Energising change

Social Impact Incentives (SIINC) off-grid energy pilot

Country	Kenya
Objective	Pilot a scalable SIINC model for the off-grid energy sector in Sub-Saharan Africa
Target groups	Households and MSMEs
Target outcome area	• Access to modern energy services • Poverty reduction • Quality of life • Women's economic empowerment • Energy-related saving • Income generation
Project period	November 2019 – December 2022
Co-financed by	The Swiss Agency for Development and Cooperation (SDC)

Background

The Social Impact Incentives (SIINC) off-grid energy pilot is co-financed by the Swiss Agency for Development and Cooperation (SDC) and implemented by the strategic partnership Energising Development (EnDev) through the Gesellschaft für Internationale Zusammenarbeit (GIZ) in Kenya. The design development process, accompanying learning agenda and lean verification is informed by a close cooperation with Roots of Impact and 60 Decibels. The objective of the pilot is to develop and test an innovative, efficient, and impact-oriented Results-based Financing (RBF[1]) model for the off-grid energy sector in Sub-Saharan Africa. The overarching aim is to proof the concept, and share lessons learnt as well as recommendations for a future replication at scale.

Results-based Financing (RBF)

In the past 10 years, RBF approaches have been developed and implemented by national governments and development partners around the globe – including in Kenya. With its 17 projects in 14 countries, EnDev´s Results-based Financing Facility (RBFF) decisively contributed to that development. A key finding of the RBFF´s mid-term evaluation[2] is that it helped addressing market barriers, introducing new products, expanding distribution networks and increasing company operations overall.

A key learning and recommendation for future RBF approaches is the importance to develop RBF designs and incentive structures that match the specific objectives of the respective project. If the objective is market development in a broader sense a broadly formulated incentive structure is adequate; but if the objective is to gear the private sector to specific target groups (e.g. women or people living in remote areas), a more granulated incentive structure is the key to success.

Based on its vast experience in designing and implementing RBF projects, EnDev strives to continue contributing to the future of RBF - taking approaches to the next level. One trajectory is the SIINC pilot project in Kenya, which strives to transition from output-based payments (i.e. sales of technologies) to outcome-based payments.

[1]To learn more about Results-based Financing (RBF) visit EnDev's RBF Knowledge Hub

[2] EnDev, 2017

SIINC model

Social Impact Incentives (SIINC) is a funding mechanism that rewards social enterprises with incentive payments for achieving social outcomes. Thereby, the model unites the interests of

- National governments und development financiers
- Private sector enterprises
- Impact investors

The objective is to establish an innovative blended finance approach that utilises public funds to catalyse private investment in underserved markets.

The original SIINC concept was co-developed by SDC and Roots of Impact in 2015. Its first pilot implemented in Latin America included projects in the health, agriculture, education and employment sector. EnDev, in partnership with SDC, now aims to transfer the experience to Sub-Saharan Africa and to the off-grid energy sector. Due to the maturity and investment readiness of the off-grid energy market, Kenya was selected as the designated pilot country.

Energy situation in Kenya

Energy access is a fundamental pre-condition to change people's lives and economic opportunities to the better. While the Kenyan market for off-grid solar products is the largest in Africa[3], still nearly 30% of the population living in remote areas lacks access to electricity and about 59% do not have access to a modern form of cooking energy. Many households spent up to 30% of their income to satisfy their energy needs using kerosine, batteries and cooking on three-stone fires. In addition, traditional energy systems have negative effects on health, the environment and the global climate. In Kenya more than 8,300 children die every year due to acute lower respiratory infections caused by the use of solid fuels[4], which could be avoided with safe cookstoves. As cooking is mainly done by women, there is as well a strong link to gender inequality[5]. In agricultural value chains in rural areas as well smallholder farmers often lack access to modern energy services or use expensive energy sources, impacting their productivity and economic opportunities.

Over the course of the past years Kenya has made significant progress in connecting more people and MSMEs to the national electricity grid. The Government has highlighted the crucial role of the private sector to reach the population in remote areas with off-grid solutions in its National Electrification Strategy[6].

SIINC Pilot: Off-grid energy in Kenya

To proof the SIINC model on the ground, three Kenyan companies have been selected through a competitive tender process. Companies are incentivized to deepen their positive impact on clients´ lives through the sale of off-grid energy solutions (electricity and cooking energy).
Incentivised outcomes include economic benefits as well as improvements in quality of life over an implementation period of 12 months with two verifications cycles.

The incentive design is structured along three main pillars, ensuring flexibility for the private sector in conceptualizing their individual proposition (e.g. technologies and target groups):

- **Sales** above the business as usual scenario
- **Customer situation** taking into account the number of customers living below the national poverty and/or having access to a modern form of energy for the first time, as well as women entrepreneurship
- **Customer feedback** on perceived improvement of quality of life, savings on energy expenditure and/or additional income generation

Based on available sector-wide data from 60 decibels, existing company data and additional baseline surveys individual impact performance benchmarks for each company were defined. They include minimum and maximum performance values, allowing for a proportional, company-specific incentivation following the three pillars described above.

An independent third party verifies and assesses achieved outcomes bi-annually applying the Lean Data[7] methodology. In concrete terms this means that standardized phone interviews are conducted with a representative sample of the clients. To increase the reliability of results, phone interviews are complemented by spot checks in the field. In addition, all sales reported will undergo the established standard quality control processes of the EnDev monitoring system. In line with the nature of RBF approaches, companies only receive payments for successfully verified results.

As stipulated above, a key element of the SIINC model is to catalyse private investment (e.g. impact investors). Therefore, incentive payments are conditional to raising investment rounds in parallel with the implementation of the pilot.

[3] USAID and Power Africa, 2019
[4] SNV, nd
[5] EnDev, 2012
[6] Lighting Africa, 2018
[7] Lean Data is a fast, customer-centric approach to measure the effects that products or services have on their customers. Initially launched by Acumen in 2019, Lean Data was spun off to create a social enterprise called 60 Decibels. The methodology is characterized by standardized phone surveys that produce rich customer insights directly from end users. Lean Data surveys have been performed on more than 100+ off-grid energy companies which allowed to create sector-wide benchmarks to impact performance, enabling enterprises to understand their impact relative to their industry peers. These benchmarks were used to determine the initial SIINC incentive structure.

SIINC Deal: Deevabits Green Energy

Technology	Small solarPV and solar home systems (SHS) for household and productive use
Project sales target	14,033 household products 2439 PU products
Additional people/MSMEs with access to energy	18,790 people 1,159 MSMEs
Target outcome areas	• Poverty reduction • First time access to modern energy services • Quality of life • Women's economic empowerment • Energy-related savings • Income generation

Established in 2016, Deevabits Green Energy (DGE)´s mission is to improve energy access to the rural poor by empowering women and youth with economic opportunities. The company is a distributor of solarPV products for household and productive use working with a PAYGO[8] model to allow for payment in instalments. With 24 employees, the company has reached about 23,200 customers and generated a revenue of roughly EUR 490,000 in 2020.

At the heart of the last-mile distribution network is the Village Solar Entrepreneurs (VSEs) model, in which trusted local people (60% of whom are women) are recruited to promote products through women's groups, schools, chief meetings, markets, and individual connections. The VSEs are micro-enterprises directly connected with Deevabits Green Energy; they sell and install solar products – and offer after-sales service.

The company´s expansion strategy as proposed for the SIINC pilot focusses on increasing sales for households and MSMEs while at the same time maximizing the positive impact on people's lives. More specifically the pilot targets the following groups:

- Customers living below the national poverty line
- Customers accessing modern energy products and services for the first time
- Female enterprises using energy productively

[8] PAYGO, or pay-as-you-go, is a financing model that allows end-users to pay for energy in installments, removing the upfront financial barrier to solar energy products

Deevabits Green Energy has a proven track record of providing improved quality of life for its customers, far above the industry benchmark established by 60 decibels. The SIINC incentivizes the company to maintain or even surpass its performance level while the business grows. In addition, incentives target additional customers reporting decreased energy savings or increase income generation since they purchased a Deevabits product.

> *"I am able to save more money because I no longer incur expenses such as buying kerosene, which used to be the source of lighting in my house."* - Female Pawame Customer (Source: 60 decibel baseline survey)

Extending business operations into more difficult to reach rural areas requires risky investments by the private sector – while at the same time the potential social and economic impacts from access to energy are high. It requires financial and time investments in expanding the pool of last mile sales agents (VSEs) and company staff, stepping-up and expanding marketing outreach, establishing logistics and distribution channels, as well as developing and introducing flexible payment plans to reflect the ability to pay of the targeted clients.

The support provided through the SIINC pilot incentivizes the company to deviate from traditional business expansion paths focussing on well-known client groups with a relatively higher ability to pay.

Thereby, the project contributes to the overall growth strategy of the company: DGE strives to raise EUR 1 million in the upcoming years to upscale its last-mile distribution model in line with its mission statement. SIINC will assist DGE to integrate a stronger impact focus, and thus attract investments from impact investors focused on lower-income groups.

SIINC Deal: Bidhaa Sasa

Technology	Small solarPV, SHS and improved cookstoves for household use
Project sales target	5,443 solar products 16,916 cookstoves

Additional people with access to energy	24,444 people
Target outcome areas	• Poverty reduction • First time access to modern energy services • Quality of life • Energy-related savings

Established in 2015, Bidhaa Sasa is a last-mile distributor offering as well financial services for a variety of household products serving rural women living in lower-income areas. The company offers small solar systems and cookstoves, which positively impact the lives of its clients. With 130 employees, the company has reached about 100,000 clients so far and generated a revenue of approx. EUR 1.5 million in 2020.

The typical Bidhaa Sasa client is a middle-aged female smallholder farmer with one to two acres of land and a large family. These women are usually in charge of most of the household chores and many tasks in the farm. They are the ones who benefit directly from the products offered by Bidhaa Sasa.

Bidhaa Sasa's business model takes the needs and aspirations of rural women as the starting point. The woman-to-woman direct sales model[9] has its core strength in being able to directly deliver products to homes. This is a key to success as the products offered remain widely inaccessible and unaffordable for rural families. The main barriers are the lack of distribution channels reaching out to the last mile coupled with a lack of accessible customer loans. Leveraging social cohesion allows the enterprise to offer nano-credit to groups of clients without preconditions or collateral.

"The SIINC project is going to help Bidhaa Sasa to deepen our impact in rural western Kenya, allowing us to reach more women of lower income. We value the emphasis on impact alongside the number units sold of this RBF programme." – Co-founder, Bidhaa Sasa

In order to scale, Bidhaa Sasa can either continue their current growth model of regional expansion, targeting clients in the income bracket they currently serve, or they can deepen their impact within existing regions by reaching clients with lower income levels. Although the second method offers more promising inclusive impact opportunities, it is a riskier endeavour from a business perspective requiring higher investments.

The company´s strategy as proposed for the SIINC pilot thus focusses on increasing sales of solar and cooking products for poor households while at the same time maximizing the positive impact on people's lives. More specifically the pilot targets the following groups:

- Customers living below the national poverty line
- Customers accessing modern energy products and services for the first time

Bidhaa Sasa already performs well on gender inclusivity, quality of life improvements and reaching those who access products for the first time. Moreover, the company is already doing a good job at serving less well-off customer, but does not yet reach 60 decibels industry benchmarks, especially in the cooking product segment. Therefore, the SIINC pilot incentivizes Bidhaa Sasa to maintain or even improve its performance level and reaching further down to the bottom of the pyramid while business grows. In addition, the incentive structure targets an increase in the number of customers perceiving decreased energy spending since they purchased a product.

Extending business operations to poorer customers requires risky investments. For Bidhaa Sasa these include adapting their marketing approach and adjusting their value proposition, e.g. by lengthening payment plans and adding smaller or more affordable products. The support provided through the SIINC pilot serves to cushion the risks involved in deviating from traditional business expansion paths, which focuses on relatively better-off customer segments.

In addition, the SIINC will make the Bidhaa Sasa model more attractive to impact investors and catalyse private sector investment in line with the company´s mission to grow and scale its operations.

SIINC Deal: Pawame

Technology	Larger SHS, solar water pumps and solar refrigerators for productive use
Project sales target	720
Additional MSMEs with access to energy	342 MSMEs
Target outcome areas	• Women's economic empowerment • Quality of life • Income generation

Established in 2016, Pawame is a SHS distribution and financing company that provides clean energy to rural and off-grid communities that previously did not have access. With its PAYGO model Pawame has developed a robust

[9] Inspired by the 'Tupperware'-style model

reputation within the solar sector for household use and is well positioned to introduce and scale up new PU products aimed at improving livelihoods even further. These would include larger SHSs, solar refrigerators and solar water pumps. With 96 employees, the company has reached about 26,000 clients so far.

Pawame's business model focusses on increasing affordability though PAYGO. Customers make an initial down payment for their system followed by flexible daily payments that ultimately lead to complete ownership. Once a customer has completed repayment, they have built up a financial history and are eligible for a range of further products and services, boosting financial inclusion and increasing energy access even further. In order to scale its impact, Pawame strives to roll-out a new PU product line to its portfolio enabling remote customers such as smallholder famers or shop owners to use energy productively and thereby increase income.

The company´s expansion strategy as proposed for the SIINC pilot thus focusses on increasing sales of PU products, especially for female entrepreneurs. It further aims to incentivise the number of customers reporting quality of life and income improvements since they purchased the PU product. Expanding a product offering is inherently costly and involves a certain level of risk, as it takes time for business operations to adjust toward the new product, and time to build trust with new customers. The SIINC funding de-risks the early sales and offsets some of the costs related to new product introduction, such as investing in new logistic chains, staff training and dedicated marketing materials.

The data gathered throughout the SIINC will provide Pawame with critical information regarding the expansion of their product offer. This includes insights into the customer characteristics of the new PU products and which regions bear which market potential (particularly in the case of solar water pumps). It will also be crucial information in generating track record to attract additional inventory financing and equity investment by demonstrating performance and impact to lenders.

> *"The SIINC intervention would allow us to both deepen and broaden our impact: reach more customers and provide them with products that have a higher impact on their life than what we are currently able to offer."* - Corporate Development Director, Pawame

Outlook

The implementation of the SIINC pilot in Kenya started in October 2021 for a period of 12 months. Verification of outcomes and the associated SIINC incentive payments is scheduled bi-annually, in March 2022 and October 2022. Incentives amounts are determined by the companies' verified performance on the different SIINC indicators and payments will be disbursed proportionally to the target achievement. The objective of every SIINC is to leverage private sector investment within the project period.

Learning is at the core of this pilot project with the objective to proof the concept of SIINC for off-grid energy markets in Africa. Experience and lessons from implementation overall, as well as the verification cycles will be continuously analysed and fed back into the project. The final results and lessons learnt of the SIINC pilot shall inform the replication of similar programs at scale.

Contact Information

For more information on the SIINC for off-grid energy pilot, visit RBF knowledge hub via endev.info/approach/results-based-financing or contact us via endev@giz.de

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