Bandhan Konnagar was founded in 2001 as a non-governmental organization with the goal of alleviating poverty and empowering women in rural India. Bandhan Konnagar is part of the Bandhan Group, which provides microfinance services to 7.6 million borrowers — almost all women — through 2,022 branches across 24 Indian states. In 2013, Bandhan created an energy program to provide a microfinance facility for high-quality solar devices. In August of 2015, Bandhan became a fully commercial bank, and the bank now serves as the financing arm of Bandhan’s energy program.

Bandhan aims to harness the enormous scale of its existing microfinance business to scale its energy-lending activities, and transform millions of lives by making modern energy services accessible to India’s rural poor.
Bandhan, which means “togetherness” in Bengali and Hindi, has a holistic vision of poverty alleviation that incorporates social development with financial services for its client base. Almost 100% of Bandhan’s clients are women, and Bandhan has implemented health, education and employment programs with a specific focus on the needs of women and girls. Bandhan’s interest in energy lending grew from the realization that access to energy supports both social and financial growth within the microcosm of the household. An estimated 400 million Indians lack access to the grid, and many more are severely under-electrified.¹ Bandhan, which is active in almost all the 29 states of India, has millions clients that do not have adequate energy access.

Bandhan’s vision is that by providing clean, affordable energy it can improve the quality of life, boost household economic productivity and enable children’s education for its clients. When electrified, small businesses and independent entrepreneurial activities are instantly rendered more profitable. Shops can stay open later into the evening, owners can refrigerate drinks and perishable goods, and farm laborers can work longer hours. Uninhibited by power outages and the lack of light during evenings, worker productivity is uninterrupted. Education is a top priority for Bandhan, as a key strategy for progress. With reliable lighting, students can study longer hours.

Women are at the heart of Bandhan’s social mission. The company is founded on the premise that women are as capable at managing money as their male counterparts, and that empowering women results in healthier, more vibrant communities. Through providing poor women with credit, Bandhan aims to afford them decision-making capacities, ultimately enabling them to engage in entrepreneurship. Bandhan understands that women require quality lighting in their homes to run their own businesses or conduct income-generating activities.

There are many clean and safe sources of off-grid energy available on the market today – including solar lanterns, solar home systems, and improved cookstoves. Yet the high upfront cost of high-quality products generally renders them prohibitive to India’s rural poor. For example, a solar home system (SHS) provides approximately five years of clean energy at a cost of approximately US$80, making it generally inaccessible to the poor. However, over a 5-year period, a poor family in rural India will typically spend US$750 to US$1,000 on inefficient and dangerous lighting products.

Currently, Bandhan offers simple portable lanterns (SPLs), solar lanterns that have mobile charging capacity, and plug-and-play solar home systems (SHSs) that can be installed without a technician. The company has partnered with two main energy suppliers: Greenlight Planet (GLP) and Barefoot Power.

**FIGURE 1. BANDHAN’S PRODUCTS**

<table>
<thead>
<tr>
<th>PRODUCT TYPE</th>
<th>PRODUCT</th>
<th>HIGH SETTING: HOURS OF LIGHT DELIVERED</th>
<th>HIGH SETTING: LUMENS PER WATT</th>
<th>NORMAL SETTING: HOURS OF LIGHT DELIVERED</th>
<th>NORMAL SETTING: LUMENS PER WATT</th>
<th>PRICE IN INDIAN RUPEES</th>
<th>PRICE IN US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANTERN WITH MOBILE CHARGING</td>
<td>BAREFOOT POWER GO250</td>
<td>5.7</td>
<td>125</td>
<td>11</td>
<td>66</td>
<td>3,250</td>
<td>48.37</td>
</tr>
<tr>
<td></td>
<td>GLP SUNKING MOBILE</td>
<td>5.7</td>
<td>98</td>
<td>10</td>
<td>51</td>
<td>1,500</td>
<td>22.32</td>
</tr>
<tr>
<td></td>
<td>GLP SUNKING PRO2</td>
<td>6</td>
<td>110</td>
<td>15</td>
<td>44</td>
<td>2,300</td>
<td>34.23</td>
</tr>
<tr>
<td>SIMPLE SOLAR LANTERN</td>
<td>GLP SUN KING ECO</td>
<td>N/A</td>
<td>N/A</td>
<td>8</td>
<td>27</td>
<td>650</td>
<td>9.67</td>
</tr>
<tr>
<td></td>
<td>GLP SUN KING SOLO</td>
<td>N/A</td>
<td>N/A</td>
<td>24</td>
<td>50</td>
<td>900</td>
<td>13.39</td>
</tr>
<tr>
<td>SOLAR HOME SYSTEM</td>
<td>GLP SUNKING HOME</td>
<td>N/A</td>
<td>N/A</td>
<td>24 (FOR EACH OF 3 LIGHTS)</td>
<td></td>
<td>100</td>
<td>4,999</td>
</tr>
<tr>
<td></td>
<td>GLP SUNKING HOME PLUS</td>
<td>N/A</td>
<td>N/A</td>
<td>24 (FOR EACH OF 3 LIGHTS)</td>
<td></td>
<td>100</td>
<td>5,650</td>
</tr>
</tbody>
</table>

“We are trying to introduce a total energy scenario that can positively touch the lives of people at all levels.”

— Mr. Debashish Ray Choudhuri
Sales data shows that SPLs with mobile charging products are the company’s most popular energy products, accounting for 77% of sales (see chart). However, SHSs have gained traction with clients since they were introduced into Bandhan’s product line in April 2015. Bandhan’s two SHS products both include a 6-watt solar panel and three hanging lamps with wall-mountable switches (Bandhan discovered clients wanted to have the experience of switching on a light as they would with grid electricity). The SunKing Home includes a USB port for mobile charging, while the SunKing Home Plus includes a dual USB port—allowing customers to charge two mobile phones at once—and a portable SunKing Eco Lamp.

Although simple lanterns are offered at the lowest price point of Bandhan’s product offerings—the GLP Sun King Eco, for example, is offered at less than US$10—simple lanterns account for only 1% of sales. Clients have a much greater preference for higher quality lanterns that offer higher luminosity and the added feature of mobile charging. This demonstrates that, although Bandhan’s clients are sensitive to price, they are willing to pay a premium in exchange for higher quality products.

Bandhan is expanding its product partners and product lines to respond to client demands. Bandhan is introducing larger devices that provide more power for clients who require more energy products to run their businesses more efficiently and effectively. Bandhan will continue selling the SPLs because of their low price, usefulness in emergency situations, and greater flexibility. At the same time, Bandhan is responding to market research that shows demand for other solar powered devices, such as solar-powered pumps, solar-powered fans, and even solar-powered rickshaws. Bandhan is continuing to explore its options in terms of energy suppliers in order to ensure it is providing customers with the best possible and most modern technology available in India.
Bandhan began a pilot energy-lending program under the auspices of USAID’s Renewable Energy Microfinance and Microenterprise Program (REMMP), implemented by Arc Finance. Bandhan built this pilot into a sustainable, multi-state, energy program that is currently financed by Bandhan Bank and operated by Bandhan Creations.

Like its microfinance program, Bandhan’s energy-lending model is straightforward: clients are offered microfinance loans to purchase clean energy devices. Clients are not required to pay a down payment and the full principal and interest is paid over the loan duration in regular installments. When the last installment has been paid, the product belongs to the client. Bandhan charges a flat interest rate of 12.75 percent on its energy loans, calculated on reducing balance. Energy products are promoted at the weekly center meetings where the benefits of solar powered lights are described by Bandhan’s Energy Officers. Interested clients apply to the bank for a loan. Once the loan is approved, energy program staff deliver the lights to the clients’ door steps and explain product uses. Loans are collected in weekly installment along with other loan repayments by the bank’s Loan Officer. Bandhan is aware of the importance of after-sales service, and any issues that come up are dealt with immediately by the energy staff, in close coordination with product suppliers. Bandhan designed its distinct loan structure to best meet the needs of its clientele, based on extensive market research.

Bandhan’s energy-lending program has been growing steadily since its inception in December 2013. Scaling gradually and systematically, the company has taken time to learn the ropes of the energy lending market. This allowed Bandhan to adapt and tweak its business model. In the beginning, Bandhan focused solely on lending SPLs to its clientele. Bandhan has now significantly expanded its business, providing clients with loans for both SPLs as well as larger, more powerful SHSs.

Bandhan’s energy program is directly linked to its microfinance services. Each energy branch services a wide geographic area, catering to the clients of four to five microfinance branches. Because Bandhan wanted to closely supervise the early growth of its energy-lending operations, it inaugurated its program in regions where it already commanded a strong microfinance and social services presence, locating its first energy branches in West Bengal and subsequently in Bihar.
“Today, only 55% of Indian’s have access to electricity and half of those people live in cities. Most people in rural areas don’t have electricity. People who get electricity have unreliable access. Most of Bandhan’s clients are in this situation. It creates many problems … children can’t study, business people can’t engage in productive activities at night, families can’t socialize. It is a huge burden for most of Bandhan’s clients.”

— Mr. Chandra Shekhar Ghosh, Chairman & Managing Director

**Key Drivers and Concepts**

**An Evolving Energy Program**

As Bandhan has evolved into a full-fledged bank, Bandhan’s energy program has adapted in parallel. When Bandhan’s energy program was launched, Bandhan made the decision to invest significant resources into developing a separate distribution channel instead of using Bank Loan Officers (LOs) to sell third party products, a strategy commonly used by MFIs. It recruited an independent team of Energy Officers (EOs). Bandhan management wanted to keep the loan underwriting and approval separate from marketing, client identification and sales services to ensure healthy credit management practice, knowing that this would be a requirement when it became a commercial bank. By recruiting a team of EOs, Bandhan also was able to ensure that clients would have a sales team dedicated to responding to their needs and satisfaction. Bandhan also saw the creation of a network of EOs as a chance to develop a distribution channel for present and future products and services, with the potential to reach a vast untapped market of clients outside of its existing microfinance clients.

Each energy branch has a group of EOs who manage day-to-day branch operations. Energy branches are responsible for promoting energy products among microfinance clients. Typically, an energy branch employs five EOs, who are respectively responsible for one MFI branch. Presently, Bandhan’s energy program employs over 175 EOs—typically people educated in retail sales or logistics—across its 24 branches. EOs and all field staff (Area Coordinators, Team Leaders) receive a fixed monthly salary as well as commission based on sales performance. Bandhan is careful to consider more than just salesmanship when it hires EOs; it looks for individuals who identify with Bandhan’s developmental mission and it seeks out people passionate about the humanitarian nature of its energy program. Fostering a mission-driven staff is key to the success of Bandhan’s energy program.
Bandhan employs Team Leaders (TLs) tasked with supervising the EOs of three or four energy branches. Each TL is hired from outside the Bandhan organization. TLs typically hold a university degree and have a background in sales. They often accompany EOs in the field to ensure that the sales process is running smoothly and efficiently. EOs unaccompanied by TLs are expected to keep their supervisors up-to-date on their progress, the nature of their sales visits, and how many clients are interested in purchasing energy products. Outside of fieldwork, TLs are mainly focused on branch management and are expected to handle any branch issues related to human resources. Whereas EOs are locals who live at home, TLs reside within the energy branches themselves in order to perform their work most effectively. Finally, Area Coordinators (ACs) are responsible for managing three to four TLs. It is the responsibility of ACs to lead business development efforts. They are also entrusted with supervision of the TLs, training employees, and handling larger human resource issues.

**Providing Reliable Service**

Bandhan's approach to serving its energy clients is multilayered, and is based on a strong working relationship between the company's energy and microfinance branches. At the end of each month, EOs make work plans for the following month in close coordination with Bandhan's local microfinance branches.

According to a predetermined schedule, EOs visit clients during weekly group meetings. Each Bandhan branch serves 3- to 4,000 clients, staffed by six or seven LOs, and each EO serves one branch, working closely with LOs to reach gradually all group members. During each visit, the LO runs the group meetings as usual, and towards the end of the meeting, introduces the EO to promote and demonstrate solar products.

Bandhan's relationship with its clients is based on having built trust over many years and the energy program leverages this relationship of trust as it introduces the unfamiliar concept of solar energy to client. Some clients explained that they have been exposed to inferior solar products in the market, while other clients were unwilling to take loans for technology they did not understand. Bandhan's EOs work to introduce and demystify this new concept while demonstrating that solar energy can benefit clients and is delivered by dedicated, reliable staff that are part of the Bandhan family.

At the end of group meetings, EOs begin their presentations by asking clients about the problems they face due to lack of reliable and traditional source of energy. The EO then explains the benefits that clean energy can bring, describing its importance to family health and finances, education and the environment. The EO then provides a demonstration of Bandhan's energy products. This allows the clients to visually grasp the nature and function of the products on offer. Over the course of the presentation, the clients learn that the product comes with a two-year warranty and post-warranty service from the manufacturer. Customers interested in obtaining energy products generally return home to discuss the purchase with their husbands. The EO then visits the clients' homes, answering any questions they or their spouses might have. The EOs is responsible for finalizing sales for customers wishing to purchase products. Once the client has confirmed that she wants to purchase an energy product, the LO begins a credit assessment. After gathering information on the client's credit history, income, and character, the loan officer decides whether or not her application can be submitted. After energy products have been purchased, they are delivered to the client's home. This doorstep service is important, as it makes it simpler for women who might have difficulty travelling to the local branch in order to pick up the product.

Bandhan carefully distinguishes between the roles of EOs and LOs. EOs are involved in market development, marketing of products, facilitating sales and taking care of after-sales services. Microfinance LOs are removed from the incentive structure of the energy program sales, and strictly manage loan processing, approval, disbursement and collection.
“When hiring employees, we look for people who understand clients’ financial needs … people who are interested in social issues, not just selling products.”
— Biplab Ghosh, Energy Program Leader

Factors Influencing Scale

Currently Bandhan offers energy services in West Bengal, Bihar and Jharkhand, and it intends to scale its energy program to Assam, Tripura and Uttar Pradesh in the coming years. The organization has set ambitious targets: Bandhan intends to open many more energy branches by March 2017, allowing it to provide energy loans to exponentially more customers. The current focus for Bandhan is Bihar, where there is a strong demand for home lighting systems among the local population, and Bandhan’s microfinance presence in Bihar lends it valuable brand recognition.

There are several concepts that Bandhan’s energy team sees as important to achieving scale:

Regular Audits
Dedicated to maintaining transparent, reliable programs, Bandhan frequently performs internal audits on its various development programs. Its first internal audit was completed in February 2015, and revealed several areas where the program could be improved. It is expected that these audits will help the energy team correct any errors, and deliver even more efficient service in the future.

Monitoring and Supervision
Bandhan conducts monthly progress review meetings to supervise branch operations and monitor progress. These meetings take place in the field instead of Bandhan’s head offices, to save resources spent on transporting branch staff to headquarters. In these meetings, the head of the energy program meets with ACs and TLs to review targets against actual indicators, and make key operational decisions to strengthen the program.

Training Sales Agents to Deliver Quality Service
Maintaining an effective, compassionate, and knowledgeable sales staff is central to the success of any energy lending operation. The skill of the sales team is vital as the vast majority of potential clients have limited awareness about clean energy products or energy financing. Salespeople in energy lending carry a great degree of responsibility: it is their job to explain both aspects—financial and technological—to a wary and vulnerable client base.
Approximately every six months, every EO is asked to take part in a refresher course. Here, the EO’s achievements are measured against his previously stated targets. The EO then outlines a plan for the next six months, to be reviewed at the next refresher training session.

**Managing Risk**

For many MFIs, starting up an energy service is viewed as a precarious venture: relationships have to be built with energy suppliers, the organization must determine how best to deliver credit to its clients, and staff members must be trained extensively. Failing to effectively implement any one of these requirements can result in collapse of the business. Because Bandhan is already an established organization with a robust infrastructure, its energy program is able to address many of these risks. Bandhan’s energy team has experimented with and adapted the energy program in order to maximize effectiveness.

**Securing Top Management Buy-in**

At Bandhan, senior management is deeply committed to the energy program. The CEO and Managing Director has taken a personal interest in the energy program, as he knows from personal experience what it is like to live without access to clean energy. Bandhan’s top management and board are committed to scaling its energy program in the same way it scaled its microfinance operations.

Much of the success of the Bandhan energy program can be attributed to the company’s rigorous training regime and educational program, participation in which is mandatory for all new employees.

The first session is a half-day induction session, in which employees are introduced to the energy program and educated on the important role of energy lending in the wider Bandhan organization. Trainees are familiarized with the company’s partner energy providers. An agent trained by these product manufacturers gives Bandhan’s new employees a detailed presentation of the energy products they will be selling. Finally, the trainees receive a brief introduction on sales techniques, and how to highlight the benefits of the products. The second training session is a half-day intensive instruction on sales strategies and customer segmentation methods.
### Lessons Learned

1. **Match the business model to the organization.**
   Bandhan is an organization which seeks to help the economically active poor, and its range of services reflect this. Its energy program is designed to be sustainable and to improve livelihoods, not just serve as another income stream. The business model of its energy program must fit with the organization’s mission, objectives, principles and culture.

2. **Find the right leader.**
   The head of the energy program must be a dedicated and self-motivated leader, who strongly believes in the goals of the program. Bandhan has put together a team with backgrounds in sales, marketing and finance. Decision-makers from the energy program head up to the CEO are strongly motivated for the program to succeed.

3. **Manage and monitor the pilot closely.**
   Conduct the pilot near the head office and on a small scale, so that the program can be evaluated continuously and amended by the program leader and management. Bandhan began the pilot in Kolkata, which, despite having a more developed energy market, had a location close to head office so that Bandhan senior management could more easily implement the concept and make the necessary changes to fine-tune the business model and processes.

4. **Build on best practice.**
   Ensure there is adequate exposure to best practice in other organizations, including visiting other MFIs to adapt learnings from their programs. Representatives from Bandhan visited MFIs in other regions to discuss key success factors and challenges encountered.

5. **Learn from clients.**
   Make market research a top priority: learn from clients about what they actually need and want, and continue this process throughout the pilot to adapt the program and the products accordingly. This continuous client feedback mechanism helped Bandhan in the expansion phase, including responding to clients’ demands for larger more powerful products in addition to portable lighting solutions.

6. **Prioritize customer service.**
   After-sales support, including a product warranty, must be made a high priority to maintain clients’ trust. Solar products have a mixed reputation in some developing countries due to low-quality, cheap products flooding the market. If clients are going to invest in an asset, they need to know that if something goes wrong, someone will solve the problem quickly.

7. **Invest in staff training.**
   Staff should be trained in both theory and on-the-job training, including on product features and uses, marketing and promotion, and after sales services. Qualified and motivated staff are indispensable to a successful growth phase.

8. **Expand strategically.**
   Ensure a systematic approach to piloting and expansion: have a plan to start small, test different business models, products and incentive and marketing scheme and expand to targeted areas at planned intervals. Expansion should not be random or ad hoc. There should be a defined reason for deciding on a new location, the timing of expansion and monitoring criteria and strategies should be set in advance.

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This case study series is a core offering under the Renewable Energy Microfinance and Microenterprise Program (REMMP), which is implemented by Arc Finance and funded by the US 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.

Thank you to the Bandhan team for their collaboration in writing this case study.