

# REMMMP BRIEFING NOTE

RENEWABLE ENERGY MICROFINANCE AND MICROENTERPRISE PROGRAM

## *Financing Small-Scale Clean Energy Using Remittances*

After settling in a foreign country and beginning to make an income, millions of migrants around the world start the practice of sending money home to their relatives. This transfer of funds is known as remittances. Official transfers happen through specialized financial organizations like Money Transfer Organizations (MTOs), banks and Microfinance Institutions (MFIs), but can also occur through a number of informal channels. In total, the amount sent adds up to a staggering figure: in 2013, official remittance flows to developing countries are expected to top US\$415 billion (up 6.3% over 2012), and worldwide, official remittance flows may reach as much as US\$550 billion with unofficial figures bringing the amount much higher. Remittances are now nearly three times the size of official Overseas Development Assistance and are larger than the combined total of private debt and portfolio equity flows to developing countries. In certain countries, for example Tajikistan, Liberia, Haiti and Nepal, remittances represent well over 20% of GDP. These statistics, which come from multilaterals such as the World Bank, the Multilateral Investment Facility (MIF) of the InterAmerican Development Bank (IDB) and the Asian Development Bank (ADB), suggest that remittances continue to play a critical role as a source of financing for poor people around the world, and that a significant portion of the poor rely on remittances to pay for basic needs.

In many of the countries where receipt of remittances is highest, either in billions of dollars received or as a percentage of GDP, access to energy services is exceptionally low. This means that many poor consumers around the world are relying on remittances

not only to purchase food but also to cover their daily energy costs, including traditional sources of fuel like candles, kerosene, charcoal, wood and diesel. In fact, poor consumers report that they spend up to 25% of their income on fuel, depending on the season. Given the growth in the volume of remittances annually, the importance of remittances as a source of cash in poor households, and the correlation between high remittance-receiving countries and low electrification rates, the idea of using remittances as a way to finance improved energy sources is becoming more and more compelling.

Companies that provide remittances services use a number of different business models and offer a range of specialized services to senders. One of the most common and popular ways to send money abroad is through MTOs, which can have significant distribution and sales networks within the receiving country. Formal financial institutions are another popular means to send remittances. Some banks and MFIs have developed mechanisms to capture remittances and direct them towards other financial products they offer such as housing improvement loans, education loans, savings or pension schemes as well as bill payment services (for example bills from schools, doctors or other vendors). A third variation is that of companies which offer their customers the option of in-kind or goods remittances, for example where senders can pay directly for food, cement or mobile phone top-ups for relatives at home. This option leverages the fact that remitters often report that they prefer to pay directly for expenses in the home country as it enables them to control the use of the money they send.

Irrespective of whether the transfer method takes the form of a person-to-person cash transaction or whether it is linked to a non-cash product, each of the methods described above represents a potential business model for financing clean energy. Where there is a grid, infrastructure remittances could be used to pay for utility bills payments; in an off-grid context, remittances could be used to pay for clean energy products via a housing improvement loan or through a specialized in-kind goods remittances scheme. The ideal context in which to test one of these models is a country with very low electrification rates, very high remittance volumes, and large numbers of people living in poverty that are dependent on remittances to supplement their incomes.

Any potential pilot needs to take into account the fact that the remittances sector is highly regulated.

There are international and country-specific laws and regulations that must be followed to prevent money laundering and ensure that the remittances are not being used for illegal purposes. There is a strict set of licensing requirements and companies that operate in the sector are closely monitored. As a result, while the potential for tapping remittances to achieve a range of development goals – including financing small-scale clean energy – is high, a pilot involving remittances is also a complex undertaking.

This Briefing Note will profile the case of Sogexpress, which is an MTO operating in Haiti that has pioneered the use of remittances as a way to finance clean energy, and will outline some of the lessons learned from the Sogexpress pilot.

## A CASE STUDY HIGHLIGHTING THE USE OF REMITTANCES TO FINANCE CLEAN ENERGY

### SOGEXPRESS

Haiti is the poorest country in the Western Hemisphere, and its already limited electricity grid infrastructure was devastated by the January 2010 earthquake. Before the earthquake, the ecosystem to deliver electricity in Haiti was underdeveloped and there were no functioning suppliers, distributors or financing mechanisms to channel clean energy devices to the country. After the earthquake, the situation further deteriorated. Just over four years later, still only 28% of Haitians have access to grid electricity, which is chronically unreliable and typically available only for a few hours a day.

The low electrification rate affects most Haitians in fundamental ways: they lack light at night as well as refrigeration and hot water. They experience challenges with cooking, and are unable to use many mechanical devices. In addition, the cost of diesel spiked after the earthquake, thereby putting generators even further out of reach for most people. Much of the population therefore relies on kerosene lamps for lighting, even though kerosene is smoky and a fire hazard, especially in

the tent camps where a substantial number of Haitians continue to live. Cooking needs are met primarily by burning charcoal, which has resulted in deforestation pressures, hazardous indoor household pollution, and significant greenhouse gas emissions in the form of methane and black carbon. Prices have also been rising recently, putting increased economic pressure on many families. At the same time, Haiti receives over US\$2 billion in remittances annually, constituting about 26% of the country's GDP. Over 2.5 million Haitians live overseas, with about 1 million residing in the US, most of whom live in the New York City and Miami areas.

The combination of low electrification rates, high remittance volumes and the importance of remittances to the local economy make Haiti a promising country to test the viability of remittances as a way to finance clean energy. In an effort to address this “energy gap” and take advantage of the huge remittance flows, Arc Finance engaged Sogexpress (the leading MTO in Haiti) to pilot a project through which remittances were used to finance small-scale renewable energy in Haiti.

### *Business Model*

After extensive market research, the project team opted to test a remittances-based business model that relies on a partnership with an MTO. In this model, the sender uses remittances to buy the energy product from the MTO, which in turn has agreed to provide a range of clean energy products such as basic solar lanterns, solar lanterns with cell phone chargers, and solar home systems to receivers in Haiti. After selecting the item to be purchased, the remitter provides the contact information of the receiving family member in Haiti, who picks up the product at a specific location in the recipient's country.

Based on a set of agreed criteria, the team identified 17 clean energy products manufactured by nine different companies. The team evaluated each product, and five solar devices were chosen for the project launch phase. Initially, three larger products were made available on the remittance platform and two smaller, less expensive products were offered for sale on a cash basis in each of the 57 Sogexpress flagship stores in Haiti. Fairly soon after the launch and in response to customer demand, the team made all the products available for cash in Haiti.

Sogexpress decided to limit the number of available products to five in order to simplify ordering, sales agent education and potential supply chain issues. The five products represented a spectrum of available energy products and provided features that emerged as important to Haitian customers through initial market research, such as mobile phone and radio charging. For the products available on the remittances platform, the team decided to focus on larger, more capable products for three reasons: better matching of retail value to average monthly remittance size (US\$60 to US\$200); larger systems look more “serious” and less like toys; and more expensive systems can absorb supply chain costs better than smaller systems. The fierce competitiveness of the Haitian remittances market meant that appropriate pricing was extremely important.

The project team decided to create a robust technical service solution through a partnership with Micama

Soley. Micama Soley, the solar division of SAFICO S.A., a well-established Haitian company, imported the solar products, provided training to Sogexpress sales agents on the use of the products, as well as a warranty and after-sales services. Originally a mattress company, Micama built a technical service operation to service solar products after the earthquake. A 30-year-old brand that is highly trusted and respected in the Haitian market, Micama serves as the exclusive distributor for Barefoot Power and d.light Design (two leading global solar portable lantern manufacturers), which together manufacture the energy products selected for the Sogexpress pilot and offer the warranties that Micama honors. Under the project, Micama was contracted to handle shipping, importation, and warranty services. The agreed process was that Micama would deliver the products to the Sogexpress warehouse and Sogexpress would deliver inventory to its flagship stores. For warranty issues, the flagship stores would send malfunctioning products back to the central warehouse, where Micama would pick them up, service or replace them, and then re-deliver to the warehouse. Outside of the warranty period, the after-sales service division could charge a small fee for spare parts and repairs. This warranty process was agreed to and documented, and Micama ensured availability of spare products at the Sogexpress flagship stores.

The Sogexpress remittances platform was adapted to accommodate the new business model. The marketing team designed and implemented an extensive awareness-raising, outreach and marketing campaign for remittance senders, receivers and the energy-poor in Haiti. In partnership with a major Haitian marketing company, a media campaign was developed that included a range of marketing channels including TV, radio, street marketing and print media. Building awareness around the advantages of sustainable energy was deemed critical to the success of the project, especially with respect to informing potential customers about the social and environmental impacts of sustainable energy, such as the role of lighting for children's education/homework, the adverse health

consequences of existing lighting sources such as kerosene, and reductions in CO2 emissions. Based on these criteria, the project team designed and rolled out a comprehensive campaign both for Haiti and the Haitian diaspora to stimulate demand through both “push” and “pull” strategies. The push strategies were focused on encouraging people in the diaspora to send solar products to Haiti and the pull strategies were focused on encouraging Haitians living in Haiti to request solar products from their relatives abroad.

The remittances platform was launched in April 2012. During the pilot phase, which lasted until April 2013, 6,136 solar lamps were sold – benefiting approximately 30,700 people in Haiti (the target for this period was 5,000 lamps). As a result of post-pilot surveys, the team was able to document a number of social, environmental, economic and financial benefits to consumers. As of early 2014, over 10,000 products benefitting 50,000 people have been sold, with bold projections for the next expanded phase.

**Social Impact:** An overwhelming majority of households (96%) had one or more women who benefited from the lamp, and 89% had one or more children who benefited. Most customers (95%) said they used the products mainly at home, and of these 36% used products to spend time with family, 34% for children’s homework and 15% for security reasons. More than 90% of the customers who bought a lamp indicated that they were remittance clients, suggesting that for the majority of people, remittances contributed either directly or indirectly to the purchase of the clean energy device. In addition, some people reported that they were engaged in domestic remittances – and were remitting lamps within Haiti to family members in rural and remote areas. More than 99% of the customers

interviewed said they were satisfied with the lamp, and 95% said they encouraged relatives and neighbors to buy a lamp. Of those surveyed, more than 40% did not have access to grid electricity.

**Environmental Impact:** An estimated 489 tons of CO2 had been reduced directly as a result of the clean energy products purchased during Year 1 with 1,221 tons projected by the end of Year 2.

**Economic and Financial Impact:** The energy cost savings for consumers as a result of the project equaled US\$220,390 in Year 1, with US\$759,125 projected as savings for sales to date by the end of Year 2. There were also several interesting enterprise development outcomes of the project. Sogexpress reported that the energy products offered via the remittance platform created a new and profitable business line. A select group of entrepreneurial customers reported that they were renting the mobile phone charging capacity to others. The solar lamps also enabled a range of business owners in Haiti to increase their own, or their employees’, productivity with a direct impact on revenues and livelihoods. Most of the people interviewed (91%) reported that if they were to have access to finance, they would be interested in purchasing a more expensive lamp.

At the end of the project (which was funded by the Multilateral Investment Fund/InterAmerican Development Bank (MIF/IDB) and the Clinton Bush Haiti Fund), Sogexpress expressed interest in scaling up the project and both the MIF/IDB and the United States Agency for International Development (USAID) agreed to fund a third phase. Phase III will scale up the initial energy pilot with a focus on expanding and strengthening the agent network to include direct sales in addition to remittance sales.

# LESSONS LEARNED

*Currently there is a scarcity of business model examples using remittances to finance small-scale renewable energy. The Sogexpress experience reveals key lessons that may be useful for entities seeking to replicate or adapt the business model.*

**1. Pricing and incentive structures must be thought through carefully at the outset.** Incentives need to be sufficient to encourage agents to promote the products enthusiastically and should be embedded in the product pricing. The pricing must include enough margin to absorb future changes in the incentives offered to agents and to cover unforeseen exigencies such as government taxes and fees. In the case of Haiti, after the project launch, the government issued Circulaire 98, which levied a fee of US\$1.50 on every remittance to Haiti, irrespective of the size of the remittance. Naturally, this needed to be absorbed in the pricing.

**2. Ongoing capacity building at all levels is essential.** While strong, professional and well-coordinated implementation and marketing partners are keys to success, ongoing capacity building at all levels is essential. Tailored training and awareness-building for both managers and sales agents needs to be provided to enable them to be effective ambassadors for the project. Clients also need capacity building to help them understand the product features, product care requirements and warranty and service options.

**3. It is important to develop a pilot based on a thorough understanding of consumer preferences and purchasing behavior.** Initially, products were selected and prices were determined based on market research with both senders and receivers. The team's decision to select products was based on average remittances sizes derived directly from insights gathered in the market research. The marketing campaign took into account country-specific promotion tactics such as the particular appeal of "special promotions" to Haitians. In addition, customers stressed the importance of "hands-on experience," so sample products were made available for examination, thereby helping customers in both Haiti and Miami to understand the products' features. This contributed directly to increases in sales.

To read an in-depth case study on Sogexpress, and to see other Arc publications, please visit [www.arcfinance.org/knowledge](http://www.arcfinance.org/knowledge).

This briefing note series is a core offering under the Renewable Energy Microfinance and Microenterprise Program (REMMP), which is implemented by Arc Finance and funded by the United States Agency for International Development (USAID). The central goal of REMMP is to increase access of underserved populations to clean energy products to improve livelihoods and quality of life, while minimizing climate-damaging emissions.