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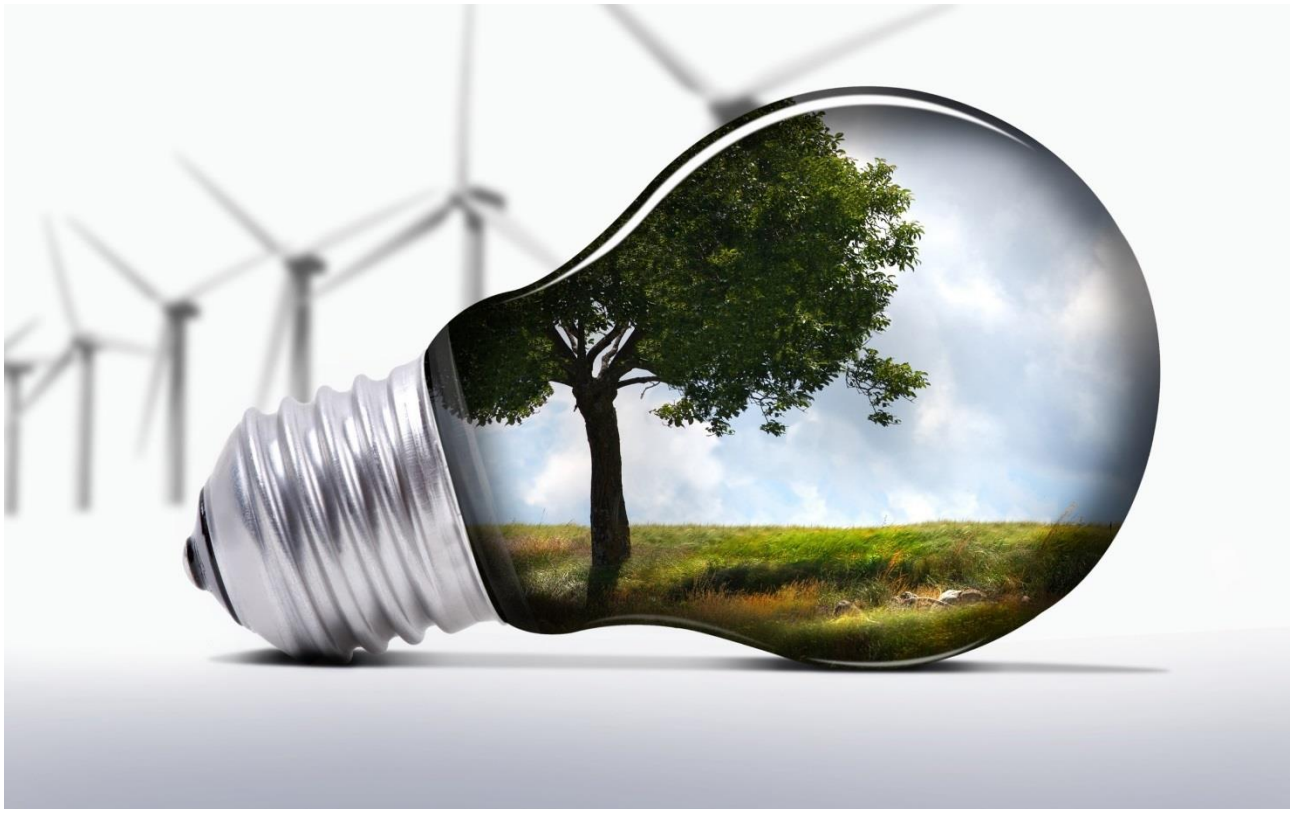
Low Emissions Development Program

QUARTERLY REPORT

SOUTH AFRICA LOW EMISSIONS DEVELOPMENT (SA-LED) PROGRAM

1 JANUARY – 31 MARCH 2017



March 31, 2017

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Contract No. AID-674-C-15-00005

CONTENTS

ACRONYMS

AD	Anaerobic Digestion
AB	Agama Biogas
CCRWP	Climate Change Response White Paper
CD	Capacity Development
CHDM	Chris Hani District Municipality
CLEER	Clean Energy Emission Reduction
CoCT	City of Cape Town
CoP	Chief of Party
CoT	City of Tshwane
DBSA	Development Bank of South Africa
DEA	Department of Environmental Affairs
DFI	Development Finance Institution
DM	District Municipality
DNA	DNA Economics
DST	Department of Science and Technology
EE	Energy Efficiency
GDED	Gauteng Provincial Department of Economic Development
GHG	Greenhouse Gas
GoSA	Government of South Africa
ICF	ICF International, Inc.
ICLEI	Local Governments for Sustainability (International Council for Local Environmental Initiatives)
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
LED	Low Emissions Development
LEDS	Low Emission Development Strategies
LES	Linkd Environmental Services
LM	Local Municipality
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
MRV	Measuring, Reporting, and Verification
NGO	Non-governmental Organization
NMBMM	Nelson Mandela Bay Metropolitan Municipality

PMO	Project Management Office
PPA	Purchase Power Agreement
PPP	Public Private Partnership
PV	Photo Voltaic
RE	Renewable Energy
RFP	Request for Proposal
SA	South Africa
SACN	South Africa Cities Network
SA-LED	South Africa Low Emissions Development Program
SALGA	South Africa Local Government Association
SDM	Sedibeng District Municipality
SoW	Scope of Work
SSEG	Small-Scale Embedded Generation
TA	Technical Assistance
TGH	The Green House
ToC	Theory of Change
UDM	Umgungundlovu District Municipality
Y1	Project Year 1: 18 May 2015 – 30 September 2016
Y2	Project Year 2: 01 October 2016 – 30 September 2017

HIGHLIGHTS FOR THE QUARTER

18 municipal officials trained (4 metropolitan municipalities represented and 5 local municipalities represented) on the Small Scale Embedded Generation (SSEG) revenue and Tariff impact model as well as the NREL jobs and economic impact (JEDI) of SSEG.

SA-LED facilitated panel discussions on "Quantifying GHG Emissions Reductions from Municipal Mitigation Actions" and "Access to Financial Support" at DEA's Local Government Support Program workshop.

2 CONFERENCES

2 TRAININGS

INTRODUCTION

GOAL

The South Africa Low Emissions Development (SA-LED) Program is a $14.9 million, five-year USAID-funded initiative aimed at supporting the Government of South Africa to achieve its green growth objectives.

OBJECTIVES

SA-LED is working to strengthen the capacity of the public sector to plan, finance, implement, and report on low emissions development projects and to accelerate the adoption of low emissions technologies in both the public and private sectors. A particular focus is to increase the flow of investments into LED projects and to increase the size and quality of the LED project pipeline.

SECTORS

To support the implementation of South Africa's Climate Change Response Policy, SA-LED focuses on near-term priority flagship sectors: Renewable Energy, Energy Efficiency and Energy Demand Management, Waste Management, and Transport.

PARTNERS

The USAID SA-LED Program was co-created in conjunction with the South African Department of Environmental Affairs (DEA) and the Department of Science and Technology (DST).

South Africa is embarking on an ambitious effort to use Low Emissions Development (LED) as a means to reduce its substantial greenhouse gas (GHG) levels in a sustainable and equitable way. To do so will require transformational change at multiple levels and sectors, including mitigating key capacity bottlenecks and coordinating with a diverse set of actors who contribute to LED project development.

While South Africa's 2011 National Climate Change Response White Paper presents ambitious cross-sectoral mitigation goals, significant obstacles remain in translating its vision into actual LED projects. Many South African municipalities not only lack the management skills to move projects through the pipeline, but also a clear structure for coordinating between the municipal and the national department level has not yet been articulated; these institutions do not yet have an understanding of the operational and planning implications of provisions of the White Paper and have had issues translating national DEA recommendations into actionable projects. South African investors also do not have a sophisticated understanding of LED technology or the legal and regulatory framework surrounding green investment and therefore perceive such investments as risky. Addressing these challenges requires translating LED concepts into replicable projects, proving their success, and scaling up.

The USAID South Africa Low Emissions Development Program's goal is to support the primary objectives of emissions reductions, LED capacity development, and LED market development at subnational level through a technical assistance framework which consists of five broad categories of interventions.

SA-LED is now in a position where we have firmly established our role and value-add in the sector in South Africa. The five categories of technical assistance interventions described below illustrate SA-LED's value-add to the LED sector in South Africa. Communications and Outreach is a crosscutting function that supports the distribution of lessons learned, training manual development, and knowledge management across each of the five intervention areas.

RESEARCH AND ANALYSIS

In FY16, SA-LED, working with consortium partners, DNA Economics, The Greenhouse, Linkd Environmental Services and ICF, finalized a series of research studies on the LED sector which identified key blockages, mapped out available funding mechanisms, and assessed capacity needs to inform forward programming and improve LED outcomes. This research and analysis focuses particularly on demonstrating the socio-economic benefits of low emission development initiatives. SA-LED will continue with such research and analysis as the need arrives.

LED PROJECT DEVELOPMENT

The SA-LED team continues to support municipal LED initiatives across each of the four flagship sectors in unblocking and progressing projects that face challenges and to provide technical assistance that will help bring projects to financial close or RFP award. This technical assistance support includes: conducting feasibility assessments; mobilizing finance; evaluating LED technology options; and providing legal, financial, and engineering technical assistance to LED projects.

CAPACITY DEVELOPMENT

Based on one of the research assessments on LED skills and capacity within municipalities that was completed at the end of FY16, SA-LED will embed experts and conduct formal training with municipal partners in addition to implementing projects together in a learning-by-doing LED project implementation approach. During the first quarter of FY17, SA-LED focused more of its work on capacity development activities. Some of the kinds of capacity development activities that have been and will continue to be implemented in FY17 include peer-to-peer learning and the optimal outcome will be supporting the integration of LED principles into municipal integrated development plans.

ENABLING ENVIRONMENT

SA-LED is helping to create an enabling environment that institutionally supports LED efforts across local, provincial, and national government. Based on the results of the research and analysis focus of the program in FY16, activities in this area will increase in FY17 to enhance existing municipal networks, government initiatives, and industry association efforts. SA-LED will further provide technical and financial support to industry and government in setting new standards for emerging technologies, supporting the development of a more cost-effective and simpler tool for reporting greenhouse gas emissions from LED projects, and in supporting the development of new LED funds and tools to streamline LED project development.

The SA-LED's Advisory Committee, which is composed of senior officials of key national government departments, will play a key role in shaping the enabling environment activities during FY17. The second meeting of this committee took place during October 2016 and important information regarding national efforts to integrate LED across the various levels of government were highlighted at this meeting. This includes the rollout of a training program to build the capacity of DEA's Local Government Support Officers in Climate Change Mitigation. SA-LED will support this effort, particularly activities around greenhouse gas monitoring and reporting.

MEASURING, REPORTING AND VERIFICATION OF GHG EMISSIONS

SA-LED is supporting municipalities to perform project-level greenhouse gas emissions analysis, using USAID's CLEER Tools developed by consortium partner ICF International where applicable, and to articulate the co-benefits of LED projects. In addition, the program will develop MRV reports and support local emissions GHG reporting.

LED PROJECT DEVELOPMENT

Over the quarter, the SA-LED team continued to provide technical support to low emissions development projects and to undertake the procurement of specialists to support the technical and financial implementation of projects. The aim of supporting the projects outlined below is to gain a representative experience providing technical assistance to municipalities across municipal type (metro, district and local municipality) and across climate change flagship sector (renewable energy, energy efficiency, waste management, and sustainable transport). Figure 2 in the summary of key LED developments provides a geographical representation of where technical assistance is currently being provided. The key progress for the quarter is outlined below.

QUARTERLY HIGHLIGHTS

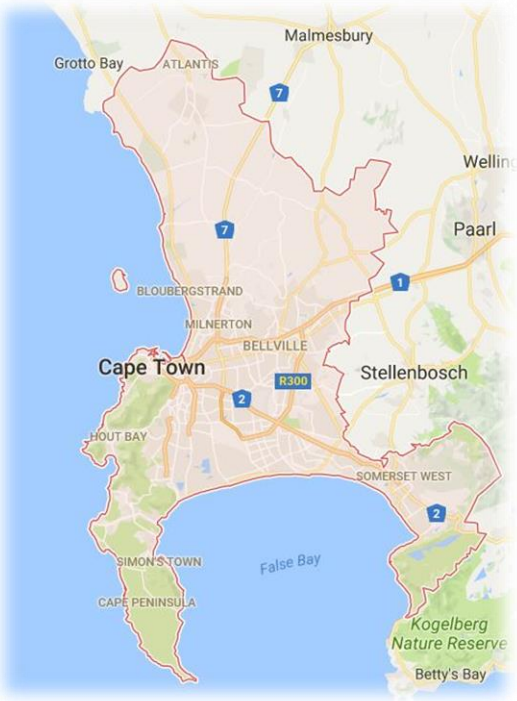
BLUE KAROO AQUACULTURE PROJECT

SA-LED's technical assistance informed the design of the Waste Water Repair System (WWRS) for the Fish Farm. Based on expert inputs from SA-LED biogas and waste water consultants, the final design elements were configured to include an anaerobic digester (and compatible tank) outside the actual WWRS, together with algal ponds that filter out the fish waste solids.

In the original design, an anaerobic digester (AD) was placed in line with the wastewater repair system. In other words, it would have formed a closed loop system with the AD forming part of this system. However, based on the findings of the biogas pre-feasibility study the system, at current scale, will not deliver enough waste to feed the AD. As a result, the AD has been taken out of the water repair system, and it is now proposed as a stand-alone unit. This decision was taken in order to evaluate the use of additional waste to feed the bio-digester, e.g. waste from harvesting and processing the fish. The test waste water repair system will thus be built to continuously monitor the quality of the waste going into the digester as well as the methane generated. The decision to split the AD from the waste water repair system was thus taken to ensure that the functioning of the one system does not impair the functioning of the other.

The final design configurations will be decided at the next Eastern Cape Department of Economic Development, Environment and Tourism and Local and Regional Economic Development (LRED) Fund working group and project steering committee meeting in April 2017. As reported before, SA-LED negotiated that the Local and Regional Economic Development grant be made available for capital expenditure (instead of consultants' fees) to install necessary hardware for the WWRS. The process to procure the hardware is planned to commence in May 2017.

CITY OF CAPE TOWN



SA-LED met with the City of Cape Town on 1 February to review and finalize the MoU between SA-LED and the City and it hopefully will be signed in quarter 3. Substantive progress was made with confirming the scope of work (SoW) for auditing the City of Cape Town's 27 wastewater treatment plants. The energy audits commenced on 2 March. Energy audit sites were clustered per geographic position with the first 10 plants (Athlone, Zandvliet, Borchards Quarry, Mitchells Plain, Cape Flats, Bellville, Kraaifontein, Scotsdene, Klipheuwel and Potsdam) audited in the month of March.

The first report back meeting on the methodology of the audits was held on 22 March with the City of Cape Town's Water and Sanitation Department. Also present were representatives from the Sustainable Energy Markets Department who are the City's lead department facilitating the audits. The objective of this feedback meeting was to elicit comments on the audit process and check if there was a need to change the approach. Information presented at this meeting was based solely on data submitted to our team, anecdotal evidence provided by site personnel and visual observation during site visits. The findings of the initial audits will be reported in the third quarter.

SUMMARY OF KEY LED PROJECTS SUPPORTED IN QUARTER TWO

Figure 2: Map of South Africa indicating location of LED projects with progress made in Quarter 2

1	**Blue Karoo Aquaculture Project, Eastern Cape**
2	**City of Cape Town, Western Cape**

IDENTIFICATION OF POTENTIAL LED INITIATIVES FOR TECHNICAL ASSISTANCE

During the Quarter SA-LED started a process of screening further potential LED initiatives according to the SA-LED Selection Criteria which were developed during FY16. Three screening meetings were held during the quarter. A total of 8 initiatives were screened at these meetings and 6 of these were selected to be supported.

The initiatives that were selected to be supported are:

1. City of Cape Town RFP for Small Scale Embedded Generation
2. City of Cape Town RFP for Energy Efficiency in Municipal Buildings
3. Energy Audit of Umgungundlovu District Municipality Water Infrastructure
4. Compilation of GHG Inventory for Govan Mbkei Local Municipality
5. Development of Climate Change Response Plan for Govan Mbkei Local Municipality
6. Monitoring and extension support for micro hydro projects in !Kheis Local Municipality

SA-LED is also actively pursuing further LED initiatives in order to develop a robust pipeline of initiatives to support. There was some activity related to the initiatives listed below although no quantifiable work was done on these initiatives during the quarter.

CACADU DEVELOPMENT AGENCY

SA-LED met with the Cacadu Development Agency (CDA) in Somerset East on 22 February. The CDA is a development agency that has been established to generate sustainable economic and political transformation to the benefit of the Sarah Baartman District Municipality (formerly known as the Cacadu District Municipality). There are three projects facilitated by the CDA which are currently being considered for SA-LED support and these will be considered at SA-LED's regular project screening meetings:

- Municipal renewable energy purchase advisory.
- Greening of the Mohair value chain, particularly at the farm gate and processing of the mohair where potential GHG gains will be identified through SA-LED's co-benefits work.
- Waste management support to Sarah Baartman District Municipality.

UMGUNGUNDLOVU DISTRICT MUNICIPALITY

A meeting with UMgungundlovu District Municipality took place on 13 February. [redacted] from the municipality's Environmental Services Department and officials from the municipality's water infrastructure department were present at this meeting.

Discussions on SA-LED supporting the municipality on an energy efficiency project in the municipality's water infrastructure were held. The SA-LED team will share reports on energy audits conducted on iLembe District Municipality's wastewater treatment works.

UMgungundlovu will also submit a list of buildings that need retrofitting for SA-LED to provide technical assistance in auditing the buildings and applying for funding from the DoE's Energy Efficiency and Demand-Side Management (EEDSM) Program.

SA-LED are to consider supporting UMgungundlovu with the development of its Sustainable Transport Master Plan.

EDEN DISTRICT MUNICIPALITY

SA-LED will provide technical assistance to Eden District Municipality (EDM) and its constituent local municipalities that will allow the municipalities to make informed decisions about alternative waste management interventions. This technical assistance will integrate public-private sector participation. The activities that SA-LED will support were confirmed during a meeting with the municipality that took place on 01 February. These are:

- Conducting a waste characterization study.
- Investigation of existing and alternative waste processing and management technologies.
- Development of business cases for prioritized alternatives, together with a greenhouse gas (GHG) baseline.
- Collating this work into a systems dynamic modelling framework, incorporating revenue modeling. This model will provide a strategic decision-making tool for the district municipality and the local municipalities.
- Facilitate private sector implementation of the identified options.

The next steps are to appoint an SA-LED expert for data collection for the waste characterization study. The target date for the appointment of the expert is end of April 2017.

KNYSNA LOCAL MUNICIPALITY

The activities and priorities from the Letter of Engagement that SA-LED signed with the municipality in May 2016 were reconfirmed with municipal officials who were new to the process due to staff changes that took place after the local government elections in August 2016. A meeting to reconfirm these activities took place on 2 February. Immediate needs of the municipality included a public-private solution to make land available to the municipality to accept garden waste, and full cost of services study for their waste management activities. An investigation of public-private solutions for green/ garden refuse removal will also be conducted. This activity will include opportunities for partnering with private land owners to provide land for potential storing and processing of waste. To make any decisions regarding waste processing, technologies and management, SA-LED will undertake a full cost of services study for Knysna. SA-LED will ensure alignment with the Department of Environmental Affairs' waste management costing model.

The municipality will forward details of suitable experts within the next two weeks (by mid-April 2017) for both activities and SA-LED will concurrently identify suitable experts from its database of consultants, and in collaboration with the municipality identify a suitable person to appoint.

STELLENBOSCH LOCAL MUNICIPALITY

A meeting with Stellenbosch Municipality was held on 2 February. SA-LED Consortium Partner, Linkd Environmental Services, will develop a scope of work (SoW) for supporting LED planning and project development in Stellenbosch Municipality and will be finalized in quarter 3. There is also a need to embed a waste management expert to provide capacity support to the municipality. The Stellenbosch municipality needs support on conducting a due diligence and feasibility study on a potential landfill-gas plus wastewater biogas Combined Heat and Power plant, as well as developing a waste management By-Law. The municipality has run out of landfill airspace and a new landfill site has not been found in the municipality nor in the neighboring Drakenstein Local Municipality. The Provincial Department of Environmental Affairs and Development Planning requested Stellenbosch Municipality to initiate a separation at source program for waste management within the municipality.

LESEDI LOCAL MUNICIPALITY

Lesedi Local Municipality's Municipal Manager and CFO met with two SA-LED staff to discuss renewable energy opportunities and capacity building on 6 February. The municipality has requested that SA-LED support an energy master plan including a cost of supply study to justify a large renewable energy effort to the municipal leadership. The SA-LED team will review the request as part of its regular project screening meetings.

KWADUKUZA LOCAL MUNICIPALITY

SA-LED met with officials from KwaDukuza Local Municipality on 16 February. KwaDukuza Local Municipality will send a list of projects with detailed information on each project to SA-LED for consideration. Initial indication of the kind of support required include technical assistance around LED communication and 'greening' its Supply Chain Management processes.

DRAKENSTEIN LOCAL MUNICIPALITY

As a follow up to a meeting that was held between SA-LED and the Drakenstein Local Municipality on 1 February, SA-LED consortium partner, Linkd Environmental Services, will develop a SoW for supporting LED planning and project development in Drakenstein Municipality. Projects identified that SA-LED could support include a rooftop PV project on municipal roofs and a solar-pumped storage concept. Other possible projects were identified during Linkd's Capacity Assessment study that was done in 2016. More meetings need to be held with other departments in the municipality to discuss these opportunities.

MBOMBELA AND POWERX MEETING

SA-LED met the City of Mbombela energy and waste management departments to re-visit the MoU as well as identify roofs and solar PV project developers for solar PV installations in the municipality where a PowerX use of systems agreement has already been signed. The Deputy Municipal Manager has been tasked with coordinating sustainability within the municipality as there is political interest to reduce the municipality's reliance on Eskom and lower their electricity bills. One way of reducing costs is using rooftop solar PV and hence the municipality is keen to support such projects.

In addition to rooftop PV opportunities, there are currently 3 firms with excess power in the municipality that could take advantage of the PowerX use of systems agreement to generate additional revenues for the private companies and the municipality:

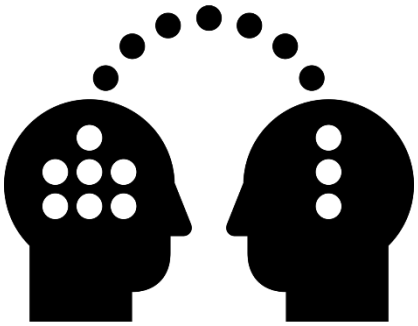
- Metanomics 5 MW PPA – project needs financing
- 10MW Kinetic Energy
- 10MW SAPPI waste-to-energy project – this project now advanced, a water license has been issued for this project

It is unclear, at this time, whether SA-LED will play any role in realizing these projects and will likely focus on new rooftop PV projects unless one of the above gets stuck and experiences difficulties reaching financial close.

In addition, investigations are underway by SA-LED to source potential funding to support CAPEX investment for Mbombela's preferred green waste management project (in-vessel composting) as per the DEA/GIZ waste flagship program SA-LED has been asked to support. SA-LED will also support a study tour by Mbombela's municipal officials and councilors to the Grabouw plant running an in-vessel composting project.

CAPACITY DEVELOPMENT

In FY17 SA-LED's activities around capacity development have increased and we have also started assessing how recipients of capacity development activities apply the knowledge and skills that they have acquired during our capacity development activities.



ASSESSMENT OF APPLICATION OF SKILLS AND KNOWLEDGE

As a follow up to the capacity building activities that took place in the last quarter, SA-LED conducted a knowledge and skills application assessment to ascertain the extent to which municipal officials are applying learning from SA-LED's trainings. Conducting assessments also helps SA-LED to continuously identify and address challenges which could potentially prevent municipal officials from applying the knowledge and skills acquired. While not all the 24 officials (12 males and 12 females) who received SA-LED training in quarter 1 responded, below is what a couple of those who responded said.

Municipal officials shared the following feedback from the assessment:

SA-LED Training Activity	Feedback from Municipal Officials
CLEER Tool	"I have been able to use the tool to determine our carbon saving on our high mast light conversion to LEDs. Most importantly, I taught my interns in the office how to use the tool. Therefore, the training did not just benefit me but three other people as well. We will surely continue using the tool as and when we get data from our colleagues in the Energy Department. If data was not the problem, we would be able to report a total carbon saving for all projects implemented in a financial year." [redacted], *Mbombela Local Municipality*
Urban Energy Network	"I learnt a lot about alternative energy it was an eye opener to me, as I was able to differentiate between technologies of renewable energy. I am now able to share the knowledge we gathered there with my colleagues." [redacted], *Chris Hani District Municipality*
CSIR LCOE	"We did find the training session…very useful. Unfortunately, we are still battling to get our envisaged PV project off the ground…We are currently busy looking at financing options. Once we have decided what model to use to finance and operate the system, we would be able to use the LCOE tool…" [redacted], *City of Tshwane*
CLEER Tool	"The training has been quite helpful and as Department of Environmental Affairs (DEA) we are aiming to build on the existing CLEER Tool…we are aiming at tweaking the tool to fit South Africa's need. While trying to use the

	tool, I realized that when you do the assessment of vehicle impact, it mainly looks at fuel consumption and I will like that we also look at it using the Vehicle Kilometers Travelled (VKT), in instances when we do not have information on fuel consumed but VKT." [redacted], *DEA*

POLOKWANE MUNICIPALITY: EMBEDDED ENERGY EFFICIENCY AND DEMAND-SIDE MANAGEMENT COORDINATOR

Interviews for the Energy Efficiency and Demand-Side (EEDSM) Coordinator were held in the City of Polokwane on March 24, 2017. SA-LED is funding this position within the municipality for a period of 2 years. The EEDSM Coordinator position exists in the municipality's Energy and Electricity Department's organogram but the municipality was struggling to fill this critical position due to fiscal constraints experienced by the municipality. This position is important as the incumbent would be expected to coordinate the municipality's LED initiatives.

Four candidates were interviewed for this position and a unanimous decision was for the preferred candidate. The EEDSM Coordinator is expected to start work at the beginning of May 2017. The Coordinator will assist the Assistant Manager: Energy with coordination of climate change and energy related work in the municipality. This will involve activities to integrate the climate change policy into the municipal Integrated Development Plan (IDP) and other municipal systems. The Coordinator will also support the municipality in the implementation of its renewable energy and energy efficiency initiatives.

GENESIS TOOL AND NREL I-JEDI TOOL TRAINING

On the 23 and 24 of March, SA-LED in partnership with GiZ and SALGA hosted a two-day workshop for municipal officials from 9 municipalities. A total of 18 municipal officials attended this training. These officials represented 4 metropolitan municipalities and 5 local municipalities.

For the first day of training, SA-LED provided financial and logistical workshop support to gather municipal officials to be trained by Genesis, a consulting firm GiZ hired to develop a municipal Small Scale Embedded Generation (SSEG) revenue and tariff impact model. This excel based tool calculates how municipal revenues are impacted by customers installing Solar PV. Moreover, the model assists municipalities in designing tariffs that balance municipal revenue requirements with customer expectations for Solar PV investment returns and is indicative of what will happen to municipal finances and a private party's solar business case under different SSEG tariff scenarios.

Attendees shared their experiences of Solar PV installations within their respective municipalities, their current municipal SSEG plans and policies, and the current state of play with respect to their applications to NERSA for new SSEG tariffs.

The interactive training sessions used each of the municipalities' actual Eskom charges, demand profiles, tariffs, and customer data, and ran several scenarios based on penetration rates and tariff assumptions. Interestingly, most scenarios did not result in a loss of revenues to the municipalities and in the few scenarios where municipalities saw decreases in revenues, they were less than 1% of total revenues. This was very encouraging to the audience of municipal officials and empowered them to recommend policies and tariffs that they could demonstrate did not negatively impact municipal revenues or service delivery. GiZ, NREL, and SA-LED are in discussions to have 2-3 more training sessions in 2017.

"…This tool is perfect to determine the feasibility of projects within a municipality"

On day two, 24 March, an NREL colleague, [redacted], conducted training for 16 municipal officials from 9 municipalities on the International Jobs and Economic Development Impact (I-JEDI) model, an NREL tool that estimates the jobs and macroeconomic impact of investing in renewable energy projects. Building on the original JEDI model, which was developed for the United States, I-JEDI was developed under the USAID Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program to support several international partner countries in assessing the economic impacts of their low emissions investments.

"In order to motivate for such PV projects it is important to use a tool that will show the impact of the installations economically and in job creation. This tool will serve that purpose as well"

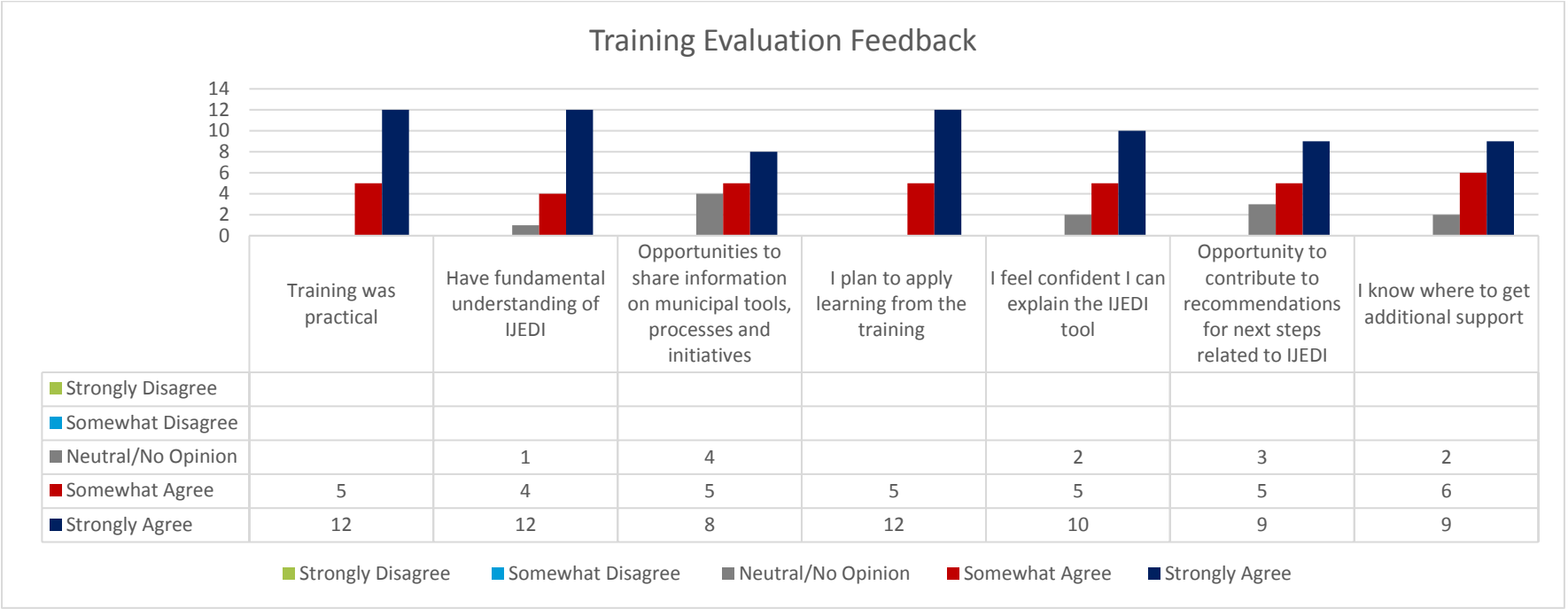
NREL, USAID, and the SA-LED program worked together over the course of the last three months to gather local South African solar developer cost data and South African economic multiplier data to customize the generic I-JEDI tool into a South African tool that would be valuable to renewable energy decision makers in a municipal environment. NREL also began to train CSIR officials on the tool to provide a local institutional home for the tool which will be quite effective in ensuring the sustainability and impact of the tool in the long run.

Trainees were taught how the I-JEDI model can help inform Renewable Energy and SSEG project and policy decisions. Now more than ever, policy- and decision-makers are feeling pressure to consider the larger economic impacts of all their decisions. "Jobs" and job creation are becoming an important factor in promoting power system transformation. The I-JEDI model is used to assess the jobs and economic impacts of distributed PV. By the end of the training, attendees learnt how to:

"The tool will be used as a first approximation of identifying benefits to the economy in reports related to the update of RE"

- Use the model to inform RE and SSEG project and policy decisions.
- Use the I-JEDI model to assess the direct and indirect jobs of PV investments and to understand the wider GDP economic impacts of solar investments.
- Use the model to predict the jobs and economic impacts of specific municipal solar programs and individual projects.
- Interpret and explain I-JEDI results to their municipal colleagues.

A total of 17 attendees took part in the overall evaluation of the training session. From the figure below, the majority seem to have found the training useful.



	Training was practical	Have fundamental understanding of IJEDI	Opportunities to share information on municipal tools, processes and initiatives	I plan to apply learning from the training	I feel confident I can explain the IJEDI tool	Opportunity to contribute to recommendations for next steps related to IJEDI	I know where to get additional support
Strongly Disagree							
Somewhat Disagree							
Neutral/No Opinion		1	4		2	3	2
Somewhat Agree	5	4	5	5	5	5	6
Strongly Agree	12	12	8	12	10	9	9

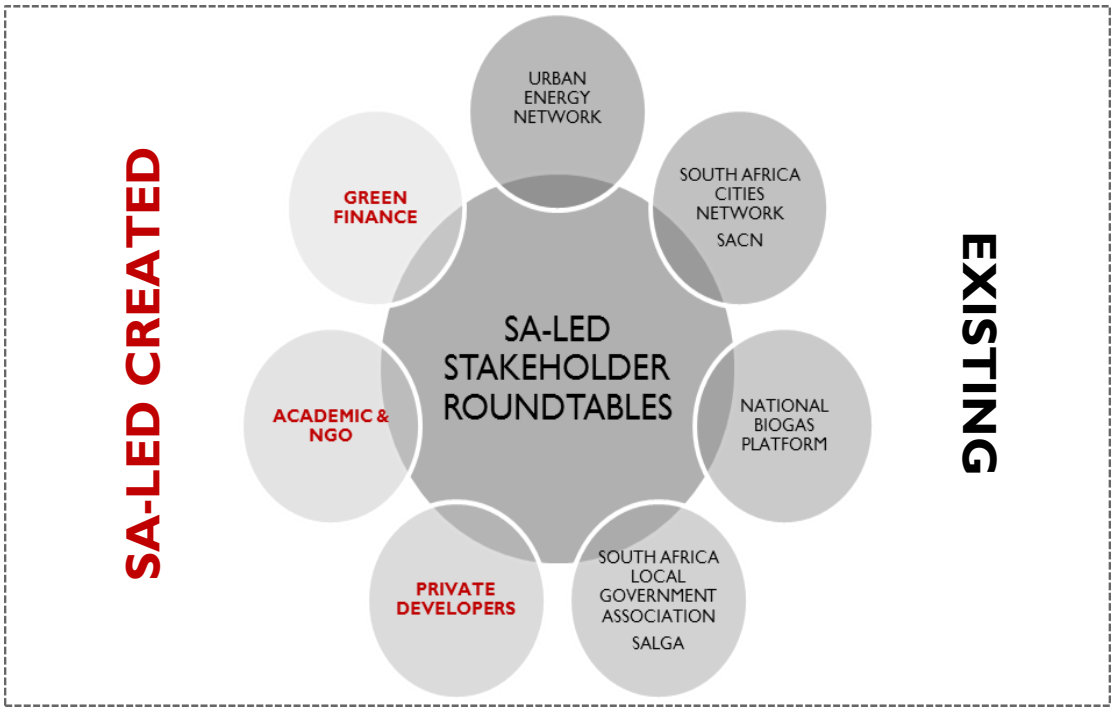
NREL is bringing two CSIR experts to Colorado in April to spend two weeks becoming experts on the iJEDI tool as a train-the-trainer approach and as a way of building institutional capacity and support in country so that NREL doesn't have to fly someone out on a regular basis to conduct the trainings. This is being done for both SA-LED and EC-LEDS, i.e. USAID DC is quite keen to support iJEDI training independent of SA-LED activities as part of the 21st power partnership program and bilateral work with South Africa.

ENABLING ENVIRONMENT

The SA-LED Program recognizes that in order to play a catalytic role in scaling the uptake of LED projects in South Africa, considerable work must be done across legal, financial, policy, and regulatory boundaries.

Numerous government departments, existing networks, donor agencies, development finance institutions, and private industry have done excellent work for many years to support the same goals. Instead of reinventing the wheel, SA-LED is working to leverage these existing efforts.

SA-LED is currently leveraging the following networks and organizations (below in black) and is creating three forums that include both roundtables and workshops (below in red) to inform its LED activities and to foster an enabling environment for LED projects.



During the quarter under review several meetings and collaborative efforts were undertaken to consolidate working relationships and support with key stakeholders. There were meetings of significance held with municipalities, provincial and national government, standards bodies, donors, networks of city energy and utility officials, and financial institutions. In addition, conferences and forums were attended to create new and strengthen existing networks.

FINANCIAL ADVISORY SUPPORT TO THE INDUSTRIAL DEVELOPMENT CORPORATION

SA-LED provided financial advisory support to IDC in February and March. The focus of this financial advisory was the terms being discussed with IDC for five projects across the following solar developers: FedGroup, APS Solutions, Genergy, Emergent Energy, Harbour Capital, and Eldo Energy. There is an 8.5 MW ground mounted project at Coega being reviewed and the rest are potentially bundled or clustered rooftop PV projects under 100kW.

The goal of the financial advisory work is to provide the IDC credit committee with a range of projects with different risks (offtake risk, PPA risk, developer risk, etc.) and to understand how IDC prices those risks with and without the USAID partial risk guarantee. This will not only see the value to the market of IDC pricing (and by extension, the value of the guarantee to the market), but also to address specific risks the credit committee has expressed to date which has slowed our progress down a bit. The primary concern at this stage is PowerX's balance sheet and our solar consultant has looked at a clearinghouse structure and a first loss facility (pulled out of the electricity price) to provide additional comfort to IDC of lending to developers with PowerX PPAs. It is hoped the risks can be addressed quickly and we can go to IDC's credit committee in May or June.

ATTENDANCE AT CONFERENCES/MEETINGS

1. MEETING WITH DBSA

The SA-LED team met with the Environmental Officer as well as the Deal Origination Specialist of the Project Preparation Unit from the Development Bank of Southern Africa (DBSA) on 26 January.

The main discussion involved assisting DBSA with mutual support on project preparation. Since their projects are very large with budgets exceeding R 200 million, it limits the amount of work we can do together, however, we still identified potential projects that would be mutually beneficial. The DBSA pitched three biodiversity projects and there might be links in terms of the biomass related projects we are providing assistance to in the Eastern Cape. The DBSA have also expressed interest in our Greenhouse Gas work and have indicated interest in being included for training on Greenhouse gas calculations.

The DBSA was very interested to hear about the USAID Development Credit Authority guarantee and other appropriate financial tools the US Government has. We discussed working jointly in identifying finance for LED projects and mutually identifying other financial institutions that we could work with. The next step is to finalize the MoU, which has already been drafted and is currently with DBSA.

2. DEA CLIMATE CHANGE MITIGATION WORKSHOP

The Climate Change Mitigation Workshop was convened by Sustainable Energy Africa (SEA) and the Department of Environmental Affairs Mitigation Team (DEA) from 21 to 23 of February 2017. DEA is implementing a South African Climate Change Local Government Support program which meets the needs of sub-national government and their limited capacity for implementing the National Climate Change Response Policy. During 2016, DEA

conducted nation-wide local government Climate Change Mitigation Status Quo workshops, resulting in a Needs Assessment Report which highlighted the need for training and capacity building of the municipalities themselves as well as the DEA local government support officials who will support municipalities in implementing climate change mitigation initiatives. The Program creates an enabling environment for municipalities to implement climate change response interventions to accelerate green growth.

The objective of the three-day course at Liliesleaf was to develop local government climate change mitigation support work plans based on the capability or level of work already underway within the municipalities. To this end DEA has developed a municipal clustering process comprising three cluster groups of municipalities (a categorization of municipalities into implementation readiness levels), namely, 1) the metros and other municipalities with strong climate change mitigation plans in place, 2) secondary or growing municipalities that are still in the development stages with some mitigation plans in place and have some work to do before they are ready and 3) the smaller municipalities with little capacity that are just emerging when it comes to climate change mitigation and as such require a lot of work to be done before they are ready for implementation.

SA-LED facilitated panel discussions on "Quantifying GHG Emissions Reductions from Municipal Mitigation Actions – exploring the why and how" and "Access to Financial Support". The aim of the sessions was to assist municipal attendees in building a comprehensive climate change mitigation work plan.

3. CLIMATE CHANGE FLAGSHIP STEERING COMMITTEE MEETING

SA-LED Chief of Party, [redacted], participated in the Department of Environmental Affairs Flagships Steering Committee meeting on 23 of February. South Africa's revised Green Climate Fund Framework was also presented at the meeting. SA-LED will review this Framework and provide inputs as necessary.

The National Climate Change Response White Paper (NCCRP), approved by Cabinet in October 2011, identifies a set of Near-Term Priority Flagship Programs, which are frontrunners or 'game-changers' in South Africa's climate action in key sectors. These programs are implementation programs and represent the leading actions committed to and underway, which advance South Africa's climate change response efforts. To strengthen the governance of flagship programs DEA established the Flagship Programs Steering Committee, a technical working group under the Inter-Governmental Committee on Climate Change (IGCCC). Seeing the value that SA-LED can bring to the flagship programs, SA-LED was invited by DEA to be a member of the Flagships Program Steering Committee. The objectives of the Flagships Steering Committee are:

- To build the co-operation and enhance collaborative action among all spheres of government, designated agencies and other stakeholders in the roll out and up-scaling of the Flagships.
- To provide strategic direction to the development and scale-up implementation of the Flagships.
- To develop a funding and support mechanism for the scaling-up of the flagship programs.
- To develop / enhance a climate change monitoring and evaluation mechanism for each flagship program.

- To profile the climate change flagships and develop a communication strategy for the profiling of flagships programs.

Various climate change mitigation projects were presented at the meeting on 23 February. These included:

- Green Building Council of South Africa EDGE Tool – a certification tool aimed at the residential sector.
- Department of Higher Education and Training's initiative to promote resource efficiency in the Student Housing Infrastructure Program.
- National Energy Regulator of South Africa (NERSA) presentation on challenges related to small scale embedded generation.
- South African Photo Voltaic Industry Association presentation on the PV Green card.
- CSIR Presentation and Department of Water and Sanitation presentation on Rain Water Harvesting in South Africa.
- South African National Development Institute presentation on Cleaner Fuels and the Carbon Capture and Storage Roadmap.

4. CAMBRIDGE INSTITUTE FOR SUSTAINABILITY LEADERSHIP (CISL)

SA-LED met with the CISL on 03 February 2017. For over 25 years CISL has established a global reputation as an expert guide for organizational leaders facing an increasingly complex range of stakeholders and non-financial business challenges.

The executive program is targeted at executive level staff (e.g. Chief Financial Officers, Executive Directors, Municipal Managers), while the practitioner program is targeted at operational staff. It is proposed that municipal officials are supported to attend the existing courses rather than have the CISL develop custom made courses because of the status/recognition that attending one of the courses will provide to the municipal officials. SA-LED will fund the participation of two senior municipal officials from three municipalities to attend the CISL Prince of Wales' Business and Sustainability Program in Stellenbosch, from 11 to 14 June 2017. The target audience includes: municipal managers, CFOs, senior officials responsible for budgeting and supply chain management units. These courses are internationally recognized and it will be worthwhile for the officials to attend. Municipal officials will also have opportunities to interact with their peers from the private sector which is a rare opportunity and will add value for the municipal officials as well as the private sector representatives and will also foster understanding between municipal officials and private sector representatives.

SA-LED's support will include payment of transportation costs, accommodation and registration fees.

5. SOUTH AFRICAN RENEWABLE ENERGY TECHNOLOGY CENTRE

The purpose of the meeting, held on 03 February 2017, was to meet with the director of the South African Renewable Energy Technology Centre (SARETEC) to discuss how SARETEC could support some of SA-LED's capacity building opportunities, especially for municipal officials. The Director of SARETEC explained that the center was established by the Department of Higher Education and Training to conduct technical training in the renewable energy sector. The focus has been on training wind technicians to service the wind projects that have been built as part of the Renewable Energy Independent Power

Producers Program (REIPPP). SARETEC has recently concluded the process to develop a qualification for solar installers. This qualification will be for electricians who want to enhance their skills set become qualified solar PV installers. Follow up actions include communicating with SARETEC regarding potential training for municipal electricians on PV installations.

6. MEETING WITH EXECUTIVE MAYOR OF GOVAN MBEKI

SA-LED met with Govan Mbeki Local Municipality on 1 March for an introductory meeting and again on the 13 March to meet with the Executive Mayor. Discussions revolved around possible support to the municipality as they are in a difficult financial position but keen to undertake low emissions development programs. There is a strong champion in the municipality in the form of Thokozile Zulu, the director for Community Services. Possible interventions could include a ccompilation of GHG Inventory for the municipality as well as a Climate Change Response Plan and conducting capacity development activities. Capacity building could also be done in conjunction with the development of the Response Plan by Executive Managers going on the Cambridge Institute for Sustainability Leadership (CISL) executive course, while managers in Community Services Department go on the CISL course that is targeted at operational managers.

A MOU was drafted and sent to the municipality and needs to go through their approval processes before singing. The expected date for signing is June 2017.

7. ICLEI AND SA-LED DISCUSSIONS

SA-LED met with the ICLEI Africa Secretariat in Cape Town on 30 March to discuss areas of collaboration. ICLEI started with the CCP (Cities for Climate Change Program) in Africa and has been involved in the climate, energy and low carbon space over the last few years. This was primarily through their Urban-LEDS Program which ran from March 2012 until March 2016. The aim of the Urban-LEDS Program was to support municipalities in Brazil, India, Indonesia and South Africa to transition to a low emission, green and inclusive urban economy. The South African municipalities which were part of this Program were Steve Tshwete, Kwadukuza, Mogale City, Nelson Mandela Bay Metropolitan Municipality, Saldanha Bay, Sol Plaatje and uMhlathuze.

ICLEI will be embarking on a follow-on program called Urban-LEDS II over the coming months and SA-LED would like collaborate with ICLEI in order to undertake complementary activities and to take forward the lessons learnt and follow up actions identified during the first phase of the Urban-LEDS Program.

A MoU will be drafted with a focus on integration of activities. Discussions with ICLEI also included capacity building on how to write more bankable projects and what it entails from a financial point of view, but also technical implementation. It was agreed that both SA-LED and ICLEI programs will work with GBCSA around green buildings and communities. In addition, more reflection is needed on current cities where ICLEI is working as well making sure different tools such as the CLEER and CLEAR Path encourage collaboration and links with easy access to information and avoid double reporting. It was agreed that meetings would take place quarterly going forward to ensure ongoing synergies.

TECHNICAL ASSISTANCE IN RELATION TO DEVELOPMENT OF STRATEGIES AND POLICIES FOR LOW EMISSIONS DEVELOPMENT

A new aspect that is being reported on is technical assistance in relation to the development of strategies and policies for low emissions development. This work is linked to SA-LED indicator 11. One initiative that covers this type of technical assistance is the Buffalo City Metropolitan Municipality, Amahlati Local Municipality, ELIDZ LED Roadmap and GHG Inventory. SA-LED's consultant appointed to compile the Greenhouse Gas Inventory began collecting data in March 2017. (The GHG inventories for these three institutions are being development in parallel.) Information is being sourced from the municipalities regarding their energy consumption. Information regarding the energy and waste consumption patterns is also being sourced from the businesses located in the ELIDZ. A workshop with the ELIDZ's tenants and investors will be held in April 2017. A task order is being prepared for facilitation and preparation of the LED Roadmap. The process to develop the roadmap will commence in June 2017. The overall objective of the roadmap is to consolidate sustainable energy efforts for a number of key energy stakeholders namely DEDEAT, IDZ and BCMM. The roadmap will thus play an important (and currently lacking) role of vertically integrating sustainable energy efforts in the province, with specific implications for industrial players, as well as local municipalities. The aim is to expand the recommendations to include all the local municipalities in FY3.

GREENHOUSE GAS MEASURING, REPORTING AND VERIFICATION

SA-LED is currently providing support to DEA's Monitoring and Evaluation Unit in developing acceptable sector guidelines to monitor and evaluate the GHG emission reduction benefits of potential LED mitigation options. SA-LED through its consortium partners, ICF and TGH, completed a review of the updated versions of the Monitoring and Evaluation sector guidelines for the Energy, IPPU, Transportation, Waste and AFOLU sectors.

DEA has requested further SA-LED support with re-writing these M&E guidelines. The initial intention was that DEA would re-write the guidelines in-house with ICF's support. However, given the capacity constraints within the department DEA has requested that SA-LED should consider supporting the full re-writing of the guidelines by ICF. SA-LED, ICF and DEA are currently in the process of agreeing on a scope of work for ICF to work with DEA. Agreement on the SoW is expected in quarter 3.

Challenges, constraints and lessons learned

A significant development during the quarter was the initiation of the screening process of potential projects (these are projects that will result in GHG emission reductions) and activities (these are other activities i.e. capacity building and those that will promote an enabling environment for LED) according to SA-LED's selection criteria. This screening

process ensures that the activities and projects that we support are in fulfillment of our program's objectives and will promote LED at the sub-national level in a sustainable way beyond the lifespan of the SA-LED program.

We also consolidated the way we package our technical assistance to our partners. This packaging involves aligning capacity development support, LED project support and enabling environment support in a way that meets the needs of our partners. An example of this type of packaging is the support that will be provided to Govan Mbeki Local Municipality. SA-LED will provide capacity development support by providing funding for municipal officials to attend training courses while we will also support the municipality with compiling a GHG Inventory and developing a Climate Change Response Plan which will be integrated into the municipality's Integrated Development Plan. LED projects that will lead to a reduction in GHG emissions will be identified during the process to develop the Climate Change Response Plan. SA-LED may then also provide technical support to develop these projects.

One of the challenges that has been experienced during the quarter was the lengthy recruitment process for the appointment of embedded staff in municipalities and this has led to delays with these appointments.

ANNEX A. DEFINITIONS

DISTRICT MUNICIPALITY There are 47 Category C or District Municipalities which are made up of several local municipalities that fall under one district (between 3-6 local municipalities form a district council). The district municipality coordinates development and service delivery in the entire district.

LOCAL MUNICIPALITY There are 231 Category B or Local Municipalities which share responsibility for service delivery with district municipalities.

METROPOLITAN MUNICIPALITY There are 8 Category A or Metropolitan Municipalities representing the largest cities. These municipalities have a population of 500,000 and above.

MRV The implementation of climate change mitigation actions in a "measurable, reportable and verifiable" manner.

SALGA South African Local Government Association is an autonomous association of 278 municipalities with its mandate derived from the Constitution of the Republic of South Africa. This mandate defines SALGA as the voice and sole representative of local government. SALGA interfaces with parliament, the National Council of Provinces (NCOP), cabinet, as well as provincial legislatures.

V-LED Vertical integration of Low Emissions Development involves cross-cutting dialogue and cooperation across sectors and different tiers of government.

V-NAMA refers to vertically integrated nationally appropriate mitigation action as conceptualized by GIZ and has since been adopted by the UNFCCC as a globally accepted term for local mitigation action.

WHEELING energy refers to the transfer of electrical power from one utility to another using the electrical grid – usually from an area with surplus to areas of higher demand. A NERSA trading license is required to wheel power via the existing transmission and distribution infrastructure.

ANNEX B. INDICATORS AND MILESTONES

The table below provides a summary of progress towards the achievement of SA-LED's targets for FY17 and over the life of the Program. Progress on activities as laid out in the SA-LED Workplan for FY17 is also described in the table. The table is laid out in such a way that it is easy to see how the activities of the Workplan contribute towards the achievement of the Program's indicators.

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
Intermediate Outcome 1: Increased investment in LED								
KRA 1.1	Innovative LED projects identified, supported, and facilitated	Number of LED projects provided with technical assistance	20	8	4	0	50%	No new projects were provided with technical assistance this quarter. However, a total of 2 existing projects continued to be supported (City of Cape Town and Blue Karoo).
KRA 1.4	Reduced emissions potential in strategic sectors demonstrated	Projected quantity of GHG emissions in metric tons of CO2e, reduced or avoided by 2030	100,000 tons	0	20,000 tons	Determined at year end	0%	SA-LED is supporting several projects expected to reduce GHGs but will be counted at financial close.
		MW of clean energy generation capacity	10MW	0	5MW	0	0	The tender for a project to produce 2

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
		supported by SA-LED assistance						MW has been advertised.
Immediate Outcome 1.1.1 Improved project preparation								
Activity	Result Statements	Comments On Progress						
Activity 1.1.1a	Identify potential projects for technical assistance	A total of 6 projects[1] were selected for technical assistance after the screening process: 2 projects in Cape Town (Energy Efficiency and SSEG), 2 in Govan Mbeki (the Green House Gas Inventory and Climate Change Response Plan, iKheis (Monitoring and Extension Support for micro hydro) and Umgungundlovu: Energy Audit						
Activity 1.1.1b	Evaluate potential projects via screening criteria	Project screening of all new projects commenced in Q2 and 8 projects were screened						
Activity 1.1.1c	Ensure a robust pipeline of LED projects	Current pipeline at March 2017 reflected 5 technical projects. However, the SA-LED project pipeline is maintained and updated every month as projects are screened and selected.						
Activity 1.1.1d	Support development of renewable energy RFPs	SA-LED will be working with City of Town, and Mbombela on renewable energy RFP's among others in Q3 and Q4.						

[1] These refer to technical projects that will result in GHG emissions reductions as well as activities that will promote an enabling environment for LED.

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
KRA 1.3	Resources from Development Finance Institutions (DFIs), Public Sector Finance funds (such as the SA Green Fund), and Private Sector Finance mobilized or Leveraged	Value of funds in USD mobilized or leveraged to support LED projects	US$206M	US$200	US$ 2M	0	0%	SA-LED provided financial advisory support to IDC on the terms of financial products to be developed for various solar developers.
Immediate Outcome 1.2.1 Increased financial support to LED projects								
Activity	Result Statements	Comments On Progress						
Activity 1.2.1a	Support co-benefit analyses for the allocation of budget to all the projects in the municipal LED pipeline	Analysis to commence in Q3 after finalizing a methodology in collaboration with SA-LED stakeholders.						
Activity 1.2.1b	Collaborate with the Gauteng infrastructure funding agency on implementing LED projects	SA-LED still waiting for the MOU from GIFA						
Activity 1.2.1c	Share information on the revenue implication of small scale embedded generation models	Activity partly done as part of the Small Scale Embedded Generation (SSEG) training and IJEDI. Activity is planned to continue in Q3						

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
Activity 1.2.1d	Work with banks to increase the amount of commercial debt provided to biomass and biogas projects	SA-LED is currently engaging with three commercial banks.						
Activity 1.2.1e	Partner with the GBCSA to establish a green building finance working group to accelerate private sector investment in green buildings	Discussions continued with Old Mutual's Impact Development fund to discuss how to partner to invest in rooftop PV across their residential portfolio but are still at an early stage. Detailed discussions with TUHF, a specialized affordable housing lender, interested in greening their portfolio with energy efficiency and renewable energy projects have begun. This was the third green finance activity that has come out of the November working group.						
Activity 1.2.1.f	Match projects with funding and provide support to project owners to secure the exact number of funds required for implementation	SA-LED is working with four solar projects to secure matching funds and provide financial advisory technical assistance to help these solar projects reach financial close. The four projects sponsors are: Genergy, Emergent Energy, Harbour Capital, and Clean Energy Africa. All four projects are a part of the NMBMM solar effort to create a rooftop PV market in Port Elizabeth.						
Activity 1.2.1g	Provide financial advisory services to banks, DFI's and municipalities to accelerate the deployment of finance to LED projects	The municipal work to deploy finance to municipal rooftop PV projects that do not have any municipal budget continues with ongoing support to NMBMM, Mbombela, and Tshwane. DFI financial advisory support is still focused on the IDC exclusively and continued throughout the quarter. Financial advisory support to banks did not occur during Q2						
Activity 1.2.1h	Work with banks to create credit lines or debt products specifically targeted at private-sector LED developers	Discussions with ABSA are ongoing. These discussions are still at a business development stage but it is hoped technical assistance will be provided to the bank in Q3 or Q4.						
	Intermediate Outcome 2: Accelerated rate of implementation of LED initiatives							

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
KRA 1.2	Capacities of the Public and Private Sectors to Identify, Develop, and Fund LED Projects in Strategic Sectors Strengthened	Number of institutions with improved capacity to address LED issues	20	0	5	0	0%	This will be measured later in the year after baseline assessments are conducted
Immediate Outcome 2.1.2 Mainstream LED criteria into the SCM processes								
Activity	Result Statements	Comments On Progress						
Activity 2.1.2a	Support municipal officials with mainstreaming LED criteria into the SCM processes	Planned for Q4						
Activity 2.1.2b	Work with municipalities to include LED criteria in the issuing of RFPs	This will be reported from Q3						
KRA 2.3	Key stakeholder knowledge and awareness of LED technologies and implementation strategies improved	Number of communication products produced by SA-LED	50	2	10	1	20%	A snapshot for the Fish Farm Project in the Eastern Cape
Immediate Outcome 2.2.1 Strengthened municipal LED knowledge base								
Activity	Result Statements	Comments On Progress						

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
Activity 2.2.1a	Develop a capacity building program for transport planning for municipal officials	A needs assessment on sustainable transport was conducted in Q2						
Activity 2.2.1b	Support Training opportunities for installation of LED technologies	SA-LED met with SARATEC to discuss training on PV installation for municipal electricians. Follow up actions for quarter 3 include liaising with SARETEC regarding potential training for municipal electricians on PV installations.						
Activity 2.2.1c	Develop information products on LED project blockages and regulations	No progress for this quarter						
Activity 2.2.1d	Conduct study tours	The planning for 'biogas for transport' study tour to the US started in January and the tour is happening in Q3. Another local study tour is planned for in Q4.						
KRA 2.4	Knowledge and awareness of the relationship between economic, gender, and youth implications of low emissions development increased	Number of projects supported by SA-LED that have co-benefits (output)	10	2	3	0	0%	SA-LED is working with ICF and the World Resources Institute (WRI) to contextualize co-benefits framework for SA. SA-LED has also secured a local consultant to help with

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
								the actual local analysis.
Immediate Outcome 2.3.1 Increased LED credibility as a pathway to local economic development, including gender and youth								
Activity	Result Statements	Comments On Progress						
Activity 2.3.1a	Include young graduates and female financial, engineering, and legal interns in LED activities	Hiring was finalized and the Intern is starting in May						
Activity 2.3.1b	Capture learnings on co-benefits from projects supported	Planned for Q4						
	Intermediate Outcome 3: Mainstream LED into programming, planning and budgeting, of municipal services							
KRA 2.1	Technical skills and strategic knowledge within relevant national, provincial or municipal government entities developed	Number of GoSA officials trained in LED	130	33	36	17[2] *(14 Male, 3 Female)*	113%	To date SA-LED has trained a total of 41 participants between Q1 and Q2, exceeding the annual target. In Q2, training focused on Small Scale

[2] One participant who was trained and reported in quarter 1 also participated in training in quarter 2 – he was therefore not counted in our total officials trained in quarter 2.

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
								Embedded Generation Revenue and Tariff Model and the NREL jobs and economic impact of solar too (JEDI)
		Number of individuals with improved LED capacity in supported organizations (outcome)	92	0	31	3	9%	Not all participants fully completed the questionnaire
Immediate Outcome 3.1.1 Increased municipal capacity for project assessment, design and development								
Activity	Result Statements	Comments On Progress						
Activity 3.1.1a	Provide technical assistance to biogas and biomass projects	Continued providing technical assistance to Blue Karoo Trust Aquaculture Project						
Activity 3.1.1b	Strengthen municipal capacity on project assessment, design and development	Activity to start in Q4						

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
KRA 2.5	Technical products to facilitate GoSA development and management of LED developed	Number of technical products developed to facilitate GoSA development and management of LED (output)	8	0	2	1	50%	The Energy Efficiency and Renewable Energy manual is finalized with printing expected in May
Immediate Outcome 3.2.1 Increased implementation of LED initiatives								
Activity	Result Statements	Comments On Progress						
Activity 3.2.1a	Develop short videos for two LED technologies	Nothing was developed for Q2.						
Activity 3.2.1b	Develop simplified templates/ cheat sheets for different LED technologies	Planned for Q3 after the EMM rooftop solar project and NMBMM projects are awarded / brought to financial close to share those municipal lessons learned with other municipalities.						
Activity 3.2.1c	Develop business case studies and package for replication of viable LED projects	Planned for Q3 and Q4						
Activity 3.2.1d	Development of training materials for Councilors on green building standards	Planned for Q3 and Q4						

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
Activity 3.2.1e	Update current manuals on renewable energy and energy efficiency	The Energy Efficiency and Renewable Energy manual is finalized						
Activity 3.2.1f	Document best practices of greening the value chain of niche agricultural products	Planned for Q3						
KRA 2.6	Public planning for LED improved	Number of laws, policies, regulations, or standards addressing LED formally proposed, adopted or implemented as supported by SALED assistance	10	0	2	0	50%	No new guidelines/strategies in Q2, but SA-LED has appointed a consultant to develop GHG inventories for Buffalo City, Amahlathi Municipality and ELIDZ
Immediate Outcome 3.3.1 Increased visibility of LED projects in IDPs, SDBIPs and municipal budgets								
Activity	Result Statements	Comments On Progress						
Activity 3.3.1a	Train municipal officials in LED planning and IDP processes	Planned for Q3 and Q4						

Level of Results	Result Statements	Indicators	LOP Targets	FY 16 Results	FY 2017 Targets	Progress FY 2017 Q2	Annual Performance Achieved to Date (in %)	Comments
Ultimate Outcome	**Reduced Greenhouse Gas Emissions through Implementation of SA-LED Initiatives**							
Activity 3.3.1b	Assess LED mainstreaming in IDPs, SDBIPs and municipal budgets	Planned for Q3 and Q4						
	Intermediate Outcome 4: Improved quality of monitoring and reporting of GHG emissions at sub national and project level							
KRA 2.2	GoSA skills to monitor, report, and communicate on GHG emissions improved	Number of GoSA officials trained in LED	130	n/a	36	0	47%	More trainings planned for Q3.
Immediate Outcome 4.1.1 Improved skills to monitor, report and communicate GHG emissions at sub national and project level								
Activity	Result Statements	Comments On Progress						
Activity 4.1.1a	Provide training in the use of the USAID – CLEER Tool for GHG measurement	Roll out training on CLEER Tool planned for Q3						
Activity 4.1.1b	Provide training on the use of the Global Protocol on Community Scale GHG accounting	SA-LED will be supporting municipal participants to attend a training that will be run by C40 Cities Climate Leadership Group, Sustainable Energy Africa and ICLEI.						

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