

RES4MED towards Africa: a new strategic project



1. Why a new project for Africa

RES4MED is a network of international leaders engaged in promoting the **deployment of renewable and energy efficiency solutions in the Mediterranean**. It covers the whole value chain of RE deployment: investors, utilities, industries, agencies, technical service providers. Their mission is to support the deployment of renewable energy, both large scale and distributed energy, energy efficiency solutions and their integration in the local and regional markets to satisfy local energy needs.

At the end of 2015, RES4MED members decided to **broaden the geographic scope** of the Association **towards sub-Saharan Africa** in light of the huge potentials and growth opportunities for Africa's renewable energy sector, in order to **"export" the successful Euro-Mediterranean cooperation** towards the needs of the whole continent.

The strong commitment of RES4MED is officially confirmed by the strategic project **RES4Africa, a new initiative aiming at extending our relations with all African countries** to be implemented starting from the consolidated position acquired in the MENA region where RES4MED started relevant partnerships and joint initiatives aimed at cooperating in specific fields and that now could stimulate further common programs involving African areas.

2. The energy context in Africa

When addressing the challenge of sustainable energy strategies in Sub-Saharan region and the role of renewable sources, it is important to understand the dimensions of the problem and the situation of the current resource availability.

Africa is **rich in resources but poor in energy supply**. **Energy demand in Sub Saharan Africa has grown by 45%** from 2000, but it accounts for only 4% of the world total, even if Africa accounts for 13% of the global population. This amount of energy is hardly enough to cover the daily basic need at household level and not certainly targeted to meet community service needs or productive uses of energy in the industrial or agricultural sector.

Given this context, **private sector** and foreign investors will play a pivotal role to **increase investments, competitiveness** and innovation in energy infrastructure, to properly fill the gap cooperating with local communities and stakeholders.

To match the demand of energy supply the IEA estimates that an **investment in energy supply of some 110 billion \$ per year** is required, therefore an overall amount of **3 trillion \$ investments up to 2040** will be necessary.

Capitals will flow to Africa, thanks also to the attention on climate and energy in Africa following COP21 in Paris: The World Bank Africa climate plan estimates that \$16.1 billion could be raised by 2020.

In an optimist vision, is it possible to **transform the 21st century** in **"A CENTURY FOR AFRICA!"**.

Three **actions** with more general governance reforms **could boost the sub-Saharan economy by 30% in 2040**, an extra decade's worth of growth in per-capita incomes:

- **an additional \$450 billion in power sector investment**, reducing power outages by half and achieving universal electricity access in urban areas.
- **deeper regional co-operation and integration**, facilitating new large-scale generation and transmission projects and enabling a further expansion in cross-border trade.
- **better management of resources and revenues**, adopting robust and transparent processes that allow for more effective use of oil and gas revenues (*today only one third of investment in energy sources goes to African consumers!*).

3. Renewables as a key solution

RE technologies are currently the **cheapest solutions** for grid extension in case of centralized grid supply with good renewable resources as well as for off-grid and mini-grid electrification in remote areas. A number of African countries are setting up **feed-in tariff** and **auctions to introduce RES in the energy mix** and **new capacity in the short term**. Renewable sources are **locally available** and can play a key role in covering future electricity demand in a self-sufficiently way, contributing to the development of the local economy. **Cost declines** for renewables, and the overall transition will cost less than half of current spending on fossil fuels, and generate health, environmental and climate-related savings. The resulting energy mix could **create both a local manufacturing industry and new jobs**, while limiting global temperature rise.

The power sector has not only problems in terms of **access**, but also on **quality** and **reliability**: **about 600 million people in sub-Saharan Africa live without access to electricity**, and from the production side, severe and frequent power shortages are threatening the development of the agriculture and industrial sector. For the transmission and distribution side, the losses in poorly maintained networks are often twice the world average and contribute to increase the overall primary energy used in the country, reducing efficiency of transformation.

It is important to be aware of different and **innovative business models** (mini-grids, urban and sub-urban development, access to energy etc.) and opportunities for technology and commercial partnerships along the entire value chain. In line with this, a **comprehensive approach** has been proposed where the technological solution is studied with an associated business model (bottom up process) and the financial mechanism (including private-public partnership) that is needed to cover upfront expenses.

In order to speed up the progress, all interventions must take in consideration the **potentiality of human capital and the development of its capacity** to maximize the contributions of technology, finance and policy. In strengthening the role of people throughout **the entire value chain**, from production to users, capacity building and **training activities** become essential components of any successful project.

Assuring energy security and access to energy is a great challenge a great opportunity: a clean and efficient energy sector is an essential requirement for **sustainable development in both Africa and Europe**.

The first international RES4Africa event will be the **RES4Africa Day in Kenya** scheduled on Oct 26th-27th 2016.

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