

# REMMMP BRIEFING NOTE

RENEWABLE ENERGY MICROFINANCE AND MICROENTERPRISE PROGRAM

## *Crowdfunding in the Energy Access Space*

Lack of access to affordable finance perpetuates global energy poverty by limiting both the supply of, and demand for, improved energy products and services. Innovation is stifled when companies are unable to source the capital required to develop and commercialize new technologies and business models. Supply chains remain truncated when regional distributors and last-mile retailers cannot secure working capital to purchase inventory and sustain and expand their operations. Households and businesses are unable to afford modern energy improvements when banks and microfinance institutions do not offer credit for these investments. In response to this pervasive deficit, new crowdfunding models are opening up alternative means by which energy providers and consumers can gain financial support in the absence of conventional donor funding, debt and equity investment.

In general terms, “crowdfunding” describes the practice of raising funds in small increments from large numbers of non-institutional sources. Typically, activity is mediated via an online platform and promoted through social media. While a handful of popular crowdfunding websites such as Kickstarter, Indiegogo and RocketHub continue to maintain market share and command considerable brand recognition, hundreds of other platforms occupy an increasingly segmented, specialized and competitive online marketplace through which over US\$5 billion had been raised as of January 1, 2014.

The core of crowdfunding’s appeal is its potential to unlock new sources of funds for purposes that conventional sources of investment and charitable giving are generally unwilling or ill-equipped to support, or even incapable of identifying in the first place. However, in addition to realizing greater funding availability, crowdfunding usually offers important cost and flexibility advantages as well. Funds sourced through platforms from informal networks of personal contacts (“friends and family”), shared interest communities and consumers are typically less expensive and impose fewer demands and expectations on fund-seekers compared to conventional private, public or charitable sources.

It is not surprising, given these advantages, that crowdfunding has gained traction within an under-capitalized, still-emerging sector that exists to deliver low-cost, high-quality energy services to the world’s poorest, least accessible people. Although, compared with traditional investing, the amount raised via crowdfunding is still relatively small and the legal and regulatory regimes governing the sector are still being worked out, its appeal is growing. Today, within the context of the energy access economy, a number of different crowdfunding models have evolved for a variety of different purposes, including consumer, startup, working capital and project finance. This briefing note presents a sample of crowdfunding examples related to the energy access space that are representative of this growing diversity.

**SELECTED CASE STUDIES OF CROWDFUNDING SOLUTIONS FOR CLEAN ENERGY**

## 1. INDIEGOGO

San Francisco-based Indiegogo is one of the world's leading commercial crowdfunding platforms. Since launching in 2008, over US\$100 million has been raised through Indiegogo's website ([www.indiegogo.com](http://www.indiegogo.com)) for over 190,000 campaigns in nearly 200 different countries. While many of the platform's most notable success stories have been campaigns supporting creative/artistic projects and new commercial technologies and products, the platform has also become a popular choice for social enterprises, non-profits and charitable campaigns that are explicitly focused on affecting positive social outcomes. This is in large part because Indiegogo places virtually no restrictions on who can raise funds and for what purpose, provided that the campaign initiator has a bank account and that the intended funding objective does not break any laws.

Another key source of Indiegogo's attraction compared to other leading platforms is that users can claim any money that they raise through their campaigns even if they do not attain their goal. This contrasts with Kickstarter's all-or-nothing model, whereby funds are only transferred to the campaigner if the goal established at the outset has been successfully reached. To date, entrepreneurs, organizations and volunteers have launched dozens of Indiegogo campaigns to secure funding for a diverse range of energy access-related initiatives.

### *Business Model*

Indiegogo's approach is an example of donation and reward-based crowdfunding. In this model, individuals who contribute to a campaign do so on a donation basis and therefore do not gain any direct financial benefit, ownership stake or influence in return for their contribution. However, while technically a donation, contributions on Indiegogo are not necessarily motivated exclusively by philanthropic impulses. While a clear profit motive might not be a main driver, a consumption motive often is. Whether it's a new video game, tech accessory or documentary film, donors often contribute to campaigns because they aspire to ultimately experience or consume what the campaign is seeking to fund.

Campaigns offer incentives to potential donors in the form of rewards or, in the specific terminology of Indiegogo, "perks." Campaigns establish and advertise different perks based on different contribution levels. Perks vary considerably by campaign and contribution level, and may range from a simple "thank you" postcard to product samples, or even naming rights. Rewards for commercial products and cultural projects often function essentially as a form of pre-sale, whereby the perk associated with a contribution is access to, participation in, or ownership of the experience or product that is the central object of the campaign. As this form of crowdfunding evolves, reward setting has become increasingly creative and innovative and an important key to a campaign's success and competitiveness vis-à-vis other campaigns.

Indiegogo is a for-profit, private company that generates revenue by charging a fee to users of its platform. Fees are based on the amount of funds that users raise through campaigns. Campaigns that reach their goal pay a fee equal to 4% of the total amount raised, whereas campaigns that do not reach their goal are charged a 9% fee. There are several important implications of this revenue model that help explain its appeal to fund-seekers. First, upfront costs of participation are very low. Indiegogo charges no entry or membership fees to use its platform, and campaigners only pay the company if and when they raise money. Certain investments are required on the part of campaigners, such as the production of a short campaign video – a standard feature of nearly all crowdfunding initiatives – and those related to the purchase and distribution of contributor rewards (see below). However, the scale of investment in both time and money are entirely up to the campaigner.

Second, because Indiegogo's profits are directly tied to campaign success, the company has a direct stake in helping members reach and surpass their goals. While the company does not directly help curate or editorially promote campaigns, it does incentivize success by increasing the visibility and audience of campaigns that

register the highest level of funding activity. Indiegogo’s proprietary algorithm, “Gogofactor,” measures funding activity and elevates successful campaigns to featured spots on Indiegogo.com’s homepage, increasing passive exposure by site visitors. In addition, various tools, tips and suggestions for success based on best practices can be found and accessed for free on Indiegogo.com.

The experience of GravityLight represents perhaps the most high-profile instance to date of an energy access-related initiative finding success on Indiegogo. In December 2012, the non-profit, U.K.-based product developer Deciwatt launched a five-week campaign to fund the development and first batch production of an ultra-low-cost “device that generates light from gravity” intended for poor, off-grid African and Asian consumers. By the close of its campaign on January 15, 2013, Deciwatt had raised US \$399,590 from 5,716 different contributors, exceeding its US \$55,000 goal by a factor of seven and garnering considerable global media attention in the process.

Since 2011, the U.N. Foundation’s Energy Access Practitioner Network (EAPN) has promoted energy access-related campaigns for 14 different registered members on Indiegogo as part of a strategic social impact partnership with the company. In contrast to the GravityLight story, this sample collectively represents a range of approaches, goals and outcomes that are more typical of current and past Indiegogo energy access campaigns. The nature, objectives and geographic focus of the campaigns have reflected considerable diversity. Eight campaigns have been launched by startups or non-profits, which, like Deciwatt, have sought support for energy product research, development and commercialization. Three campaigns have been launched in support of other business development funding needs, such as staff and infrastructure investments or working capital and end-user financing requirements. Three other campaigns can best be described as charitable or relief initiatives aimed at directly facilitating access to free or subsidized energy products for underserved or vulnerable energy-poor populations.

The level of funds targeted and actual funding secured by, and as a result of, these campaigns has varied greatly. As of January 2014, approximately US\$170,000 had been raised between all 14 campaigns, with target funding goals ranging from as little as US\$2,000 to as much as US\$100,000. At US\$17,500, the median target of the sample is far lower than that set by Deciwatt for the GravityLight project. At US\$5,934, the median amount successfully raised also represents a sharp contrast, and reflects a pattern that characterizes not just Indiegogo energy access campaigns, but platform activities as a whole: most campaigns fail to reach their funding targets.

Among the EAPN sample, only 4 out of 13 completed campaigns had attained their funding goals. However, since the Indiegogo model permits campaigners to claim all funds that they raise, failure to reach funding goals cannot be equated with total campaign failure, and does not mean that positive impacts are not realized. Funds raised that fall short of goals can be applied towards downsized objectives that still result in concrete, albeit reduced, impacts. At the same time, some campaigns in the sample exceeded their funding targets, thus enabling them to channel resources towards additional activities or for other purposes that they had not originally set out to fund, potentially resulting in a greater impact.

## 2. KIVA.ORG

Founded in 2005, the U.S.-based, non-profit Kiva has been a pioneer and leading facilitator of the popular form of philanthropic crowdfunding known as “peer-to-peer” lending. Kiva’s model was created to enable individuals to lend money to individual micro-entrepreneurs throughout developing Asia, Africa, Latin America and the Middle East via its online platform, kiva.org. In recent years, Kiva has steadily diversified its lending activities beyond conventional finance for micro-entrepreneurship to include both consumer and SME finance. In response to demand from existing and prospective field partners, Kiva has also expanded into several new, high-social-impact verticals. In 2011, the term “Green Loans” was coined to describe diverse forms of Kiva lending that support both entrepreneurial and consumer investments that

result in positive environmental impacts. Renewable energy and energy efficiency loans have emerged as an important segment within this new and growing category of Kiva lending.

### *Business Model*

Kiva partners with microfinance institutions, community-based organizations and private companies to facilitate the provision of loans by individual lenders to individual or small groups of borrowers via its online platform, [kiva.org](http://kiva.org). Presently, Kiva works with 240 different field partner organizations and businesses in over 70 countries worldwide. Since launching in 2005, over 1 million online lenders have contributed a half billion US dollars to 1.2 million borrowers.

Kiva's Green Loan portfolio embodies diverse forms of loan utilization, many of which directly support improved energy access. To name just a sample, to date, Kiva's green borrowers have received loans to finance: energy efficiency upgrades and the installation of low emissions cook stoves at home (Mongolia); the purchase of domestic solar hot water heating systems (Palestine); and investments in biomass digesters that convert agricultural waste into both clean cooking fuel and organic fertilizer (Mexico). In addition to providing end-user finance, Kiva also actively supports supply chain development by partnering with energy product companies that reach consumers through last-mile dealer networks. An early example of Kiva's involvement in supply chain finance was its partnership with Barefoot Power, a leading manufacturer of retail solar lighting products. Bulk loans to Barefoot Power were ultimately channeled to rural distributors and retailers that require working capital loans for inventory.

The Kiva platform provides lenders with the ability to access hundreds of profiles of borrowers all over the world at any given time. Profiles include photos and basic biographic information about borrowers; a description of what loans will be used for, and details about the loan product, including the amount, term and repayment schedule. Profiles also indicate the percentage of the loan that has thus far been raised by other Kiva lenders. Detailed information about the

field partners as well as a list of all other Kiva lenders who have contributed to the loan are also viewable on the profile page.

Lenders can lend as little as US\$25 to any specific borrower. Unlike a conventional grant or donation, Kiva loans are returned to lenders over time via monthly repayments from the MFI or partner organization, as borrowers repay their loans. Since over 95% of lenders elect to relend repaid loans to other borrowers, a lender's single contribution revolves over time to have multiple impacts. This not only increases Kiva's ability to reach more borrowers, but also creates a distinct value proposition for individuals seeking to maximize their impact through charitable giving.

Field partners are the key intermediaries between Kiva lenders and borrowers. In this capacity, they are responsible for engaging, assessing and approving the loans of potential borrowers, compiling data for, and posting borrower profiles on, [Kiva.org](http://Kiva.org), and carrying out loan repayment for the duration of the loan term. At this stage, Kiva works with a great variety of field partners which include not only microfinance institutions and non-profits, but also private companies providing services and goods that can be purchased with credit.

Kiva is a non-profit organization that is supported by charitable and philanthropic funders, rather than the revenue that is generated from lending activities. This structure enables Kiva to provide loans to field partner organizations at 0% interest, and ensures that 100% of lender funds go to borrowers. Thus Kiva exemplifies the key cost advantage that typifies crowdfunding more universally, in that it not only provides capital, but the capital it provides is inexpensive. In theory, the discount can be passed on to the borrower in the form of a lower interest rate.

In addition to being low-cost, funds sourced from Kiva's large pool of lenders bring flexibility and patience and create room for innovation. For example, borrower loan defaults are absorbed entirely by Kiva's lenders, rather than its field partners. Kiva's impact-oriented lender base is also extremely risk tolerant

compared to mainstream lenders and investors. This enables Kiva to experiment and broaden its portfolio into new innovative areas. The recently established Kiva Labs has been set-up exactly for the purpose of such experimentation. Under this program, Kiva seeks to discover promising, high-impact portfolio areas by providing loans between US\$20,000 and US\$50,000 to new and existing partner organizations that require capital for innovative practices. In 2013, a five-year Kiva Lab loan was provided to a Kenyan energy entrepreneur that required project finance to build and operate a community-based microgrid in an off-grid area.

### 3. MILAAP.ORG

Founded in 2010 by three entrepreneurs from the microfinance, off-grid lighting and mobile technology fields, Milaap is a Bangalore-based crowdfunding platform that raises loan capital for Indian microfinance institutions (MFIs) engaged in energy, education, clean water access and other forms of essential service lending. By channeling low-cost, flexible loan capital from both online and offline lenders to a select group of MFI field partners, Milaap aims to overcome critical cost barriers that keep such services out of reach for millions of low-income Indian businesses and households. As it continues to engage additional field partners and reach more borrowers, Milaap's broader mission is to demonstrate the viability of essential services lending to the wider Indian microfinance sector and its commercial funders.

By the end of 2013, Milaap had raised and channeled nearly US\$1 million into a diverse portfolio of nearly 8,000 loans, impacting the lives of over 40,000 people, while maintaining a 100% repayment rate from field partners. Funds are raised from an increasingly global crowd of lenders and disbursed to borrowers across 10 Indian states through a network of 15 different field partners. The company's energy portfolio continues to advance through its active partnerships with three microfinance institutions based, respectively, in the states of Orissa, West Bengal and Manipur. Due to the comparatively small size of loans for clean energy products such as solar portable lanterns and improved cook stoves, energy represents only 10%

of Milaap's total portfolio. However, with over 2,000 borrowers financed to date, energy accounts for nearly one quarter of all loans disbursed.

#### *Business Model*

Milaap's "retail lending" model shares much in common with Kiva's peer-to-peer approach. The company sources low-cost debt for individuals or groups of borrowers for a variety of income-generating and essential service investments through its online lending platform, Milaap.org. Milaap also works through a growing network of field partners that includes non-profit, community-based microfinance organizations as well as private companies. One hundred percent of funds provided by lenders goes towards borrowers, and, like Kiva, Milaap sees very high rates of relending among lenders, enabling the company to continuously revolve funds to achieve higher outreach and impact over time.

However, there are important differences that distinguish the two approaches. For example, Milaap is a private social enterprise that operates on a for-profit basis. The company generates revenue by applying a small interest fee (typically 5% to 8%) to field partners that receive and disburse the credit that it provides. Unlike Kiva, which operates globally, Milaap, both operationally and in terms of its brand development, is exclusively focused on serving the vast Indian market, at least at present. Finally, whereas Kiva's energy-access lending can be seen as part of a broader portfolio diversification that occurred organically over time, energy lending has been a core part of Milaap's vision since the company's inception. Indeed, Milaap was launched for the explicit purpose of providing capital for unconventional "essential service" loans, such as energy lending, that mainstream commercial institutions and wholesale capital providers commonly view as high risk and therefore tend to eschew.

In addition to online lending, Milaap raises capital using a combination of different online and offline strategies. These include innovative corporate employee engagement initiatives, but also the solicitation of funds from more conventional philanthropic sources, such

as high net worth individuals (HNIs), foundations and other donors. By diversifying its sources, Milaap is able to grow the overall level of capital deployed and smooth out any month-by-month inconsistencies in funds secured via its lending platform, therefore increasing the predictability and consistency with which capital can be made available to its partners. In the long-term, however, Milaap anticipates that online lending will become the central engine of its overall fundraising approach.

Milaap capital is flexible because the company does not dictate to field partners either the interest rates or terms that it must offer to its clients. This can translate into a variety of different benefits for partners and borrowers, depending on the type of loans offered. For example, in the instance of loans that do not generate additional revenues for borrowers, at least in the immediate term – such as those that facilitate ownership of latrines or clean water connections, or pay for school or vocational training tuition – field partners can pass the low cost of Milaap capital on to clients in the form of lower interest rates. Field partners are also granted the flexibility to offer extended loan terms (within Reserve Bank of India (RBI) guidelines) or temporary interest moratoriums. In short, loans can be structured in different ways to increase affordability, and thus bolster demand, as well as the ability to pay, among borrowers.

By contrast, loans for solar lighting devices used for livelihood purposes typically do translate into immediate cash flow benefits for borrowers in the form of both fuel savings and additional revenue from increased productivity. In this case, the MFI may elect to apply its standard interest rate and use the extra margin earned to offset any special investments or additional operational costs that are incurred, either up-front or on an ongoing basis, for activities such as staff training and product demonstration. Affordability and flexibility are key factors that help limit the risk of field partner participation in new, unfamiliar forms of lending. This advantage can have a powerful, ongoing influence not only on an MFI's willingness to engage, but also on its

ability to experiment, adapt and endure setbacks over time. Low-cost, flexible credit affords an MFI partner time and space to learn and improve, rather than to potentially implode, following inevitable mistakes and short-term challenges. This is a particularly important advantage to consider within the context of the Indian energy microfinance experience, which, historically, has witnessed the launching of a great number of energy pilot programs, but has seen only very few permanent, successful and sustainable initiatives.

Milaap's approach to retail lending continues to evolve in response to lessons learned, challenges encountered and new opportunities discovered. The most significant shift in the company's approach has involved the ways in which it has come to leverage the passion, creativity and contacts of its most committed lenders. Milaap now recognizes that the level of appetite and expectation for engagement is not uniform from lender to lender, but rather varies considerably. Therefore, instead of offering everyone just one option – i.e., make an individual loan – Milaap.org now aims to empower its most active supporters to take fundraising into their own hands by becoming "champions" and starting personal campaigns.

Through a campaign, individuals and groups engage their own networks to accomplish specific lending goals using a number of different methods. For example, campaigners may request that friends and family make loans through Milaap in lieu of birthday or wedding gifts. Others organize special events such as bake sales, house parties or other get-togethers. Still others may solicit pledges in the lead-up to their participation in a marathon, mountain trek or some other challenging physical activity. The campaign allows Milaap to reach people who may never have been exposed to the company or its platform if not through the personal connection of a champion. Significantly, these are connections that are established with zero marketing resources deployed by Milaap. At present, Milaap estimates that 60% of crowdfunded loans now occur as a direct result of campaign activities.

## 4. SUNFUNDER

Founded in 2012, SunFunder is a US-based private solar financing company that sources low-cost, short-term debt for solar companies operating in off-grid, emerging markets. To date, the company has maintained a focus on East Africa, but aims to expand to other regions in the near future. In contrast to Milaap and Kiva, which focus on providing loans to end-users and energy micro-entrepreneurs, SunFunder aims to meet the comparatively larger working capital and project finance requirements of established solar SMEs. SunFunder has deployed crowdfunding as part of a broader growth and development strategy. In the long run, the startup aspires to secure capital for off-grid solar companies through a variety of different means, and has deployed crowdfunding as a means of rapidly entering the space, and to demonstrate the bankability of off-grid solar companies to a wider field of lenders and investors. In this sense, SunFunder uses crowdfunding as a strategic bridge to larger sources of investment.

As of January 1, 2014, Sunfunder had completed 17 loans to nine different solar companies operating throughout East Africa, representing a total portfolio of US\$365,000 invested across all partners. One SunFunder loan recipient is the solar lantern distributor SunnyMoney, which, with close to 1 million in sales, is currently one of the most successful distributors of retail solar products in Sub-Saharan Africa.

### *Business Model*

From a user perspective, SunFunder's platform, sunfunder.com, shares several of the same general features that characterize other peer-to-peer lending platforms such as kiva.org and milaap.org. Visitors can easily browse project profiles that include detailed information about solar companies, their customers and the markets that they operate in, as well as the intended loan term, amount and details of purpose, timelines, and progress made towards its goals. The site is designed to simplify the process of project review, selection and oversight, and to be as simple as possible for lenders as well, allowing credit card or Paypal-based payments. The minimum investment that lenders can make is US\$10, and the

maximum is whatever amount remains unfunded. Like both Kiva and Milaap, lenders are repaid on a monthly or quarterly basis.

Lenders have the option to withdraw funds that are repaid or to reinvest in other projects, but the company reports that nearly 100% of all repaid loans are reinvested by lenders.

The average term of SunFunder loans is 12 to 18 months, though the company aims to offer longer-term loans in the future. SunFunder does not provide financing for pilots or new startups, but rather for established companies that have demonstrated commercial success and scale potential. The company adheres to a rigorous due-diligence process in order to select and approve solar partners for investment, and to date has seen a 100% repayment rate.

SunFunder generates revenue by charging a one-time capital sourcing fee to all borrowers and 5% to 7% interest on all funds disbursed. The majority of the revenue, as reported by the company, is used to cover online transaction fees incurred by SunFunder. Due to current securities regulatory restrictions, SunFunder cannot offer individuals who lend via its site any direct financial returns. However, unlike Kiva and Milaap, the company does view the ultimate prospect of sharing profits with its network of lenders as a long-term goal, provided that regulatory reforms allowing for such an arrangement are enacted. That said, SunFunder currently does enable lenders to direct the reinvestment of interest gained to subsequent borrowers through its impact point program. In short, impact points represent small amounts of interest that are repaid with principal to the lender; while that interest cannot be withdrawn by lenders, it can be added to additional investments made by the lender.

SunFunder blends funds raised from its online platform with capital that it raises from accredited and institutional investors in the form of Solar Empowerment Notes (SENs). SENs are a debt instrument that, unlike funds raised through the crowd, offer a financial return. SunFunder closed its first issuance SENs in September 2013, raising US\$250,000 from four separate investors.

# LESSONS LEARNED

*Each of these crowdfunding models in small-scale renewable energy have individual strengths and challenges, and together offer an interesting set of possibilities for the financing of small-scale energy. Although the models are relatively new, some key lessons are emerging, which will be useful for entities seeking to access this form of funding.*

## *1. Crowdfunding success using mainstream platforms requires an investment in time and effort.*

Mainstream crowdfunding platforms like Indiegogo are free and easy to engage with and require little in the way of financial investment to initiate. However, the effort required to articulate and promote a campaign and meet fundraising objectives is far from a passive process. Most crowdfunding campaigns fail to meet their funding objectives, and the majority of those that do succeed have set modest targets that can largely be met through appeals to immediate and close contacts. Larger financial goals require a promotional strategy that extends beyond “friends and family” networks and enables fundraisers to gain visibility and achieve resonance with a larger, less immediate audience. Accomplishing this transition requires rigorous online and offline promotional activities and increasingly specialized expertise, which can amount to real expenditures in both time and money. This type of investment is significant for young enterprises and campaigns with very limited resources. Among the EAPN sample described in this briefing note, the median level of funding sought by the three campaigns that either reached or exceeded their funding goals was US\$3,858, whereas the median for the full 15 campaign sample was US\$17,500. The three least successful campaigns set targets of US\$20,000, US\$50,000 and US\$100,000, respectively.

*2. The focus of campaigns is critical to success.* Some of Indiegogo’s most successful campaigns have supported the development of high-demand consumer products and thus appeal to a clear consumption motive on the part of funders. The reward strategies that offer advance product samples as perks amount to a form of pre-sale. This general trend has been exhibited to some extent in energy access campaigns, even though the latter

articulate social impact as their primary goal. For example, among the EAPN samples described in this briefing note, the campaign that exceeded its funding goal by the largest margin (518%) was the Luminaid campaign, which sought funding to develop and produce a first batch of low-cost inflatable solar lanterns. Donors who contributed as little as US\$25 received product samples. The campaigners also emphasized that the lanterns could be used for camping and other outdoor activities by consumers in the developed world. While other factors could explain this outlier success story, it seems likely that the outcome relates partially to the campaign’s product orientation and reward. By contrast, the three EAPN campaigns that were focused on charitable or relief projects and offered no tangible product perks for donors, on average, raised only 9% towards their funding goals.

## *3. In addition to capital, crowdfunding can also deliver valuable promotional and marketing benefits.*

By its very nature, crowdfunding is an audience-driven phenomenon for which success is predicated upon the ability of fundraisers to clearly and persuasively articulate and promote their ideas and products to large numbers of people. Therefore, possible collateral benefits of conducting a crowdfunding campaign naturally include increased exposure to and recognition among potential future customers and media platforms that can add additional promotional momentum. This even holds for campaigns that are not successful in reaching their funding goals. For example, a Haiti-based green energy company interviewed for this briefing note explained that even though it fell far short of reaching its US\$70,000 funding goal, the exposure that it gained as a result of the campaign ultimately resulted in investment from other sources, and therefore made the experience and effort worthwhile in the end.

To read an in-depth case study on Milaap.org, 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.