Off-Grid SHP Investment Fund

Darajani Water to Energy (Sub-Saharan Africa)

Table of Content

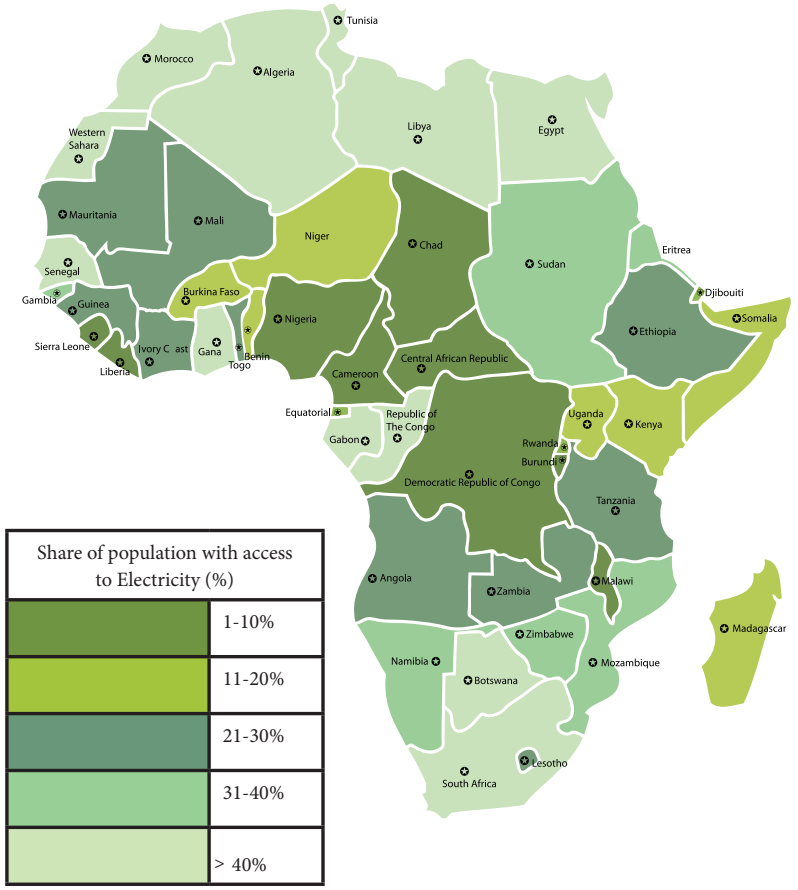
1. Context

This presentation talks about the opportunity to set up a green off-grid/ mini-grid development, investment and operating company for Sub-Saharan Africa mobilizing private, venture capital and public sector money targeting rural electrification. These green mini-grids will be powered exclusively by renewable energy resources – utilising mainly small/ mini/ micro hydropower with the potential to address future demand growth with PV solar and/ or biomass.

In its 2014 Africa Energy Outlook Report the International Energy Agency (IEA) has predicted that by 2040, 70 percent of new rural electricity supply in Africa will be from stand-alone systems and mini-grids. Map 1 below displays the electrification rates across Africa.

Mini-grids are not a new phenomenon in Africa. Almost all national utilities own and operate diesel-powered generating facilities not connected to the main grid, which supply electricity to secondary towns and larger villages. This solution to rural electrification inevitably results in significant financial losses for the utility, as it is required to sell power at prices much below the cost of production and delivery. Moreover, it leaves the most remote towns and villages unelectried.

The latest Sustainable Energy for All (SE4All) Global Tracking Framework estimates that the urban-rural divide in access to electricity in Africa is as high as 450 percent (69 urban compared to 15 percent rural access).



Map 1: Electrification rates across Africa

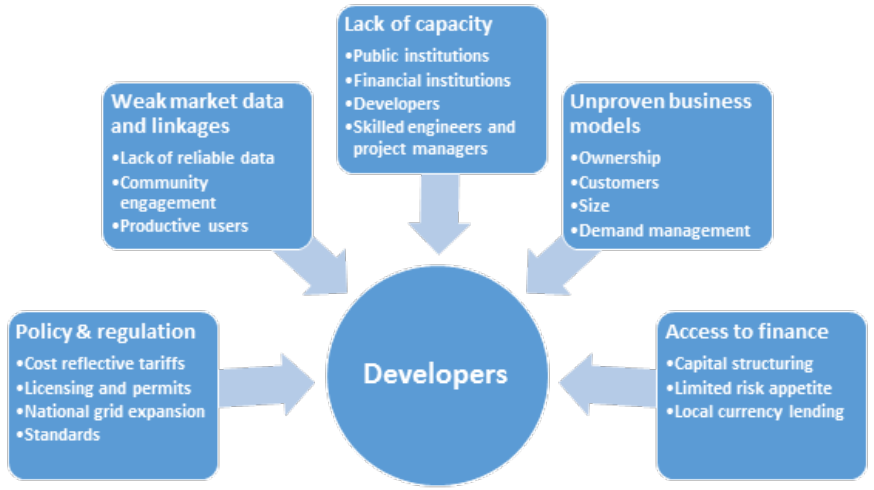
Source: World Energy Outlook (2015), International Energy Agency.

There are three principal options for providing new connections to currently unserved populations in Africa, namely:

1. extension of the national grid
2. installation of separate "mini" grids to operate independently from the main grid, and:
3. stand-alone generating systems that supply individual consumers.

The most cost-effective approach for powering mini-grids is to use renewable energy sources, which are widely available across Africa. However, the development of green mini-grids is not without challenges. Barriers to the growth of private sector mini-grids in Africa include gaps in the policy and regulatory framework, the lack of proven business models, the lack of market data and linkages, the lack of capacity of key stakeholders, and the lack of access to finance. Please see picture 1 below.

In response to these challenges, the combination of the experienced international private sector technology partner with venture capital and/ or other donor organisations can be the right partnership to address those aforementioned market failures.



Source: Energy4Impact, Inensus.

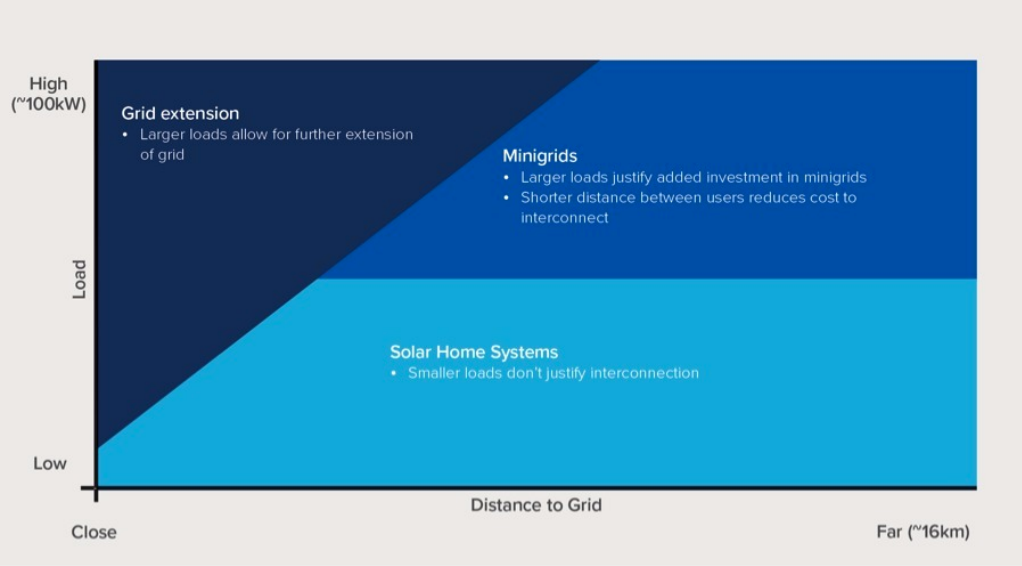
Picture 1: Barriers to the growth of private sector mini-grids

The goals of the green mini-grids, in all its aspects, is central to most donor funds/ multilateral banks/ AfDB's mission of spurring sustainable economic development, social progress and poverty reduction in Sub-Saharan Africa. Indeed, off-grid and mini-grid solutions are a key component of the AfDB's New Deal on Energy for Africa, launched by the Bank's president in January 2016. The New Deal is a transformative, partnership-driven effort with an aspirational goal of achieving universal access to energy in Africa by 2025.

In their latest publication, called "Energy Within Reach – growing the mini-grid market in Sub-Saharan Africa", the Rocky Mountain Institute states that site selection is critical. Distance to the grid and load size are the two most important factors. Grid extension costs increase rapidly with distance from existing transmission lines, improving the competitiveness of off-grid options like mini-grids. Higher load sizes can justify grid extension costs to a point, but at distances over five kilometres grid extension is rarely the least-cost energy access option. Similarly, between the off-grid electrification options of solar home systems and mini-grids, higher loads favour mini-grids. When load size is sufficient, the distribution network and fixed costs of mini-grids can be offset by better economies of scale and capacity utilization, and small solar home systems cannot economically supply the level or type of power required for larger appliances or productive loads (e.g., AC or three-phase power).

The characteristics of the site where the mini-grid will be located determine mini-grid cost and the cost of competing alternatives. The two most important characteristics contributing to mini-grid competitiveness are distance to the existing grid and load size of a prospective mini-grid coverage area. The interplay of these factors supports a general relationship between grid extension, mini-grids, and solar home systems, shown in Picture 2.

If the cumulative load is too small, the fixed costs of wires, metering, and fixed soft costs push mini-grids above the cost of stand-alone solar home systems. If the load size is sufficient, then the mini-grid is able to take advantage of economies of scale not available to solar home systems. Once the load gets large enough it will pay to pull in a medium voltage line.



Picture 2: The Least-Cost option for energy access depending on Load size and distance from the existing grid

Newspaper Clip about AfDB's engagement

The African Development Bank (AfDB) has announced plans to invest $870,000 in Tanzania's Rural Energy Agency (REA) through its Sustainable Energy Fund for Africa (SEFA) trust fund.

ITWEB Africa reports that the money will be used to structure the Renewable Energy Investment Facility (REIF), to provide affordable finance to private sector clean energy projects involved in energy access to rural communities in Tanzania.

Tonia Kandiero, AfDB Resident Representative in Tanzania, said "the SEFA support to will help address existing financing gap in the market and accelerate private sector participation in off-grid electrification in Tanzania. We expect this initiative to make a real contribution to Tanzania's ambitious energy access targets, ultimately improving livelihoods for all rural communities in the country."

The bank's analysis of Tanzania's national electricity coverage estimates coverage to be at a little over 20 per cent with transmission grid covering a minor part of the country and leaving out most of the territory. It also found that access is even lower for the rural population at 7 per cent with nearly 30 million people lacking a connection to the electricity grid.

"The vastness of the country, coupled with low population densities, makes grid extension too expensive, creating a significant market potential for off-grid electrification schemes. The REIF will thus contribute to expanding rural electrification and increase access to energy services by channelling appropriately tenured and priced finance to private sector companies developing and operating energy access projects in rural areas based on renewable energy technologies," the Bank noted in its announcement.

Delivering electricity through Mini-grids (WRI)

Mini-grids are electrical generation and distribution systems of less than 10 megawatts (MW) that serve customers through local distribution networks.

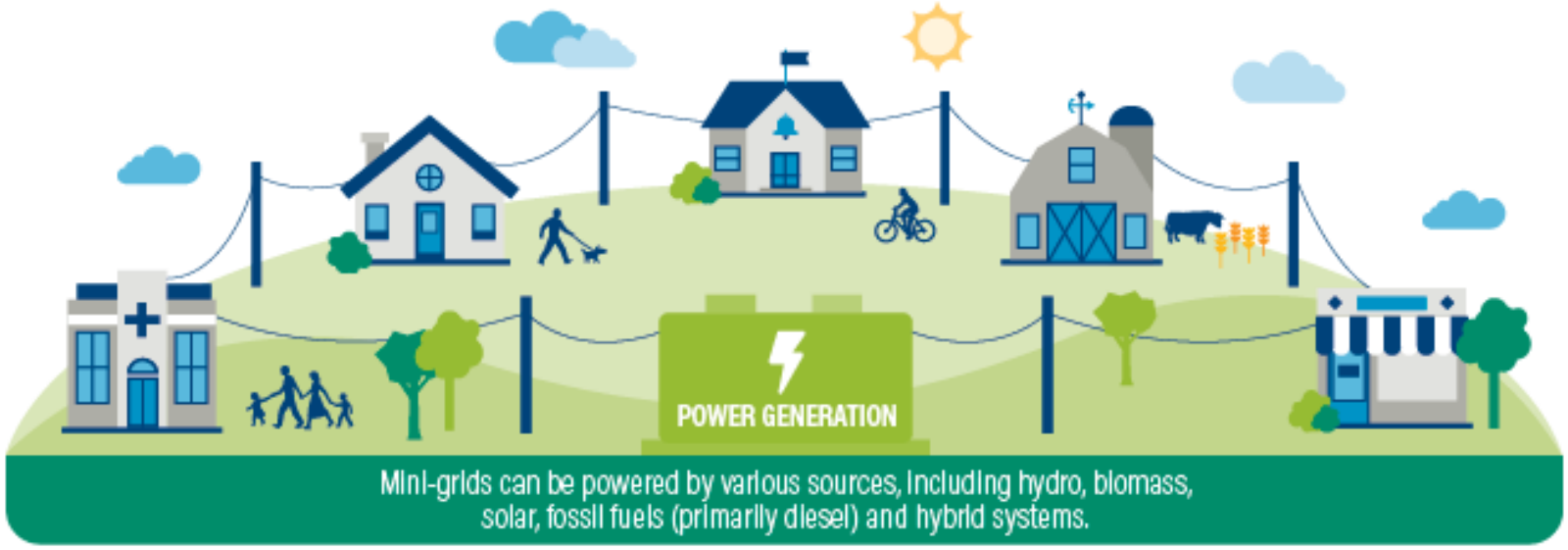
HEALTH CLINICS
Village health centers use refrigerators to store medical supplies

HOUSEHOLDS
Electricity for meeting household needs

SCHOOLS
Children have longer hours for study and more computer lessons

AGRICULTURE
Farmers process fruits and vegetables and press sunflower seeds into oil

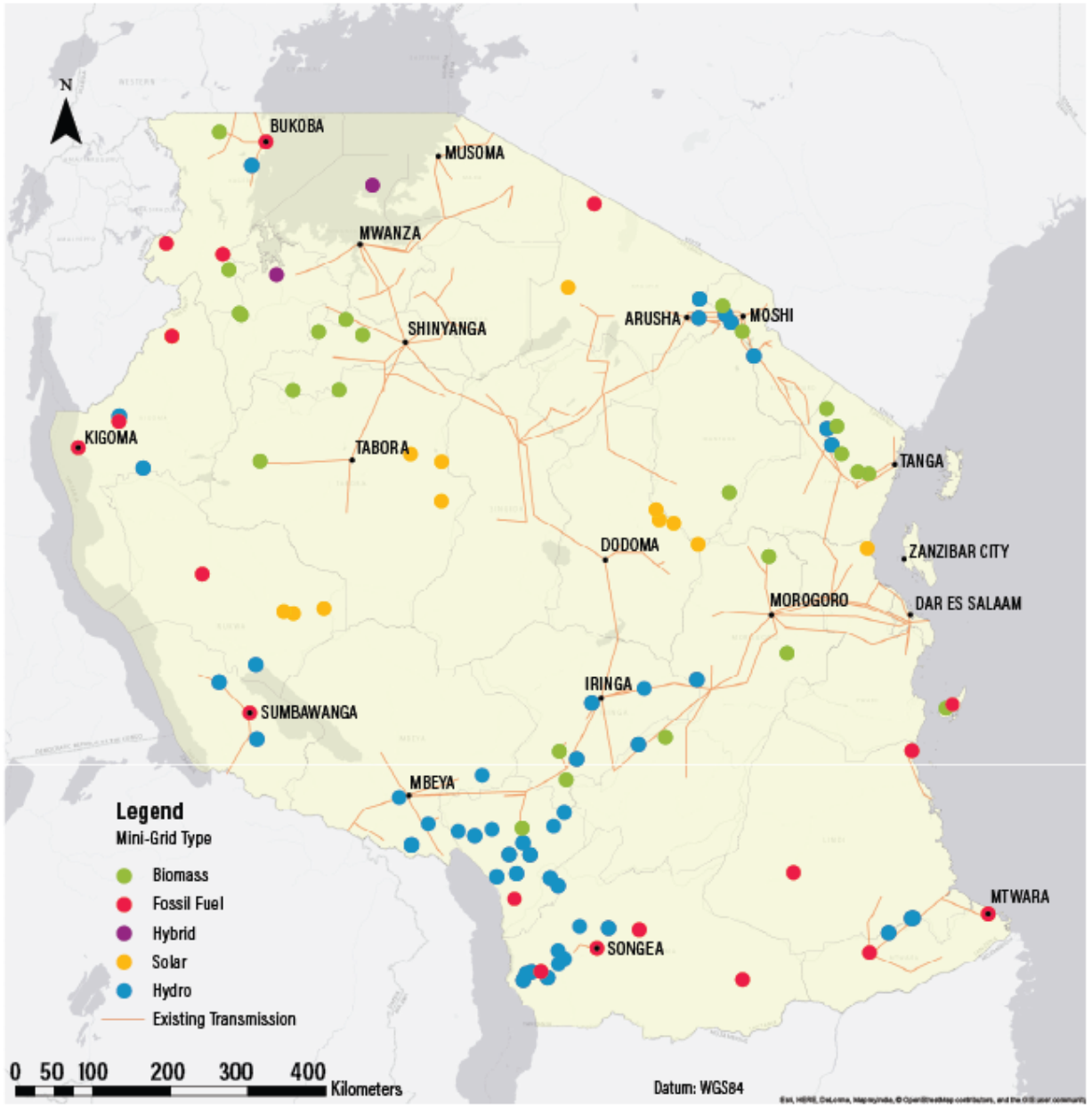
SMALL BUSINESSES
Barbers, butchers and restaurant operators extend business hours



#energyaccess
wri.org/tanzania-mini-grids

WORLD RESOURCES INSTITUTE

Exisitng Locations of
Mini Grids in Tanzania (WRI)



Source: Accelerating Mini-Grid Deployment in Sub-Saharan Africa: Lessons from Tanzania, WRI.

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2. Off-Grid SHP Investment Fund (SSA) – Darajani Water to Energy

The partners of Darajani Water to Energy Fund appreciate and understand:

1. the mind-set and expectations that reflect the distinctive realities of the African investing environment, in particular, persistence and resilience, a long-term view of project success, and appropriate risk tolerance.

2. the deep local knowledge of each target market and each local environment, as well as of local dynamics.

3. the entrepreneur/engineer outlook rather than a more hands-off financier-type viewpoint with an integrated end-to-end view of the project and a willingness to acquire in-house capabilities for its different stages.

4. And finally, the awareness of community engagement as a core priority, not an add-on.

2. Off-Grid SHP Investment Fund (SSA) – Investment Phases

Phase 1: Start-up/ Seed Capital

Min. start-up/ seed capital provided by KIDS (SSA) to finance business development activities for project pipeline.

KIDS (SSA) Ltd.
Infrastructure development

Equity Shareholder Level

Off-Grid SHP Investor Level

Advisors:

Fund Advisor: Adansonia Holding Ltd.

Legal Advisor: Baker McKenzie

Technical Advisor: Aurecon Group

Financial Advisor: Eaglestone

African Trade Insurance Agency
Agence pour l'Assurance du Commerce en Afrique

Darajani Water to Energy Fund (Mauritius)

Management Team

Andreas Koall – Investment/ Finance

Prosper Uwera – Business Development

Alexander Nash – Contract Management

Project Level

West Africa

General Manager - Business Development

Benin | Togo | Nigeria | Ghana

Cameroon | Cote D'Ivoire | Sierra Leone

East and Southern Africa

General Manager - Business Development

Rwanda | Uganda | Kenya | Zambia

Tanzania | Mozambique | Madagascar

Phase 2: Anchor investor

Anchor Investor would accelerate implementation of existing project pipeline

Equity Shareholder Level

KIDS (SSA) Ltd. Infrastructure development

metier

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East and Southern Africa

General Manager - Business Development

Rwanda | Uganda | Kenya | Zambia

Tanzania | Mozambique | Madagascar

From Phase 3: Growth

Additional investors (other DFIs and/ or commercial organisations) would support growth of project pipeline in other SSA countries

Development Partner

KIDS (SSA) Ltd. Infrastructure development

metier

Equity Shareholder Level

Off-Grid SHP Investor Level

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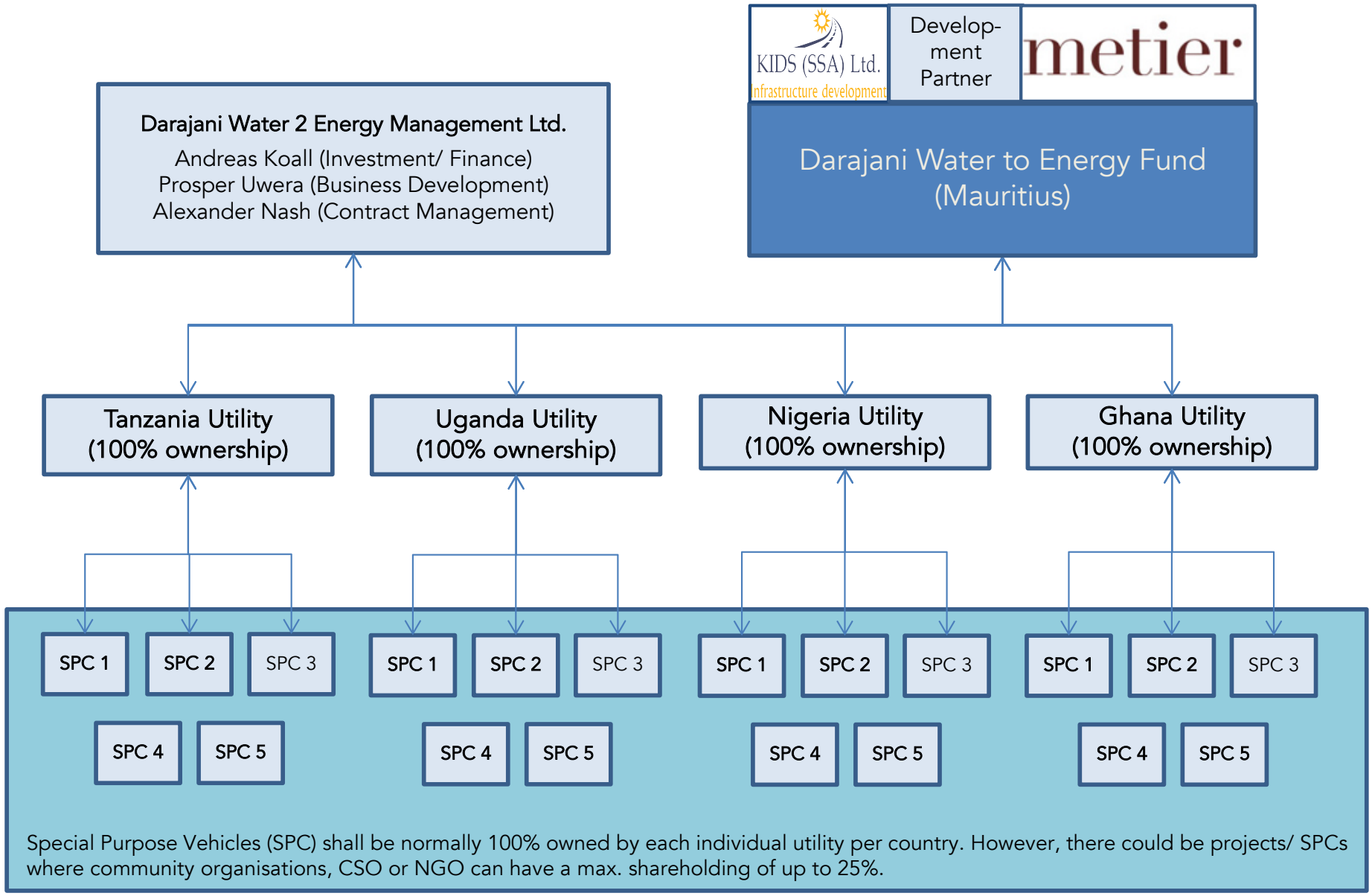
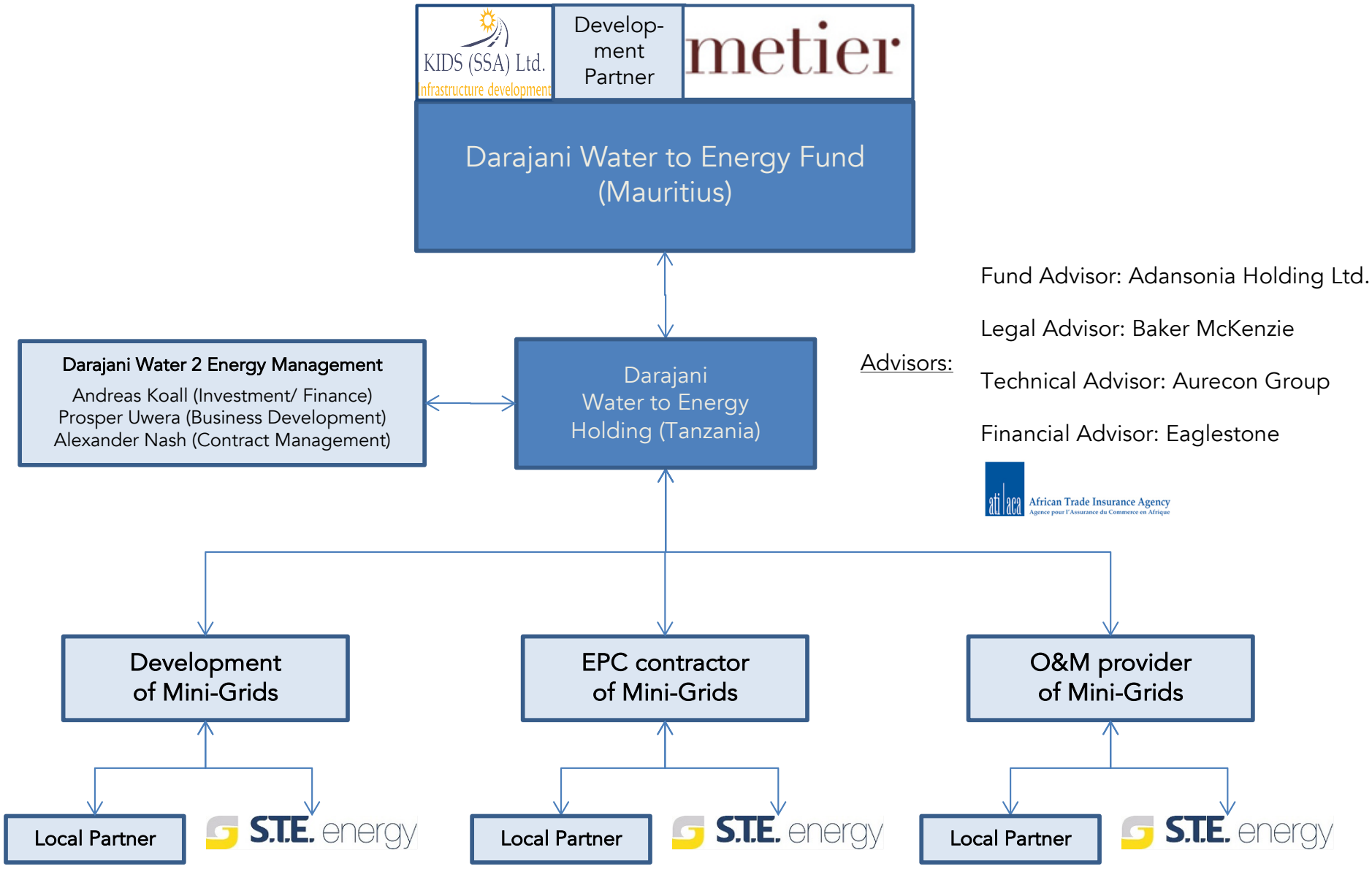
3. Off-Grid SHP Investment Fund (SSA) – Corporate Structure



3. Off-Grid SHP Investment Fund (SSA) – Corporate Structure (Tanzania)



4. Allocated tasks at Holding/ Top Co. and Project level:

4.1 Tasks at Holding/ Top Co. level (this list is not exhaustive):

1. Finalise project sales and its Terms & Conditions to secure ownership of projects;
2. Transfer all existing project studies, licences, permits and land rights to new/ clean SPCs;
3. Apply and manage all required still outstanding permits and licences;
4. Negotiate Exclusivity Agreement for EPC and O&M with AEE Power;
5. Set up fund in Mauritius;
6. Set up Management Company in Mauritius;
7. Negotiate SPPA with TANESCO for project pipeline;
8. Finalise TA appointment with Aurecon Group;
9. Finalise Finance Documentation (S/h Agreement, Loan Agreement, etc.);
10. Finalise Project Documentation (EPC contract, O&M contract, etc.)

4.2 Tasks at Project level (this list is not exhaustive):

1. Preliminary Site visit to all projects to finalise project sales;
2. Commence full Due Diligence process on existing documentation;
3. Identify gaps and upgrade in existing documentation;
4. Identify and commence with the missing suite of bankability studies;
5. Complete and receive SPC sign-offs on all bankability studies required under the Equity Term Sheet;
6. Provide BoQ for each project in project pipeline;
7. Provide performance bonds/ guarantees as required under the EPC contract;
8. Provide assurance bonds/ guarantees as required under the O&M contract;

5. Risk Mitigation process/ Due Diligence:

Risk Mitigation process/ Due Diligence:

Technical risks:

Through the engagement of an internationally recognized technical partner, called AEE Power, which has a large footprint across Sub-Saharan Africa and has build several run-of-river Small-hydropower projects on the continent all technical risk aspects will be minimized as much as possible. AEE Power have a reputation to look after equity investors and debt providers interest equally so that overall project success can be achieved.

From the outset AEE Power will conduct a thorough Due Diligence on all projects looking at the existing set of project documentation (Technical feasibility, ESIA, Financial Model, etc.), identifying shortfalls in relation to international standards, addressing missing points or correcting wrong conclusions and recommendations. In addition AEE Power will put forward a budget for all those studies which have so far not been carried out incl. geotechnical study, power evacuation study, topography study, detailed hydrology study, etc.

Concerning the detailed hydrology study, AEE Power will collect all available data (catchment area size, annual rainfall, irrigation projects in the area, etc.) from the relevant ministries, hydrology data centers, and regional measurement stations. Once this exercise has been completed several models and methodologies will be applied to reach accurate annual river flows for the design of the HP turbine.

Energy Demand risk:

During the Due Diligence phase it is anticipated that new or updated power demand studies will be conducted in the off-grid areas. This is not only to make sure that the available generated Renewable Energy gets managed accordingly but also that the tariff structure for each individual off-grid project is affordable, sustainable and achieves the financial returns for the project investors.

6. Existing Project Pipeline

Off-Grid SHP Development Investment (1/3)

Tanzania

ACIC Ltd. - Ibaga SHP Project

ACIC Ltd is developing a min hydro electric power plant of approximately 1000 kW at Ibaga River and will supply electricity generated through a three- phase transmission line network of 33kV to five villages of Ibaga, Ilindiwe, Malembuli, Mang'oto and Usungilo and connect to TANESCO National Grid. The proposed Ibaga Min Hydro Electric Power Project is located at Ibaga village in Mang'oto ward, Makete District, Njombe Region in Southern Highland of Tanzania, approximately 80 km west of Njombe town. The project area has 3,025 people and 863 households. There are a total of 791 domestic users, 164 business enterprises and 31 public institutions in the project area as potential customers.

Based on the survey data, the market for the proposed Ibaga small hydro-electric power project the market can be segmented into two major groups; TANESCO (70%) and Communities in the project area (30%).

Picture 1: Ibaga River

Picture 2: Nyitule River

CEIA Ltd. – Nyitule SHP Project

The Nyitule Mini Hydropower Project Site is named after the Nyitule River which is located between Ipelele and Iniho wards, approximately 40 km South of Makete Town, in Njombe Region. Based on the feasibility study, the river stream has sufficient water flow throughout the year and sufficient head to generate electricity estimated to 372kW. According to the survey conducted in November 2013, there are a total of 2,374 households, 32 private business enterprises and 27 public institutions in the project area who are the potential customers.

Based on the survey data, the market for the proposed Nyitule mini hydro-electric power project the market can be segmented into two major groups; TANESCO (15%) and Communities in the project area (85%).

Off-Grid SHP Development Investment (2/3)

Picture 3: Isigula River

KIBARTCO Ltd. - Isigula SHP Project

The proposed Isigula Small Hydro Electric Power plant is located along Isigula River at Mkiu village in Ludewa district, Njombe Region in southern Highland of Tanzania, approximately 80 km southwest of Njombe town. An access road of about 2.5Km from Mkiu village has been introduced to reach the proposed power house area.

The mountainous area of Ludewa district is covered with forests and has a number of indigenous protected forests. The project area has 5,810 people, 1,467 households, 1 secondary schools, 4 primary schools, 13 churches and 3 dispensaries. The main economic activity of this area is agriculture.

The main crops being cultivated are maize, round potatoes, coffee, vegetables and fruits. These activities include lumbering, retail shops, grain milling, tailoring and carpentry. Furthermore, at the moment in Mkiu village there is a blacksmith workshop where various metals tools (i.e., bush knifes, machetes, timber dust stove, cutlasses hoes, etc.) are moulded using charcoal fire.

ACIC Ltd. - Buguru SHP Project

ACIC Ltd is developing a min hydro electric power plant of minimum 1000 kW at Buguru River and will supply electricity generated through a three- phase transmission line network of 33kV to two major wards of Lupila which entails villages of Lupila, Malanduku, Igumbilo ,Ukange and Ipepo ward which includes Maliwa, Igolwa, Ipepo, Ikete and Ilungu villages. The main economic activity is agriculture with maize, Irish potatoes, wheat, sunflower and pyrethrum being grown as both food and cash crops. SMEs settled in the project area include timber industry, cereal grinding machine, shops, video show rooms, bar, hotels , barber shops . Timber industry is one of major prospective user of electrical power expected to be generated by the project, since there is a lot of woods available in Makete district.

Initial survey data has shown that there are more than 3,500 households which use kerosene for lighting and biomass for cooking. TANESCO (25%) and communities in the two wards (75%).

Picture 4: Buguru River

Off-Grid SHP Development Investment (3/3)

LICI Ltd. – Lyamanzi SHP Project

The project is initiated by LICO Ltd at Ukange village area which covers Mamongolo, Ng'elamo, Makowo, Mbega, Ukange, Igumbilo, Malandugu, Lupila, Ludilu, Ipepo, Igolwa, Maliwa, Ikete, Irunga, Kijyombeand Mbalaatsevillages. The site is located at the Lyamanzi River and generate 3.5MW of power.

The project will serves 4530 family houses with 18039 inhabitants. About 94% of the house holds are standard houses where 60% are expected to be connected in year 1 and 40%house holds in the period up to year 5. There are 15 primary schools and teachers quarters around Mkiu and Kiyombo villages that will benefit from the initial power supply proposed system, where they will be able to conduct evening classes and operating school office equipments. There are 3Secondary Schoolwith staff houses will also benefit from this project. At the village centre there are some activities where common facilities are available like churches, health centre, transport, shops, mills, carpentry workshops, tailoring, guest houses, restaurants and social centers etc. The beneficiary structure at Mamongolo, Ng'elamo, Makowo, Mbega, Ukange, Igumbilo, Malandugu, Lupila, Ludilu, Ipepo, Igolwa, Maliwa, Ikete, Irunga, Kijyombeand Mbalaatsearea comprises of; 61 diesel mills, 25 tailoring, 37 carpentry workshops without power tools, 308 shops / kiosk's / bar / restaurants, 41 churches, 6 guest houses, 20 government office, 3 other institutions and 15 health centre with different activities.

Ghana

Ghana has a hydropower potential of 2,000 MW, of which 1,200 MW corresponds to large hydropower projects, and the rest in the form of small hydro power projects. Ghana has also identified some 68 sites for constructing mini or micro hydro power plants.

Nigeria

With the set-up of the UNIDO Regional Centre for Small Hydro Power in Abuja in 2006, Nigeria is considered as one of the few places for systematic capacity development in small hydropower technology in Africa. It should serve not only for domestic needs but also for giving guidance to other countries in Africa. Nigeria has a short term target of installing 100MW of small hydropower capacity.

Uganda

Uganda has considerable potential for hydropower development located mainly on the Nile River. Other Non-Nile River sites with potential capacities ranging between 0.5 and up to 5MW are scattered throughout the country with potential for mini- and micro-hydropower development. To date less than 10 per cent of this potential has been developed.

Off-Grid SHP Project Pipeline (1/2)

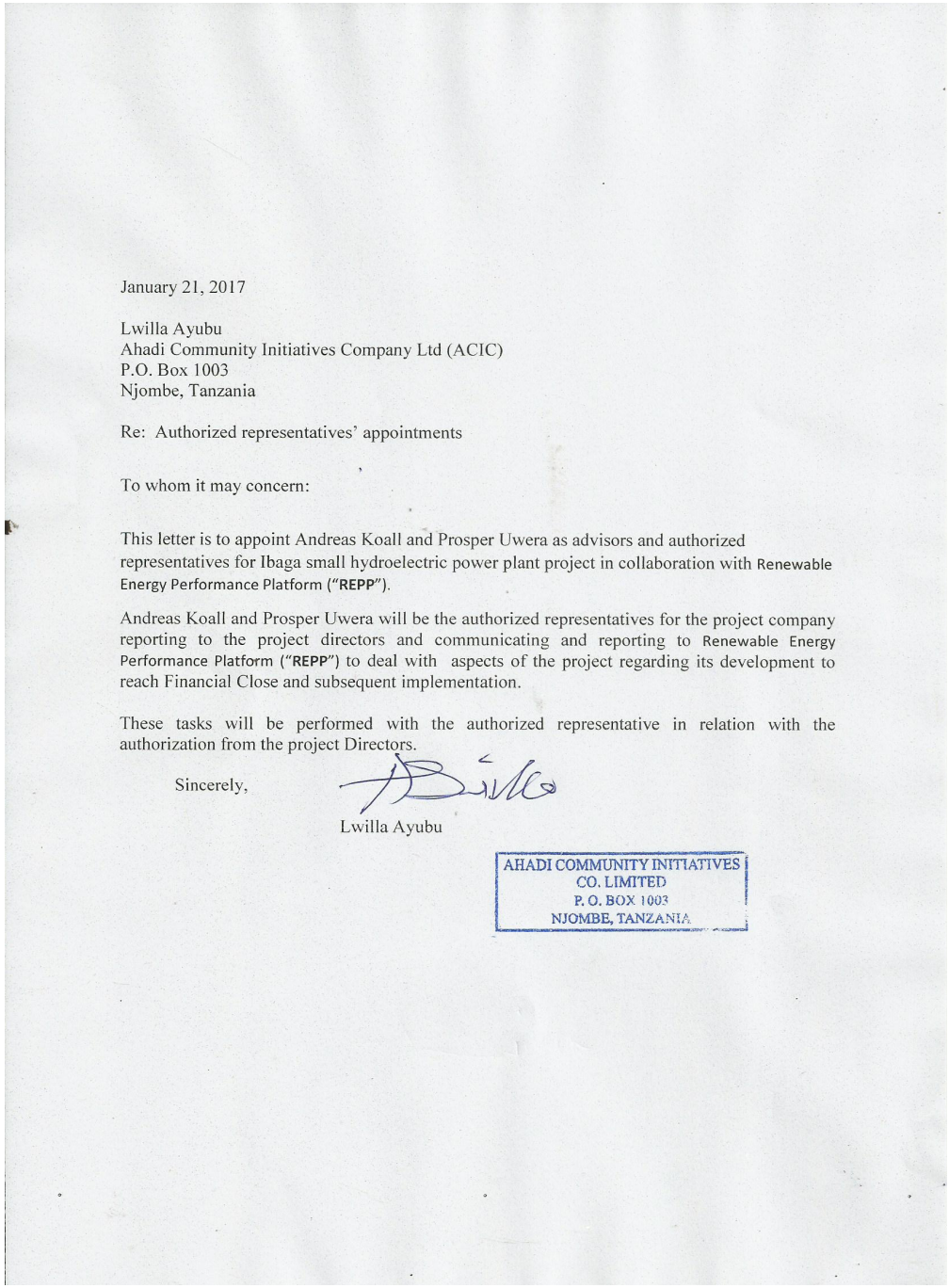
Item	Project Name	Country	MW size	Bankability Studies	Permits, Licence, Rights	Outstanding	Est. CAPEX [USD]
1	Ibaga SHP Project	Tanzania	1MW	• Feasibility Study • ESIA • Business Plan • Financial Model • Com. Consultation	• Water Extraction • Land acquisition • Power Generation	Check studies for bankability and identify gaps	~3.5mill
2	Nyitule I Mini-Hydro Project	Tanzania	374kW	• Feasibility Study • ESIA • Business Plan • Financial Model • Com. Consultation	• Water Extraction • Land acquisition • Power Generation	Check studies for bankability and identify gaps	~1.5mill
3	Nyitule II SHP Project	Tanzania	3MW	• Feasibility Study • ESIA • Financial Model	• Water Extraction • Land acquisition • Power Generation	Check studies for bankability and identify gaps	~10.0mill
4	Isigula SHP project	Tanzania	407kW	• Feasibility Study • ESIA • Business Plan • Financial Model • Market Research • Com. Consultation	• Water Extraction • Land acquisition • Power Generation	Check studies for bankability and identify gaps	~1.7mill
5	Lyamanzi SHP	Tanzania	3.5MW	• Feasibility Study • ESIA • Business Plan • Financial Model • Market Research • Com. Consultation	• Water Extraction • Land acquisition • Power Generation	Check studies for bankability and identify gaps	~11.5mill.
6	Buguru I SHP Project	Tanzania	1MW	• Prefeasibility Study	• Water Extraction • Land acquisition	• Bankability studies • Some licences/ permits	~4.0mill

Off-Grid SHP Project Pipeline (2/2)

Item	Project Name	Country	MW size	Bankability Studies	Permits, Licence, Rights	Outstanding	Est. CAPEX [USD]
6	Fuller Falls (Brong Ahafo)	Ghana	380kW	• Prefeasibility Study	none	• Bankability studies • All licences/ permits/ rights	~1.5mill
7	Willi Falls (Volta)	Ghana	1MW	• Prefeasibility Study	none	• Bankability studies • All licences/ permits/ rights	~3.75mill
8	Barekese Water works (Ashanti)	Ghana	400kW	• Prefeasibility Study	none	• Bankability studies • All licences/ permits/ rights	~1.75mill
9	Tsatsadu Falls (Volta)	Ghana	320kW	• Prefeasibility Study	none	• Bankability studies • All licences/ permits/ rights	~1.45mill
10	Randall Falls (Brong-Ahafo Region)	Ghana	160kW	• Feasibility Study	none	• Bankability studies • All licences/ permits/ right	
11	Awieke (Benue)	Nigeria	1.2MW	• Feasibility study • ESIA • Business Plan	none	• Bankability studies • All licences/ permits/ rights	~4.0mill
12	Tunga (Taraba)	Nigeria	400kW	• Feasibility study • ESIA • Business Plan	none	• Bankability studies • All licences/ permits/ rights	
13	Belle (Niger)	Nigeria	719kW	• Feasibility study • ESIA • Business Plan	none	• Bankability studies • All licences/ permits/ rights	
14	Erinle (Osun)	Nigeria	286kW	• Pre-feasibility study	none	• Bankability studies • All licences/ permits/ rights	

Example of the existing relationship with the current developers who own the off-grid projects

Current owners of the off-grid/ mini-grid projects have indicated that they would transfer majority shareholding to the holding for an



January 21, 2017

Lwilla Ayubu
Ahadi Community Initiatives Company Ltd (ACIC)
P.O. Box 1003
Njombe, Tanzania

Re: Authorized representatives' appointments

To whom it may concern:

This letter is to appoint Andreas Koall and Prosper Uwera as advisors and authorized representatives for Ibaga small hydroelectric power plant project in collaboration with Renewable Energy Performance Platform ("**REPP**").

Andreas Koall and Prosper Uwera will be the authorized representatives for the project company reporting to the project directors and communicating and reporting to Renewable Energy Performance Platform ("**REPP**") to deal with aspects of the project regarding its development to reach Financial Close and subsequent implementation.

These tasks will be performed with the authorized representative in relation with the authorization from the project Directors.

Sincerely,

Lwilla Ayubu

AHADI COMMUNITY INITIATIVES
CO. LIMITED
P. O. BOX 1003
NJOMBE, TANZANIA

Thank you

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KIDS (SSA) Ltd.
Infrastructure development