

### SPECIALIZED SOLAR SYSTEMS®

#### Working at the electrification frontier

maxEnergy offers an exciting new ecosystem approach for the supply of energy to locations that are beyond the reach of grid supply systems in Africa.

With many successful projects completed in collaboration with universities, governmental organizations, NGOs and businesses, this approach has fostered economic transformation in disconnected and indigent communities with new business start-ups, job creation and possibilities.

Based on a pay-for-energy-usage business model and using solar power generation for energy delivery, a percentage of recaptured revenue supports product expansion, employment and sustainability.



#### Roll-out of solar electrification on a utility scale



Built on the backbone of entrepreneurship and micro-economies the data has been carefully evaluated over many years and strategic partnerships have been formed. maxEnergy Specialized Solar Systems would like to demonstrate the true sustainable scalability of its solar products by offering venture-capitalists a turnkey solar electrification framework by:



Supplying solar products with remote functionality to generate clean, efficient renewable energy for placement in disconnected communities;

Offering well priced and attractively packaged options that are made up of efficient DC electrical appliances. These packages will include the very basics of energy appliances and progress to more sophisticated offerings for dwellings, businesses, schools and other establishments;

Providing a secure and integrated Online platform for ecosystem management with a host of features, such as remote system monitoring, client billing, vendor management, customer notifications and automated system switching;

Incorporating strong support structures with comprehensive training, intricate planning procedures, successful product placement and providing basic leadership and business knowledge skills leading to greater economic activity.

## Solar technologies: smarter & faster energy supply

**Solar power stations** being the future of energy supply having the potential to fill gaps in grid infrastructure smarter and faster, generating efficient energy, offering energy metering and remote communication with switching options.

Solar power stations are used as an energy source for powering energy efficient DC energy appliances. Specialized Solar Systems solar generation offerings are demarcated as follows:

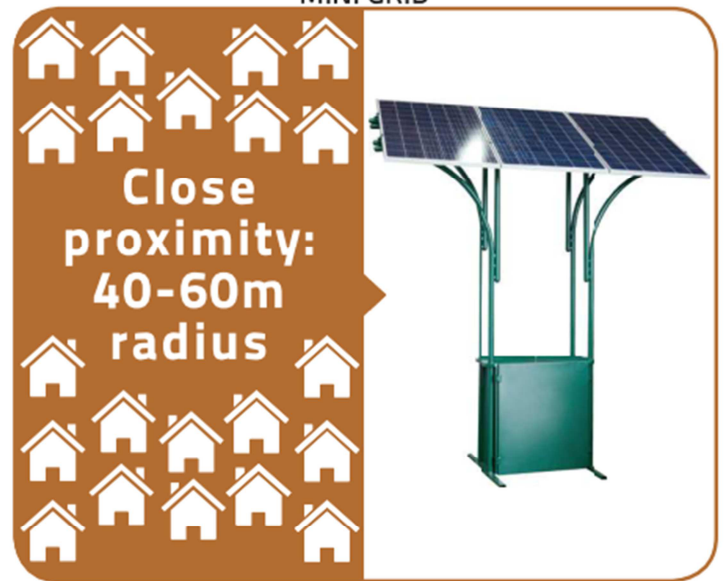
**Micro grid:** The micro grid range of solar products are ideal for scattered environments where the distance between installations is large and the demographics sparse. The unit is installed at an individual's premises where the energy is produced and used. This is also known as de-centralized solar energy supply.

**Mini grid:** The mini grid solar solution was developed to supply energy to multiple dwellings from a central location and has many applications, options and configurations. This is also known as sub-centralized solar energy supply and is ideal for informal settlements and congested environments.

MICRO GRID



MINI GRID



Specialized Solar Systems **utility-based solar management solution** supplies all the necessary tools required for system management through a secure, configurable tiered-user online platform for remotely managed solar energy supply.

**Utility-based solar energy management framework**

The core architecture design is to securely assist with the management function by providing an integrated framework for remote system monitoring, GPS system allocation, client and system management, billing options, vendor management and automated system switching in a simple and intuitive user interface that is accessible anywhere where there is an internet connection.

The framework allows for the creation of independent utilities or ecosystems where administrator users are created then assigned to their own unique environment. Vendors (P.O.S) are set up and managed by these administrators.

Using a pay-for-energy-business model, the vendor business model is based on a wallet fund system. For a vendor to dispense energy, funds must be available in their account thus eliminating risk for the independent utility.

Adequate training is provided in all the framework functions in 3 modules. The cloud-based framework is constantly monitored and support is always available.












The solution is now used extensively in many off-grid solar electrification projects where remote administrators and their ground operations rely on real-time data to fulfill their operational criteria.



## Efficient DC powered appliances enhancing lifestyles

Along with energy access, customers are provided with **efficient DC powered appliances** that improve their quality of life. These appliances support the very basics of indigent energy needs and progress to more expensive comfort

appliances enhancing the available options to a customer as their energy requirements grow. The online management platform facilitates the process with automated debiting, vendor management and automated remote power switching in the event of non-payment. **Standard with our systems are marked Green !**

 <p><b>LED DC TV (42000003)</b> 15" TFT LCD Panel   Aspect Ratio: 16:9/4:3 Resolution: 1024 x 768 60Hz Colour system PAL, NTSC, SECAM  3W x 2   HDMI</p>	 <p><b>DSTV DC DECODER(42000008)</b></p>	 <p><b>196LDC SOLAR FREEZER (41000003)</b> A 12V DC solar powered freezer that can be thematically controlled to act as a fridge</p>	 <p><b>158L DC COMBO FRIDGE / FREEZER(41000002)</b> A 12V DC solar powered fridge and freezer combo unit</p>
 <p><b>DC PLUG BOX (17000002)</b> Supplies 10A 12VDC outputs for TV, Radio, DSTV(Satellite TV) Connection point for cellphone charging and AC inverter</p>	 <p><b>LIGHTS &amp; LAMP FITTINGS</b> ES27 Fittings (44100002) Lamp shades (99030030) 3W LED Interior lights (44000002)</p>	 <p><b>SPOTLIGHT (15000009)</b> External 2.4W, 54 LED spotlight</p>	 <p><b>ON/OFF SWITCHES</b> Wall mounted (44100004)</p>
 <p><b>DC DESKTOP FAN (42000010)</b> DC powered cooling fan</p>	 <p><b>AM/FM RADIO (42000006)</b> 12V DC AM/FM radio</p>	 <p><b>INVERTER</b> 350W AC Pure sine wave inverter</p>	 <p><b>CELL PHONE CHARGING</b> USB cell phone charging adapter</p>

A completely integrated framework for managing the supply of solar energy to disconnected communities.



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Presented By **maxEnergy**  
ENERGY SOLUTIONS

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