

# Identifying New Energy Markets In Africa

The population in Africa is growing with an expected 6% annual increase in demand for electricity, but the deficit in access to energy in Africa is a severe constraint to growth, development and productivity - on a scale that restricts Africa's ability to compete effectively in the global economy. Two thirds of the population in Africa (est. 620 million people) are currently without electricity with large parts of the population living in rural and scattered areas. **MANY SOLUTIONS, NOT ONE** As the need is so big, many solutions are required, opening huge market opportunities for both large-scale electricity, but also for new opportunities like off-grid, small-grid, micro-grid, rooftop or household solutions. A preconception exists that the models are in competition, but the need is so big that many solutions are required. While large-scale grid is still a necessity, smaller-scale solutions can be used as an interim step that still provides long term value. Mini-grids can be used to test markets and prove concepts. Solving the energy problem in Africa is not a one-size-fits-all approach and standalone options need to be matched to the consumer. **SMALL SCALE**

**OFF-GRID: Description:** Off-grid solar household systems (e.g. home, school, hospital). For the population in Africa who are not connected to power and use substances such as paraffin to generate power, solar light is an improvement with many benefits. In terms of distributed generation, Africa has more experience with off-grid solar than other off-grid renewables, and some business models have already been proven. **Ideal markets:**

- Consumers who are far from the grid (rural)
- Abundance of sunshine
- Ability to operate freely
- Skills to install and maintain
- Access to plans and transparent regulation
- Mobile payment platform
- Cost-effective storage

## **MICRO-GRID AND MINI-GRID:**

**Description:** Decentralised, modular technologies, located close to the load they serve, but with low capacities (e.g. 10 megawatts). Renewable energy through mini-grids is a great solution for remote, outlying areas that are awaiting conventional grids as they can operate autonomously, assisting areas where the grid is under strain. Mini-grids can be built with a longer view of connecting to conventional grids. **Ideal markets:**

- Consumers who are far from the grid (rural)
- Abundance of sunshine
- Areas of dense communities are better
- Skills to install and maintain
- A mix of residential and business use
- Cost reflective tariffs, levelled subsidies
- Cost-effective storage

## **LARGE-SCALE GRID:**

**Description:** Conventional centralised power stations that often require electricity to be transmitted over long distances. The grid is still a long-term solution, necessary for production, industry, growing economy.

### **Ideal markets:**

- Conventional power grids are suited for industrial, commercial and manufacturing processes that require a good amount of base load generation.
- Consumers who are close to the grid

**VIEW THE INFOGRAPHIC - More considerations for each solution is described in this infographic.**

Don't miss the 2-day conference, which includes several panel discussions targeting this topic.