



# Powering Healthcare Solutions Catalogue



## Powering Healthcare Solutions Catalogue

The vast majority of healthcare facilities in low income countries – in particular in Sub-Saharan Africa and South Asia – do not have access to reliable electricity. Yet, they are expected to be at the frontline of fighting the COVID-19 pandemic.

The past five years have witnessed an ever-increasing range of technical solutions to tackle energy challenges in a more effective and efficient way. Nevertheless, most energy and healthcare providers are not aware of these opportunities.

Responding to the urgency of the COVID-19 crisis and meeting SDG7 and SDG3 require timely and strong collaboration between the energy and health sectors, drawing on their respective strengths and expertise.

**This catalogue serves the purpose of connecting stakeholders from the energy and health sectors with solutions providers, to help meet the energy needs of healthcare facilities in response to COVID-19 and beyond. The solutions provided herein represent a sample of a larger group of solution providers who can contribute to addressing this challenge.**

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# Overview

Solution Provider	Solutions Type		Current Needs				
	Power solution or component	Medical or other appliance	Grant funding	Equity	Debt	Partnerships	Technical Assistance
<a href="#">10Power</a>	✓		✓	✓			
<a href="#">ABM Global Energy</a>	✓					✓	
<a href="#">Aldelano Solar Solutions</a>	✓					✓	
<a href="#">BoxPower</a>	✓		✓			✓	
<a href="#">d.light</a>	✓	✓	✓	✓		✓	
<a href="#">Differ Community Power</a>	✓	✓	✓	✓	✓	✓	
<a href="#">Dulas</a>		✓				✓	
<a href="#">Eaton</a>	✓						
<a href="#">eleQtra Limited</a>	✓		✓	✓	✓	✓	
<a href="#">EM-ONE Energy Solutions</a>	✓		✓			✓	
<a href="#">Fenix Intl</a>	✓	✓	✓			✓	
<a href="#">HT Energy (S) SDN BHD</a>	✓		✓	✓	✓		
<a href="#">Ignite Medical Services</a>		✓	✓			✓	✓
<a href="#">LEMA</a>	✓		✓	✓			
<a href="#">Little Sun</a>	✓		✓			✓	
<a href="#">Micergy</a>	✓	✓	✓			✓	

Solution Provider	Solutions Type		Current Needs				
	Power solution or component	Medical or other appliance	Grant funding	Equity	Debt	Partnerships	Technical Assistance
<a href="#">OffGridBox</a>	✓		✓	✓		✓	
<a href="#">Off-Grid Europe</a>	✓	✓	✓				
<a href="#">Omnivoltaic Energy Solutions</a>	✓		✓		✓	✓	
<a href="#">Phaesun GmbH</a>	✓	✓	✓			✓	
<a href="#">Plug The Sun Ltd</a>	✓		✓	✓		✓	
<a href="#">PowerGen</a>	✓		✓	✓	✓		
<a href="#">Ryse Energy</a>	✓		✓	✓	✓	✓	
<a href="#">Simusolar</a>	✓	✓	✓	✓	✓	✓	
<a href="#">SolarAid</a>	✓		✓			✓	✓
<a href="#">Solarkiosk Solutions GMBH</a>	✓	✓	✓				
<a href="#">Solartechno Europe BV</a>	✓		✓	✓	✓		
<a href="#">Solergie NV</a>	✓		✓	✓		✓	
<a href="#">Sure Chill</a>	✓	✓				✓	
<a href="#">Tellco Europe Switzerland</a>	✓	✓	✓	✓	✓	✓	
<a href="#">We Care Solar</a>		✓	✓			✓	✓
<a href="#">Winch Energy</a>	✓		✓				

Solution Provider	Solutions Type		Current Needs				
	Power solution or component	Medical or other appliance	Grant funding	Equity	Debt	Partnerships	Technical Assistance
<a href="#">Zimpertec GmbH &amp; Co KG</a>	✓					✓	
<a href="#">Zola Electric</a>	✓		✓	✓	✓	✓	
<a href="#">Zwart Techniek BV</a>	✓		✓				

# 10Power

*Renewable Energy, Storage and Water  
Project Development and Finance*



## **Solution Type**

Plug and play power system, with and without appliances; Component-based power system, with and without appliances; Containerized turn-key power system, with and without appliances; Individual components, either power systems or appliances

## **Tech Specs**

Capacity: > 100 W

## **Target Geographies**

Haiti

## **Lead Time (est.)**

5-8 weeks

## **Partners**

SimpliPhi LFP Batteries

## **Current Needs**

Grant Funding  
Equity

## **Solution Description**

10Power provides project development and finance for renewable energy, storage and water projects in Haiti with a gender empowerment lens. The firm has experience designing, installing, operating and maintaining renewable energy projects including the offices of large NGOs, hospitals, reverse osmosis water purification and solar powered desalination plant.



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# ABM Global Energy

*ABM Solar container*



## Solution Type

Plug and play power system, with and without appliances  
Containerized, turn-key power system, with and without appliances

## Tech Specs

Capacity: > 1,000 W

## Target Geographies

Sub-Saharan Africa

## Lead Time (est.)

> 5 weeks

## Partners

CGWIC

## Current Needs

Partnerships

## Solution Description

ABM Global Energy is a leading British company in the off-grid products and solutions sector. We offer different applications in the off-grid space both for solar PV power and storage. Currently, we have developed a solar & storage containerised solution ideal for remote and isolated areas. This "mini solar PV farm (with storage) in a container" is a perfect replacement of diesel gensets.



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# Aldelano Solar Solutions

## Solar PowerPak



### Solution Type

Plug and play power system, with and without appliances

### Tech Specs

Capacity: > 10 KW

### Target Geographies

Sub-Saharan Africa  
South East Asia  
South Asia  
South America  
Other

### Lead Time (est.)

5-8 weeks

### Partners

Non-listed

### Current Needs

Partnerships

### Solution Description

The Aldelano Solar PowerPak/Generator™ is a solar power converting station that collects solar energy and converts it to usable AC power for use with virtually any electric device. These solar generators can power everything from a small home to an entire village. All units are customized to meet the electrical needs of the region and the specific needs of the customer. Models include single phase and 3 phase from 12 to 84 kWh/kVa providing from 69 to 384 kWh of daily energy output.



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# BoxPower

*Solar MiniBox, SolarContainer Systems*



## Solution Type

Containerized, turn-key power system, with and without appliances

## Tech Specs

Capacity: > 1,000 W

## Target Geographies

Sub-Saharan Africa

South East Asia

South Asia

South America

Other

## Lead Time (est.)

5-8 weeks

## Partners

Non-listed

## Current Needs

Grant funding

Partnerships

## Solution Description

BoxPower's modular microgrid systems can deliver renewable and reliable power as a cost-effective alternative to diesel generators. By pre-assembling and mass-producing our systems in shipping containers, BoxPower products help communities, governments, businesses, humanitarian and emergency relief agencies access off-grid power rapidly and provide energy resilience when power supply from the grid is unavailable or unreliable. BoxPower's product range is scalable and can be configured to meet a broad range of use cases and applications. We're proud to help to deliver clean, affordable, reliable energy to established and emerging markets around the world.



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# d.light design, Inc.

X2000 SHS powering M100 smartphone,  
DCR50 medical refrigerator



## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: < 100 W

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

## Lead Time (est.)

< 2 weeks

## Partners

PharmAccess Foundation

## Current Needs

Grant funding

Equity

Partnerships

## Solution Description

The d.light solar healthcare bundle comprises X2000 SHS (lighting, device charging, radio, power refrigerator and testing equipment), M100 Smartphone (EMR app, communications) and DCR50 Refrigerator (vaccine storage, test samples) to provide care for the infected (with upgraded healthcare infrastructure) as well as *prevent* further infections by disseminating timely communication and information to the local public and frontline workers.

This bundle offers the following services:

- All-night lighting for 5 rooms
- Medical supplies and vaccine refrigeration
- Multi-mobile charging
- Rechargeable radio for information access
- Internet-access for communication with health authorities
- EMR sharing, maternity care and COVID contact tracing
- Task light for focused operations



X2000  
Solar System



M100  
Smartphone



DCR50  
Refrigerator

## Contact Details

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## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: > 1,000W

## Target Geographies

West Africa

East Africa

Southern Africa

## Lead Time (est.)

5-8 Weeks

## Partners

UNDP Malawi, PS Kenya, WRI, BOS

## Current Needs

Grant funding

Equity

Debt

Partnerships

## Solution Description

Differ is a value chain integrator providing turn-key energy service solutions for health facilities of any size (1-1000kWh). We integrate technology (generation, storage and appliances), supporting software and remote monitoring technology and service and maintenance (O&M) schemes to ensure sustainability for years. The technology package may also include solutions for purified water and hot water as well as medical devices – in addition to the “traditional” supply of reliable solar energy and basic appliances like lights, fridges, charging, air con etc. Hence, Differ is a one-stop-shop solution provider for electrification of health facilities. See also [video](#) from Malawi installations.



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# Dulas Limited

*Solar-powered Direct Drive (SDD) Refrigerators  
and combined refrigerators/freezers*



## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: 101-1,000 W

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

## Lead Time (est.)

> 5 weeks

## Partners

Individual orgs for installation services in focus countries

## Current Needs

Partnerships

## Solution Description

Dulas are the manufacturers of a wide range of WHO PQS approved refrigerators and freezers for vaccines and blood storage. Our SDD refrigerators work from solar panels without the need for batteries and use advanced PCM to maintain a constant vaccine storage temperature.

These 'Plug and Play' systems are designed for ease of use in challenging environments. They have Grade A freeze protection and will operate at a stable +2°C to +8°C.

With the optimal balance between solar array size and refrigerator autonomy, Dulas refrigerators are designed to deliver perfect vaccine storage conditions every day, every year, whatever the weather.



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# Eaton

*xStorage Home,  
xStorage Commercial and Industrial*

# EATON

*Powering Business Worldwide*

## Solution Type

Plug and play power system, with and without appliances;  
Component-based power system, with and without appliances;  
Containerized turn-key power system, with and without appliances

## Tech Specs

Capacity: > 10 KW

## Target Geographies

Sub-Saharan Africa

## Lead Time (est.)

> 8 weeks

## Partners

Nissan (lithium ion batteries)

## Current Needs

Non-listed

## Solution Description

Microgrids are localized stand-alone power generating, distribution, and energy storage systems that can be operated independently or connected to the primary grid. They provide a reliable, efficient solution to unexpected power losses, effectively balancing variations in energy demand, optimizing energy usage for more reliable power, and reducing operating costs and carbon emissions

Using advanced software controls to optimize system operation, microgrids dynamically shift energy loads as needed to various local power sources, (i.e. solar PV, wind, battery storage, generators, or the utility grid) to maximize efficiency and reduce costs.



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### Solution Type

Plug and play power system, with and without appliances

### Tech Specs

Capacity: 101 – 1,000 W

### Target Geographies

West Africa

East Africa

Southern Africa

### Lead Time (est.)

< 2 weeks

### Partners

Nissan (lithium ion batteries)

### Current Needs

Grant funding

Equity

Debt

Partnerships

### Solution Description

Solar eleQtra™ is an ideal power source for front line health clinics providing enough power for typical equipment including: lighting, IT equipment, medical refrigerator, sterilization equipment, suction machine and oxygen concentrator.

Each unit includes an inverter of 1,000 W ac continuous output, 200 amp-hour storage battery, automatic fuses, 4 standard ac plug outlets and 4 USB charging outlets all housed in a secure steel cabinet. The system comes with 4 x 160 Wp roof-mounted solar PV panels with low-profile mounting frames to minimize theft. Each Solar eleQtra™ unit delivers an average output of 3.1 kWh per day in a typical application.



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# EM-ONE Energy Solutions

*The EM-BOX – Modular Microgrid for Health*



## Solution Type

Plug and play power system, with and without appliances;  
Containerized turn-key power system, with and without appliances

## Tech Specs

Capacity: > 10 KW

## Target Geographies

West Africa  
East Africa

## Lead Time (est.)

5-8 weeks

## Partners

Schneider Electric, Tesla,  
Various International donor programmes

## Current Needs

Grant funding  
Partnerships

## Solution Description

EM-ONE is an engineering, technology, and consulting firm with over 10 years of experience working at the nexus of sustainable energy and social impact in West Africa. Our proprietary solar microgrid– the EM-BOX – is a containerized, modular, and scalable solution designed to address the urgent need to electrify healthcare centers across the continent. Over the past three years, it has been successfully deployed at nearly 300 primary health centers and rural hospitals in Nigeria. These facilities have seen a drastic improvement in their ability to provide life saving care to their community both during the global pandemic and beyond.



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# Fenix International

*Fenix Power, Mobisol*

fenix intl

A company of ENGIE

## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: < 1,000 W

## Target Geographies

West Africa

## Lead Time (est.)

< 5 weeks

## Partners

Paga, Interswitch, MTN, Startimes, LAPO, Solar Sister

## Current Needs

Grant funding  
Partnerships

## Solution Description

Our products are Solar Home Systems of Batteries ranging from 25Wh to 730Wh, with respective solar panels ranging from 10W to 200W.

These products also have accessories which includes; Radio, fan, TV, Clipper and Woofer



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# HT ENERGY (S) SDN BHD

## Solar + Hydrogen Power System (Solar Hybrid H2)

### Solution Type

Plug and play power system,  
with and without  
appliances

### Tech Specs

Capacity: > 10 KW

### Target Geographies

South East Asia

### Lead Time (est.)

> 8 Weeks

### Partners

Suzhou JingLi Hydrogen  
Production Equipment Co.  
Ltd.

### Solution Description

Our H2 system is to supply 25-30kW of electricity daily (day-time usage of 15kW and night-time usage of 10kW) with a peak load of 2.88kW, comprising of solar PV panels to generate electricity, electrolyser to produce hydrogen gas. Energy is stored in gas tanks in the form of H2 gas. During sundown, H2 gas feed into Fuel cell to generate electricity for night time use.

### Current Needs

Grant funding  
Equity  
Debt



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# Ignite Medical Services (IMS)

SDS-16, SDS-X1



## Solution Type

Plug and play power system, with and without appliances; Component-based power system, with and without appliances

## Tech Specs

Capacity: < 1,000W

## Target Geographies

West Africa  
East Africa  
Southern Africa  
South Asia  
Other

## Lead Time (est.)

5-8 Weeks

## Partners

SpaceCom, Vocalis Health, Aspen Imaging

## Current Needs

Grant funding  
Partnerships  
Technical assistance

## Solution Description

Ignite Medical Services (IMS) is reshaping healthcare in rural communities across emerging countries by combining solar power and advanced diagnostic technology, tailor-made for on-field diagnosis and treatment. The IMS designed-for-solar system (DSS) provides remote health centers with reliable electricity, connectivity, and diagnostic devices; The SDS-16 conducts a wide range of blood tests to be given on the spot and allows for fast, smart and affordable detection of the patient's condition; The energy-efficient X-ray diagnostics kit (SDS-X1) provides high-quality imaging and interpretation on the field, addressing Covid-19, TB, and emergencies. All devices are designated for the specific needs of remote medical teams, powered by solar energy and allow for remote support and guidance.



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# LEMA

*LEMA Off-Grid*

LEMA  
by WTS



## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: 1,001-10,000 W

## Target Geographies

East Africa

## Lead Time (est.)

5-8 Weeks

## Partners

USAID Power Africa

## Current Needs

Grant funding  
Equity

## Solution Description

LEMA™ Off-Grid is a USA made smart solar generator. Seamlessly monitor and automatically manage your system through the LEMA™ app.



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# Little Sun

## *Little Sun Charger (LSC) 4400*



### **Solution Type**

Plug and play power system, with and without appliances

### **Tech Specs**

Capacity: < 100 W

### **Target Geographies**

Sub-Saharan Africa

### **Lead Time (est.)**

2-5 Weeks

### **Partners**

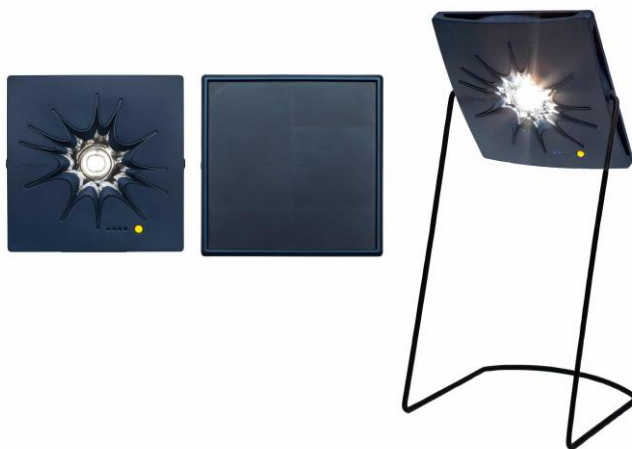
UNHCR, IOM, UNDP, UNICEF, Oxfam, CARE, Save the Children, SNV, GIZ, PLAN

### **Current Needs**

Grant funding  
Partnerships

### **Solution Description**

Recent years have seen a rapid growth in the adoption of app based digital tools on smart phones for health programs. Digital-health tools are reaching last mile communities with no access to electricity, and keeping phones charged is becoming a critical challenge. The Little Sun Charge (LSC) was specifically designed with a large solar panel and high capacity battery to power modern smart phones. CHW are consistently choosing the LSC for their work because of its high durability, portability, usability, and charge capacity. LSC has been powering COVID-19 digital health response in Ethiopia, Kenya, Senegal, Tanzania, Burkina-Faso, and Uganda.



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# Micergy

## MP2

### Solution Type

Plug and play power system, with and without appliances

### Tech Specs

Capacity: 101-1,000 W

### Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

### Lead Time (est.)

5-8 Weeks

### Partners

USAID Power Africa

### Current Needs

Grant funding

Partnerships

### Solution Description

Micergy MP2 is the most powerful Pay-As-You-Go Solar Home System designed for households and small businesses with unstable grid power supply, it can be fast charged by both solar and AC at the same time, the built-in cigarette lighter output allows end-users to power big DC appliances like fridge and freezer or small AC appliances (like AC TV, laptop etc., Max 120W) during power failure. Pay-As-You-Go technology was embedded to allow end-users to make payment by installment, rather than 100% upfront, thus making full use of every cent. Besides, we adopted advanced encryption technology to minimize the risk of illegal tamper and theft to reduce the default rate for PAYG operators. Micergy MP2 pay-as-you-go solar home system was tested according to the Quality Test Method stipulated in edition 4 of IEC 62257-9-5 and complied with the Lighting Global Solar Home System Kit Quality Standards



### Contact Details

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# OffGridBox, Inc.

*OffGridBox*

*(Pioneer, PAYG, DESAL models)*



**OffGridBox**

## **Solution Type**

Containerized, turn-key power system, with and without appliances

## **Tech Specs**

Capacity: 1,001-10,000 W

## **Target Geographies**

Sub-Saharan Africa  
Southeast Asia

## **Lead Time (est.)**

5-8 Weeks

## **Partners**

Oxfam, Progetto, Rwanda, BiziSol, UNDP Tanzania, Order Militaire et Hospitalier de Saint Lazare et Jerusalem

## **Current Needs**

Grant funding  
Equity  
Partnerships

## **Solution Description**

The OffGridBox is a mobile and modular 2x2x2m container with 3 kWp-8kWp solar panels on the top, a water purification system inside, and a WiFi hotspot on the outside. Our unit is one solution to three problems: lack of access to energy, lack of access to clean water, and lack of access to connectivity. We provide clean water and renewable energy for households by means of battery packs, for institutional buildings like clinics and schools, and/or for productive use, like water pumping, irrigation, ice making or milling. During the COVID-19 crisis, we are stepping up our efforts to provide our services to rural clinics in developing countries.



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# Off-Grid Europe

## SolarOxygen Container



### Solution Type

Plug and play power system, with and without appliances;

Containerized, turn-key power system, with and without appliances

### Tech Specs

Capacity: > 10 KW

### Target Geographies

Sub-Saharan Africa

### Lead Time (est.)

> 8 Weeks

### Partners

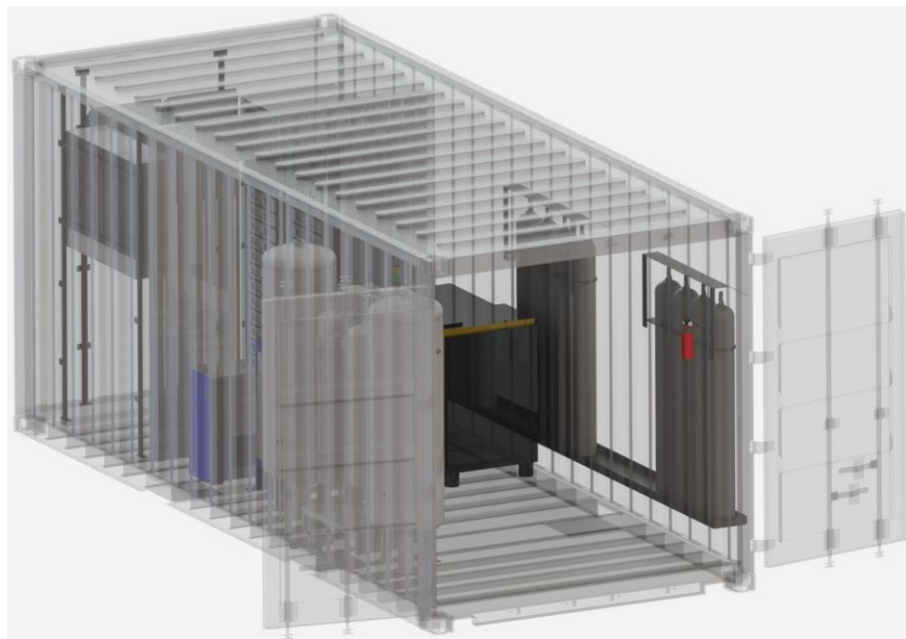
Non-listed

### Current Needs

Grant funding

### Solution Description

The SolarOxygen container is a PSA/VPSS oxygen generator, cylinder pump and off-grid power system built into a single 20 foot insulated shipping container and fully powered by the sun. This enables life-saving oxygen to be created even when there is no reliable local power source, making it ideal for increasing the availability of low-cost oxygen cylinders to rural communities. The PV and off-grid system also generates and stores power for use in the clinics and dwellings on site for a readily available.



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# Omnivoltaic Energy Solutions

*Off-Grid Solar Healthcare Solutions*



## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: < 1,000 W

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

## Lead Time (est.)

2-5 Weeks

## Partners

Energy WAO, Solibrium Limited, SolarWorks!, Smart Grid International, Solar Africa, Altech Group, Zuwa Energy, Suntransfer Kenya, Mwangaza Light, Oolu Solar

## Current Needs

Grant funding

Equity

Partnerships

## Solution Description

Omnivoltaic presents a lighting solution accompanied by appliances pertinent to the healthcare sector. We offer lights ranging from 200 lumen – 1000 lumen. Appliances such as radios and television sets that are crucial in enabling access to information. A fan to provide cooling especially in hot and humid regions. A Public address system to support communication within the health facility. A phone charging unit to help health workers who are finding themselves in hospital for prolonged periods and for in-patient patients. A refrigerator for storing medicine in pharmacies, thus keeping it in good condition. All these lights and appliances are highly efficient in terms of power consumption and fitted with robust device monitoring software.



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### Solution Type

Plug and play power system, with and without appliances;  
Component-based power system, with and without appliances

### Tech Specs

Capacity: 101-1,000 W

### Target Geographies

Sub-Saharan Africa  
South East Asia  
South Asia  
South America

### Lead Time (est.)

5-8 weeks

### Partners

Local solar companies, as well as local and international NGOs and Aid organizations

### Current Needs

Grant funding  
Partnerships

### Solution Description

Phaesun provide a complete kit for solar cooling, ventilation and lighting: It includes the solar fridge Steca PF 166, two fans and two light tubes, all equipment for charging and installation. Ideal for the use in health posts and hospitals that are located far from the grid. Electric loads such as effective solar fridge, two fans and light tubes are integrated. They are served by high quality solar components (modules, batteries, solar electronics). The system runs with DC, all loads are DC loads. The kits include all necessary installation material.



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# Plug The Sun Limited

Ray 3000, Ray 4000,  
Ray 6000, Ray 8000



## Solution Type

Component-based power system, with and without appliances

## Tech Specs

Capacity: 1,001-10,000 W

## Target Geographies

West Africa  
Southern Africa  
Southeast Asia  
South America

## Lead Time (est.)

> 5 weeks

## Partners

Non-listed

## Current Needs

Grant funding  
Equity  
Partnerships

## Solution Description

Our RAY Professional Series features a robust solar power station to run house, school, clinic and small village communities.

Featuring high solar conversion efficiency, thanks to an advanced MPPT algorithm, the RAY Professional provide the maximum power output from the solar panel array and has a built-in solar battery management system, to optimize battery charging. True sine wave technology inverters provide reliable AC energy consistently power a host of different appliances.



## Hybrid Professional Solar Systems



RAY 3000



RAY 6000

## Contact Details

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# PowerGen

*Solar + battery hybrid systems*

*(30 – 1,000 kW)*



## Solution Type

Containerized, turn-key power system, with and without appliances

## Tech Specs

Capacity: > 10 KW

## Target Geographies

West Africa

East Africa

Central Africa

## Lead Time (est.)

2-8 Weeks

## Partners

Jinko, JA Solar, Trina, Canadian Solar, Suntech, First Solar, Tesla, Alpha ESS, Narada, BYD, LG Chem, Tesvolt, Sonnen, etc.

## Current Needs

Grant funding

Equity

Debt

## Solution Description

PowerGen offers commercial and industrial solar PV systems with lithium-ion storage that can be integrated with existing utility power supply to improve reliability or diesel backup generators in off-grid applications. The solar PV capacity range in size from 30kW to 1,000kW, storage capacity ranges from 34kWh to 1,032kWh and can be installed in parallel to meet higher demand. The battery energy storage solutions can be supplied in 10ft, 20ft or 40ft containers and come with heating, ventilation, air conditioning and fire suppression. The systems allow for remote monitoring, have little maintenance requirements, and come with a performance warranty of 10 years.



## Contact Details

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# Ryse Energy

*E-Range/G-Range Wind Turbines,  
Containerized storage hybrids*



Ryse Energy

## Solution Type

Plug and play power system, with and without appliances;  
Component-based power system, with and without appliances;  
Containerized turn-key power system, with and without appliances;  
Individual components, either power systems or appliances

## Tech Specs

Capacity: > 10 KW

## Target Geographies

Sub-Saharan Africa  
South East Asia  
South Asia  
South America

## Lead Time (est.)

> 5 Weeks

## Partners

Incorporated companies in Europe, Middle East, and India

## Current Needs

Grant funding  
Equity  
Debt  
Partnerships

## Solution Description

Resilient and reliable energy supply is essential to delivering both basic and modern healthcare services. From empowering general practitioners and clinical services to work after sundown, to powering laboratory equipment, incubators, intensive care units and the appropriate storage of vaccines, blood work and medications. To tackle these challenges in the face of Covid19 and beyond, Ryse Energy as has designed and developed plug and play, hybrid small-scale wind, solar PV and energy storage renewable energy solutions, for a truly off-grid healthcare solution, facilitating the connection of energy and healthcare, reducing healthcare poverty, and enabling global healthcare equality.



## Contact Details

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### Solution Type

Component-based power system, with and without appliances

### Tech Specs

Capacity: 101 – 1,000 W

### Target Geographies

East Africa

### Lead Time (est.)

2-8 Weeks

### Partners

Non-listed

### Current Needs

Grant funding  
Equity  
Debt  
Partnerships

### Solution Description

Rural healthcare facilities in East Africa typically have no water and so cannot maintain basic sanitation. Our solution provides year-round access to water and handwashing as well as electricity and lighting. The community will have well-lighted clinics and much better sanitation. They will have a source of water that is not contaminated, and a place where they and their medical service providers can wash hands and equipment, providing a much healthier environment for all healthcare services. **Options** include a SmartTAP water dispenser providing income for ongoing O&M, and/or UNOCOOL DC Refrigerator with a 200 W solar panel for vaccines.



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## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: < 100 W

## Target Geographies

Southern Africa

## Lead Time (est.)

> 8 Weeks

## Partners

Malawi Ministry of Health, Zambia Ministry of Health

## Current Needs

Grant funding  
Partnerships  
Technical assistance

## Solution Description

This solution is the second phase healthcare response to COVID-19 in Malawi and Zambia in partnership with the respective Ministries of Health.

We are repurposing plug and play systems to power energy efficient, modern medical devices for rural health facilities – where the majority currently have no access to reliable, or any, electricity.

By incorporating the delivery of this program within our existing SunnyMoney distribution network, we will guarantee affordable Operation and Maintenance while testing revenue generation models to offset the already low cost.



## Contact Details

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# Solarkiosk Solutions GmbH

*Solar powered COVID-19 test lab*



## Solution Type

Containerized, turn-key power system, with and without appliances

## Tech Specs

Capacity: > 10 kW

Storage: 10.2 kWh

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

## Lead Time (est.)

5-8 weeks

## Partners

UNITAR, Solarworx,

Groots, Nexol, Siemens

Healthineers

## Current Needs

Grant funding

## Solution Description

Turnkey COVID-19 test lab for health personnel with 100% accuracy real-time test for infections with the COVID-19 virus. The solar powered “kit-of-parts” infrastructure solution, the E-HUBB, can be deployed within a few days. It is equipped with state-of-the-art laboratory diagnostics, molecular medicine and digital health supplied by the German leading medical technology company and solar powered with state-of-the-art storage by long life LiFePO4 batteries for night-time usage. Training of personnel on the basis of established standard procedures provided by the UNITAR. It can also test for, HIV, Malaria, Tuberculosis, Pulmonary infections, Hepatitis, Urinary infections, etc.



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# Solartechno Europe B.V.

*NoGrid – Gen 3*



## Solution Type

Plug and play power system, with and without appliances

## Tech Specs

Capacity: > 100 W

## Target Geographies

Sub-Saharan Africa

## Lead Time (est.)

5-8 Weeks

## Partners

Lencon B.V., TuDelft, Fieldlab, Smartbase, The African Centre for Renewable Energy & Sustainable Technology (ACREST)

## Current Needs

Grant funding  
Equity  
Debt

## Solution Description

An autonomous plug and play solar power supply specifically designed for off grid applications in Africa and in developing countries. It is a solar panel with a battery box containing battery and electronics installed on its back. It designed to be installed in open air (outdoor) in harsh environments (desert, tropical and maritime areas of the world). It is maintenance free with a 10 year lifespan. It is very modular, portable and robust. All components are integrated in a single water and dust tight, rust free aluminum box. Thanks to the modularity and fail safe features, the system is the ideal choice for remote health clinics, dispensaries, mobile COVID testing centers and for powering the related IT and telecom systems.



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# Solergie NV

*SolergieBox*



## Solution Type

Component-based power system, with and without appliances

## Tech Specs

Capacity: 100 Wp-10 kWp

## Target Geographies

Sub-Saharan Africa

## Lead Time (est.)

< 2 weeks (West Africa)

2-5 weeks

(East/Central/Southern Africa)

## Partners

Solergie NV (Belgium) –

Solergie SARLU (Togo)

## Current Needs

Grant funding

Equity

Partnerships

## Solution Description

The SolergieBox, a smart solar nano-grid solution, provides clean, reliable and affordable power (220V), in order to guarantee a continuous availability of reliable electric power for the healthcare facility (HCF). We also provide the supply of basic equipment (medical refrigerator, lighting bulbs, fans and outlets to connect other electrical equipment). To maintain the solar system, we bet on the unique feature of the nano-grid: up to 8 customers can be connected to the SolergieBox, so, in addition to the HCF, additional customers and/or a local entrepreneur can be connected, who provide maintenance of the HCF through their payments.



## Contact Details

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CEO

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# Sure Chill

*Vaccine Refrigeration*

# SureChill.

## Solution Type

Plug and play power system, with and without appliances;

Individual components, either power systems or appliances

## Tech Specs

Capacity: 101 – 1,000 W

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

Other

## Lead Time (est.)

5-8 Weeks

## Partners

UNICEF, PAHO

## Current Needs

Partnerships

## Solution Description

SureChill refrigerators guarantee freeze free storage and constant cooling even at 43°C ambient. The unique technology maintains a constant temperature without the need for a constant power source, perfect in weak/off grid situations. We've a track record with UNICEF and PAHO and are the perfect partners for international NGO's, MoHs, and private healthcare. Our solar refrigerators work straight from solar panels without batteries or harmful materials offering twice the holdover time of regular SDD's offering durability and robustness that is required for intensive use in health centres.



## Contact Details

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# TellCo Europe Switzerland

*TellCoSOL, TellCo Europe ConSOL*



## Solution Type

Plug and play power system, with and without appliances; Component-based power system, with and without appliances; Containerized turn-key power system, with and without appliances

## Tech Specs

Capacity: > 100 W

## Target Geographies

Sub-Saharan Africa

Southeast Asia

South Asia

South America

Other

## Lead Time (est.)

> 5 weeks

## Current Needs

Grant funding

Equity

Debt

Partnerships

## Solution Description

1. TellCoSOL off grid system products comes with accessories likes LED lights, radio FM, MP5 player, TV, refrigerators, fans and many more.

2. 100% SOLAR POWERED SMART MOVABLE HEALTH CARE CLINIC . First-Class Solar Movable Primary Health Care Clinic Container for communities who do not have access to Primary Health Care or in need of more effective Primary Health Care Facilities in Rural and Semi-Urban localities.



## Contact Details

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# We Care Solar

## *We Care Solar Suitcase*



### **Solution Type**

Plug and play power system, with and without appliances

### **Tech Specs**

Capacity: 101 – 1,000 W

### **Target Geographies**

West Africa

East Africa

Southern Africa

### **Lead Time (est.)**

5-8 Weeks

### **Partners**

65 partners including UN agencies, international and local NGOs, and four health ministries

### **Current Needs**

Grant funding

Partnerships

Logistics assistance

### **Solution Description**

The We Care Solar Suitcase is a compact, complete, safe, institutional-grade solar electric system for maternal health facilities. This user-friendly pre-wired system contains solar panels, a lithium-ferrous-phosphate battery, a customized charge controller, break-resistant 70,000 hours medical LED lights, 12VDC and 5VDC outlets, and all installation hardware. LED headlamps, phone charging, a fetal Doppler, infrared thermometer, and rechargeable batteries are included. 5,200 Solar Suitcases have been deployed in facilities where essential medical lighting and 12VDC power are needed, both as permanent and temporary (mobile) installations. Our programs, printed guides, and training videos build local capacity in solar installation, maintenance, and servicing.



### **Contact Details**

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# Winch Energy Limited

*The Winch Clinic*



## Solution Type

Containerized, turn-key power system, with and without appliances

## Tech Specs

Capacity: > 10 KW

## Target Geographies

Sub-Saharan Africa

South East Asia

South Asia

South America

## Lead Time (est.)

> 8 Weeks

## Partners

CHIAVETTA S.r.l;

BOLLORE LOGISTICS ITALY

## Current Needs

Grant funding

## Solution Description

A reliable, renewable, rapidly deployable and re-deployable fully powered mobile health clinic. The clinic can be quickly and easily installed in the heart of communities, both urban and rural, and provide prevention and healthcare services close to where people live and work. An integrated solution that increases access to electricity and healthcare, the Clinic utilises proven, reliable technology designed and tested for rugged, isolated environments to create critical healthcare infrastructure. The Clinic can be shipped and delivered by truck to the remotest regions and can be installed within days.



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### Solution Type

Plug and play power system, with and without appliances;

Containerized, turn-key power system, with and without appliances

### Tech Specs

Capacity: > 1,000 W

### Target Geographies

Sub-Saharan Africa

### Lead Time (est.)

5-8 Weeks

### Partners

Econet, Distributed Power Africa (DPA)

### Current Needs

Grant funding

Equity (TBD)

Debt

Partnerships

### Solution Description

To power healthcare facilities with hybrid energy solutions optimized for medical equipment, build with highest (10 year) reliability standards. Ability to integrate with the grid, generator, other (AC/DC) power sources, and PV solar array. Sized to operate autonomously (off grid). Plug-and-play containerized solutions with 50kWh lithium battery capacity and 20kWp solar array.



### Contact Details

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# Zwart Techniek B.V.

*Emergency power systems, off-grid power solutions,  
hybrid power stations and battery storage solutions*



## Solution Type

Plug and play power system, with and without appliances; Component-based power system, with and without appliances; Containerized turn-key power system, with and without appliances; Individual components, either power systems or appliances

## Tech Specs

Capacity: > 1,000 W

## Target Geographies

Our solutions can be placed anywhere

## Lead Time (est.)

> 8 weeks

## Partners

Available upon request

## Current Needs

Grant funding

## Solution Description

Our off-grid power plants are trusted to deliver power in the most challenging environments throughout the world. We provide communiBes, businesses and uBliBes with a reliable source of power in places where the electricity grid is unreliable or not present. Our power plants uBelize a mix of solar, diesel and where, possible, baFery storage, to provide reliable, cost effecBve 24/7 power.



## Contact Details

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