



NWTF's Business Partner Model

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AFFORDABILITY MECHANISMS AND ENERGY ACCESS

Bolstering Both Energy Demand and Supply Through Microfinance

Founded in 1984, the Negros Women for Tomorrow Foundation (NWTF) is a Grameen-inspired microfinance institution serving close to 140,000 clients across the central island region of the Philippines. Among institutional practitioners of energy microfinance, NWTF is notable for its inventive, trial-and-error approach to problem-solving and program development, and its patient, long-term commitment to building a

strong, high-impact and commercially sustainable energy model. Since launching energy operations in 2009, NWTF has continuously modified its approach, experimenting with new methods of engaging its staff and clients to realize its objectives. This case study surveys a sample of the key adaptations that the organization has made to increase impact and sales and to improve the long-term sustainability of its program.

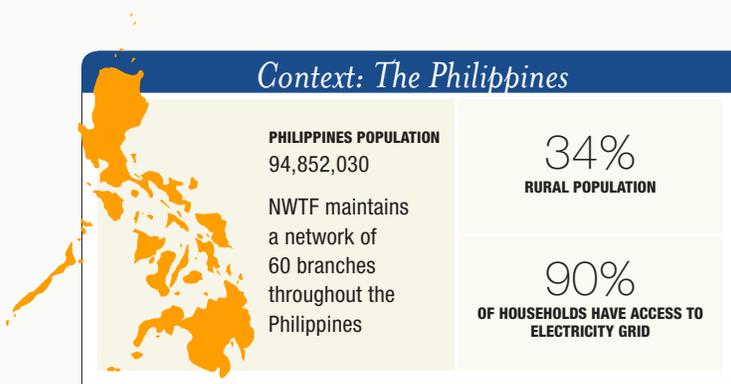
CHANGING LIVES THROUGH ACCESS TO FINANCE
FOR CLEAN ENERGY AND WATER



“For us, this is not really a consumption loan. It’s more of an opportunity cost loan. We’re helping clients save, rather than lose money on fuel, and to increase their income through a level of productivity that inferior energy options cannot support.”

—Raymond Serios, NWTF Energy Program Director

NWTF'S CUSTOMERS



NWTF maintains a network of 60 branches throughout the Philippines and lends through joint liability groups that are made up entirely of female clients. The MFI has experienced strong growth in the recent years, expanding from 80,000 clients in 2010 to nearly 140,000 in 2012.

NWTF serves the “entrepreneurial poor.” Its clients are engaged in small-scale retail and food vending enterprises, as well as agricultural and

fishing livelihoods. While the Philippines has a relatively high level of grid-penetration, access is concentrated in larger cities and peri-urban areas. Rural communities experience lower levels of access and less reliable service, as the country’s mountainous, island geography creates barriers that complicate grid extension efforts.

NWTF estimates that roughly 75 percent of its clients are connected to the grid, however most are connected illegally, and very few enjoy consistent service. The extent of access also varies between the different regions in which NWTF operates, with some islands experiencing higher levels of access than others. Energy for cooking is usually sourced from charcoal and firewood.

Energy prices are variable, but represent a significant expense for clients, and according to NWTF amount to as much as 20 percent of total income.

AFFORDABILITY MECHANISM: MICROFINANCE FOR END USERS AND SUPPLIERS

NWTF's energy-lending program began as an Arc Finance-supported pilot project in 2009. The initial model focused exclusively on providing members with consumer financing for small solar portable lighting devices and efficient cookstoves. Since that time, the program has undergone significant adaptation in response to both challenges and opportunities that have emerged through the implementation process. The most important adaptations to the model involve:

- changes to the energy product line
- the redefinition of members as both energy customers and suppliers
- and a shift in how incentives and responsibilities are defined and distributed between personnel

Developing the Right Product Offering

NWTF launched its energy program with a single solar portable lantern product, the SunTransfer 2 (ST2), which is manufactured by SunTransfer, a Kenya-based supplier. The ST2 is a high quality device that offers clients improved lighting as well as phone charging capability. Lightweight and completely portable, it allows for flexible use in both work and home environments. Its durability and waterproof design make it a particularly attractive alternative for NWTF's sizable base of clients that are engaged in fishing as their primary livelihood.

Over time however, client feedback revealed a strong demand for both larger and smaller products that could meet different income-generating and household needs. For instance, many clients expressed an interest in owning an application that could power multiple lights, small radios and fans, but which did not require regular maintenance and ongoing expenditures for fuel, as is the case for small diesel generator, which could be purchased

locally for 8,000-10,000 pesos (USD \$190-\$200). At the same time, many clients were also interested in purchasing smaller, less expensive options for household use and particular livelihood applications that only required a single light (e.g., outdoor food vending).

In response, NWTF further segmented its product line to include a range of different capacities. To meet the demand for mini-generators, NWTF initiated a supply partnership with Barefoot Power, a leading solar product manufacturer that has built an extensive distribution and technical service presence in many areas of the Philippines with its plug-and-play, multi-use solar chargers. NWTF added two Barefoot Power devices to its product line, the PowaPack™ 5W Solar Home Lighting System, and the PowaPack™ 2.5W Junior Matrix. The first of these has the capacity to simultaneously power four LED lights for up to 12 hours, as well as a small radio, fan and mobile phone. The Junior Matrix is a two-light, 7-hour system that can also charge phones and power a small radio. To address demand for smaller solar lights, NWTF began a partnership with Pharos Off-Grid Technologies, a Manila-based solar product supplier and manufacturer of the Great White Light™, a small, multi-setting solar lantern and mobile charger that can produce light for as long as 80-90 hours on a single full charge.

Clients also expressed strong demand for additional energy services beyond lighting and basic power. Most of NWTF's clients use increasingly expensive charcoal for their domestic cooking needs. This dependency exacts high economic costs and produces serious health risks. To address this need, NWTF began offering a highly efficient cookstove to its clients. Produced by Envirofit, a leading global stove designer and supplier, the stove reduces fuel consumption – and expenditures – by more than 50 percent.

BOX 1. TECHNOLOGY

Portable Solar Lighting and Efficient Cook Stoves



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NWTF offers its clients a range of four portable solar lighting and charging devices and one efficient charcoal cookstove.



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**POWAPACK™
SOLAR HOME LIGHTING SYSTEM**

SERVICES: BASIC ELECTRICITY



ENERGY HARDWARE
PHOTOVOLTAIC MODULE (5 Wp)
SLA BATTERY (5.0 Ah)
4 LED LAMPS

MODEL
Manufacturer: Barefoot Power

CHARGING TIME
10 HR (direct sunlight)
RUNTIME 4 LAMPS/ 1 LAMP
12 hr/ 48 HR



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**POWAPACK™
JUNIOR MATRIX**

SERVICES: BASIC ELECTRICITY



ENERGY HARDWARE
PHOTOVOLTAIC MODULE (2.5 Wp)
GEN 2.5 LITHIUM-ION PHOSPHATE BATTERY (3300 mAh)
2 3.2V LED LAMPS

MODEL
Manufacturer: Barefoot Power

CHARGING TIME
7 hours (direct sunlight)
RUNTIME 2 LAMPS/ 1 LAMP
7 hours/12 hours



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ST2™

SERVICES: LIGHTING, CHARGING



ENERGY HARDWARE
PHOTOVOLTAIC MODULE (2 Wp)
SLA BATTERY (4.5 Ah); LED

MODEL
MANUFACTURER: SUNTRANSFER

CHARGING TIME
7 hours (direct sunlight)
RUNTIME
· Low: 150 hours
· Medium: 15 hours
· High: 6 hours



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GREAT WHITE LIGHT™

SERVICES: LIGHTING, CHARGING



ENERGY HARDWARE
PHOTOVOLTAIC MODULE (1.5 Wp)
LITHIUM-ION BATTERY (1000 mAh)
TWELVE WHITE LEDS

MODEL
MANUFACTURER: PHAROS OFF-GRID TECHNOLOGIES

CHARGING TIME
4-6 hours (direct sunlight)
RUNTIME
· Low: 90 hours
· Medium: 15 hours
· High: 8 hours



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CH2200 CHARCOAL STOVE™

SERVICES: COOKING



ENERGY HARDWARE
Manufacturer: Envirofit

AVERAGE FUEL USE
38.2% THERMAL EFFICIENCY
190.6 GRAMS OF CHARCOAL

“There’s already an abundance of products in the market compared to what there was maybe a year or two ago. Now it’s a matter of making sure these products go to the right people.”

—Raymond Series

MOBILIZING FINANCE TO BUILD BOTH DEMAND AND SUPPLY

Demand: End-User Finance

From the time it launched its energy program, NWTF has focused on improving energy access for its clients through end-user finance. Energy loans enable clients to pay for improved access incrementally, thus overcoming the barrier of high up front costs. Loans can be taken for each of the energy devices that make up NWTF’s product line. Clients have the option of selecting 6 or 12-month loan terms. They make energy loan repayments on a weekly basis at their usual group meetings. The 2.5 percent, per month flat interest rate applied to principal is the same as that of NWTF’s general enterprise loans. Loan sizes and monthly repayment rates vary by energy product type.

To mitigate portfolio risk, energy loans are only disbursed to clients that have completed at least two enterprise loan cycles and have demonstrated a strong repayment history. As a general policy, clients can take out more than one loan at a time, and the exact number depends on their credit record. This policy has two important implications for the energy loan program. First, it ensures that clients are not forced to choose between investing in improved energy and accessing financing for their critical working capital needs. In programs where MFIs mandate single loan restrictions, clients will be less likely to select energy improvements if it means blocking their working capital needs. Second, by allowing clients to take on more than one loan at a time, the relatively high operational costs that NWTF would normally incur in servicing small energy loans alone are negated. When clients attend group meetings, they simultaneously pay installments on larger loans as well as energy loans; overhead for energy loan repayment is therefore largely subsumed within the operational costs of servicing the larger loan.

FIGURE 1. COST ENERGY LOAN (12-MONTH TERM)

ENERGY PRODUCT	LOAN PRINCIPAL (RETAIL PRICE LESS DOWN PAYMENT)	INTEREST RATE	MONTHLY INSTALLMENT
POWAPACK™ SOLAR HOME LIGHTING	\$180	2.5% PER MONTH (FLAT)	\$20
POWAPACK™ JUNIOR MATRIX	\$110	2.5% PER MONTH (FLAT)	\$12
ST2™	\$82	2.5% PER MONTH (FLAT)	\$9
GREAT WHITE LIGHT™	\$35	2.5% PER MONTH (FLAT)	\$4
CH2200 CHARCOAL STOVE™	\$33	2.5% PER MONTH (FLAT)	\$4

Loan Officer Training and Incentives

Loan officers have the primary responsibility for promoting and demonstrating energy products to clients. This approach has posed several challenges for NWTF. In the early phases of the program, motivation among loan officers to focus on energy loans was quite low. Despite the fact that client demand was observed to be high, loan officer uncertainty and lack

of familiarity with energy technologies, the increased workload and complexity of energy product promotion, and the small average size of energy loans created a strong disincentive for proactive promotion by loan officers. NWTF addressed this issue by implementing a number of different measures and model adaptations.

First, NWTF increased the level of energy training and ongoing support that loan officers receive. It simultaneously reduced the overall workload involved in energy promotion. In the spring of 2011, NWTF created a new green energy officer position to perform this function. Currently, NWTF has one green energy officer stationed in each of the islands where it has rolled out its energy-lending program. These officers are responsible for training (and retraining) branch level staff in the proper use of energy products, and coaching loan officers in the most effective ways to communicate benefits to members. Green energy officers constantly make rounds to different branches throughout the year, and often join loan officers in group meetings to observe and help with demonstration and promotion. The microfinance sector experiences generally high levels of staff turnover at the loan officer level. Though NWTF performs comparatively well in this regard, the departure of staff members means that energy-related skills and training can diminish at the branch level over time. Rotating green energy officers' residency at different branches throughout the year helps restore and maintain energy skill sets among loan officer staff.

“When we come up with amortization, we compare a client’s existing energy costs to what they would be spending if they were using our product. That is because cost savings for the client means risk management when it comes to our portfolio.”

—Raymond Serios

Energy officers also organize short-term product campaigns at the branches that they engage with in order to galvanize loan officers and increase the branch's focus

on energy. Campaigns correspond very effectively with the life cycles of energy products. Given the two-to-three-year operating lives of all products, clients simply do not require energy loans as consistently as they do enterprise loans. By creating a heightened focus on energy for a short window of time, branches can accelerate and concentrate penetration and achieve relatively high saturation. This creates efficiencies and economies for distribution, with higher volumes of product being delivered to clients all at once.

A significant increase in loan officer motivation has been achieved through a restructuring of incentives for energy lending. Early in the program, loan officers did not receive special incentives for disbursing energy loans. By contrast, loan officers now receive a flat commission for each energy loan disbursed that ranges between 200 and 600 pesos (USD \$5 to \$15), depending on the product. This policy shift has been very effective in boosting loan officer engagement. The cash incentive is not so high that it causes loan officers to reduce their focus on NWTF's core product, enterprise loans; nor does it create any potential conflicts of interest that could lead staff to push energy products on clients who do not demand them.

Loan officer engagement in energy lending has also increased as a result of NWTF's broader strategic decision to reduce client loads from 700 to 350 per loan officer. In reducing client loads, NWTF has created more time for loan officers to spend with clients, and therefore has opened up more hours in the workday to promote different products and services, including energy loans.

Supply: Business Partner Finance

The most significant change that NWTF's energy program has experienced since its launch is the recent mobilization of finance to facilitate energy product supply for a wider target market. Under its new “business partner” initiative, NWTF clients can become energy sales agents. In early 2012, program staff began recruiting, training, certifying and financing select clients to directly market energy products to non-NWTF clients within their immediate communities.

There are multiple reasons for NWTF's strategic decision to expand into supply-side finance. The first is that it aligns directly with the organization's core mission

of supporting income-generating enterprises for low-income women. With the business partner initiative, clients gain a supplemental livelihood as energy product sales agents. Second, the strategy allows NWTF to reach far more customers. This too corresponds strongly with the organization's mission to improve the quality of life of poor people in the regions in which it operates. The business partner initiative enables a greater number of households and businesses to benefit from improved energy access. It also boosts sales volumes and revenues generated by the program, increasing commercial performance and viability as a whole.

Another advantage of the model relates to the issue of loan officer engagement. As the business partner initiative scales, the burden of sales activities continues to shift from loan officers to members. Furthermore, with members now empowered and incentivized to sell energy products, they actively demand energy product inventory loans from loan officers.

In the business partner model, NWTF clients take out loans for energy product inventory which they sell to customers in their community. They earn income by making a commission on each sale. They also receive inventory at a discounted, wholesale rate, which reduces their loan size and increases their margin. NWTF's green energy officers recruit members to be business partners based on interest, interviews and loan officer recommendations, and manage the operations of the business partner program. New business partners are trained in all aspects of the product, receive sales coaching and attain a basic level of technical knowledge to carry out simple after-sales service.

NWTF provides clients with energy products on credit. The business partners decide on the mix and amount of inventory; packages of four to six products are most common. The terms of the inventory loans are 6 to 12 months; NWTF recommends that clients agree to the longer term to keep repayment amounts low relative to revenue generated. To date, most business partners have been able to sell inventory within a month and

usually repay the entire loan amount well before the term period. The sales model involves direct marketing by the business partner to customers within their own community. Business partners are provided with simple printed marketing materials and stock small amounts of inventory at their homes. Business partners can organize sales activities in any way that they choose, including group events, door-to-door outreach or through their existing business. The model revolves around cash sales, so smaller to mid-range products make up the bulk of a business partner's inventory.

The flexibility of NWTF's loan and commission model was designed to help business partners set up informal payment arrangements with their customers. Business partners receive a batch of energy products on a credit basis and are required to begin paying installments immediately, each week at group meetings. However, the commissions for each product are awarded up front, in cash, when the business partner receives inventory, providing a buffer fund that can be used to fully or partially cover loan installments during slow sales periods. It also grants business partners time, and therefore the option of offering short-term financing to customers. Some business partners collect payment installments from their customers just prior to group meetings, and use the collection to keep up with their own loan installments with NWTF. The MFI does not dictate the types of informal credit arrangements that can be established with customers, leaving it entirely to the discretion of the business partner. Informal borrowing and credit are significant, necessary and deeply familiar elements of the financial lives of poor people, and therefore, no instruction or guidance is required to facilitate such arrangements.

To date, NWTF has recruited close to 100 business partners across 35 branches. To limit the possibility of oversaturation and to promote partner success, it plans to limit business partners to five to seven per branch, or roughly two to three per town. By the first quarter of 2013, NWTF aims to have recruited 250 business partners across 45 of its 60 branches.

ANALYSIS: DRIVERS, SUPPORT CONDITIONS, AND FACTORS AFFECTING SCALE

Diverse energy product offerings meet the needs of different client segments

As NWTF's energy program has grown, the organization has expanded the range of energy products that it offers based on feedback from members. A strong demand for multi-use, fuel-free power applications was answered by the addition of Barefoot Power PowaPack devices. Similarly, Pharos Off-Grid Technologies solar lanterns have filled the niche for simple, affordable portable lighting solutions for mostly domestic use. The Envirofit charcoal stove is a highly efficient alternative from which many of NWTF's clients can immediately benefit. Greater segmentation has helped facilitate higher sales and loan disbursements, and greater client satisfaction.

Incentives are structured to engage key actors in energy promotion

Incentives are a key element of NWTF's scale strategy. In the case of NWTF's energy program, loan officers serve as the principal promoters of energy products

and loans. NWTF therefore introduced commission-based incentives to sustain their focus and motivation. NWTF's new business partner initiative is also based on commission-driven sales.

NWTF's rapid growth expands the base of potential energy customers and business partners

Between 2010 and 2012, NWTF expanded its active client base by over 50 percent. This significant growth rate was driven primarily by adjustments that the MFI made to field staff compensation. Loan officer and branch manager pay is now largely tied to performance measures, including total portfolio size and quality, but also client recruitment and retention. If high performance is maintained, staff members now have the opportunity to earn much larger salaries than before. As NWTF continues to expand its membership and branch network across the wider Filipino market, the scale and success of its energy program has the potential to grow proportionally.

“We want the loan officers to really know the clients. Then we'll arm them with a range of products — solar, stoves, student loans — so that they can provide for most of the client's household needs. We're banking on Filipino loyalty. We know that the clients and their families will stay loyal to us because of what we offer.”

—Raymond Serios

Closing: Lessons Learned

Listen to your customers

NWTF has enjoyed a rapid increase in sales in recent years in part because it maintains constant dialogue with its members to determine what types of energy solutions they most desire for their homes and businesses. Virtually all of NWTF's members have unmet energy needs; however, their diverse demands cannot be addressed by a single energy product. Direct feedback from members is the strongest basis for selecting and expanding a product line.

Be flexible and adapt

NWTF has a real and persistent commitment to expanding energy access for its clients. By listening to their demands and trying a range of solutions, its business model has evolved over time. By adapting both its product selection and its method of getting products into the hands of customers, it has been able to ramp up its energy program effectively and efficiently.

Clients are the best promoters

In an effort to better meet demand, NWTF has chosen to support existing clients who are now serving directly as suppliers of its energy products. As a result of this adaptation, NWTF is building a new green business opportunity for clients, who in turn are attracting new customers for the MFI as they sell to people who are outside of the MFI's current client base. As a result, not only is the MFI radically increasing the number of energy loans without hiring new staff, it is also attracting new clients to whom it can cross-sell other financial products.

The needs and interests of field staff must be factored into model design

Loan officers are the key link between NWTF and its clients, and act as the primary promoters and distributors of energy products. Without adequate knowledge, product confidence and incentives, loan officers will not be sufficiently motivated to support energy program objectives. As NWTF's energy activities have progressed, the organization has restructured its program to support greater loan officer training and oversight by introducing new personnel exclusively committed to the energy program. This has increased confidence and decreased loan officer uncertainty and resistance. In parallel, the introduction of sales commissions has created a stronger financial incentive for engagement in energy promotion.

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

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