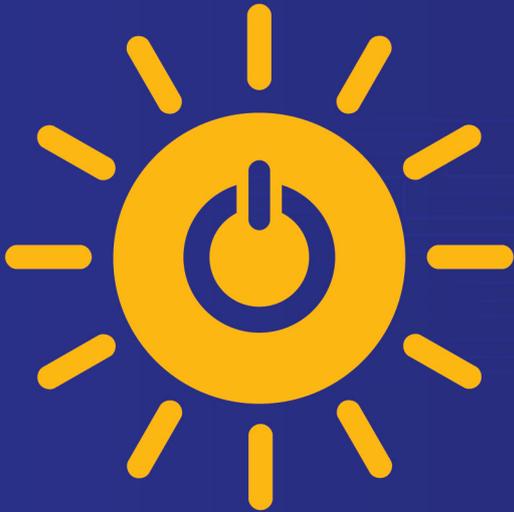




Impact Capital  
for Development



# CLEAN ENERGY FOR CLIMATE ACTION

Highlights and innovations from our global  
investment portfolio

# ABOUT UNCDF

The UN Capital Development Fund makes public and private finance work for the poor in the world's 46 least developed countries (LDCs). UNCDF offers “last mile” finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development.

UNCDF's financing models work through three channels: (1) inclusive digital economies, which connects individuals, households, and small businesses with financial eco-systems that catalyze participation in the local economy, and provide tools to climb out of poverty and manage financial lives; (2) local development finance, which capacitates localities through fiscal decentralization, innovative municipal finance, and structured project finance to drive local economic expansion and sustainable development; and (3) investment finance, which provides catalytic financial structuring, de-risking, and capital deployment to drive SDG impact and domestic resource mobilization.

UNCDF Energy promotes access to finance across the energy value chain from customer to enterprise by investing in early stage, innovative business ideas from SMEs that have the potential to make a step-change in improving the accessibility, affordability, and reliability of modern energy for people, especially those at the last-mile. In addition to catalytic investment, UNCDF provides technical assistance and advisory on enabling environment policy and market insights to support the development of energy markets in LDCs.







# OUR WORK IN ENERGY

Since 2014, UNCDF Energy has worked in 13 countries, supporting a portfolio of over 81 private sector companies (microfinance institutions, clean energy SMEs, financial intermediaries, and others) to provide over 2 million clean energy products and service through catalytic investment, technical assistance and awareness raising.

This contributes to SDG 7, whereby nearly 10 million beneficiaries having access to clean energy solutions, SDG 13, as the portfolio calculates 1,8million tonnes of CO2 emissions offset by energy products, and over 480,000 tons of firewood saved, therefore contributing to SDG 15 protecting Life on Land.

UNCDF Energy work is supported by:



THE GOVERNMENT  
OF THE GRAND DUCHY OF LUXEMBOURG



# OUR SERVICES



INVESTMENT  
IN INNOVATIVE  
SOLUTIONS



TECHNICAL  
ADVISORY  
SERVICES



KNOWLEDGE &  
LEARNING



ADVOCACY &  
PARTNERSHIPS



# OUR RESULTS



**2 MILLION**

Clean energy products sold (60% women & 41% youth)



**8,200**

Tonnes of briquettes sold



**1,250**

Full & part time jobs created (40% women & 51% youth)



**\$8 MILLION**

Leveraged funds



**1.9 MILLION**

Tonnes of CO<sub>2</sub> emissions offset (estimated)



**540,000+**

Tonnes of firewood saved



**9,600,000**

People benefitted from clean energy solutions



**\$5.8 MILLION**

Cost-share by partners



# OUR **IMPACT ON** **THE SUSTAINABLE** **DEVELOPMENT** **GOALS**



## **SDG1: NO POVERTY**

Access to energy supports poverty alleviation through fuel-efficiency gains leading to monetary and time savings, increased income generation through productive uses of clean energy, employment creation, and improved labour productivity.



## **SDG5: GENDER EQUALITY**

Energy products sold by partner companies reduce time spend on unpaid domestic work, including collecting firewood. These activities are mainly women-led tasks in the countries we work in. Clean energy solutions are also providing women income generation opportunities.



## **SDG3: GOOD HEALTH AND WELL-BEING**

Access to clean energy results in several health benefits. Customers, in our Uganda research initiatives, highlighted improved health as a key benefit they noticed with clean energy access. In addition, our investments have powered health clinics to ensure reliable electricity is available as they provide health services in their communities.





### **SDG13: CLIMATE ACTION**

Our work fosters clean energy product uptake in least developed countries. The shift from traditional fuels, such as firewood, charcoal or kerosene directly contributes to mitigating deforestation and CO<sub>2</sub> emissions.



### **SDG17: PARTNERSHIPS FOR THE GOALS**

We partner across the spectrum to advance clean energy solutions. This includes working with government, private sector, and industry associations to create a clean energy ecosystem that leaves no one behind.



### **SDG7: AFFORDABLE AND CLEAN ENERGY**

SDG 7 is our primary SDG contribution. UNCDF's energy access work invests in market-based innovative clean energy solutions. We foster access to electricity for underserved populations through off-grid solar products and clean cooking solutions.



### **SDG8: DECENT WORK AND ECONOMIC GROWTH**

Supporting the development of the clean energy market creates jobs. It also increased investment in the energy sector and overall GDP. At the consumer level, clean energy solutions can support productive endeavors.



A close-up photograph of a traditional charcoal stove (medija) with glowing embers and a hand holding a metal tool. The stove is a circular metal container filled with dark, glowing charcoal briquettes. A hand is visible on the right side, holding a long metal rod or tool. The background is a plain, light-colored surface.

**FEATURED**

**INVESTMENT PORTFOLIO**

# SALES, DISTRIBUTION AND FINANCIAL SERVICES FOR CLEAN COOKING AND SOLAR PRODUCTIVE USE SOLUTIONS



*Country:*  
**Uganda**

BrightLife, a FINCA International founded Ugandan social enterprise, unlocks economic productivity and well-being for poor and low-income households by bringing together access to finance and access to energy.



*Company:*  
**BrightLife**

The company provides education, distribution, financing and after-sale support for products such as solar lanterns, solar home lighting systems, solar appliances and improved cook stoves.



*Type of financing:*  
**Grants**

The investment supports expansion of sales operations in Northern Uganda, a critically underserved region in the country.



*Target population:*  
**Households and small business**



# SALES, PRODUCTION, DISTRIBUTION AND FINANCIAL SERVICES FOR CLEAN COOKING

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*Country:*  
**Uganda**

EcoGroup Ltd, a woman owned Ugandan company, manufactures eco rock clean cookstoves and assembles household solar kits for energy-poor households in Uganda. EcoGroup's innovative fuel, volcanic rock, is providing a viable alternative cooking fuel to be used with the Eco rock stove in the clean cooking sector.



*Company:*  
**EcoGroup**

EcoGroup provides its improved cooking and solar energy package energy at an affordable price to households through an Eco Pre-pay. The customer of this clean efficient energy solution pays the same or even less that what they have been spending on the unclean alternative combined energies.



*Type of financing:*  
**Grants**

EcoGroup utilized the investment to begin liner production, recruit and train workers for liner production, engage more marketing and distribution partners, and hire additional management staff to improve operational efficiency.



*Target population:*  
**Households and  
small business**



# SALES, DISTRIBUTION AND FINANCIAL SERVICES FOR CLEAN COOKING USING LPG



*Country:*  
**Uganda**



*Company:*  
**Wana Energy Solutions**



*Type of financing:*  
**Grants**



*Target population:*  
**Households and small business**

Most LPG companies sell on a cash basis and distribute only through petrol stations and supermarkets in urban centres. Wana Energy Solutions intends to convert the large percentage of Ugandans using charcoal and firewood to LPG which is clean and thermally efficient.

The RECF investment helped WANA introduce PAYGO installment and customer loans to expand LPG distribution through branches and door to door deliveries. This expanded access to clean cooking while reducing upfront cost burdens.



# SALES, PRODUCTION, AND DISTRIBUTION OF PRODUCTS FOR CLEAN COOKING



*Country:*  
**Uganda**



*Company:*  
**Green Heat**



*Type of financing:*  
**Grants**



*Target population:*  
**Households and small business**

Green Heat produces and distributes briquettes through women sales agents. The company also constructs biogas systems for institutions, like schools, and households with organic waste (e.g. two cows). The biogas system's waste is an organic fertilizer which can improve a household's vegetable output.

Green Heat hired sales staff, biogas masons, and women sales agents and trained them on sales, installation, entrepreneurship and book-keeping. Green Heat trained over 120 women sales agents who sold briquettes in market stalls around Kampala and Wakiso districts.



# SALES AND DISTRIBUTION OF SOLAR PRODUCTIVE USE SOLUTIONS TO SSESE ISLANDS



*Country:*  
**Uganda**



*Company:*  
**GRS Commodities  
Ltd.**



*Type of financing:*  
**Grants**



*Target population:*  
**Households and  
small business**

GRS expanded solar energy to the Ssesse Islands via installations of 25kW solar mini-grids, offsetting costs by selling locally-made, lower-cost flaked ice to island fishermen and using PayGo technology to make energy affordable for low-income households and small businesses.

GRS called this innovative business model the ABC model, where: the flaked ice business served as Anchor-load (A) off-taking 30-40 percent of the mini-grid's energy, and the small businesses (B) and households (C for Consumers) used the remainder.



# PAYGO-ENABLED SOLAR HOME SYSTEM FOR HOUSEHOLD & PRODUCTIVE USES



*Country:*  
**Ethiopia**



*Company:*  
**Green Scene Energy**



*Type of financing:*  
**Grants**



*Target population:*  
**Rural people living in the off-grid areas**

Green Scene introduced a new business model named “SETT” (Solar Energy by Tele Transfer) by leveraging its existing partnership with the national telecommunication operator, Ethio Telecom, to pilot, expand and accelerate the availability and affordability of PAYGO-enabled solar systems to off-grid rural households for productive uses including lighting, device charging, radio, television and other uses.



# PAYGO-ENABLED SOLAR HOME SYSTEM FOR HOUSEHOLD & PRODUCTIVE USES



*Country:*  
**Ethiopia**



*Company:*  
**Vera International Business**



*Type of financing:*  
**Grants**



*Target population:*  
**Businesses & rural people living in the off-grid areas**

Vera established a partnership with ENGIE Mobisol and sells PayGo-enabled solar energy technologies for household and productive uses. Vera envisages to help customers to “climb the energy ladder” from basic lighting to TV, device charging and other products that can be used for income generation activities.

Vera aims to pilot, expand and accelerate the availability and affordability of PAYGO-enabled solar systems to off-grid rural households for productive uses including lighting, device charging, radio, television and other uses.



# PROVISION OF LOANS TO HOUSEHOLDS FOR ACQUISITION OF SOLAR ENERGY PRODUCTS



*Country:*  
**Ethiopia**



*Company:*  
**Peace MFI**



*Type of financing:*  
**Loan**



*Target population:*  
**Rural People**

Poverty Eradication and Community Empowerment (PEACE) is dedicated to providing financial services to rural households to buy solar energy products for household uses with the ultimate objective of enhancing the living standard of people in rural Ethiopia.

Through the UNCDF loan, PEACE MFI has increased its lending to rural households and thereby enhanced access to affordable and clean energy of rural people.



# LARGER SOLAR UNITS FOR LOCAL BUSINESSES



*Country:*  
**Burkina Faso**



*Company:*  
**Qotto**



*Type of financing:*  
**Grants**



*Target population:*  
**Entrepreneurs in a peri-urban or rural area**

Qotto sells large solar home systems assembled in Burkina Faso, including power banks for small entrepreneurs who can rent out these power banks to end-users. They sell video clubs with a solar powered Qotto system and TV to replace fossil fuel-powered gen-sets. Qotto systems are monitored at distance and include PayGo financing options.

Qotto is capable of adapting its business and product portfolio according to the needs of its clients. To reach more women customers in their portfolio, Qotto is introducing solar systems for beauty salons.



# SOLAR APPLIANCES FOR AGRICULTURAL PRODUCTION ON PAYGO FINANCING



*Country:*  
**Burkina Faso**



*Company:*  
**AES**



*Type of financing:*  
**Grants and Loans**



*Target population:*  
**Agricultural processors**

AES sells Photovoltaic (PV) solutions to boost agricultural production and income for 12 agro-pastoral producers. This includes solar irrigation pumps, solar mills, solar crushers, solar cooling and other transformation devices. Each kit is used by an average of 30 persons.

AES is capable of customizing their product according to the needs of the clients. They area actively involved in national working group to help strengthen the sector.



# SAVINGS, LOANS AND ENERGY PRODUCT DELIVERY (IMPROVED COOKSTOVES, SOLAR KITS AND SOLAR MILLS)



Action des Femmes pour le Développement



*Country:*  
**Burkina Faso**

Microstart is dedicated to providing financial services to the energy sector to enable ESCOs and their clients to sell and/or have easy access to energy-based products.



*Company:*  
**Microstart**

Microstart has set up of one new agency branch and two mobile satellite offices in rural areas while selling solar appliances that can generate income for women's groups. The project has developed client protection principles, while collecting savings and disbursing loans for energy products to vulnerable and youth groups. Synergies with other FERR-BF clients have helped strengthen the sector and underlines the ecosystem approach of FERR-BF.



*Type of financing:*  
**Grant**



*Target population:*  
**Women's groups  
and unbanked  
youth**



# SALES, DISTRIBUTION AND FINANCIAL SERVICES FOR CLEAN COOKING AND SOLAR PRODUCTIVE USE SOLUTIONS



*Country:*  
**Burkina Faso**



*Company:*  
**Nafa Naana**



*Type of financing:*  
**Grants**



*Target population:*  
**Women agro-  
processing groups,  
Dolo saleswomen,  
and households**

Nafa Naana sells energy including solar lamps and solar productive use systems. They train and support distribution partners to reach target customers. Nafa Naana is selling improved cookstoves and LPG stoves to underserved areas. The productive use solar equipment includes solar pumps, fridges, sewing machines, razors, and others coming from existing local suppliers or well-known international suppliers.

Nafa Naana products are in high demand as they shift to diversifying their portfolio from clean cooking and pico-lights to productive use and solar equipment options.



# TECHNICAL ASSISTANCE, FUND MOBILIZATION AND MENTORING (BUSINESS INCUBATION)



*Country:*  
**Burkina Faso**



*Company:*  
**Burkina Business Incubator (BBI)**



*Type of financing:*  
**Grants**



*Target population:*  
**Energy service companies and financial service providers**

BBI has an innovative approach combining technical training, acceleration, fund mobilization, mentoring and coaching based on experiential learning. It holds B2B sessions (matchmaking) and business plan competitions. BBI also provides office space to incubates as well as various targeted services (legal, accounting, tax, etc)

BBI has supported energy service companies (ESCOs) and financial service providers (FSPs) inside and outside of the FERR portfolio to prepare bankable business plans, coaching to carry out grant projects, and fund mobilization support. Fundraising training support is provided via BBI's network of financial partners.



# PAYGO DISTRIBUTION OF SOLAR PRODUCTS AND CLEAN COOKSTOVES FOR HOUSEHOLDS AND BUSINESSES



*Country:*  
**DRC**



*Company:*  
**ALTECH**



*Type of financing:*  
**Grants and Loans**



*Target population:*  
**Households & small businesses in urban, peri urban & rural areas**

ALTECH sells solar lamps, solar home system, and clean cookstoves. Through UNCDF support, they have hired and trained solar and clean cooking ambassadors to reach target customers, mainly households and small businesses in urban and rural remote areas in DRC. They develop Bottom-of-the-pyramid (BoP) focused distribution networks and financing solutions such as PayGo.

ALTECH developed one digital application for clean cookstoves distribution and payments and scaled up the PayGo model to distribute solar products in more than 20 provinces out of 26 in DRC. They have reviewed and updated their SOPs to include longer payment schemes and diversified the range of product. They have been able to leverage many external investors, following support from UNCDF.



# CLEAN COOKSTOVES PRODUCTION AND SALE THROUGH RESELLERS AND AGENTS



*Country:*  
**DRC**

BASCONS produces and sells clean cookstoves from sales points, resellers and commission-based agents in urban and peri urban area in DRC.



*Company:*  
**Bascons**

Through UNCDF grants, they have purchased equipment and received corresponding technical assistance on stove design and production techniques. As a result, Bascons has increased more than 2x their production capacity and sales force. They have diversified their portfolio product to introduce more sizes and prices to reach a large range of clean cookstove customers.



*Type of financing:*  
**Grants**



*Target population:*  
**Households and  
small businesses in  
Kinshasa**



# IMPORT AND DISTRIBUTION OF LPG THROUGH SALES POINTS AND RESELLERS



*Country:*  
**DRC**



*Company:*  
**DAP Energy**



*Type of financing:*  
**Grants**



*Target population:*  
**Households, business, schools, hospitals, prisons, convents in rural and peri urban areas**

DAP Energy is the pioneer in LPG importation and distribution in the eastern part of DRC. They sell 3kg to 45kg starter kits and LPG fuel to households, institutions and small businesses.

DAP Energy reorganized their commercial strategy by introducing a mobile application, credit scheme and new reseller's distribution model designed with the support of UNCDF technical assistance.

They have extended their storage and distribution capacity and well as introduced customized software for management and payment to reach more and diversified customers.



# PRODUCTION AND DISTRIBUTION OF BRIQUETTES IN URBAN AREAS



*Country:*  
**DRC**

Using charcoal dust, husks and brewery bio-waste, Recyclo Congo produces biomass cooking briquettes and fire starter.



*Company:*  
**Recyclo Congo**

Recyclo Congo has increased their briquettes production capacity, sales force and diversified distribution model by introducing households as promising target market.



*Type of financing:*  
**Grants**

Through UNCDF support, they have purchased new equipment and technical assistance has helped them identify new client segments.



*Target population:*  
**Restaurants in Kinshasa**



FOR MORE INFORMATION, PLEASE CONTACT:

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