countries, as seen in Figure 8.

Figure 8: Potential Partner Respondents and Organizations by Country



While the ET anticipated that levels of SAEP activity differed across the ten countries, it had not anticipated the extent to which this was the case. Since the number of potential respondents reflected the extent to which SAEP was active in each country, the varying distribution, itself, was not a problem for the validity of the evaluation's findings. However, it did limit the ET's ability to achieve the intended sample size because the original sampling plan assumed that the distribution between countries was more even than it was in reality. For example, the ET had anticipated interviewing respondents from more than five organizations in every country. However, in four countries, SAEP did not even work with that many organizations; thus, the originally planned sample (which the ET designed before receiving detailed contact information) was not possible. Though the ET reached out to more potential respondents in countries with greater SAEP activity, the small potential pool in many countries limited the ET's opportunities to reach the anticipated sample without overly biasing the sample toward perspectives from a few select countries.

- High Turnover:** Many of the potential partner respondents the IP shared either had incorrect contact information or were no longer with their organizations, resulting in numerous undeliverable emails, a challenge that was consistent across different types of partners (e.g., government staff, utilities, etc.). For the survey, of the 333 emails the ET sent (not all potential respondents on the ET's list included email addresses), 73 (22 percent) bounced back as undeliverable. Similar issues occurred with KII invitations. Often, the ET reached out to multiple people at the same organization. In many

cases, the ET heard from other respondents at the organization that our intended recipients no longer held the same positions or worked for the same organization as when they engaged with SAEP (see EQ2 for related findings on partner staff turnover). This suggests that, after a particular activity or intervention ended, SAEP may not have maintained contact with these organizations.

- **Low Levels of SAEP Awareness:** Even among potential respondents that the ET contacted successfully, a surprising number expressed that they lacked sufficient familiarity with SAEP's work to respond to the ET's questions, which was particularly common among other donor and government stakeholder respondents.
- **Fewer Group Interviews:** When reaching out to partner organizations, the ET anticipated conducting one KII with two to three individuals within each organization. However, in the end, partners often preferred an individual KII, identifying a single individual to speak with the ET rather than a small group. This was not an inherent issue for the evaluation, as the ET was still able to achieve its goal of understanding perspectives from that organization. However, the ET's sampling plan assumed there would be more small group interviews than occurred in practice, resulting in a smaller total sample size. Of the 56 interviews conducted, only 17 included more than one person. Thus, though the ET collected views from that organization as intended, the total number of individual respondents was lower than expected.

Due to the above issues, the ET received feedback from fewer respondents than anticipated. On the survey, the ET received 42 responses, a response rate of 16 percent of successfully delivered emails. Participation rates of 20-30 percent in online surveys are more common. This resulted in a slightly higher than desired margin of error of 13.8 percent. For KIIs, the ET originally anticipated speaking with at least 136 respondents; ultimately 79 respondents participated in interviews. The lower-than-expected response rate mostly arose among partner staff, as there were no significant issues in contacting IP or USAID staff. There were no notable differences in response rates across different types of partners (utilities, regulators, government entities, etc.). Across countries, unfortunately, the ET did not find any respondents willing to participate in Botswana or Lesotho (which only had six and four potential respondents to begin with, respectively, none of whom agreed to an interview). Largely due to the unequal gender distribution within the sector (and therefore within those with whom SAEP engaged), the ET received feedback from more male than female respondents.

The reduced sample sizes had two main implications for this report. First, since the number of respondents in each country was quite low in some cases, the ET could not disaggregate findings by country. Regarding Botswana and Lesotho in particular, though the ET did not speak with any local partner respondents in these countries, the evaluation still touches on SAEP's work there through respondents (such as IP and USAID staff) who were knowledgeable about SAEP's work across countries. Rather, the ET was only unable to capture the perspectives of local partners in these countries. Overall, the final number of respondents for some types of partner organization was small. Thus, the ET aggregated all partner respondents together, disaggregating findings by three types: USAID staff, IP staff, and partners.

FINDINGS AND CONCLUSIONS

EQ1: TO WHAT EXTENT WAS SAEP ABLE TO MEET ITS PURPOSE AND RELATED OUTPUTS AND OUTCOMES (MWS, CONNECTIONS, ENABLING ENVIRONMENT)?

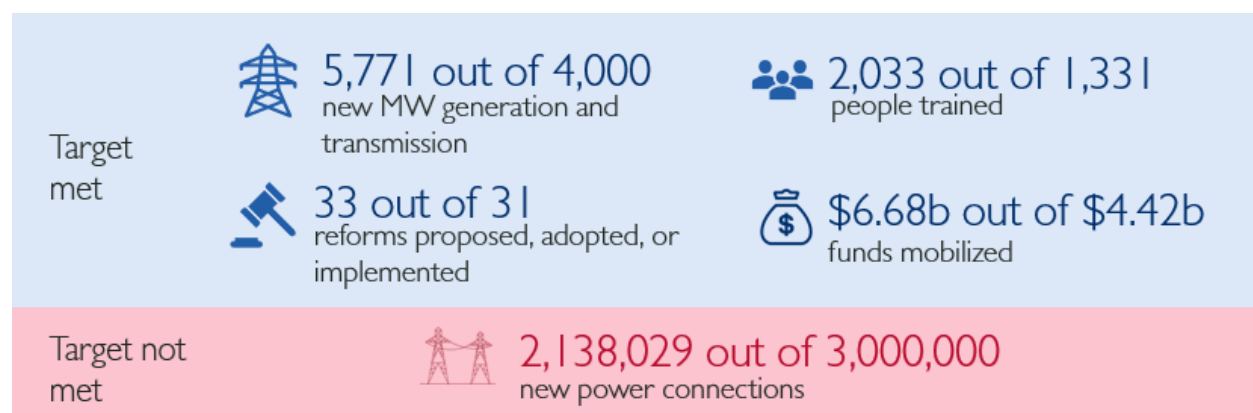
FINDINGS

Multiple data collection sources informed this EQ, including document/desk review, secondary data, a quantitative survey, and KIs. In particular, program monitoring data helped to provide insights on performance against the targets while KIs provided stakeholder perceptions of success. The following sections begin with a review of the relevant performance indicators, followed by a discussion of stakeholder perceptions of SAEP success.

PERFORMANCE INDICATORS

As of June 2022, SAEP achieved its targets for new generation and new transmission (5,771 MWs achieved out of 4,000 MWs targeted) as well as new policies (33 out of 31) and people trained (2,033 out of 1,331) but had not yet achieved its goal for new electricity connections (2,138,029 out of 3 million) according to the most recent monitoring data.

Figure 9: Actuals vs. Targets for Key SAEP Indicators (as of June 2022)



STAKEHOLDER PERCEPTIONS

Definition of Success - Stakeholders generally believed success aligns with SAEP's indicators - Impacts on people's lives were missing from the indicators, however	Unintended Outcomes - Few respondents cited unintended outcomes - Those that did noted some expanded/enhanced activities
Top Successes - Capacity development - New generation - Regulatory support - New connections - Utility support - New transmission	Unachieved Outcomes - Many respondents felt SAEP achieved its goals and had no unachieved outcomes - Those that did noted new connections

Definition of Success. The ET asked all respondents about their perceptions of SAEP success, including how they would define success for the program. In most KIs (33 interviews), respondents believed that their definition of SAEP success aligned with the program's performance indicators, namely MWs of generation and transmission, new power connections, and capacity building. However, a number of respondents went further to note that their definition of success included improving people's lives (11 interviews). The quantitative indicators do not really capture impacts on people's lives, though it is possible that such impacts were captured via other means such as success stories. These respondents indicated that, while it is important to measure performance in terms of the indicators, there was often more to the story. For example, respondents noted how additional generation capacity could facilitate productive uses or how having a transmission or distribution line could bring power to people without it. These findings were consistent across stakeholder groups.⁴

One IP respondent spoke to their definition of success:

"From the program perspective, when you achieve your key performance indicators, you are successful, of which I believe SAEP has achieved. But I base my version of success on that in any project I've got inputs, outputs, outcomes and impact... But if you go to a rural village and you find the people, now they're using that power to charge their phones, they are using that power to light their homes at night, during the day they are using electricity for various livelihoods, that would be the impact of SAEP that I will evaluate."

Top SAEP Successes. When asked about SAEP's biggest successes, respondents most frequently noted capacity development (27 interviews), new generation (17 interviews), regulatory support (14 interviews), new connections (13 interviews), utility support (13 interviews), and new transmission (11 interviews). SAEP provided extensive training and capacity development services covering varied topics to a wide variety of stakeholder organizations, including utilities, regulators, government entities, and others. In discussing this capacity development work, respondents spoke positively not only about the technical aspects of training, but also about SAEP's efforts to ensure gender balance, to the extent feasible, among trainees.

Regarding new power generation and transmission capacity, the qualitative data aligned with performance indicator data in showing SAEP's achievement of the intended results. Interestingly, however, though the program had not yet met the target for new connections, many respondents applauded SAEP's success in this area. This view that SAEP achieved positive new connection outcomes may be due to the common belief that new connections had unrealistic targets (discussed in more depth under EQ4). Respondents provided a variety of perspectives regarding success in new connections. When asked in which areas SAEP achieved the most success, some referred generally to new connections, such as one IP respondent who simply noted, *"So new connections—that has been a great success."* Meanwhile, several others called out SAEP's off-grid work in particular, such as a USAID respondent who noted, *"I would say the off-grid sector is probably the place where it's been truly transformational in the sense that... there was no off-grid sector in a lot of these countries."* Thus, even though SAEP may not have achieved its quantitative target, qualitatively, many respondents felt that SAEP made a substantial impact nonetheless.

Unachieved Outcomes. When the ET asked about outcomes that SAEP was unable to achieve, a large number believed that SAEP had achieved all its goals (16 interviews). The ET found this view particularly common among partner organizations (13 of the 16 interviews), potentially because many partner

⁴ Most findings in the evaluation are consistent across stakeholder groups. Thus, unless otherwise noted, findings do not vary notably between stakeholder types (IP staff, USAID staff, and partners).

respondents equated success with achieving the goals of the specific interventions in which they engaged with SAEP (rather than on the broader SAEP results framework).

Where respondents noted unachieved outcomes, respondents most frequently cited new connections (23 interviews), a finding aligned with the performance indicator data noted above. In most of the other cases, when respondents talked about what SAEP did not achieve, they spoke about failures in specific interventions. For instance, several respondents in Madagascar discussed the delays and difficulties grant winners experienced in utilizing their grant funds for the intended purposes. One IP respondent noted, *“In Madagascar, I think the work that we have been trying to do has been catastrophic. There’ve just been enormous challenges related to things that are out of [our] control... like mini-grid companies not being able to pass their equipment through ports of entry because of changes in taxation laws.”* In this case, some grant winners planned to use their grants to expand their mini-grid operations by purchasing new materials such as solar panels. According to respondents, the firms had to purchase the goods themselves and then SAEP would reimburse them once the grantee received the materials. However, changes in tax law meant that the grantees would have to pay significant import duties they had not planned for. As a result, the grantees have not yet received their materials for which they paid upfront and cannot get reimbursed by SAEP, resulting in substantial financial hardship.

Unintended Outcomes. In addition to intended outcomes, the ET asked about SAEP’s unintended outcomes, which can reveal unanticipated benefits and/or consequences. When asked, respondents noted few unintended outcomes, with a notable number (11 interviews) responding directly that there were no unintended outcomes to the program. Respondents who noted unintended outcomes most frequently highlighted, positively, SAEP’s efforts to further aid partners with additional interventions after completion of the originally planned interventions (18 interviews). For example, several partner respondents noted appreciation for how, after they started working with SAEP, they realized additional weaknesses in their operations, which SAEP helped them to address. One such partner respondent noted, *“SAEP would periodically give a lot of documents that would summarize general issues in the region from their experience. We would realize things we could be doing better that were coming from those documents. One of them I remember with regards to how you treated customer time assets. Unintentionally, it then revealed an issue we had. We then worked with SAEP toward [addressing this] issue.”*

CONCLUSIONS

SAEP met most of its outcome targets, with the exception of new connections, which was still in progress. The program had few unintended or unanticipated outcomes. Though SAEP had not yet met its target for new connections, stakeholders nonetheless believed it belonged among SAEP’s top successes.

EQ2: WHAT ENABLED AND/OR HINDERED ACHIEVEMENTS, AND HOW WERE ANY HINDRANCES ADDRESSED?

FINDINGS

Factors Affecting Success

- COVID-19
- SAEP-Level
- Partner-Level
- Context-Level

SAEP’s work across its ten partner countries and myriad stakeholders and partner organizations meant that the program encountered widely varying circumstances and factors, each of which could potentially enable and/or hinder achievements. To assess these factors, the ET asked all interviewees a series of questions

regarding SAEP's work and the factors influencing its success (or lack thereof). In particular, USAID expressed interest in learning about the impacts of the COVID-19 pandemic, and thus, in addition to asking about general factors influencing results, the ET also asked specifically about the effects of COVID-19.

Along with COVID-19, respondents discussed numerous factors that affected SAEP's achievements. These factors fell into three main categories, in descending order of noted frequency: SAEP-level factors, partner-level factors, and context-level factors. For all factors, respondents noted a variety of cases in which the factor could act either as an enabler to SAEP success or as a hindrance. For example, partners' willingness to engage with the SAEP team could be an enabler in cases where the organization wanted to engage, but a barrier in cases where an organization resisted SAEP's efforts.

The following sections describe the implications of the COVID-19 pandemic followed by an exploration of the three factor categories that most significantly affected SAEP success.

COVID-19

Effects of COVID-19

- Delays in Implementation
- Travel Restrictions

Though respondents in a few interviews (nine) thought that COVID-19 did not have a substantial impact on implementation, the majority (37 interviews) talked about how COVID-19 resulted in challenges to SAEP implementation, most notably delays in implementation (21 interviews) and the inability to travel (19 interviews).

The specific reasons for implementation delays differed. In some cases, respondents said that shutdowns resulted in delays, both at the start of the pandemic, and then in early 2022 when Southern Africa was hit by a particularly strong wave of infections. In other cases, the general slowdown in operations across the world caused delays, as people learned to transition their work online.

The inability to travel also caused challenges for a regional program like SAEP. Prior to the pandemic, SAEP staff spent significant amounts of time traveling to the ten partner countries, meeting with partners and stakeholders, and working to advance SAEP objectives. This travel largely came to a standstill with the onset of the pandemic, according to interviewees. The COVID-19-related delays and inability to travel often went hand-in-hand. As one IP respondent noted, *"I would have traveled to Angola without COVID, to be honest, because that's the most effective way... we need relationships, like you need to sit together. We need to eat together, go to project sites. That was hard. Internet connections were actually good, but we couldn't form those bonds or relationships in the same way."* Thus, the inability to travel affected relationship building and the team's ability to move activities forward as swiftly as they might have been able to do otherwise.

After the pandemic started, SAEP quickly moved to a virtual approach—both for stakeholder engagement as well as for training and capacity building. Interviewees across stakeholder groups felt that SAEP made a positive and timely transition (19 interviews). Nonetheless, a significant number of respondents (particularly among IPs and partners) noted that in-person approaches to program implementation were significantly better than virtual approaches (22 interviews). Here, respondents did not feel it was a shortcoming on SAEP's side that made virtual approaches less helpful than in person ones. Rather, they believed that technical assistance could be provided more effectively face-to-face than virtually, a common observation globally since the start of the pandemic. In one interview, a utility representative talked about a particular training they received for how to use a new program. They appreciated the support and virtual training received from SAEP. However, they lamented that SAEP staff did not travel to provide direct support, sitting at the same

computer to work through questions and issues as they went through the process. Overall, respondents appreciated the support and noted that work together in-person could have made it even better.

SAEP-LEVEL FACTORS

SAEP-Level Factors	• SAEP Technical Capabilities • Strength of Relationships with Partners
---------------------------	---

Aside from COVID-19, respondents most frequently highlighted SAEP-level factors as influencing success. Among these factors, respondents most frequently noted the technical capabilities and expertise of the SAEP team across outcome areas (25 interviews) and the strength of the relationships that SAEP had with its partner organizations (23 interviews). In terms of technical capabilities, respondents felt that SAEP’s ability to meet partners’ specific needs, even for niche technical expertise, was a key factor for success. In most cases, respondents viewed SAEP’s technical expertise favorably and cited them more frequently as enablers of program achievements. However, there were a few cases where stakeholders noted that SAEP staff did not have the necessary expertise available to suitably address their particular need. For example, one partner representative indicated that though SAEP staff expertise was great in most areas, they lacked expertise in some of the other areas they could use support in. *“...Perhaps SAEP themselves wouldn’t have a broad enough set of skills... the breadth of the skill wasn’t always there to cover [all our needs].”*

As for the strength of relationships, respondents, particularly USAID and IP respondents, saw this factor as a significant driver of successful partnerships. Where SAEP and/or USAID had built strong relationships with potential partners, they laid the groundwork for successful activities. As one USAID staff member noted, *“One thing that was surprising to me upon joining was how much it seemed program success was depending on relationships built or preexisting on usually government ministers or officials, between Power Africa and USAID. Or because the country had worked with us in the past... Those relationships were key.”* On the other hand, one partner representative noted how a lack of continuity in those relationships as one program ends and another begins could hinder success, reflecting on the handover from a prior activity to SAEP. *“...Nothing is ever perfect, but I wish that the handover was more paid attention to. The handover in terms of the relationships and the pipeline of support. The opportunity for the successor is extremely important.”*

PARTNER-LEVEL FACTORS

Partner-Level Factors	• Stakeholder Buy-in • Internal Stakeholder Dynamics • Stakeholder Willingness to Engage with SAEP • Alignment of SAEP Goals with Partner Priorities
------------------------------	--

The second-most frequently cited set of factors were related to the partners with whom SAEP engaged. Respondents noted stakeholder buy-in (21 interviews), concerns with internal stakeholder organizational dynamics (20 interviews), stakeholder willingness to engage with SAEP (19 interviews), and alignment of stakeholder priorities with SAEP’s scope and capabilities (14 interviews). It is important to note that IP and USAID staff highlighted these partner-level factors far more often than the partners themselves did.

Three of these factors (stakeholder buy-in, willingness to engage, and alignment of priorities), are highly interrelated. Though respondents discussed them separately, they evoked very similar themes. A stakeholder’s willingness to engage can be directly linked to whether SAEP’s priorities are aligned with their own. One USAID representative noted that a key factor in success was, *“how receptive [partners were] and the level of engagement, communication of the stakeholders we’re trying to engage. How receptive they are to return our calls right off the bat. The reason they might not be returning our calls is the areas SAEP is focusing on may not be focusing on what the ministry is. Power generation alone, transaction distribution,*

utility operations and sustainability might not be the same priorities. Maybe they're looking at the country[s] financial distribution and oil and gas extraction. We don't do fuel." Thus, whether SAEP's scope was aligned with stakeholder priorities could have a direct impact on the organization's interest in engaging in the first place. A similar linkage existed with stakeholder buy-in and alignment of SAEP and stakeholder priorities. Insufficient alignment and buy-in was a barrier to success, though respondents noted these partner-level factors acted equally as often as drivers of success, given the large number of SAEP countries and partners.

The fourth partner-level factor respondents highlighted was concern with internal stakeholder dynamics, including factors such as slow review times or bureaucratic approval processes, high staff turnover, etc. An IP respondent highlighted concerns regarding staff turnover within partner organizations. *"So, this has happened quite a few times when we were going down the path. We think that we have something good going and then the person... gets removed and we have to start afresh, or there's a new role. They take up their new role and get comfortable in it, and when they do eventually get comfortable, they don't think that their predecessors' priorities were real priorities, and they want us to focus on something else."* Challenges with partner staff turnover affected the evaluation, as noted in the limitations section. When the ET reached out to potential respondents, a significant proportion had left their positions and organizations. Additionally, a stakeholder cited partner-related delays in new connection activities, such as Angola's Energy Sector Efficiency and Expansion Project, as part of the reason SAEP has not yet achieved its new connection target.

A few stakeholders noted cases in which internal partner operations were a positive factor for success, such as where a stakeholder was able to respond quickly and decisively to move forward with a collaboration. However, in most cases, respondents indicated that operational dynamics within partner organizations were hindrances to success.

CONTEXT-LEVEL FACTORS

Context-Level Factors	• Political Factors • Language Factors • Cultural Differences	• SAEP's Ability to Navigate Cultural and Linguistic Differences • SAEP's Use of Local Staff
------------------------------	---	--

Context-level factors were related to the different countries, cultures, and subregions that SAEP covered. These factors centered on political factors, including large political events like elections, political unrest, and other political changes that fell outside of SAEP's control (12 interviews), language factors (10 interviews), cultural differences (nine interviews), SAEP's ability to navigate these linguistic and cultural differences (12 interviews), and SAEP's use of local staff (11 interviews). These context-level factors, excepting political factors, were frequently overlapping and intertwined. While some respondents focused only on how the linguistic and/or cultural differences between countries could affect outcomes, other respondents noted how SAEP staff's ability to navigate these differences was the more crucial component.

As with previous factors, respondents felt that context-level factors could act as either enablers or barriers to success. In discussing SAEP's ability to navigate linguistic and cultural differences, and their use of local staff, respondents highlighted several positive cases where SAEP's approach enabled greater success. One respondent noted benefits to SAEP's use of local experts. *"People who understand the dynamics of the different countries. So, people who understand how to navigate the country and the politics and use their networks to engage correctly. That's been quite important because it's given us an opportunity at least to get to the table and to present our case."* On the other hand, other respondents felt that SAEP was not always successful in navigating these cultural and linguistic differences and/or that there was room for improvement. For example, one USAID respondent noted, *"The struggle has been... to get [partners] around the table and to actually listen to what we have to say,"* which they attributed to challenges navigating cultural aspects of

engagement. To this end, many respondents (12 interviews) recommended that a future activity increase and/or improve the engagement of local staff as a means of better navigating these cultural and linguistic differences (EQ3 discusses recommendations for future programming in more detail).

On linguistics, respondents noted that operating in the SAEP non-Anglophone countries was more complicated than operating in Anglophone countries. In Mozambique, Angola, and Madagascar, SAEP either had to bring in interpreters for English-speaking staff, which was seen as being less efficient or effective, or they encountered challenges finding staff with the right skill sets that spoke the appropriate language. Regarding Angola, an IP staff member noted that, *“One of the biggest constraints that probably the team faced when they went into Angola was the language barrier... A part of the team couldn’t really understand the language, and this really created a huge problem.”* Despite the initial challenges, others believed that SAEP eventually mitigated these challenges through staffing changes, and several stakeholders felt that SAEP found success working in Angola and Mozambique (EQ5 discusses relative success between countries in more detail). Madagascar, on the other hand, posed the biggest challenge since it was the only French-speaking country under SAEP, according to respondents.

The final contextual factor influencing success involved political factors, which respondents felt were largely outside the control of SAEP (12 interviews). Political factors included changes due to elections, political unrest, and shifting political priorities, as well as political priorities of the U.S. Government as they related to SAEP’s operations. Several IP respondents noted the influence of political changeovers, in particular, on the high rates of staff turnover within partner organizations. Regarding the influence of USG political priorities, a few respondents noted the inability of SAEP to operate in Zimbabwe as a constraint.

MITIGATION EFFORTS

Mitigation Efforts

- SAEP Staffing Changes
- Flexibility and Adaptability
- Adding Additional Technical Assistance

Many respondents, particularly from partner organizations, lacked familiarity with SAEP’s internal operations or decision making. Thus, far fewer respondents spoke concretely about SAEP’s mitigation efforts (21 interviews) than were able to speak to challenges writ large (53 interviews). Where respondents noted mitigation measures, respondents mentioned SAEP staffing changes (10 interviews), SAEP’s efforts to adapt to the changing environment (10 interviews) and adding additional technical assistance (four interviews).

Regarding staffing changes, respondents noted that SAEP was able to modify their staffing approach over time to address emerging partner needs and performance issues on their teams. Respondents typically reflected positively on these staffing changes.

Respondents also appreciated SAEP’s efforts to remain flexible and adaptable (EQ3 discusses this in depth), which allowed them to mitigate challenges as they arose. In the case of Zambia, for instance, respondents reflected on the significant work SAEP initially conducted with stakeholders. But, after elections brought in new political leaders, the environment changed and SAEP was no longer able to work there as extensively and the Program shifted resources to elsewhere in the region. The ET heard from a stakeholder that yet another significant political change in 2021 allowed SAEP to rekindle their work in Zambia. Interviewees also noted another significant shift, wherein SAEP was unable to work in Angola for the first few years of the program, but this changed in later years and SAEP quickly ramped up their work to achieve positive results (EQ5 discusses both the Zambia and Angola cases in more detail).

Finally, SAEP adapted to evolving and emerging partner needs by offering additional technical assistance. In the Malawi case, for instance, respondents talked about how SAEP coordinated with the Millennium

Challenge Corporation Compact there to ensure that they addressed stakeholder needs, which involved adding several new interventions for SAEP.

CONCLUSIONS

The COVID-19 pandemic was a notable obstacle to SAEP implementation, as it was for most businesses and organizations around the world. The pandemic led to delays and an inability to travel, which, in turn, led to potentially lower-impact interventions than if in-person activities were an option.

Outside of COVID-19, factors affecting success included SAEP-specific factors like the strength of SAEP's technical capabilities and the strength of relationships between SAEP and its partners, partner-level factors such as stakeholder buy-in and alignment of priorities, and context-level factors such as political influences and cultural and linguistic factors. Given the regional nature of the SAEP program and the wide number and variety of stakeholder groups with whom SAEP interacted, each of these factors emerged in both positive and negative forms. As a whole, however, the SAEP-level factors were largely seen as enabling success while the partner- and context-level factors were mixed, depending on the given situation.

Given SAEP's mostly positive achievements against its performance targets, and the largely positive feedback from EQ1 about successful achievements, SAEP appears to have adequately negotiated the challenges they faced to continue making progress toward key outcomes. Nonetheless, room for improvement remains.

EQ3: HOW DID THE PROGRAM DESIGN, TARGET SETTING, AND OPERATIONAL DECISION-MAKING SHAPE AND CONTRIBUTE TO THE ACHIEVEMENTS OF THE PROGRAM?

FINDINGS

Based on discussions with USAID during the evaluation design process, this EQ reports on numerous aspects of program design and implementation, including overall strengths and weaknesses, operational decision making, SAEP's iterative approach to work planning, SAEP's GESI approach, and stakeholders' recommendations for future programming. The ET discusses findings regarding the target setting process under EQ4. The following sections outline the findings to each of these components of EQ3.

PROGRAM DESIGN & IMPLEMENTATION

Strengths	Weaknesses
• Strong SAEP Staff • Strong Communication	• Staffing Concerns • Insufficient Local Input

All stakeholder groups provided feedback regarding the strengths and weaknesses of the SAEP program. Overwhelmingly, they noted the presence of strong SAEP staff (24 interviews) as a key strength. As one USAID respondent indicated, *"I think Deloitte has brought really strong technical expertise to their team. And so when they make recommendations, we feel confident that they're being based on some of the best practices."* Respondents considered good communication with the SAEP team as a strength (23 interviews). One partner respondent noted, *"The communication was transparent with SAEP. We worked together without hierarchy for the electrification in rural areas. The assistance for information was there for operators. We always worked together."*

In terms of perceived weaknesses, respondents highlighted staffing concerns as a consistent theme (14 interviews) that COVID-19 exacerbated. As discussed in EQ2, the pandemic greatly affected SAEP staff's

ability to travel and provide in-person implementation. Some respondents noted COVID-19 contributed to turnover and limited staff's ability to conduct their work as effectively as before. Other respondents noted concerns with turnover were present throughout program implementation. One partner respondent stated, *"Perhaps a point of clarity on SAEP's side would be to better define roles so that the POC [point of contact] isn't shifted and someone else from SAEP is brought in when headway being made is with a different person. I'm not sure the internal dynamics, but that stymied our progress."*

Respondents also noted insufficient local input as a challenge (12 interviews). IP respondents, in particular, indicated this was a primary challenge. One IP respondent stated, *"The weaknesses from where I'm sitting could have been that the program was designed without the participation of the prospective clients...the real needs of the clients are so that you're working to give things that people actually want."* A partner respondent indicated their concern with, *"The program design from the start. From my understanding, it's something decided, and a quick study done by SAEP and proposed to our principals for it to be agreed on. Technical officials were never involved in that initial concept."* As noted in EQ2, alignment between program and partner priorities is key to success; one of the best ways to ensure maximum alignment is to engage local stakeholders throughout the project lifecycle, according to respondents.

OPERATIONAL DECISION MAKING

SAEP

Decision Making Perceived Positively

USAID

Decision Making Perceived Negatively Due To:

- Frequent Request for Added Activities
- Operational Challenges

As effective decision making is a key component to effective implementation, the ET asked IP and USAID respondents about the internal decision-making processes within the SAEP team and within USAID. Both IP and USAID respondents viewed SAEP decision-making positively (13 interviews), with one IP respondent stating operational decision-making was *"Very easy. I can phone the [Chief of Party] or [Deputy Chief of Party] and we'll have a discussion, and we'll have a plan. We'll make sure we can deliver. Open door policy. OPEN communication!"*

On the other hand, both IPs and USAID staff provided predominantly negative feedback regarding USAID's decision-making processes (11 interviews). Primary issues included scope creep and overpromising of activities to stakeholders, as well as internal USAID dynamics such as delays in approvals, staff turnover, etc. Respondents identified scope creep on numerous occasions, highlighting negative impacts from frequent USAID Offices and Missions and/or Power Africa requests for SAEP to add additional activities or partners into SAEP's scope. Respondents believed that these new requests were often politically motivated, representing opportunities for the embassy and/or USAID to expand their work with new partners. Respondents noted that these new activities did not always align with SAEP's overall focus and pulled the SAEP team in multiple, sometimes competing, directions, which could distract from their core objectives.

Respondents flagged as challenges operational issues within USAID such as staff turnover and delayed approvals. One IP respondent noted that it, *"can be [a] hindrance,"* while a USAID respondent stated that due to inadequate resourcing in various offices, *"[USAID hasn't] cleared activities and made approvals as quickly as we could have."* It is worth noting that some IP respondents reflected positively on USAID decision-making (four interviews). One IP respondent stated, *"There was an open stream of communication that made a bit of difference in delivery."*

ITERATIVE APPROACH

Benefits

- Flexibility to Adapt

Challenges

- Staffing and Resourcing Concerns

A key aspect of SAEP's implementation approach was an adaptable and iterative process for work planning. USAID/Power Africa and the SAEP team regularly updated the work plan, using an iterative approach to adjust or incorporate additional activities. SAEP reevaluated its work plan on a quarterly basis, allowing for shifts on the country and regional level based on USAID requests, changing country landscapes, or country and regional needs. IP and USAID respondents overwhelmingly found flexibility as the primary benefit to the iterative program design approach (15 out of 16 interviews). This positive feedback included the ability to adapt to changing program landscapes (e.g., political climates, embargos, etc.), identification of additional funding streams, and the ability to adapt to USAID and Power Africa activity requests. As one IP respondent highlighted, *"The iterative process actually made things better. It made the elements of the activities that were covered within the work plan, they made them much better and easier to implement... I think that worked well."* A USAID respondent said, *"I appreciated that they were willing to update the work plan throughout the year. We valued that."* The Angola and South Africa cases demonstrate the benefits of this flexibility, enabling SAEP to modify and expand its approach as the contexts changed. At the start of the program, SAEP was unable to work in Angola; however, conditions improved over time and SAEP began engaging stakeholders there midway through implementation. As for South Africa, SAEP staff reported that their ability to work in the country shifted over time and SAEP's flexible approach allowed them to shift effectively.

In only two interviews (of seven) did USAID respondents remark on any weaknesses to SAEP's iterative approach, suggesting largely positive feedback from USAID. Among the challenges noted, IP respondents cited staffing and resourcing concerns (four interviews) and that the approach enabled the addition of extraneous activities (three interviews) as its primary drawbacks. The staffing and resourcing concerns included issues with continuity as well as managerial challenges in quickly, and sometimes significantly, shifting the program's approach. As one IP respondent noted, *"...from the management perspective, it's massively difficult. The team structure we proposed in the RFP [request for proposals] does not fit what we're currently delivering now. We had to change and modify what we have to what doesn't fit. It honestly never fit for [Outcome 4] because transactions were different. So, we worked for the structure that we have."* Regarding the latter concern with enabling the addition of extraneous activities, respondents focused on how the iterative approach enabled USAID to request frequent additions to SAEP's work plan (in line with negative feedback about USAID decision-making processes).

GENDER AND SOCIAL INCLUSION

GESI Interventions

- Mostly Gender-Focused Activities
- Trainings
- GESI-Related Reports and Recommendations to Partners

GESI Strengths

- Integration of Women into Programming
- Strong Stakeholder Engagement

GESI Challenges

- Male-Dominated Sector

The program documents identified GESI as a priority within SAEP, though different documents used differing language. Some documents, such as the SAEP Gender Action Plan, only referred to gender while other

documents utilized the broader GESI terminology, which goes beyond gender to include equality and social inclusion. SAEP's GESI work included ensuring the involvement of women in the power sector, providing training and gender-focused activities to stakeholders, and working to provide strategic planning to stakeholders in the form of reports and recommendations. According to the ET's desk review, prior to the pandemic, SAEP had a Gender Specialist who provided regional support and assisted in the development of a Gender Action Plan in Year 1. This Gender Action Plan detailed the scope of planned GESI activities across SAEP's five-year programming, including timelines, activities by country, staff responsible for activity implementation, and related deliverables. In this Gender Action Plan, a Gender Specialist was responsible for the majority of activities, along with the respective Outcome Leads and Country Teams. However, during the pandemic, the Gender Specialist transitioned off the team, and SAEP contracted three GESI Advisors for ad hoc tasks, such as support to partners for Gender Action Plans, stakeholder reports and recommendations on the incorporation of women, and other activities. Despite the turnover in the SAEP team, IP respondents noted that GESI activities continued. The ET assessed the perception of GESI activities directly with IP and USAID respondents.

GESI Interventions. When asked about the types of GESI-related interventions SAEP conducted, respondents almost exclusively highlighted gender-focused activities (20 interviews) vs. activities addressing other social groups (one interview). Concretely, these activities included trainings (17 interviews) and GESI-related stakeholder reports and recommendations (13 interviews). One private sector respondent remarked, *"...One thing they just did...was to train our team in terms of gender mainstreaming and how we can apply gender in our processes, starting from recruitment, decision making, and how [we] really could customize and how we can make sure there's also gender in terms of the beneficiaries...It gives us a picture to say, just recruiting more women, it doesn't end there, but also looking at their input and voices and all that is part of gender, which is a good thing...we appreciate that as well."*

GESI Strengths. IP respondents cited the integration of women into programming as the primary strength of the GESI approach within SAEP (eight interviews). One IP respondent said of activities, *"I think even in the development of our scope of work, we always made sure that every activity highlights a gender component."*

Another IP respondent stated, *"We have a really good gender team. We did many things you could say. Importantly, for gender within off-grid, finding opportunities where companies are interested in getting involved and getting women or minorities involved in their work. We did several value chain assessments*



Figure 10: Seamstress using SAEP-supported off-grid solar lights. PHOTO CREDIT: ENGIE ENERGY ACCESS MOZAMBIQUE

across mini-grids and solar home systems for understanding how these things work across markets and economies. And how can you pull in women or minorities along the way. It's a voice that needs to be heard." Among other strengths, IP respondents highlighted strong stakeholder engagement (six interviews). One IP respondent said, *"Whenever we engage a counterpart, you make sure [gender is] centered. As an example... I went to [one country's] utility board, and I strongly recommended they appoint a lady as the head of a project implementation unit. And they listened to us and made that appointment and she's excelling...I'm feeling very good...about making a change in this difficult area of gender."*

GESI Challenges. SAEP's GESI work faced a number of challenges. In particular, respondents noted the male-dominated power sector (12 interviews). As an example, one IP respondent noted that women are more *"downstream"* and have not been empowered or advocated for to take more technical power sector

positions, so *“there are no women to elevate.”* Another IP commented on the lack of women in the sector, noting, *“Female engineers...were given the option to attend meetings and trainings. Unfortunately, the [city] doesn’t have any female engineers to [attend these meetings and trainings].”* As an additional challenge, respondents noted that SAEP’s GESI activities were fairly superficial (seven interviews). As one USAID respondent noted, *“For me, it’s done at a superficial level. To show actual evidence for supporting women in energy or showing the links between any training that’s done and improvement of women’s position. I don’t think there’s strong enough evidence to support that. You’re doing a once-off training and [determining] how the training is implemented and... [its contribution to] elevating their status and women of value. I’ve never seen those links made. The links between gender and women in energy is very weak.”* An IP respondent echoed this by saying, *“in most of our activities, we did not have a strong gender component, with the exception...[of] when we are interacting with our counterparts, we make them aware that...part of our objective is to promote gender inclusion. But we didn’t have an active program designed where we work with the counterparts to address this aspect.”* This IP respondent continued to state that though work continued on an activity basis, because of the Gender Specialist’s attrition in Year 3, work was incomplete.

GESI Opportunities. Respondents highlighted ways in which future programs could improve the GESI approach (seven interviews). These opportunities include incorporating GESI into the overarching program design so that expectations and scope are clear, integrating GESI across the program rather than as standalone tasks, clarifying USAID’s GESI expectations, and going beyond sex disaggregation to integrative programming. To improve GESI within the sector, respondents recommended workshops with partners for additional training and recruitment of women, activities to increase female employment within utilities, longer timelines for GESI programming to allow for related social and behavior change, activities focused on persons with disabilities, and local community engagement.

FUTURE RECOMMENDATIONS

Technical Recommendations	Program Design/Implementation Recommendations
• Continue Existing Work/Focus • Improve Sectoral Collaboration	• Localize Programming • Provide Financial Support/Address Funding Gaps

In addition to understanding stakeholder perceptions regarding current SAEP implementation, the ET explored potential improvements to the SAEP approach. The ET divided recommendations from stakeholders into technical recommendations and recommendations for design or implementation approaches. All respondent types provided recommendations.

Technical Areas. Across stakeholder groups, respondents recommended continuing to focus on many of the same technical areas as SAEP. Some respondents indicated generically that a future program should continue existing work (15 interviews), while others called out specific components that SAEP already focused on such as new connections (29 interviews), renewable energy (22 interviews), capacity building (21 interviews), more generation (19 interviews), and more transmission (16 interviews). In another top recommendation, respondents suggested improving collaboration and coordination between sector stakeholders (25 interviews). This included collaboration between donors, collaboration across sector actors at the country or regional level, benchmarking and knowledge hub projects, and co-creating projects.

Program Design and Implementation. The ET noted a consistent theme across respondents around localizing programming (24 interviews), ensuring approaches account for local stakeholder needs as well as the country context, culture, and language skills. Related themes included providing more, early input on program design and planned activities from local stakeholders (14 interviews), ensuring active engagement of local staff (12 interviews), and ensuring adequate language and cultural skills on the SAEP team (three

interviews each). To this end, an IP respondent stated, *“The first is that there would have to be a clear scoping mission. That would help first. Not just a concept note. A real scoping mission. To make sure the local consent and input is there. The buy-in is there.”* A partner respondent similarly noted that, *“If they are thinking of any program, engage with us to see if we agree. If SAEP comes up with their own program and brings it to us, it is challenging.”* Another partner respondent concurred, saying, *“For an organization like SAEP, the sensibilities, the organizations, beneficiaries, you have to have the localization and have the updates. It’s not something that’s extremely hard. It ensures you have a successful project. Ensure you have communication.”* As a part of this localization process, respondents recommended ensuring that future programs consider what other donors are doing to avoid programming duplication and to facilitate collaboration.

The other key recommendation for future program design was to provide financial support (19 interviews). Partner respondents noted this recommendation most frequently. Though some respondents requested direct funding of power infrastructure, others spoke about how future programs could facilitate financing via connections with financiers or the creation of new financial models. These respondents focused on the financing gap in the power sector, particularly for new connections.

CONCLUSIONS

Overall, SAEP’s design and implementation approach was well regarded and appeared to support effective and efficient implementation, likely aiding SAEP’s achievement of results. Despite the overall positive feedback, several areas for improvement exist. Conclusions regarding specific aspects of SAEP design or implementation are noted below.

Throughout SAEP’s implementation, strong staff and communication remained notable strengths, with many respondents highlighting the SAEP team’s transparency and willingness to engage as a key factor driving activity achievements. The ET found challenges with staffing and insufficient localization as noted above.

Internal SAEP decision making was also a program strength. The “open door policy” was a highlight of the program, with many praising SAEP’s “above and beyond” approach to partner engagement and implementation. However, USAID’s decision-making processes often caused delays and acted as roadblocks to efficient and effective service delivery.

The iterative approach to work planning proved a success, offering significant flexibility and enabling active adaptation to changing circumstances. It did cause some challenges, however, including issues with continuity or requiring rapid shifts in resources.

SAEP interventions employed a GESI lens. However, SAEP’s approach to GESI focused heavily on gender rather than other social strata. Its activities tended to be superficial in nature. IP respondents noted that the strongly male-dominated sector hampered GESI activities and results. Additional opportunities for GESI work include incorporation of GESI programming during the program design phase and adjustment of activities to include tailored GESI activities and social inclusion approaches.

To improve on the SAEP approach, stakeholders provided numerous recommendations for future programs. On the technical side, most respondents wanted a future program to continue focusing on areas similar to those on which SAEP focused, particularly on new connections and power access. On design and implementation approaches, improved localization was the top recommendation, followed by a desire that future programs address the financing gap in the power sector.

EQ4: WHAT WERE THE BENEFITS AND DRAWBACKS OF POWER AFRICA SETTING THE CONNECTIONS AND MW TARGETS FOR THE PROGRAM?

FINDINGS

The first step to answering this EQ involved determining how, exactly, the original SAEP targets were set. To do so, the ET examined program documents and asked IP and USAID respondents about the process. The ET then asked respondents about benefits and/or drawbacks to the indicator selection and target setting processes. The ET asked respondents about their recommendations for improving the key indicators and/or targets for future programming. Each aspect of this EQ is discussed in turn below.

ORIGINAL INDICATOR AND TARGET SETTING PROCESS

Indicator Selection Process	SAEP RFP Required Some Minimum Results
	• 1,000MW of new, renewable energy generation • 3 million new connections
	Deloitte Team’s Proposal/Eventual Contract • Expanded the above 1,000MW of new, renewable energy generation to 4,000MW of combined generation and transmission capacity • Selected the indicators tied to fee payments

The framing of this EQ assumed that Power Africa itself set the targets for MWs of new generation and transmission as well as for new connections. However, shortly after award of this evaluation and after initial discussions with both USAID and IP staff, the ET received differing perspectives on how the original indicators were selected and the corresponding targets set. Thus, to ensure that the ET had an accurate understanding of what happened in the first place, the ET reviewed both the original SAEP solicitation and the resulting technical portions (Section C) of the SAEP contract. In interviews, the ET began EQ4 discussions by asking USAID and IP respondents whether they were familiar with the indicator selection and target setting process and, if so, what that process had entailed.

In only four out of 23 IP and USAID interviews, respondents could recall how this original indicator and target setting process occurred. Even these respondents were unclear as to how exactly indicators and targets came to be. One USAID respondent said, *“I literally have not been able to find any documentation, and I went looking hard within Power Africa or within the [regional] mission to understand how that number got set.”* Due to the limited amount of information from interviewees, the ET relied heavily on document review for understanding the indicator selection and target setting process.

The RFP for SAEP included several required indicators (outlined in RFP Attachment 4), and its statement of objectives (SOO) outlined some minimum results for each of SAEP’s five outcome areas. USAID then required bidders to: 1) propose indicators and targets that at least met the minimum result requirements, and 2) using a subset of the proposed indicators and targets, design a fee schedule tying fee payments to achievements of the targets (hereafter referred to as the “fee indicators”). The only guidance regarding which indicators to select as fee indicators appears in Section L.I 1.3: “Offerors should also propose a fee schedule based on indicators and targets proposed in Annex B: Life of Project Results Framework.” Bidders had to submit their planned Monitoring, Evaluation, and Learning (MEL) approach in Annex B with their proposal. Thus, USAID left it largely to bidders to decide which indicators would measure success and, within that, which indicators would be fee indicators. The fee indicators and their associated targets were embedded in the executed contract.

The SOO set two minimum results related to generation and new connections, both under Outcome Four: Renewable Energy and Energy Efficiency Technologies and Practices Locally Demonstrated and Scaled:

- “At least 1,000MW of new on-grid and off-grid renewable power generation projects brought to financial close as a result of Contractor assistance.
- At least 3 million new connections added in Southern Africa as a result of Contractor assistance.”

Based on Section C of the SAEP contract (and corroborated in interviews), Deloitte maintained the 3 million minimum for new connections in its proposal but expanded on the MWs of new renewable power generation by proposing 4,000MWs of generation and transmission, combined. Deloitte selected the following as fee indicators (per the Year Four Annual Report, Annex G):

- Capacity (MW) from transactions SAEP supported that achieved financial closure
- Direct electricity access: Number of new grid and off-grid actual direct connections
- Number of laws, policies, strategies, plans, or regulations officially proposed, adopted, or implemented
- Submission of required deliverables as per Section F of the Contract
- Generation and transmission capacity (MW) pending financial closure

Based on discussions and interviews, the fee indicators have driven and focused SAEP's interventions due to Deloitte's financial incentive to ensure achievements. Thus, these fee indicators set the stage for SAEP to place emphasis on these results. However, the original solicitation did not focus heavily on new generation, transmission, or even new connections. Rather the SOO focused on the following five outcomes (which are used to structure the program):

- Improved regulation, planning and procurement for energy;
- Improved commercial viability of utilities;
- Improved regional harmonization and cross border trade;
- Renewable energy and energy efficiency technologies and practices locally demonstrated and scaled; and
- Increased human and institutional capacity.

The SOO (and Section C of Deloitte's contract) placed the new generation/transmission and new connection indicators under Outcome Four for renewable energy. Thus, the original RFP appears to place greater emphasis on the five enabling outcomes above rather than on the longer-term results of new generation and new connections.

At some point early in implementation, however, the generation, transmission, and connection indicators shifted from being lower-level indicators under Outcome Four to being impact-level indicators, as illustrated in SAEP's first Performance Monitoring and Evaluation Plan (PMEP), from 2017. The PMEP places new generation and transmission and new connections at the Project Impact level rather than under Outcome Four. This structure continues in the most recent PMEP version (version 10).

INDICATOR/TARGET BENEFITS

Benefits • Targets Focused Implementation on Core Goals • Regional Targets Offered Flexibility	• Targets Pushed SAEP to Strive for Higher Achievement
--	--

When asked about the benefits of the existing fee indicators, respondents were largely positive regarding the use of fee indicators for managing the contract, though there was notable room for improvement. Overall, respondents felt that the existence of fee indicators helped keep the team focused on the core goals of the program (five interviews) and that the fee indicators pushed the team to keep trying to achieve even higher results (five interviews), since there was a financial incentive for them to do so. Respondents appreciated the flexibility target setting at the regional rather than country level (three interviews) offered.

Results Orientation. As noted above under EQ3, USAID often approached the SAEP team with new intervention ideas and requests. These requests could sometimes pull the SAEP team in multiple directions. Five interviewees noted the fee indicators helped keep the program focused. One USAID respondent noted SAEP's flexibility in, *"Being able to ramp up based on USAID requests and needs. And yet, they still seem to remain very committed to core targets... Their fee was attached to targets, and I think that's why they were looking to address their performance indicators... I think it was keeping the eye on the prize."* Thus, respondents said that the fee indicators helped ensure SAEP's focus on the core goals and lessened distractions toward less relevant interventions.

Striving for Higher Achievement. Five respondents noted that the fee indicators helped push the SAEP team to keep achieving results, even in the face of challenges. Even after noting that some of the targets were unrealistic, one USAID staff member remarked that, *"It kept them hungry. It kept them working... We were just very open about that... at the beginning. They're like, we're going to go after it. If everything goes well, maybe we'll get it... I think it did push them."* Another USAID staff person similarly noted that, *"They seem to have done a great job pushing to try and beat the numbers that we set for them."*



Figure 11: Wind turbines from an SAEP partner.
PHOTO CREDIT: ENEL GREEN POWER

Regional Flexibility. Four respondents appreciated the regional nature of the fee indicators, which allowed SAEP to adapt over time, particularly in response to major shifts such as the challenges in Zambia or new opportunities in Angola. Regional targets helped ensure that SAEP focused their resources on the most fruitful efforts, regardless of where those opportunities were located. One USAID staff member noted about the regional approach that, *"I think it was effective because it helped SAEP see where they could be most impactful... That work could have more impact per dollar."*

INDICATOR/TARGET DRAWBACKS

Drawbacks

- Unrealistic Targets
- Concerns with Attributing Results to SAEP
- Lack of Clear Criteria
- Timeline Concerns for Achieving Results
- Insufficient Localization
- Regional Targets Emphasized Big Projects over Small Projects

Despite largely positive feedback regarding the utilization of fee indicators in general, respondents noted several specific challenges. First, most respondents believed that at least some of the targets were unrealistic (11 out of 21 interviews). Additionally, respondents noted concerns regarding the attribution of outcomes to the SAEP program (seven interviews), that the selection criteria for the indicators and targets were unclear (six interviews), concerns regarding the timelines for achieving intended results (five interviews), insufficient

localization (four interviews), and that the focus on big regional targets led the team to prioritize big interventions over smaller, but still beneficial, ones (four interviews).

Target Feasibility. Whether the fee indicator targets were realistic was central to answering this EQ. Most USAID and IP respondents felt that the targets, especially the target for new connections, were unrealistic (11 interviews). Respondents may have emphasized the new connections target because this is the only fee indicator SAEP has not yet achieved. However, respondents flagged the financial challenges in increasing new connections, particularly for on-grid connections. SAEP did not directly fund grid extension programs and only provides technical assistance. But, as one USAID respondent noted, grid extension is inherently costly. In many countries, the “low hanging fruit” of connecting densely populated areas where the potential income from new customers may cover the costs of grid extension, is largely complete. Connecting rural areas is expensive and often not commercially viable and must be subsidized. As one IP staff member said, *“If I had been a part of target setting, knowing the situation in Southern Africa, I would have said that the 3 million connections in four years was a little bit ambitious. Yes, it was a good target to aim for, but knowing the problems that are in the region generally, I thought from the start 3 million new connections was a bit ambitious and 2 million, which is where we are now, [could be feasible]. I would have said maybe 2.5 million, but definitely not more.”* USAID staff made similar points, with one stating specifically that, *“I think 2 million [new connections] would probably have been the ambitious yet achievable number.”*

Attribution of Results. Seven respondents critiqued the attribution of results to SAEP. Here, respondents noted two concerns: 1) whether SAEP could really claim credit for all the MWs and new connections when SAEP was often supporting other entities such as the World Bank or African Development Bank, and 2) the tenuous links between SAEP’s technical assistance and the fee indicators of MWs and connections.

Under the first concern, respondents focused on what “counted” toward SAEP’s indicators. SAEP counted results whether they provided extensive advisory support, or they supported just a small component of a much larger intervention. One USAID respondent recounted an incident in which SAEP had claimed MWs of new generation, but the country government counterparts disputed this claim, saying that SAEP’s support had been insufficient for them to claim the MWs as their own results.

The second concern about attribution focuses on the theory of change and the necessary assumptions required to move between the technical advisory services SAEP provided and the fee indicators of generation, transmission, and new connections (five interviews). As noted above, this challenge may have roots in the original design of the RFP, which did not originally focus heavily on new generation, transmission, or connections. Some respondents felt that the link between technical assistance and the fee indicators is not straightforward and often only exists in the longer-term, only to be realized after SAEP ends. For example, interventions to improve the commercial viability of utilities would likely result in benefits such as reduced losses, more efficient processes, improved cost recovery, etc. And, in the long term, this could contribute to more financial resources to support the purchase of additional power or to expand the grid. But that change would not likely occur within the five-year timeframe of a program like SAEP. As one IP respondent noted, *“How did... enabling environment work help with MWs and connections?”*

Unclear Criteria. The next most frequently cited concern with the indicators and targets was that it was unclear how they were set or selected. As noted above, very few respondents had any idea where USAID’s original minimum requirements came from or understood how the indicators and targets shifted during the proposal process. The ET received the output from a McKinsey-led study of potential new connections in Africa by 2030, which USAID may have used as a part of determining the new connections target. However, the ET does not have specific evidence that this data were used or how it was used to determine the new

connection target for SAEP.⁵ Reflecting the overall concern about the lack of clear criteria in the process, an IP respondent noted that, *“It was difficult for me to assess whether they were realistic or not because one of the things I would have expected to see... was how the metrics broke down into performance areas for each of the outcomes and for each of the key staff within each of the outcomes. And that framework didn't exist.”*

Timeline for Results. Next, respondents cited concerns with the timelines needed to achieve the indicator targets, particularly for the fee indicators. Here, respondents expressed concern about two aspects: 1) that realizing MWs and connections after technical assistance takes longer than five years, and 2) that power transactions have very long timelines. The first concern echoes the above attribution concerns and the time necessary to move from technical assistance outcomes to new generation, transmission, or connections. The second concern relates to the time it takes for a power transaction to achieve financial close. Even under the best circumstances, generation and transmission transactions take many years. Unless a program like SAEP starts supporting a power transaction right away in its period of performance or the transaction is already in process, it is unlikely to achieve financial close before the end of five years. This disincentivizes a program like SAEP, whose fee is tied to achieving these outcomes, from supporting longer-term efforts that could be very beneficial, but that will not achieve financial close before the end of the program. One respondent expanded this concern to new connections, saying, *“The number of connections that the program is going to actually achieve often come after the period of performance. For example, if we're bringing liquidity to a solar home system company, it takes a while for them to actually get to the point of selling those solar home systems and then working with families to make sure that they're productive.”* Respondents noted that the long timelines for achieving the fee indicators sometimes drove which interventions to pursue.

Insufficient Localization. Next, respondents (particularly IP respondents) highlighted insufficient local input and/or calibration of indicator selection and targets setting to local needs and realities (four interviews). As one USAID respondent framed it, *“But clearly the targets were unrealistic. And I think... setting huge generation targets without understanding the market... I think the [countries in the region] should have been consulted. I think the targets were not necessarily in line with the realities of the region.”*

Emphasis on Larger Power Markets. Finally, respondents highlighted the concern that high, regional targets pushed the SAEP team to focus on the largest interventions so they could reach the targets and claim the associated fee (four interviews). But, given the very different sizes of the power markets across Southern African countries, this meant SAEP emphasized countries with larger power markets. Even though a small power plant could have a huge impact on a country with a small power market, SAEP was less likely to support it than a much larger power plant in a much larger market like South Africa, respondents said. One IP staff member noted, *“[With a] straight number like 3,000MW [of generation], in that case, you're scrambling looking for that number. So, you look at the transaction costs of 5MW here vs. 50MW in the other country. But you might have had more impact with that 5MW.”* This finding is further supported by SAEP's transaction reporting, which shows that 95 percent of new generation capacity and 66 percent of new transmission capacity reaching financial close with SAEP support occurred in the four largest power markets (by installed generation capacity).⁶

⁵ McKinsey Connections Data Spreadsheet provided by USAID.

⁶ Installed generation capacity estimates based on data from the Power Africa website: <https://www.usaid.gov/powerafrica/wherewework>. The four largest power markets under SAEP are: South Africa, Angola, Zambia, and Mozambique.

RESPONDENT RECOMMENDATIONS FOR FUTURE INDICATOR AND TARGET SETTING

Recommendations	• Improve Localization • Increase Stakeholder Engagement • Establish Country-Level Targets
------------------------	--

In addition to asking respondents about the challenges encountered with the SAEP indicators and targets, the ET asked about their recommendations for improving on the process for future programs. The top respondent recommendations were interrelated: to improve localization in indicators selection and target setting (eight interviews), increase stakeholder engagement in the process (seven interviews), and create country-specific targets (six interviews).

These interrelated recommendations address some of respondents’ central concerns with the SAEP targets: that they were unrealistic, they did not reflect local needs or priorities, and that they incentivized larger interventions over smaller, potentially more beneficial ones. The desire for more local engagement mirrors feedback under EQ3 and reflects a desire to ensure that what a future program aims to achieve is linked with what local stakeholders actually need. As one USAID staff member noted, *“If you focus on technical capacity in a country that doesn’t need it because you’re trying to achieve the target, then you’re focusing on a country that doesn’t need it. Country by country context, I think, is key.”* The desire for some country-level targets built on this need for local input in target setting and attempted to address the size imbalances between countries in the region to avoid the larger power markets from attracting all the attention at the expense of the smaller markets. As one example, an IP respondent suggested making the targets a percentage of the market rather than just a fixed number. This would right-size, he said, the targets to the individual markets. Instead of saying 200MW of new generation, which could double the generation capacity in some countries but be a drop in the bucket in others, he suggested the target could be a 20 percent increase in generation in each country (or a certain number of countries).

CONCLUSIONS

Overall, the fee indicators and targets steered SAEP, keeping the program focused and pushing the team to maximize achievements. However, the ET found several issues with the existing indicators and targets. Most significantly, the selected indicators and the set targets did not appear based on any clear or documented criteria. Indeed, the EQ itself focused on the benefits and drawbacks of USAID selecting the indicators and setting the targets. However, it appears that both USAID and Deloitte played significant roles in indicator selection and target setting. The ET found that the focus of the program shifted over time. Though new generation and connections were lower-level results in the RFP (situated under Outcome 4), they rose to impact-level outcomes during implementation. As a result, the structure of SAEP, which centered around the five core outcomes from the RFP (which did not include generation or new connections) became a somewhat awkward fit. This contributed to respondent impressions that SAEP’s technical assistance was sometimes only loosely related to the fee indicators of new generation, transmission, and connections.

The fee indicator targets, in particular for new connections, were unrealistic. In the case of new connections, USAID set the 3 million target in the RFP. Though time remains for SAEP to achieve this goal before the end of their period of performance, it was an ambitious goal; often, stakeholders noted that 2 million or even 2.5 million new connections would have been an ambitious but more realistic goal.

Additional challenges in indicator selection and target setting centered around SAEP’s ability to truly claim the results represented in their fee indicators, the misalignment of timeframes between when SAEP needs to “achieve” results vs. how long power transactions actually take in practice, insufficient localization and local input in target setting, and how the large, regional fee indicator targets pushed SAEP to focus on larger interventions at the expense of smaller ones.

Finally, respondents provided recommendations that all centered on improving local input and localization in the indicator selection and target setting process, including increasing stakeholder input and introducing country-level targets to mitigate concerns about how regional targets favor larger power markets.

EQ5: IN WHICH COUNTRIES DID SAEP HAVE THE MOST SUCCESS VERSUS THE LEAST SUCCESS, AND WHY?

FINDINGS

Given that SAEP worked across ten countries, with varying levels of engagement across countries, EQ5 endeavored to understand how success varied across these contexts and why. To this end, the ET asked IP and USAID respondents about which countries SAEP had the most success in versus the least success and why. In 22 interviews, respondents felt sufficiently familiar with SAEP's activities across countries to respond to these questions.

MOST SUCCESSFUL COUNTRIES

Most Successful Countries

- Malawi
- Mozambique
- Zambia

According to respondents, SAEP achieved the most success in Malawi, Mozambique, and Zambia (15, 12, and nine interviews, respectively). When asked why these were the most successful countries, the factors respondents cited mirrored the factors noted under EQ2.

Malawi. Respondents focused on stakeholder's positive attitudes and responsiveness (their willingness to engage with SAEP), that SAEP met a clear and present need and at the right time (alignment of priorities), and that SAEP had strong staff in-country (strong technical capabilities).

In terms of stakeholder receptiveness, one USAID staff member stated, *"I'm going to say the same thing for Malawi... there were willing and stable stakeholders who were there for SAEP to engage. Not just the government but other [development finance institutions] to build an environment that was active and opportunities for the project to participate in."* A partner respondent echoed this sentiment, *"I think Malawi, because I think, with a positive mind, there's been much more impact in Malawi on the support from SAEP. I think these successes have also been driven by the need because I think the Malawi [grid] is not yet interconnected and there is much more benefit when Malawi gets connected."* In addition to stakeholders' willingness to engage, respondents felt that success in Malawi was due to good timing of the program. As one respondent noted, *"...SAEP encountered the right projects at the right time to partner or feed into [in Malawi]. And I think the support for SAEP came at a good time for them, it's actually clear objectives and indicators of how they can benefit from the interconnected grid to the power pool. So, I think it came at the right time in terms of the support for the tools that they actually recommended. The support also on the interconnection itself, the*



Figure 12: SAEP-supported Solar Home System (SHS) Kick- Starter Program in Malawi.

PHOTO CREDIT: ZUWA ENERGY

transmission line and also various works in terms of the capacity building that they are also offering to Malawi. So, I think more success was in Malawi."

Mozambique. While less specific about what led to SAEP's success, respondents' feedback focused on how embedded SAEP was in the country and how the program built strong relationships with stakeholders. One IP staff member noted, *"We've been very involved in Mozambique. We had an embedded advisor. Like we have in Angola now for the transmission line. And we've been there every month and preparing to help them with interconnection. So, we have a very strong relationship with the people there."*

Zambia. Following Malawi and Mozambique, the third most frequently cited successful country was Zambia (nine interviews). However, Zambia offers a unique case in that respondents also cited it as one of the least successful countries, placing third on that list as well (three interviews). On its success, respondents cited SAEP's intensive engagement and strong staff, as well as counterparts' receptiveness to SAEP. Factors contributing to a lack of success centered on significant shifts in Zambia's political climate. This caused significant change in SAEP's counterparts and resulted in shifts in priorities. Zambia pulled out of a major loan from the World Bank to which SAEP was providing technical assistance. Thus, though SAEP's work in Zambia started strong, these shifts significantly affected SAEP's ability and effectiveness in the country.

LEAST SUCCESSFUL COUNTRIES

Least Successful Countries

- Madagascar
- Lesotho
- Botswana
- Eswatini
- Namibia

Fewer respondents provided feedback about which countries experienced the least success (14 interviews versus 22 that discussed the most successful countries). Respondents most frequently cited Madagascar and Lesotho as the least successful (six and four interviews, respectively). Botswana, Eswatini, Namibia, and Zambia tied for third most cited (three interviews each).

Madagascar. In Madagascar, respondents noted challenges with inconsistent and complicated bureaucracy leading to slow response times, SAEP's difficulties navigating the culture and language, which contributed to communication challenges, a changing political environment, and Madagascar generally being a difficult place in which to work. Inconsistent and excessive bureaucracy significantly affected success in Madagascar, according to respondents. Several respondents that mentioned Madagascar discussed SAEP's grant program for mini-grids. The program aimed to alleviate financing constraints and expand new connections by supporting renewable energy companies with a subsidy to expand their mini-grid networks and connect households, clinics, and other facilities. However, the government changed their regulations that had previously exempted renewable energy products from import taxes. Thus, the government expected the companies to pay taxes. This led to back-and-forth discussions between the government, the developers, and SAEP, which led to significant delays. With the delays came mounting costs (i.e., storage costs on top of the import taxes). An IP partner expressed the impact of this change in rules, *"Materials were ordered but there is a problem with clearance. The Ministry of Finance changed the rules. So, they had to pay instead of being free of duty, and they cannot pay. The goods have been in storage for one year at the port. So now there are storage costs. We are trying to intervene with the Ministry of Finance and Ministry of Energy but now storage is US\$150,000, duty is US\$60,000, the goods were about US\$40,000. No ministry wants to take the [responsibility]. And they [the developers] can't pay..."* To date, the materials have been unable to clear the port.

Lesotho, Botswana, Eswatini, and Namibia. In these countries, respondents noted that a key driver limiting success was the small size of their power markets, limiting the effort that SAEP focused there. As discussed under EQ4, the regional nature of the fee indicators pushed SAEP to focus on interventions that would help them achieve their targets. This encouraged SAEP to focus, for example, on a 100MW generation plant in a larger market like South Africa vs. a 10MW plan in Lesotho, even though the latter could potentially have a more significant social benefit than the former. One USAID respondent noted, *“But then the other ones like Botswana, like Lesotho, like Swaziland, we were never going to be able to, just from a budget perspective, the ultimate need, to get to the targets. So, letting the targets drive our presence in these countries [that] had just such little population that we were trying to do, high value or innovative, interesting things... But they were never going to be the driver of where the projects were going just because of the targets.”* Other interviews echoed this sentiment. One USAID respondent noted, *“Eswatini and Lesotho. I didn’t think there was much target[ed] effort to do much work there. The level of engagement and investment relative to stand up relationships and/or an activity wasn’t there.”* This respondent believed that the effort needed to establish effective partnerships relative to the size of the potential interventions was not sufficient to encourage SAEP to work there.

CONCLUSIONS

SAEP achieved the most success in Malawi and Mozambique, mostly due to the strength of the relationships they built, the strength of the SAEP technical team, and stakeholders’ willingness to engage. These factors mirror the general factors influencing success noted under EQ2.

Respondents ranked Zambia third on both the most and least successful country lists. Zambia proved to be a unique case in that SAEP worked heavily there in the first few years of implementation before a significant political shift led to changes in stakeholder priorities and the cancelation of a large power transaction that SAEP was supporting. After this point, SAEP struggled to achieve significant progress in Zambia and thus shifted its focus to work in other countries, a possibility that the flexible, regional targets enabled.

SAEP achieved the least success in Madagascar, Botswana, Eswatini, Lesotho, and Namibia. In Madagascar, SAEP encountered significant bureaucratic challenges as well as difficulties navigating the cultural and linguistic environment, which was very different from the rest of the region. In the remaining countries, the small size of their power markets played a significant role in the lack of success. As discussed in EQ4, the fee indicators encouraged SAEP to focus on large interventions that could help them achieve the indicator targets. Though SAEP had some successful interventions in these countries, they generally received less attention than larger countries. Where successes occurred, they did not substantially contribute to achieving fee indicator targets.

EQ6: HOW IS THE SAEP PERCEIVED AND VALUED BY THE STAKEHOLDERS OF THE PROGRAM?

FINDINGS

Stakeholder Perceptions

- SAEP is improving the sector, particularly in terms of power access
- Satisfaction with SAEP’s work
- USAID staff rated SAEP more positively than partners did (though partners were also positive, overall)

To assess stakeholder satisfaction and perceptions regarding SAEP, the ET asked respondents about the extent to which they thought SAEP contributed to improving the power sector in both the quantitative

survey and the qualitative interviews. The survey asked respondents how SAEP contributed to particular outcomes in the sector and overall satisfaction with SAEP. The following sections discuss findings from each.

The quantitative survey asked respondents to rate the extent to which they felt SAEP had improved the power sector on a scale of 1 to 3, with 1 being no improvements and 3 being significant improvements. The survey first asked about SAEP's contributions to the overall sector, followed by questions about specific components, such as generation or transmission. On the overall sector, respondents provided SAEP an average rating of 2.3, indicating that respondents view the improvements as somewhat significant. There were notable disparities by respondent type, however. USAID respondents reported the most positive sentiments while partner organizations reported the lowest ratings. IP respondents fell in the middle (see Table 4).

In the qualitative data, respondents shared similar views about SAEP's contributions to the sector. Respondents in the vast majority of interviews reported positive feedback, noting either significant improvements (19 interviews) or some improvements (21 interviews) to the sector.

Table 4: SAEP Contributions to the Sector (Scale of 1-3; 3=Significant)

SAEP CATEGORY	USAID	IP	PARTNERS	OVERALL
Power Sector (Overall)	3.0	2.6	1.9	2.3
Generation Capacity	3.0	1.9	1.4	1.7
Transmission Capacity	3.0	2.3	1.3	1.8
Power Access	2.5	2.5	2.3	2.4
Energy Efficiency	1.0	2.0	2.0	1.9
Power Sector Policy	2.0	2.8	1.8	2.2
Power Sector Regulation	3.0	2.7	1.5	2.1
Power Sector Coordination	3.0	2.2	1.8	2.0
Private Sector Investment in Power	3.0	2.0	2.2	2.2
Greenhouse Gas Emissions	2.0	1.8	2.0	1.9

In addition to rating the overall improvements that SAEP made to the power sector, the survey asked respondents about SAEP's contributions to nine sectoral areas. As Table 4 shows, respondents rated SAEP's contributions to improving electricity access the highest, with an average rating of 2.4. On the other hand, the other key outcomes of generation and transmission received the lowest overall ratings (1.7 and 1.8, respectively). These findings are interesting to note, as EQI showed that SAEP has achieved the latter targets but not for new connections. Thus, stakeholder perceptions of success are opposite what the performance indicators show. However, the survey data mirror EQI interviewee feedback, where respondents noted new connections as a top success, despite not meeting the anticipated target. As highlighted under EQI, this dichotomy may be related to stakeholders' perceptions that the new connection target was unrealistic and that SAEP may not be able to claim attribution for all its generation and transmission results.

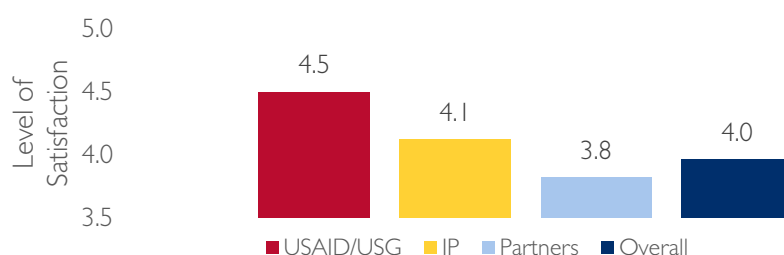
As with SAEP's overall contributions to the sector, disaggregated sub-sector ratings by respondent type highlight that USAID respondents felt most positive about SAEP's contributions while partners felt the least

positive in almost all cases (contributions toward greenhouse gas emissions was an exception). Female respondents tended to provide more positive ratings than did male respondents.

SATISFACTION WITH SAEP

The survey asked about respondents' level of satisfaction with the SAEP program, on a scale of 1 to 5, with higher scores indicating they were more satisfied. Most respondents were satisfied with SAEP, with an overall average of 4.0 (see Figure 13).

Figure 13: Satisfaction with SAEP by Respondent Type (Scale of 1-5; 5=Very Satisfied)



Similar trends across respondent types appear. USAID staff were the most satisfied with SAEP while partners were least satisfied, though it is important to note that with an average score of 3.8, even partners were fairly satisfied with the program.

CONCLUSIONS

Overall, respondents and interviewees felt that SAEP made notable improvements to the power sector, and they had high levels of satisfaction with the program. Contrary to performance indicator data, stakeholders were happier with SAEP's work to increase new connections (for which SAEP has not yet met its target) than they were with SAEP's contributions to new generation and transmission capacity (where SAEP has met its targets). This is likely due to a combination of poorly calibrated targets and the attribution concerns respondents raised regarding the fee indicators under EQ4.

The differences in the perceptions between USAID respondents and partner respondents are notable and show a likely gap in USAID's understanding of partner needs and sentiments regarding the program.

RECOMMENDATIONS

Based on the findings and conclusions of this evaluation, the ET has the following recommendations for USAID as it proceeds with designing the SAEP follow-on program:

- 1. USAID should ensure the localization of future programs.** Localization involves active engagement with local stakeholders throughout the project life cycle so that the activities meet the needs of those it is intended to help. Findings across EQs highlighted the importance of localization in design, indicator target setting, and staffing. Localization affected both stakeholder buy-in and engagement with SAEP and the achievement of results. In some cases, SAEP navigated local needs well and managed the cultural and linguistic differences across the region, but room for improvement remains. Though both USAID and Deloitte played parts in the localization of SAEP, for future programming, USAID should begin the local engagement process early to take into account local priorities and needs even at the proposal stage. If engagement could not begin before the solicitation phase, USAID should maintain sufficient flexibility to allow for anticipated partners to influence the design and implementation approach after award. Additionally, USAID should ensure that IPs staff future programs in a way that addresses the different cultural and linguistic needs across

the region, such as through more extensive engagement of local staff and experts. USAID can provide this oversight through both contractual requirements, such as requirements for linguistic skills on the team and/or for inclusion of regional experts, as well as through its ongoing oversight of the contract during implementation, where USAID can help ensure that the IP updates its staffing to align with any needed changes. Finally, future program design and target setting should account for the work other donors have done in each country to avoid duplication and maximize benefits to partner countries by involving other donors as stakeholders as well. For example, if another donor is already supporting a country's planned generation activities, USAID's programs could focus on another area of the sector that is in more need of assistance. This recommendation responds to findings from EQ2 noting the importance of aligning programming with local priorities and to findings from EQ3 and EQ4 related to insufficient localization under SAEP.

2. USAID should ensure that clear criteria drive future indicator selection and target setting.

Given that the fee indicators drive program focus, USAID should ensure that the fee indicators represent the intended focus of future programs and that the resulting interventions clearly link to achieving those indicators. For example, if USAID's intention is to focus on new generation and new connections, then USAID should clearly link the structure of the program and the anticipated interventions to achieving those outcomes during the life of the program. If the intended focus of the program is more on the enabling environment, building capacity, and institutional strengthening, then USAID should focus the fee indicators on these outcomes instead, to ensure the maximum linkage between program efforts and achievements. Additionally, USAID and the IP should set the targets using clear justifications and realistic criteria that incorporate local input, needs, and priorities. This ensures that targets are ambitious, but realistic, given regional realities. USAID should explore possibilities for setting targets that balance the flexibility of regional targets while adjusting to the widely varying power markets in the region. Multiple options are possible but could include setting a high-level regional target while requiring a subset of country-level targets. As an illustrative example, setting a target of 1,000MW of new generation regionally could be accompanied by a requirement to increase capacity of at least 100MW or 10 percent of the country's total installed capacity in at least four countries. Including both a "hard" figure and a percentage option could help adjust for wide variances between countries: 10 percent in Eswatini would be five to six MW and is achievable while 10 percent in South Africa would be nearly 6,000MW and would likely be unrealistic (USAID, of course, would need to set the specific thresholds using their own specific criteria and goals). Including both thresholds mitigates this challenge while ensuring that smaller, high-impact interventions receive attention. This recommendation responds to findings from EQ4 regarding the lack of clear criteria for indicator selection and target setting under SAEP and the important, driving role of the fee indicators as well as EQ4 findings regarding the inclusion of local input and blending the flexibility of regional targets with country-level targets.

3. USAID should ensure that future programming improve on the GESI approach.

To ensure a cohesive GESI approach, USAID should first define its GESI goals for the activity. It can then hold IPs accountable to that vision. USAID should ensure that future program design enables achievement of that vision. For example, if the vision involves increasing women's participation in the power sector, then USAID would need to anticipate interventions to support this goal, which would look very different from interventions designed to ensure that women already in the field receive adequate opportunities. USAID should ensure that the GESI approach goes beyond gender toward intersectionality and social inclusion, accounting for other marginalized groups and gaps within social equity (in line with USAID's GESI guidance). USAID should ensure that performance indicators and action plans adequately capture this updated approach and integrate the approach throughout the eventual programs. Finally, USAID should integrate the GESI approach across country programs and

leads, allowing for synergy across programming and interventions. This recommendation responds to EQ3 findings regarding ways to improve on SAEP's GESI approach for future programs.

- 4. USAID should ensure that future programming addresses the financing gap in the power sector.** Across stakeholder groups, respondents flagged a lack of financing for power projects as a key constraint. Though some stakeholders requested that USAID provide direct funding for infrastructure investments (which was particularly important for extending the grid in rural areas as doing so is not commercially viable), others referred more generally to ways in which USAID could help connect utilities, governments, and private sector firms with financiers (either commercial banks or development banks/funds). USAID should base such programming on thorough studies assessing the primary constraints to power sector financing in Southern Africa. Such design may require specialized programming such as credit guarantees or other lending derisking mechanisms to meet the needs of both credit and financiers. This recommendation responds to findings from EQ3 regarding how financing remains a significant need in the sector and can act as a roadblock to progress, and how addressing this need in future programming could improve outcomes.

ANNEX I: STATEMENT OF WORK

SECTION C—STATEMENT OF WORK

C.1. Purpose

USAID Power Africa Program Office requires an external performance evaluation of a USAID-funded project to improve program performance management and efficiency. This evaluation will also help Power Africa meet Agency requirements, make improved informed strategic and management decisions around program implementation, and advance Agency learning.

C.2. Background of the Project to Be Evaluated

Project Name	Southern Africa Energy Program (SAEP)
Implementing Organization	Deloitte
Contract #	AID-674-C-17-00002
Project Funding	\$69,995,372
Period of Performance	March 2017-March 2022
Geographic Scope	Southern Africa- Angola (new in FY19); Botswana; Eswatini; Lesotho; Madagascar; Malawi; Mozambique; Namibia; South Africa; Zambia
USAID Office	Power Africa

C.3. Description of the Project and Theory of Change

SAEP's overarching goal is to overcome the challenges of energy access and power sector development in Southern Africa. SAEP aims to increase electricity availability and access in Southern Africa, specifically through:

- 3,000 MW of new generation capacity;
- 1,000 MW of new transmission capacity;
- 3 million new connections

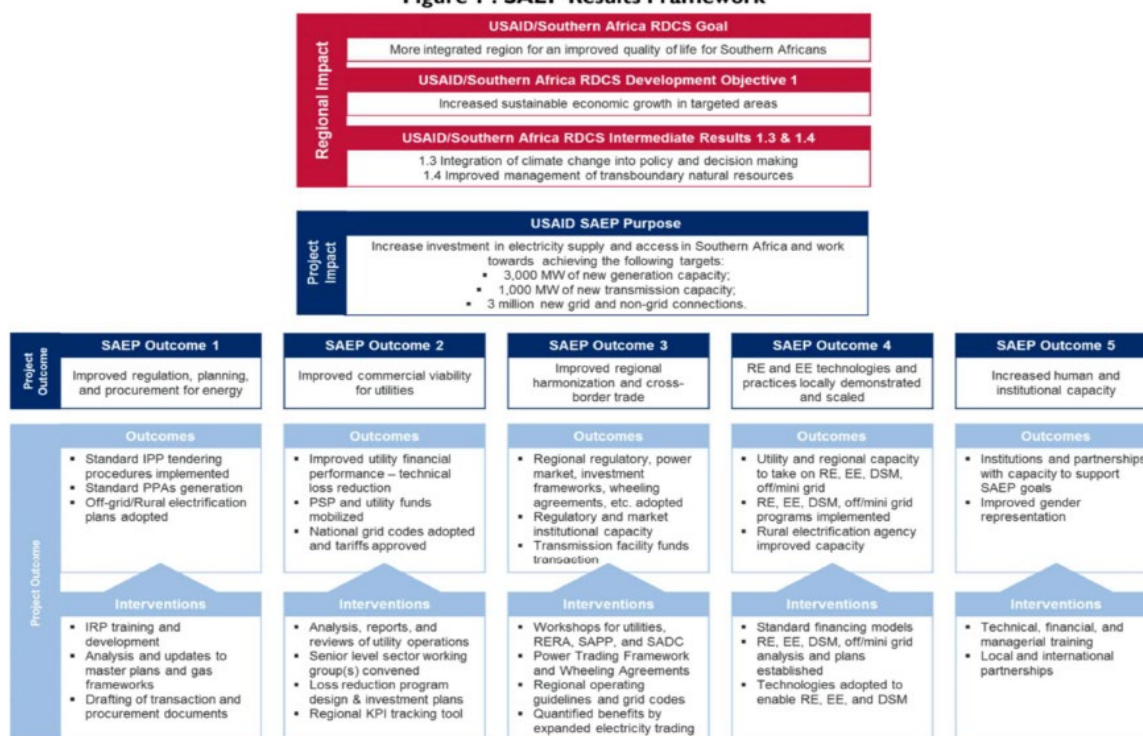
SAEP was designed to increase electricity generation and to improve access to power in 11⁷ countries located throughout Southern Africa while objectively quantifying and measuring progress toward five key outcomes or work streams of the Program. The outcomes are outlined in the Figure below, which demonstrates SAEP's Development Hypothesis and Results Framework.

The approach SAEP used to increase investment in electricity supply and access in Southern Africa was to strengthen the regional enabling environment and facilitate transactions. SAEP addresses key constraints to

⁷ Botswana; Eswatini; Lesotho; Madagascar; Malawi; Mozambique; Namibia; South Africa; Zambia

energy sector investment, through strengthening regulation, improving planning and procurement, improving management of electricity trade, demonstrating and scaling energy efficiency technologies and

Figure 1 : SAEP Results Framework



practices, and providing capacity building to institutions and human resources for energy sector management.

C.4. Evaluation Objective

The evaluation seeks to understand how effective the SAEP activity's efforts were/are to increase electricity availability and access in Southern Africa by facilitating transactions and strengthening the enabling environment for private sector investment in power, with a focus on clean energy. Power Africa technical teams and Power Africa management will use the results of this evaluation to make programmatic adjustments, inform future project redesign efforts and strategies, and support evidence-based decision making.

C.5. Evaluation Questions

Evaluation questions will be finalized in collaboration with USAID post-award. The following evaluation questions are illustrative:

- To what extent was SAEP able to meet its purpose & related outputs & outcomes (MWs, Connections, Enabling Environment)?
- What enabled and/or hindered achievements and how were any hindrances addressed? Provide specific examples.

- iii. How did the program design, target setting and operational decision-making shape and contribute to the achievements of the Activity?
- iv. What were the benefits and drawbacks of Power Africa setting the connections and MW targets for the program (which may have been too ambitious?)
- v. In which countries did SAEP have the most success* vs. the least success, and why? (focus on off-grid interventions; unlocking financing for private sector companies; improving the enabling environment?)
- vi. How is the SAEP activity perceived and valued by the stakeholders of the project? (Implementers, including transaction advisors; utilities; regulators; host country governments; private sector partners; Mission POCs)

**For the purpose of this evaluation, "success" is defined as having met the intended outputs, outcomes, and where identifiable, impacts, of the SAEP activity. Outputs, outcomes, and impacts are outlined in the figure above.*

C.6. Evaluation Design and Methodology

The following is a guideline for the proposed methodology and data analysis to be used in the performance evaluation:

- The contractor should propose an evaluation design that employs mixed methods for data collection. These should include key informant interviews, which may be conducted remotely via video conferencing (e.g., Google Meet; Zoom; Microsoft Teams etc.) due to COVID restrictions or precautions.
- A reasonable and appropriate data analysis method (discussed and agreed upon with the Power Africa MEL Team), that will yield credible results must be proposed. With quantitative results, a margin of error less than 10 percent is permissible or deemed reasonable. Disaggregated data may be required (e.g., country, type of connection, type of technology, transaction type, type of energy source, by sex or other relevant aspects of the program).
- Data collection should include - document/desk review, key informant interviews/focus group discussions, review of Power Africa Information System (PAIS) and Power Africa Tracing Tool (PATT) data, quantitative tools.
- Data sources should include regular implementing mechanism reports, programmatic documents, and relevant stakeholders' documents.

Any known limitations in data collection should be included in the evaluation report.

ANNEX 2: BIBLIOGRAPHY

- Electricity Generation Company Malawi Limited GESI Document Review List
- Electricity Generation Company Malawi Limited GESI Findings Validation Workshop Final Presentation
- Patton, Michael Q. (2002). Qualitative Research and Evaluation Methods. Thousand Oaks, Calif: Sage Publications
- Power Africa Portfolio Review Presentation, November 2016
- Power Africa Portfolio Review Presentation, August 2021
- Power Africa Portfolio Review Presentation, May 2022
- Southern African Development Community (SADC) Gender Mainstreaming Baseline Survey Report
- SADC Gender Action Plan 2020
- SAEP Activity Deliverable Tracker
- SAEP Annual Report Year 1
- SAEP Annual Report Year 2
- SAEP Annual Report Year 3
- SAEP Annual Report Year 4
- SAEP Contract, Section C
- SAEP GESI Timelines Spreadsheet
- SAEP Monitoring & Evaluation Standard Operating Procedures
- SAEP Monitoring Indicator Actuals and Targets, Q2 2022
- SAEP Monitoring Indicator Actuals and Targets, Q3 2022
- SAEP Performance Management & Evaluation Plan (PMEP) Version 3, 2018
- SAEP PMEP Version 4, 2018
- SAEP PMEP Version 5, 2018
- SAEP PMEP Version 6, 2020
- SAEP PMEP Version 7, 2020
- SAEP PMEP Version 8, 2021
- SAEP PMEP Version 9, 2021
- SAEP PMEP Version 10, 2021
- SAEP Regional Course Catalogue, October 2017
- SAEP Request For Proposals
- SAEP Work Plan Year 1
- SAEP Work Plan Year 3
- SAEP Work Plan Year 4
- SAEP Work Plan Year 5
- SAEP Year 1 Gender Action Plan
- SAEP Year 2 Gender Action Plan Timelines
- SAEP Year 3 Gender Action Plan Timelines
- Southern Africa Gas Roadmap for SAEP
- Southern Africa Gas Roadmap to Guide USAID SAEP Gas Work

ANNEX 3: INFORMED CONSENT STATEMENTS

QUALITATIVE CONSENT FORM

Hello, my name is _____ and I am here on behalf of Social Impact, an evaluation company based in the United States. We are independent evaluators working on behalf of the United States Agency for International Development (USAID). We are evaluating the Southern Africa Energy Program (SAEP), which is being implemented by Deloitte. We are not directly affiliated with either USAID or Deloitte, as we are an independent evaluator. Thus, we appreciate your candid responses. In this evaluation, we are assessing the extent to which SAEP achieved its goals, what worked well in implementation, and what the lessons learned might be that could benefit similar, future projects. This evaluation will help USAID understand how to improve its activities in the future.

We are asking you to participate as one of at least 100 stakeholder interviews because of your and/or your organization's involvement in the SAEP program. We kindly request approximately [two hours (for USAID and IP staff)/60 minutes (for all other stakeholders)] of your time so we can hear about your experiences and opinions. We will ask for details about SAEP's activities as well as your perceptions of the interventions.

We do not anticipate any risks to participating in this interview, and there are no direct benefits, though your participation may broadly inform improvements in future USAID power programs. Your participation in this study is completely voluntary and you are under no obligation to participate. If you don't know the answer or do not wish to answer a question it is fine just tell us and we will move on. If you start the interview and wish to stop at any time for any reason, simply let us know.

Only a handful of SI researchers on this study will have access to your personal information. Your name, address, contact information, and other identifiers will not be shared with anyone outside of the research team. Your personal information will be recorded on a separate sheet of paper from the rest of the information and will be kept separately. While all identifying information will be kept confidential, de-identified data may be shared with USAID and/or publicly for future research purposes.

If you have any concerns, you may contact Kari Nelson at knelson@socialimpact.com or +1 952 446 5440 or the Social Impact Institutional Review Board at irb@socialimpact.com or +1 703 465 1884 with questions about the study or results. I will leave a copy of this form with you.

Do you have any questions about this interview?

Do you agree to participate? Yes/No

Do you agree to us recording this interview? Yes/No

QUANTITATIVE CONSENT FORM

Hello, this survey comes from Social Impact, an evaluation company based in the United States. We are independent evaluators working on behalf of the United States Agency for International Development (USAID) to evaluate the Southern Africa Energy Program (SAEP), which is being implemented by Deloitte. We are not directly affiliated with either USAID or Deloitte, as we are an independent evaluator. Thus, we appreciate your candid responses. In this evaluation, we are assessing the extent to which SAEP achieved its goals, what worked well in implementation, and what the lessons learned might be that could benefit similar, future projects. This evaluation will help USAID understand how to improve its activities in the future.

We are sharing this survey with several hundred key stakeholders involved in the SAEP program. We kindly request 10-15 minutes of your time to complete this survey and for us to better understand your perspective of the SAEP program.

We do not anticipate any risks to participating in this survey, and there are no direct benefits, though your participation may broadly inform improvements in future USAID power programs. Your participation in this study is completely voluntary and you are under no obligation to participate. If you don't know the answer or do not wish to answer a question, you can skip that question. You can also choose to stop the survey at any time without consequence.

Only a handful of SI researchers on this study will have access to your personal information. The survey will not ask for your name or other direct identifiers, however, we will ask for indirect information such as your role related to SAEP, your gender, etc. After data analysis, the collected data will be deidentified (information potentially linking you to your responses will be modified and/or removed) and will be shared publicly on USAID's Development Data Library for use by other researchers.

If you have any concerns, you may contact Kari Nelson at knelson@socialimpact.com or +1 952 446 5440 or the Social Impact Institutional Review Board at irb@socialimpact.com or +1 703 465 1884 with questions about the study or results. I will leave a copy of this form with you.

Do you agree to participate? Yes/No

ANNEX 4: DATA COLLECTION INSTRUMENTS

KEY INFORMANT INTERVIEW GUIDES

USAID/EMBASSY STAFF (KIIS)

Introduction:

1. What is your role at USAID/within the US government?
2. How have you been involved in the design or implementation of SAEP and/or other Power Africa initiatives?

EQ1:

3. How would you describe “success” for SAEP?
 - a. What would “success” look like?
 - b. How, if at all, does your definition of success differ from the official definition (as set by SAEP’s program logic and performance indicators)?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
 - b. To what extent does your perspective on SAEP success match with the extent to which SAEP has met its performance indicators (which is potentially a different definition of “success”)?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven’t they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?

EQ5:

7. To what extent are you familiar with SAEP’s work across multiple countries?
8. If familiar with SAEP’s work in multiple countries: In which countries has SAEP had the most success? Why?
 - a. In what ways was SAEP more successful?
9. If familiar with SAEP’s work in multiple countries: In which countries has SAEP had the least success? Why?
 - a. In what ways was SAEP less successful?

EQ2:

10. What factors have helped facilitate SAEP achievements? How so and why?
 - a. Types of factors to consider: country context, willingness/cooperativeness of partners, implementation approach, SAEP management approach, etc.
11. What factors have hindered SAEP achievements? How so and why?

- a. Types of factors to consider: country context, willingness/cooperativeness of partners, implementation approach, SAEP management approach, COVID-19, etc.
- 12. How were any hindrances addressed?
- 13. How, if at all, has COVID-19 affected SAEP implementation and/or success?
- 14. Some SAEP partnerships have been more successful than others. Which have been most successful and what factors do you think are driving these differences?

EQ3:

- 15. From your perspective, what were the strengths and weaknesses of the SAEP program design?
- 16. How has the original program design affected SAEP's ability to achieve its intended outcomes?
 - a. What aspects of design were most impactful? Why?
- 17. How effective has operational decision-making been under SAEP?
 - a. Has it differed across entities (Deloitte, USAID, specific sub-teams, etc.)? If so, how?
 - b. How, if at all, has it impacted the achievement of expected outcomes?
- 18. We understand that SAEP took an iterative approach to interventions, with frequent updates to the work plan. From your perspective, how effective was this approach for improving outcomes and why?
- 19. What approaches has SAEP used for gender and social inclusion in its activities?
- 20. What worked well for supporting gender and social inclusion?
- 21. What challenges were encountered in trying to support gender and social inclusion?
- 22. What, if any, adjustments would you suggest for the program design or approach moving forward?

EQ4:

- 23. Are you familiar with how the targets for key monitoring indicators were set for SAEP? If so, how were they set and by whom?
 - a. If familiar with target setting: What worked well in regard to how key monitoring targets were set?
 - b. If familiar with target setting: What challenges were encountered either in the target setting process or because of it?
- 24. How realistic do you think the key performance targets of MW of new generation and transmission and number of new connections were? Why or why not?
- 25. In a future activity like SAEP, what, if any, changes would you propose to how key indicators were selected and/or how the targets were set?

EQ6:

- 26. As a whole, how successful has SAEP been in improving the power sector?

27. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Closing:

28. Is there anything additional you'd like to share about SAEP?

IP STAFF AND CONSULTANTS (KIIS)

Introduction

1. What is your role within the SAEP program?
2. How have you been involved in the design or implementation of SAEP?

EQ1:

3. How would you describe “success” for SAEP?
 - a. What would “success” look like?
 - b. How, if at all, does your definition of success differ from the official definition (as set by SAEP’s program logic and performance indicators)?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
 - b. To what extent does your perspective on SAEP success match with the extent to which SAEP has met its performance indicators (which is potentially a different definition of “success”)?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven’t they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
7. Which specific types of interventions under SAEP have you been involved in?
 - a. Potential examples: transaction advising, capacity development, utility support, engineering studies, tariff studies, policy reform, power regulation, etc.
8. Regarding the specific interventions that you have been involved in, what are the biggest successes achieved and what factors drove those successes?
9. What have been the biggest challenges in your specific activities?
10. If you were to engage in a future activity like SAEP, what changes would you propose for the new activity?

EQ5:

11. What contextual or country-related factors have varied the most between countries? How have these factors impacted relative success between countries?
12. In which countries has SAEP had the most success? Why?
 - a. In what ways was SAEP more successful?
13. In which countries has SAEP had the least success? Why?
 - a. In what ways was SAEP less successful?

EQ2:

14. What factors have helped facilitate SAEP achievements? How so and why?
 - a. Types of factors to consider: country context, willingness/cooperativeness of partners, implementation approach, SAEP management approach, etc.
15. What factors have hindered SAEP achievements? How so and why?
 - a. Types of factors to consider: country context, willingness/cooperativeness of partners, implementation approach, SAEP management approach, COVID-19, etc.
16. How were any hindrances addressed?
17. How, if at all, has COVID-19 affected SAEP implementation and/or success?
18. Some SAEP partnerships have been more successful than others. Which have been most successful and what factors do you think are driving these differences?

EQ3:

19. From your perspective, what were the strengths and weaknesses of the SAEP program design?
20. How has the original program design affected SAEP's ability to achieve its intended outcomes?
 - a. What aspects of design were most impactful? Why?
21. How effective has operational decision-making been under SAEP?
 - b. Has it differed across entities (Deloitte, USAID, specific sub-teams, etc.)? If so, how?
 - c. How, if at all, has it impacted the achievement of expected outcomes?
22. We understand that SAEP took an iterative approach to interventions, with frequent updates to the work plan. From your perspective, how effective was this approach for improving outcomes and why?
23. What approaches has SAEP used for gender and social inclusion in its activities?
24. What worked well for supporting gender and social inclusion?
25. What challenges were encountered in trying to support gender and social inclusion?
26. What, if any, adjustments would you suggest for the program design or approach moving forward?

EQ4:

27. Are you familiar with how the targets for key monitoring indicators were set for SAEP? If so, how were they set and by whom?
 - a. If familiar with target setting: What worked well in regard to how key monitoring targets were set?
 - b. If familiar with target setting: What challenges were encountered either in the target setting process or because of it?

28. How realistic do you think the key performance targets of MW of new generation and transmission and number of new connections were? Why?
29. In a future activity like SAEP, what, if any, changes would you propose to how key indicators were selected and/or how the targets were set?

EQ6:

30. As a whole, how successful has SAEP been in improving the power sector?
31. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Conclusion:

32. Is there anything additional you'd like to share about SAEP?

UTILITY AND REGULATOR REPRESENTATIVES (KIIS)

Introduction

1. What is your role within your organization?
2. How have you been involved in the SAEP program?

EQ1:

3. How would you describe “success” for SAEP?
 - a. What would “success” look like?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven't they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
7. How, specifically, has SAEP supported your [utility/organization]?
 - a. Potential examples: transaction advising, capacity development, reducing losses, engineering studies, tariff studies, policy reform, customer service improvements, etc.
8. What, if anything, did SAEP's support help your [utility/organization] achieve that it may not have been able to achieve without SAEP's support?
 - a. How did SAEP's support help achieve this outcome?
9. Is there anything you had hoped your [utility/organization] could achieve with SAEP support that you were not able to achieve? If so, what wasn't achieved and why?

EQ2:

10. What went well about working with SAEP?
11. What have been the biggest challenges you've encountered in working with SAEP?
 - a. Did SAEP take any specific actions to address the challenges that were encountered? If so, what did they do, and was it effective?
12. How, if at all, has COVID-19 affected SAEP implementation and/or success?
13. If you could change anything about the type of support or the manner in which SAEP supports [utilities/organizations] like yours, what would it be? Why?
14. What changes would you suggest for a future activity like SAEP that might facilitate engagement with your [utility/organization]?

EQ6:

- I 5. As a whole, how successful has SAEP been in improving the power sector?
- I 6. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Conclusion:

- I 7. Is there anything additional you'd like to share about SAEP?

PARTNER GOVERNMENT REPRESENTATIVES (KIIS)

Introduction

1. What is your role within your organization?
2. How have you been involved in the SAEP program?

EQ1:

3. How would you describe “success” for SAEP?
 - a. What would “success” look like?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven't they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
7. How, specifically, has SAEP supported the power sector in your country and your [office/ministry], specifically?
 - a. Potential examples: increasing generation, improving transmission, transaction advising, capacity development, reducing losses, engineering studies, tariff studies, policy reform, customer service improvements, etc.
8. What, if anything, did SAEP's support help you/your [office/ministry] achieve that it may not have been able to achieve without SAEP's support?
 - a. How did SAEP's support help achieve this outcome?
9. Is there anything you had hoped you/your [office/ministry] could achieve with SAEP support that you were not able to achieve? If so, what wasn't achieved and why?
10. What, if any, challenges remain to be addressed in the power sector in your country?
11. How might SAEP (or another future program) support you in addressing these challenges?

EQ2:

12. What worked well about working with SAEP?
13. What have been the biggest challenges in working with SAEP?
 - a. Did SAEP take any specific actions to address the challenges that were encountered? If so, what did they do, and was it effective?
14. How, if at all, has COVID-19 affected SAEP implementation and/or success?
15. If you could change anything about the type or manner of SAEP support, what would it be? Why? (What type or manner of support would you have wanted SAEP to provide that was not provided?)

- I 6. What changes would you suggest for a future activity like SAEP that might facilitate engagement with your [utility/organization]?

EQ6:

- I 7. As a whole, how successful has SAEP been in improving the power sector?
- I 8. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Conclusion:

- I 9. Is there anything additional you'd like to share about SAEP?

REGIONAL POWER ENTITIES (SOUTHERN AFRICAN POWER POOL, SADC, ETC) (KIIS)

Introduction

1. What is your role within your organization?
2. How have you been involved in the SAEP program?

EQ1:

3. How would you describe “success” for SAEP?
 - b. What would “success” look like?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - b. Are there certain outcomes where SAEP has been more successful than others?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven't they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
7. How, specifically, has SAEP supported your organization's work?
 - b. Potential examples: increasing generation, improving transmission, transaction advising, capacity development, reducing losses, engineering studies, tariff studies, policy reform, customer service improvements, etc.
8. What, if anything, did SAEP's support help you/your organization achieve that it may not have been able to achieve without SAEP's support?
 - b. How did SAEP's support help achieve this outcome?
9. Is there anything you had hoped you/your organization could achieve with SAEP support that you were not able to achieve? If so, what wasn't achieved and why?
10. What, if any, challenges remain to be addressed in the power sector in the region?
11. How might SAEP (or another future program) support you in addressing these challenges?

EQ5:

12. How familiar are you with SAEP's specific power sector activities in its ten partner countries?
13. If familiar with country-level work: In which countries has SAEP had the most success? Why?
 - a. In what ways was SAEP more successful?
14. If familiar with country-level work: In which countries has SAEP had the least success? Why?
 - b. In what ways was SAEP less successful?

EQ2:

- 15. What worked well about working with SAEP?
- 16. What have been the biggest challenges you've encountered working with SAEP?
 - a. Did SAEP take any specific actions to address the challenges that were encountered? If so, what did they do, and was it effective?
- 17. How, if at all, has COVID-19 affected SAEP implementation and/or success?
- 18. If you could change anything about the type or manner of SAEP support, what would it be? Why?
- 19. What changes would you suggest for a future activity like SAEP that might facilitate engagement with your [utility/organization]?

EQ6:

- 20. As a whole, how successful has SAEP been in improving the power sector?
- 21. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Conclusion:

- 22. Is there anything additional you'd like to share about SAEP?

PRIVATE SECTOR ACTORS (KIIS)

Introduction

1. What is your role within your organization?
2. How have you been involved in the SAEP program?

EQ1:

3. How would you describe “success” for SAEP?
 - a. What would “success” look like?
4. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
5. From your perspective, are there any major intended outcomes that SAEP has been unable to achieve? If so, which ones and why haven't they been achieved?
6. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
7. How, specifically, has SAEP supported your company's work?
 - a. Potential examples: capacity development, market studies, customer service improvements, etc.
8. What, if anything, did SAEP's support help your company achieve that it may not have been able to achieve without SAEP's support?
 - a. How did SAEP's support help achieve this outcome?
9. Is there anything you had hoped your company could achieve with SAEP support that you were not able to achieve? If so, what wasn't achieved and why?
10. Is there anything further that SAEP could help your company (or companies like yours) to achieve? If so, what?

EQ2:

11. What worked well about working with SAEP?
12. What have been the biggest challenges you've encountered working with SAEP?
13. How, if at all, has COVID-19 affected SAEP implementation and/or success?
14. Did SAEP take any specific actions to address the challenges that were encountered? If so, what did they do, and was it effective?
 - a. If you could change anything about the type or manner of SAEP support, what would it be? Why?
15. What changes would you suggest for a future activity like SAEP that might facilitate engagement with your [utility/organization]?

EQ6:

- I 6. As a whole, how successful has SAEP been in improving the power sector?
- I 7. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges?

Conclusion:

- I 8. Is there anything additional you'd like to share about SAEP?

OTHER DONORS (KIIS)

Introduction

1. What is your role within your organization?
2. How have you been involved in the SAEP program?
3. How has your organization engaged with SAEP?

EQ1:

4. How would you describe "success" for SAEP?
 - a. What would "success" look like?
5. From your perspective, to what extent has SAEP achieved your definition of success?
 - a. Are there certain outcomes where SAEP has been more successful than others?
6. From your perspective, are there any major intended outcomes that SAEP has not been able to achieve? If so, which ones and why haven't they been achieved?
7. Have there been any unintended outcomes or outcomes that were not expected? If so, what are they?
8. How, specifically, have you partnered with SAEP and/or has SAEP supported your organization's work?
 - a. Potential examples: increasing generation, improving transmission, transaction advising, capacity development, reducing losses, engineering studies, tariff studies, policy reform, customer service improvements, etc.
9. What, if anything, did this partnership and/or support help you/your organization achieve that it may not have been able to achieve without SAEP's support?
 - a. How did SAEP's support help achieve this outcome?
10. Is there anything you had hoped you/your organization could achieve in collaboration with SAEP that you were not able to achieve? If so, what wasn't achieved and why?
11. What, if any, challenges remain to be addressed in the power sector in the country/region where you operate?
12. How might SAEP (or another future program) support you in addressing these challenges?

EQ2:

13. What worked well about your work with SAEP?
14. What have been the biggest challenges you've encountered in working with SAEP?
 - a. Did SAEP take any specific actions to address the challenges that were encountered? If so, what did they do, and was it effective?
15. How, if at all, has COVID-19 affected SAEP implementation and/or success?

- 16. If you could change anything about SAEP, what would it be? Why?
- 17. What changes would you suggest for a future activity like SAEP that might facilitate engagement with your [utility/organization]?

EQ6:

- 18. As a whole, how successful has SAEP been in improving the power sector?
- 19. If you were to design a future activity like SAEP, what would you recommend focusing on in terms of remaining sectoral challenges in the region?

Conclusion:

- 20. Is there anything additional you'd like to share about SAEP?

ALL STAKEHOLDER GROUPS (SURVEY)

Consent

1. *[insert consent language]* Do you agree to participate in this survey?
 - a. Yes
 - b. No *[skip to end]*

Demographics

2. What type of organization do you belong to?
 - a. USAID or Embassy Staff
 - b. SAEP Staff (and/or SAEP subcontractors/consultants)
 - c. A Utility
 - d. A Power Regulator
 - e. A SAEP Partner Country Government Agency/Ministry
 - f. A Regional Organization (e.g. Southern African Power Pool, SADC, etc.)
 - g. A Private Sector Company
 - h. Another Donor
 - i. Other
 - j. Do Not Wish to Answer
3. What country do you work in (select "regional" if you work across multiple countries)?
 - a. Angola
 - b. Botswana
 - c. Eswatini
 - d. Lesotho
 - e. Madagascar
 - f. Malawi
 - g. Mozambique
 - h. Namibia
 - i. South Africa
 - j. Zambia
 - k. Regional
 - l. Do Not Wish to Answer
4. What is your gender?
 - a. Male
 - b. Female
 - c. Other
 - d. Do Not Wish to Answer

SAEP Engagement

5. To what extent did you/your organization work with the SAEP program?
 - a. Extensively (for example, working together on multiple interventions, working together over multiple years, etc.)
 - b. Somewhat (for example, working together on a few interventions, working together sporadically but not continuously, etc.)
 - c. Only a Little (for example, only working together on one or two interventions, working together for only a short period of time, etc.)
 - d. Do Not Know
 - e. Do Not Wish to Answer
6. What types of activities did you and/or your organization engage with SAEP on? (Check all that apply)
 - a. Generation Transactions or Procurements
 - b. Transmission Transactions or Procurements
 - c. Financing of Power Projects
 - d. New On-grid Connections (power access)
 - e. Mini-grid Systems

- f. Household or Small Solar/Wind Systems
 - g. Energy Efficiency Initiatives
 - h. Power Policy Reform
 - i. Power Regulatory Reform
 - j. Capacity Development/Training
 - k. Utility Commercial Improvements (reducing losses, improving customer service, process improvements, etc.)
 - l. Technical and/or Engineering Studies
 - m. Sectoral Collaboration/Coordination Efforts (Working Groups, Task Forces, etc.)
 - n. Other, please specify: _____
 - o. Do Not Know
 - p. Do Not Wish to Answer
7. For the interventions on which you partnered with SAEP, what were the intended outcomes (in the short- or long-term)? *[select all that apply]*
- a. Increased Generation Capacity
 - b. Increased Transmission Capacity
 - c. Add New Power Connections (on- or off-grid)
 - d. Other, please specify: _____
 - e. Do Not Know
 - f. Do Not Wish to Answer
8. Please indicate the extent to which SAEP has helped improve each of the listed outcomes in your country or region:

Outcome	Barely or Not at All	Somewhat	Significantly	Do Not Know	Do Not Wish to Answer
Power Sector (Overall)					
Generation Capacity					
Transmission Capacity					
Power Access					
Energy Efficiency					
Power Sector Policy					
Power Sector Regulation					
Power Sector Coordination					
Private Sector Investment in Power					
Greenhouse Gas Emissions					

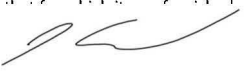
9. How satisfied are you, overall, with the SAEP program?
- a. Very Satisfied
 - b. Satisfied
 - c. Neither Satisfied nor Dissatisfied
 - d. Dissatisfied
 - e. Very Dissatisfied
 - f. Do Not Wish to Answer
10. What worked well in SAEP implementation? *[open text box]*
11. What do you think the major challenges were in SAEP implementation? *[open text box]*

ANNEX 5: CONFLICT OF INTEREST DISCLOSURES

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Justin Archangel
Title	Evaluation Project Manager
Organization	Social Impact, Inc.
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	72067422F00005
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Southern Africa Energy Program Deloitte AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than

Signature	Justin Archangel 
Date	June 6, 2022

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Kari Nelson
Title	Technical Director
Organization	Social Impact
Evaluation Position?	☒ Team Leader ☐ Team member
Evaluation Award Number (contract or other instrument)	720-674-22-F-00005
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Southern Africa Energy Program (SAEP)
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Kari Nelson
Date	6/3/22

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Lauren Martin
Title	Project Assistant
Organization	Social Impact, Inc.
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	Task Order: 72067422F00005 IDIQ: 72067419D00008
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	- Project Name: Southern Africa Energy Program - Implementing Organization: Deloitte - Contract #: AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

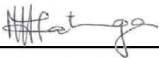
I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Lauren Martin 
Date	6/6/2022

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Margaret Njirambo Matinga
Title	Evaluation Specialist
Organization	Social Impact, Inc
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	Task Order: 72067422F00005 IDIQ: 72067419D00008
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Project Name: Southern Africa Energy Program Implementing Organization: Deloitte Contract #: AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	06-04-2022

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Christine Thomas
Title	Evaluation Specialist
Organization	Social Impact, Inc.
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	72067422F00005
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Southern Africa Energy Program Deloitte AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	Christine C. Thomas
Date	June 7, 2022

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Katherine Vittum
Title	Consultant/ Project Director
Organization	Social Impact, Inc.
Evaluation Position?	☐ Team Leader ☐ Team member
Evaluation Award Number (contract or other instrument)	720-674-22-F-00005
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Southern Africa Energy Program (SAEP) Deloitte AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	<i>Katherine Vittum</i>
Date	6.6.2022

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Charles Moonga Haanyika
Title	Energy Expert
Organization	Social Impact
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	-Task Order: 72067422F00005 IDIQ: 72067419D00008
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	-Project Name: Southern Africa Energy Program -Implementing Organization: Deloitte -Contract #: AID-674-C-17-00002
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	3 rd June 2022



SOUTHERN AFRICA ENERGY PROGRAM EVALUATION

EVALUATION DESIGN REPORT

JUNE 10, 2022

CONTENTS

Acronyms	68
Introduction And Purpose	69
Context.....	69
Program Description.....	69
Theory of Change.....	69
Evaluation Purpose	69
Design and Methodology	70
Evaluation Questions.....	70
Methodology.....	70
Data Analysis.....	75
Quality Assurance.....	75
Ethical Considerations.....	75
Gender and Social Inclusion Plan.....	76
Limitations	76
Dissemination and Utilization	77
Annex 1: Timeline.....	78
Annex 2: Bibliography.....	79
Annex 3: Informed Consents	80
Annex 4: Data Collection Instruments	80
Annex 5: Scope of Work	80
Annex 6: Conflict of Interest Disclosures.....	80

ACRONYMS

COVID-19	Novel Coronavirus of 2019
ET	Evaluation Team
EQ	Evaluation Questions
GESI	Gender, Equality, and Social Inclusion
IP	Implementing Partner
IRB	Institutional Review Board
KII	Key Informant Interview
MW	Megawatt
PAIS	Power Africa Information System
PATT	Power Africa Tracing Tool
PMEP	Performance Management & Evaluation Plan
RERA	Regional Energy Regulators Association
SADC	Southern Africa Development Community
SAEP	Southern Africa Energy Program
SI	Social Impact
USAID	United States Agency for International Development
USG	United States Government

INTRODUCTION AND PURPOSE

CONTEXT

Power Africa, a U.S. government-led public-private partnership that launched in 2013, was created to connect 60 million new homes and businesses in sub-Saharan Africa to power by 2030. The Southern African Energy Program (SAEP), a flagship initiative of this partnership, aims to increase investment in electricity supply and access in Southern Africa by strengthening the regional enabling environment and facilitating power transactions.

PROGRAM DESCRIPTION

A lack of adequate and reliable power in the Southern Africa region limits competitiveness and affects the livelihoods and health of the population, particularly those living outside urban areas. The five-year SAEP program, implemented by Deloitte, launched in 2017 with activities in ten countries: Angola, Botswana, Eswatini, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, and Zambia. SAEP received an extension to its work, making it a six-year program that is expected to end in June 2023.

Though the goals of SAEP are to increase generation and access to electricity, SAEP does not directly fund major infrastructure investments. Rather, SAEP works to incentivize, facilitate, and enable investments through technical assistance, policy reform, capacity development, and transaction facilitation.

To identify interventions during the annual work planning process, the SAEP team met with key stakeholders in each partner country to discuss potential interventions and ways in which SAEP could support their electrification, generation, and other sectoral improvement goals. SAEP took a flexible and adaptable approach to implementation, which involved iterative changes and adaptations to the work plan.

THEORY OF CHANGE

SAEP's stated theory of change says that by strengthening regulation, improving planning and procurement, management of electricity trade, demonstrating and scaling energy efficiency technologies and practices, and providing capacity building to institutions and human resources for energy sector management, SAEP aims to increase investment in electricity supply and access in Southern Africa. In countries like Eswatini and Lesotho, SAEP's support works to address reliance on electricity/energy imports. Long-term program targets include 4,000 megawatts (MW) of new power generation and transmission capacity and three million new connections (on- and off-grid).

EVALUATION PURPOSE

The purpose of this evaluation is to provide USAID (United States Agency for International Development)/Southern African and the USAID Power Africa team with feedback and recommendations for improving on the SAEP activity and to inform future programming in the energy sector. This evaluation will provide USAID teams with evidence to support programmatic adjustments, inform future design efforts and strategies, and make informed decisions. Other potential users of the evaluation include implementers, regional organizations, national ministries, private sector partners, and regulators, who can adapt based on the lessons learned from SAEP.

Social Impact (SI) will conduct a utilization-focused, mixed methods evaluation with an emphasis on broad stakeholder engagement to promote use of the evaluation and evidence-based decision making. Our

technical design for the SAEP evaluation keeps quality, utilization, and feasibility firmly in focus while ensuring broad coverage of all ten SAEP countries.

DESIGN AND METHODOLOGY

EVALUATION QUESTIONS

The Evaluation Team (ET) worked closely with USAID to refine and finalize the Evaluation Questions (EQs) to ensure mutual understanding and maximize utility and learning from the evaluation:

1. To what extent was SAEP able to meet its purpose, related outputs and outcomes (MWs, Connections, Enabling Environment)?
2. What enabled and/or hindered achievements and how were any hindrances addressed?
3. How did the program design, target setting and operational decision-making shape and contribute to the achievements of the program?
4. What were the benefits and drawbacks of Power Africa by setting the connections and MW targets for the program?
5. In which countries did SAEP have the most success versus the least success, and why?
6. How is the SAEP perceived and valued by the stakeholders of the program?

METHODOLOGY

The SAEP evaluation will rely on multiple methods to obtain valuable data across the ten active SAEP countries. On the qualitative side, the ET will conduct Key Informant Interviews (KIIs) and a desk review of relevant documents and literature. On the quantitative side, the ET will conduct a short, online survey for key stakeholders and a review of the Power Africa Information System (PAIS), Power Africa Tracing Tool (PATT), as well as activity monitoring data.

SI will conduct remote data collection to reduce potential risks related to the novel coronavirus of 2019 (COVID-19). The survey will aim to ensure that stakeholders in all ten countries can be included in data collection and have their perspectives heard. Under the COVID-19 pandemic, SI established measures and processes to effectively conduct evaluations remotely and ensure each member of the ET has the ability and familiarity with remote platforms to collect remote data effectively and efficiently.

The following sections describe SI's mixed methods approach to the evaluation, which includes document and desk review, secondary data, short quantitative surveys, and KIIs, as outlined in Table 5, below.

Table 5: Evaluation Design Matrix

Evaluation Question	Anticipated Methods			
	Document/D esk Review	Secondary Data	Quantitative Survey	KIIs
Question 1: To what extent was SAEP able to meet its purpose and related outputs and outcomes (MWs, Connections, Enabling Environment)?	×	×	×	×

Evaluation Question	Anticipated Methods			
	Document/D esk Review	Secondary Data	Quantitative Survey	KIIs
Question 2: What enabled and/or hindered achievements and how were any hindrances addressed?	×		×	×
Question 3: How did the program design, target setting and operational decision-making shape and contribute to the achievements of the Program?	×	×	×	×
Question 4: What were the benefits and drawbacks of Power Africa by setting the connections and MW targets for the program?			×	×
Question 5: In which countries did SAEP have the most success versus the least success, and why?	×	×	×	×
Question 6: How is the SAEP perceived and valued by the stakeholders of the Program?			×	×

Document/Desk Review. The ET will conduct a systematic document/desk review to understand the availability and quality of secondary data in each of the ten SAEP countries, how the data relates to the evaluation questions and to identify key issues and constraints to examine further in primary data collection. The desk review will include SAEP background documents including quarterly and annual reports, programmatic documents, and relevant stakeholder documentation.

Secondary Data. The ET will review PAIS, PATT, and SAEP monitoring data. Where useful, the ET will request other secondary data such as utility data. The ET will use data from the PAIS to understand SAEP partners, commitments made (and progress made toward them), private sector engagement, and a broad range of other work completed through Power Africa. Data from the PATT will provide insights on power transactions, the energy mix, and generation capacity. As in the document/desk review, the data will be examined for trends over time and to better understand progress achieved and where challenges may remain. These databases will be particularly useful in answering the first EQ on SAEP's ability to meet its purpose and objectives. The SI team will pay special attention to variations across countries, types of connections, types of technology, transaction types, types of energy sources, gender, and other applicable points of data disaggregation.

Quantitative Survey. The SI team will design and implement a short, online quantitative survey to assess achievements, benefits, successes, and challenges during implementation. Given the short period of performance for this evaluation, a short survey will enable rapid collection of key perspectives from a broad number of stakeholders in the ten active SAEP countries that may not otherwise all be reached through the proposed interviews. The survey tool will contain questions to better understand perceptions of SAEP implementation, achievements reached, and challenges faced, with a particular focus on EQs one, two, five, and six. These data will complement the secondary data and document/desk review and will be triangulated with the more in-depth data collected from stakeholders through the interviews. The final survey will be translated from English into Portuguese and French prior to distribution to ensure all stakeholders can participate.

SI intends to electronically administer the survey to as broad a range of stakeholders as possible, including implementing partner (IP) staff, regional bodies (Southern Africa Power Pool [SAPP], Regional Energy

Regulators Association [RERA], Southern Africa Development Community [SADC] Centre for Renewable Energy & Energy Efficiency), regulators and utilities engaged with SAEP, private sector partners, government partners, and representatives from other donor agencies.

Online surveys often receive low response rates. To increase participation in the survey and mitigate this concern, the ET will seek the IP's support in distributing the survey to all relevant stakeholders, with a note encouraging them to participate, share their feedback, and help inform future programming decisions. The short survey length, which will be translated into French and Portuguese, will help encourage participation. Additionally, based on input from the IP, we anticipate that the majority of stakeholders should have adequate internet access to open and respond to a short survey such as this. Applying this approach allows for a broad reach and appropriate representation.

Key Informant Interviews. The SI team will hold KIIs with a sample of stakeholders to provide context and document stakeholder experiences related to SAEP's interventions. Employing a semi-structured interview approach, qualitative data collection will include questions to examine stakeholder experiences with program implementation and perceived program effects, including respective contribution of different activities to USAID's results. The ET will tailor interview protocols to the different stakeholder types to fit their roles. KIIs will last approximately 60-90 minutes with most stakeholders; however KIIs with USAID and IP staff are expected to be a bit longer (1.5-2 hours), given that these key stakeholders hold significant insights for all EQs and thus will take longer to administer. The tools will be tested with initial interviewees to ensure all questions can be answered within the estimated time frame. The ET will work with professional interpretation and translation services as needed. This data will allow the SI team to identify lessons and best practices that could be used to improve program delivery and effectiveness across the region.

Targeted stakeholder groups for KIIs include USAID and embassy staff, IP staff, utilities, regulators, government representatives, representatives of other donors, and private sector actors.

Because SAEP's work varied significantly from one country to the next, the first round of KII sampling will begin at the country level. The overall distribution of KII respondents will be weighted based on the relative level of activity in each country (those with more activity will have more interviews).

The below chart summarizes how feedback from each respondent group will be used for answering each of the EQs:

Table 6: Relevant EQs for Each Respondent Group

Respondent Group	EQ1	EQ2	EQ3	EQ4	EQ5	EQ6
USAID/USG Staff	X	X	X	X	X	X
IP Staff	X	X	X	X	X	X
Utility Representatives	X	X				X
Regulator Representatives	X	X				X
Partner Government Representatives	X	X				X
Regional Entities (SAPP, SADC, RERA, etc.)	X	X			X	X

Respondent Group	EQ1	EQ2	EQ3	EQ4	EQ5	EQ6
Private Sector Actors	X	X				X
Other Donors	X	X				X

At the second stage of sampling, since SAEP engaged in different interventions in each country, the ET will then purposively select KII respondents from each relevant stakeholder group within each country. Thus, for example, if SAEP did not engage with private sector companies in a given country, the ET's sample would exclude this group and rather focus on stakeholders related to the interventions SAEP did engage in. Qualitative research uses purposive sampling for the identification of information-rich cases and is an effective use of limited resources.⁸ Stakeholders at the regional level will be sampled in this manner. The ET anticipates the below respondent sample sizes, distributed across the ten active SAEP countries and stakeholder types, as outlined below:

Table 7: Anticipated Total Sample Sizes for the Evaluation

Stakeholder Group	Total Anticipated Number of Respondents
USAID and Mission Staff	10-12
IP Staff	20-30
Utilities	20-30
Regulators	20-30
Government Stakeholders	30-40
Regional Entities	6-10
Other Donors	10-15
Private Sector Actors	20-30
Total	136-192

Below, we outline each of the anticipated stakeholder groups, the discussion topics, and the team's approach to sampling respondents within each category.

USAID and Embassy Staff. USAID, the Power Africa Program Office, and other Mission staff who have been directly involved in the implementation of SAEP are important stakeholders, as these individuals are heavily involved in designing, implementing, and monitoring the activity. Interviews with these stakeholders will cover all six of the evaluation questions. The ET will target those staff members who have been most heavily involved in the activity and related negotiations with government and other national stakeholders.

IP Staff. IP staff have detailed knowledge and understanding of how the activity has been implemented as well as the successes and challenges to date. Thus, this group of stakeholders will have valuable information for answering all six of the evaluation questions. In targeting IP staff, the ET will focus on the staff who have been most heavily involved in implementation while ensuring that the ET speaks to staff members from across discipline areas and project components. For instance, the ET would interview those involved in each of the partner countries, those at both the managerial as well as technical levels, and those covering cross-cutting specialties like monitoring and evaluation (M&E) and gender, equality, and social inclusion (GESI). This category will include staff from any supporting sub-contractors and/or consultants who helped implement specific interventions. It will include SAEP transaction advisors.

⁸ Patton, Michael Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, Calif: Sage Publications

Utility Representatives. The ET will sample a variety of utility representatives from each of the partner countries. Interviews with utility representatives will aid the ET in answering EQs two through six, helping the ET to understand how policy and regulatory reform efforts have affected their operations as well as service delivery to customers. The ET will target a variety of utility representatives to ensure robust findings, including those of each SAEP country, different sized utilities, those who have more/less experience with private sector engagement, with utilities operating under different regulatory structures, both managerial as well as technical utility staff, and (to the extent feasible) both male and female representatives.

Regulators. KIs with regulators will explore the policy and regulatory environment in each of the partner countries and how SAEP's activities have affected their work and will contribute to answering EQs two through six. The ET will target regulator representatives in each of the partner countries, will include individuals at multiple levels with the organizations, those in a variety of regulatory environments, and (where feasible) both male and female representatives, ensuring that all perspectives are considered.

Partner Government Stakeholders. Policy or regulatory reform efforts require extensive collaboration with government stakeholders. These representatives will be able to share their insights regarding the strengths of SAEP's interventions as well as the challenges faced. Interviews with government stakeholders will contribute to answering EQs two through six. The ET will target representatives that have been most heavily involved in SAEP's activities and those with oversight over the energy sector. To the extent feasible, the ET will target representatives from across different government entities within each country and will include both managerial as well as technical staff of the ministries/agencies. To the extent feasible, the ET will include both male and female stakeholders.

Regional Entities (Southern Africa Power Pool, Southern Africa Development Community (SADC), etc.). In addition to utilities and regulators within specific countries, SAEP intervened at the regional level, supporting reforms and providing technical assistance to regional entities such as the SAPP and SADC. Thus, the ET will explore their perceptions of SAEP's work in the power sector. Where possible and relevant, the ET will seek to interview representatives from a cross-section of regional entities and will include both managerial as well as technical staff.

Representatives of Other Donors. In many cases, SAEP has supported and assisted other donor-funded activities and projects. In some cases, these were other USAID activities, but SAEP supported work by donors such as the World Bank and the African Development Bank. In countries where this support occurred, the ET will interview representatives from these other donor institutions to assess their perceptions of SAEP's support and what that support did or didn't help them to achieve. Where possible and relevant, the ET will seek to interview representatives from a cross-section of engaged donors and will include both managerial as well as technical representatives.

Private Sector Actors. Policy and regulatory reform in the energy sector often includes a goal of increasing private sector engagement in the sector. Thus, KIs with private sector representatives will offer key insights into the extent to which SAEP has been effective at attracting and facilitating private sector engagement. These KIs will assist the ET in answering EQs two through six. The ET will target private sector representatives in each of the partner countries, private companies involved across the spectrum of power services (generation, transmission, distribution, maintenance, etc.), and will aim to include both smaller and larger companies. The ET may seek out relevant industry and trade group representatives. Where feasible, both male and female representatives will be included.

DATA ANALYSIS

The ET will analyze data through an iterative process during and after the data collection. Triangulation of emerging evidence from the literature, quantitative survey and the KIs will allow the SI team to check for trends, consistency, affinity, and contradiction between quantitative and qualitative data, aiming to better answer the EQs, generate more reliable findings, and reach well-founded conclusions. The SI team will apply a GESI lens and employ data triangulation to understand if and how findings differ by gender or social strata.

Quantitative Data Analysis. The ET will perform rigorous data quality checks and review the data using SI's high frequency check protocols. These checks will allow the SI team to identify survey logic, data range, missing values, implausible values, digit preference (for numeric responses), and outlier errors in the data. If such issues exist and survey modifications are deemed necessary, survey changes will be documented. The SI team will execute a final cleaning process before analysis to review potential data quality concerns in the final dataset. The ET will utilize *Stata* software to explore trends and disaggregate by country, sex, type of energy source, and other relevant key variables to understand key outputs and outcomes.

Qualitative Data Analysis. During data collection, the ET will take detailed notes, and if consent is provided, record all discussions. Notes will be translated into English, as necessary. Once data collection is completed, the SI team will utilize a structured coding approach to conduct content and thematic analysis using *Dedoose* software for identification of emergent themes and contextual factors upon which to draw findings and conclusions and to develop evidence-based recommendations. The ET will utilize a Findings, Conclusions, and Recommendations Matrix to triangulate data across data sources and to ensure that analysis is evidence-based, triangulated, and systematic. This will identify any challenges and suggest improvements that can enhance the impact of the program, reduce inefficiencies, and enhance learning.

QUALITY ASSURANCE

Making evidence-based decisions only works well when the data are of high quality and can be trusted. The ET will implement SI's proprietary EQUI® system to ensure the evaluation meets rigorous international standards for technical excellence. The system includes seven utilization- and quality assurance checkpoints that include detailed guidance notes, checklists, and templates for the ET to use to ensure consistency with SI's best practices. As a part of this system, each evaluation deliverable—including all drafts of the evaluation design and final reports, qualitative and quantitative instruments and data, and presentations—undergoes a rigorous quality review, using checklists to guide development of usable, high-quality products that consider gender and social inclusion considerations.

ETHICAL CONSIDERATIONS

SI has an in-house institutional review board (IRB) that is available to review data collection instruments for evaluations, assessments, and surveys when working with vulnerable populations. SI's IRB will review and provide approval prior to the start of data collection. Data security is a critical aspect of data collection and is closely related to other efforts to safeguard respondents. All SI evaluation personnel—including headquarters staff and consultants—will follow professional and ethical guidelines to ensure that the evaluation is carried out with honesty and integrity, respondents are protected, and data security is ensured. Before commencing data collection, the ET leader will conduct a meeting with the ET to ensure that the team is familiar with the ethical standards laid out in the IRB application, especially COVID-19 related protocols and agree on interviewing techniques. This includes ensuring that respondents' confidentiality and privacy will be protected during data collection through procedures for obtaining informed consent to collect data in any medium, including informing respondents about the potential uses and any potential sharing or publication of their data. All members of the ET who will be engaged in data collection with human subjects

will be required to complete a certificate course on essential elements of ethics prior to the start of data collection.

GENDER AND SOCIAL INCLUSION PLAN

The evaluation will aim to assess to what extent inclusion of planned activities, such as gender specific trainings, guidelines, indicators, policies, and strategies, have been implemented and/or adopted. With an eye toward assessing SAEP with a GESI lens, the ET will review data through the document review process and aim to maintain gender balance in the KIIs (to the extent practical given stakeholder distributions), identifying any inequalities and differences in outcomes. The ET will ensure USAID's Automated Directives System 205 standards are maintained using a GESI scorecard. This scorecard will allow the ET to assess gender sensitivity throughout the evaluation process, including within the submitted data collection instruments. Collected data and analysis will be disaggregated by sex, socio-economic status, age, geographic region, and other characteristics as necessary and possible to discern differences and similarities in experiences, perceptions, needs, barriers, and other findings.

LIMITATIONS

The potential limitations as well as mitigation measures for the SAEP evaluation include:

Short Evaluation Timelines. To deliver the SAEP evaluation on the necessary timelines, SI will combine methods to quickly collect data from a broad range of stakeholders. SI will conduct a remote approach to all data collection, which will speed data collection.

Large Geographic Dispersion. SAEP's coverage of ten countries introduces a unique challenge for ensuring that the views and perspectives of all stakeholders are included in the evaluation. The dispersion creates both logistical challenges for reaching stakeholders in each country and poses challenges for aggregating findings across widely varying contexts. SI's remote approach to the evaluation design will help mitigate the logistical challenges while ensuring data can be collected without delay. With regard to aggregating findings, the ET will speak to a variety of stakeholders in each country and will take a close look at potential inter-country differences when analyzing the data.

Response Bias. SAEP stakeholders may carry systematic but possibly unobserved biases specific to their role, cultural considerations, and/or other factors. This bias could influence their responses (such as being overly positive about achievements or saying what they think the ET or the Power Africa Program Office wants to hear). The SI team will design the instruments carefully and triangulate evidence across methods to minimize potential bias and ensure validity and reliability.

Selection Bias. Because the qualitative component relies on purposive sampling, it is possible that the selection could introduce bias to the evaluation. Thus, it is possible that the selected individuals may not represent all relevant views. The ET will mitigate this limitation by ensuring a wide range of views from stakeholders across partner countries as well as from diverse contexts.

Similarly, for the quantitative survey, though all relevant stakeholders will be included in the survey invitation, individuals will decide whether or not to respond to the survey. It is possible that those who do respond could be different than those who do not. To the extent possible, the ET will mitigate this by encouraging all stakeholders to complete the short survey and to collect basic demographic data to assess any potential skewing of the respondent pool.

DISSEMINATION AND UTILIZATION

To ensure maximum utility of evaluation findings, the ET will build in several checkpoints during which the ET can share emerging findings, conclusions, and recommendations with USAID. Wherever possible, the ET will share emerging findings in an ad hoc manner through weekly reports and/or during weekly check-ins. The formal checkpoints include an out brief at the end of data collection, a mid-term briefing/collaborative workshop after substantive data analysis is complete but before report writing, provision of the Draft Final Report, and a Final Dissemination Presentation.

At the end of data collection, the ET will meet with core USAID staff to provide an update on the data that were collected and to provide an initial view of emerging findings. Emerging findings at this stage are subject to change and/or refinement during data collection. But, often, there are some clear trends emerging from data collection that would be useful for USAID to be aware of, and these will be shared at this time.

Following initial analysis, preliminary findings and conclusions will be shared with USAID via a mid-term briefing/collaborative workshop.

The Draft Final Report will provide the next check in point during which the ET will be able to formally present its full findings, conclusions, and recommendations. This draft report will build on the feedback already received during the out brief and the collaborative workshop to ensure that the report is tailored to focus on areas of most interest to USAID and other key evaluation users.

The final version of the Final Report will be submitted to the Contracting Officer Representative for approval and the approved version will be submitted to the USAID Development Exchange Clearinghouse. Deidentified quantitative data will be shared for public use on the Development Data Library.

Once the Final Report is approved (or before, if preferable to USAID), the ET will organize a final dissemination presentation to stakeholders to increase uptake and encourage learning.

ANNEX I: TIMELINE

DELIVERABLE	DUE DATE
Evaluation Work Plan	May 27, 2022
Evaluation Design Report	June 10, 2022
Collaborative Workshop	o/a August 10, 2022
Mid-Term Report	o/a August 17, 2022
Draft Evaluation Report	September 9, 2022
Final Evaluation Report	October 7, 2022
Weekly Reports	October 12, 2022

ANNEX 2: BIBLIOGRAPHY

- Patton, Michael Q. (2002). Qualitative Research and Evaluation Methods. Thousand Oaks, Calif: Sage Publications
- Power Africa Portfolio Review Presentation, November 2016
- Power Africa Portfolio Review Presentation, August 2021
- Power Africa Portfolio Review Presentation, May 2022
- SAEP Annual Report Year 1
- SAEP Annual Report Year 2
- SAEP Annual Report Year 3
- SAEP Annual Report Year 4
- SAEP Monitoring & Evaluation Standard Operating Procedures
- SAEP Performance Management & Evaluation Plan (PMEP) 2018
- SAEP PMEP 2020
- SAEP PMEP 2021
- SAEP Regional Course Catalogue October 2017
- SAEP Work Plan Year 1
- SAEP Work Plan Year 3
- SAEP Work Plan Year 4
- SAEP Work Plan Year 5
- Southern Africa Gas Roadmap for SAEP
- Southern Africa Gas Roadmap to Guide USAID SAEP Gas Work

ANNEX 3: INFORMED CONSENTS

ANNEX 4: DATA COLLECTION INSTRUMENTS

ANNEX 5: SCOPE OF WORK

ANNEX 6: CONFLICT OF INTEREST DISCLOSURES

Annexes 3-6 have been removed here, as they are duplicates of the annexes in the Evaluation Report.