

Extract from Speech of Mr. AbdelRahim Hafidi,

Secretary General of the Ministry of Energy, Mines, Water and Environment of Morocco

Before 1996, Morocco had a rural electrification rate of 18% only, and now this figure reached 98%, which is a major improvement.

Morocco was one of the first Arab countries to introduce renewable energies in its rural electrification program through the distribution of photovoltaic kits in rural villages. Photovoltaic (PV) panels were used to provide electricity for remote villages far from the power grid. PV kits represent 6% of the total rural electrification coverage.

Before 1996, the energy access model was characterized by public financing, which didn't lead to any major outcome. Nowadays, the idea is to involve all stakeholders in the new model, as new beneficiaries are involved, and they pay a share in addition to the public sector.

The energy situation faced by Morocco in 2008 made energy policy-makers adopt a new energy strategy that is based on:

- The valorization of the renewable energy potential available locally, namely solar and wind energy;
- The control of the demand for electricity by adopting energy efficiency measures such as the energy saving light bulbs program. El Hafidi stated that controlling the demand is a quick and effective mean to reduce the energy elasticity (the % change in energy consumption to achieve 1% change in GDP) that is equal to 1.6 in Morocco and is considered very high;
- The preservation of the kWh production cost in order not to impact the public prices of electricity. M. El Hafidi noted that this has been proven to be possible in Morocco by mentioning the example of the 150 MW wind farm of Taza in which the cost of 1 kWh turned out to be even lower than the cost of 1 kWh generated from coal power plants, which are the least expensive electricity production utilities.

An ambitious program of 4000MW is being put in place from now until 2020 (including 2000MW of wind and 2000MW of solar). The wind program has seen the installation of 487MW till today, while the solar program has seen the construction of the first solar thermal station with a capacity of 160 MW, situated in the Ourzazate area.

The new Moroccan model is being reproduced in other African countries.

Due to the lack of energy natural resources, Morocco is a country that is heavily dependent on energy import, and it had an energy dependence on fossil fuels of 96%, which has been reduced to 93% this year. Morocco has a high potential for wind energy, and hydro is very important as

well. The private sector is now involved in wind projects, and political engagement of very important for solar energy.

M. El Hafidi moved on to talk about the energy mix components in Morocco by stating that coal represents the largest share in the energy mix, followed by oil and natural gas. Renewable energies, mainly hydraulic and traditional biomass, represent only a small share of the energy mix. The importance of gas power plants in an energy mix with an increased share of renewable energy has been emphasized. M. El Hafidi stated that although the cost of generating electricity from gas power plants is high, their high startup/shut down speed allows to compensate for the intermittence of renewable energy production sites.

M. El Hafidi concluded by talking briefly about:

- The 13-09 renewable energy law that opens the electricity market to private operators;
- The need for political will to
- The creation of the SIE (Société d'Investissements Energétiques) as a tool to stimulate renewable energies channels.