

**Newsletter of the MEDRES project No.2, December 2007**

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First of all, I would like to extend my warmest thanks to our partners and the European Commission for their confidence in both myself and OME. It is a great honour to serve as the general coordinator of MEDRES. I will do my best in order to make this project very successful.

At the end of 2007, the MEDRES project recorded its first year of activities while achieving its targets for this first period of the project's life. Reports on the energy and renewable energy situation in the partner countries have been prepared (WP1), work on sustainable power for rural villages is performing very well and projects identified (WP2), activities regarding energy efficiency (WP3) and measuring impact of electrification on socio-economic development in rural areas (WP4) have been initiated as scheduled.

The partners are going to meet in Marrakech on 21-22 January in order to discuss the progress of activities and the planning for the second year.

The second year is crucial for our activities as I very much rely on the cooperation of all partners. I however regret very much that we will continue without Jean Loup Rouyer. Jean-Loup was very much involved in this project and believed in it. On behalf of all the partners, I thank Jean Loup very much for all the efforts he made. We will dedicate to him the project's final conference.

To the MEDRES partners, as well as to our friends and readers of this newsletter, I wish a very happy and successful year 2008.

Dr Houda BEN JANNET ALLAL  
Coordinator MEDRES

**Good Bye Jean-Loup**

Jean Loup Rouyer passed away on 28 December 2007. He was 62. He is graduated from the Ecole Polytechnique (1965). He retired from EDF on September 2005 and since devoted his expertise in engineering and prospective studies for energy, water and the environment with the objective to contribute to projects and prospective studies for sustainable development in the Mediterranean countries. He was also involved in the realization of a PV and wind water pumping unit near Médenine (Tunisia).

He joined OME in 2007 and was very much involved in MEDRES. Working with him was a real pleasure. We are missing you Jean Loup. Thank you for everything and good bye.



**The MEDRES project in brief ...**

The objectives of the MEDRES research proposal, starting from the analysis of the present situation and announced objectives by the countries with a special focus on the rural and peri-urban areas, are to assess the opportunities for cost-effective renewable energies for rural areas and villages (by selection and analysis of pilot projects), to assess the real effectiveness of "new" technologies through better knowledge of end user acceptability for energy efficient technologies and practices and to measure the impact of electrification on socio-economic development in rural areas.

The main results of the project will be elaborated in a set of recommendations and a proposition of adapted strategies to be largely disseminated in the Mediterranean region.

**The MEDRES project consortium**



## WP1 - Sustainable power for rural areas and villages: Scientific and Technical Progress

### Work advancement

Three questionnaires were circulated to all country partners and two deliverables have already been prepared (D1.1. and D1.2).

For D1.1, based on the national reports prepared by CREDEG, NRC, NREA, CDER, ANME and STEG, a report was produced by OME providing a brief overview of the economic and energy contexts in the partner countries (Algeria, Egypt, Morocco and Tunisia) which are called hereafter MEDRES countries (MCs). For D1.2, answers to questionnaires were received from all partners. The synthesis report is under finalisation.

The MCs represent 145 million inhabitants of which 53% are living in urban area. The primary energy consumption reaches 112 Mtoe (of which 53 Mtoe gas, 52 Mtoe oil and 6 Mtoe coal) and electricity demand 154 TWh. The number of customers in the residential sector is 26.6 million for electricity and 2.5 million for natural gas. Although the global electrification rate reaches 96.6%, about 6-10 million of persons still have no access to electricity. Efforts are deployed in the renewable energy sector in the MCs particularly in wind and solar energy and PV installations for electrification of remote villages, isolated rural households and rural schools. The report available on the website, presents the detailed economic and energy context in the MCs, a synthesis on demography, economy growth and on the role of energy sector in the economy and also the energy balance (energy and electricity consumption and renewables).

### Mission realised

#### WP1&5 mission in Algeria 20-22 October 2007 (CREDEG, OME and ISET)



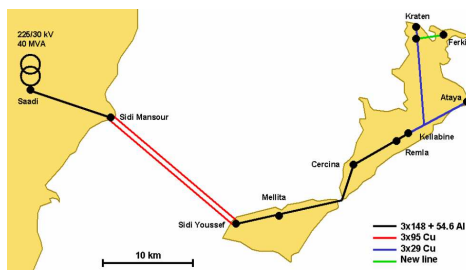
A meeting in Alger with CREDEG, OME and ISET took place on 21-22.10.07. The meeting allowed informing CREDEG about the overall progress of the project and to exchange about the specific progress of CREDEG and activities to be undertaken for the coming months. Discussion particularly focused on the progress of WP1 and WP2. Information has also been collected for the 2 study sites proposed by CREDEG.

### Planned activities for the next period

Deliverables D1.2 will be finalised and D1.3. elaborated. WP1 should be completed by the end of January 2008.

## WP2 - Sustainable power for rural areas and villages: Scientific and Technical Progress

### Work advancement



Wind integration study on the Tunisian  
Kerkennah islands

Using the data provided by STEG for the Kerkennah islands in Tunisia, a technical study for the integration of the wind farm has been produced. Different sizes of wind farms (5, 10 and 15 MW) combined with different grid reinforcement and reactive power compensation scenarios have been studied.

- CREDEG has provided information about the 2 power systems Afra and Djanet, which will be converted to hybrid PV/diesel systems. Preliminary data has been collected.
- NRC has provided preliminary data about the Nobareya farm, where a micro-grid hybrid power system will be designed. A meeting took place on the 18th of October 2007 in Kassel between ISET, SMA and NRC. A detailed list of required data has been prepared by SMA.
- A report has been published which presents the state of the art and research activities in the field of smart metering for distributed generation.

## Missions realised

### WP2 mission1 in Tunisia 7 to 10 May 2007 (STEG, ISET)

Within the frame of Task 2.6, ISET has visited with STEG the Kerkennah islands (7-10.05.2007). Meetings were organized with the local authorities and electrical grid data was collected.



*Kerkennah islands*



*Meeting with head of Tunisian utility STEG-Sfax "district"*

### WP2 mission2 in Algeria 21-22 October 2007 (CREDEG, ISET and OME)

A meeting in Alger with CREDEG, ISET and OME took place on 21-22.10.07. Information has been collected for the 2 study sites proposed by CREDEG.



*New 3 kWp grid connected PV installation of CREDEG in Alger*

### Planned activities for the next period

- Power quality and demand measurements will be organized with STEG, CDER, CREDEG and NRC in the 4 countries.
- A workshop on Power quality measurement and on hybrid system sizing will be organized.
- Wind measurement system will be installed on Kerkennah islands.

## WP3 - Energy Efficient uses in periurban and rural areas: technologies and practices effectiveness

### Work advancement

A census of the potential projects to be surveyed (including WP4\*) has been conducted in order to gather the proposals of the local partners.

Concerning specifically the WP3, the proposed projects concern Energy Labeling Programs (see table below)

Morocco	Energy Labeling of AC in the framework of a national building EE program.
Tunisia	Energy Labeling of fridges. UNDP and GEF supported program.
Egypt	Energy Labeling of Electric Appliances (fridges, AC, washing machine)

Specific attention will be given on **Energy Labeling of Fridges**, and thus for several reasons.

- It is one of the very first usage in term of consumption in the households
- And effectively used in periurban areas
- Two countries (Tunisia and Egypt) promote it as a program to be surveyed
- CE initiatives promote the energy labeling (e.g. SAVE/MEDA)
- Significant outputs of the UNDP/FEM program : Energy Labeling for cold appliances in Tunisia

\*A transfer of EDF vs ADEME tasks leaderships between WP4 and WP3 has been decided for the forthcoming tasks

## Planned activities for the next period

**Step 1.** Exploration of the recent developments of energy labeling programs in Morocco  
**Step 2.** Preparation by the local partners (for the Marrakech meeting) of the presentations on the selected Energy Labeling programs methodology and activities  
**Step 3.** Deliverable 3.1 b – Definition of the ToR of the “exploration of the local initiatives” missions to be organized

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**Step 4.** “Exploration of the local initiatives” missions (Feb-March 2008)  
**Step 5.** Post-mission deliverables 3.2 a/b/c on Morocco, Tunisia and Algeria local initiatives : macro level outputs, definition of sectors and areas to be surveyed (April 2008)  
**Step 6.** Deliverable 3.1 (June 2008) - Design of the survey(s) methodology(ies)

## WP4 – Measuring the impact of electrification using renewable energy sources on socio-economic development in rural areas.

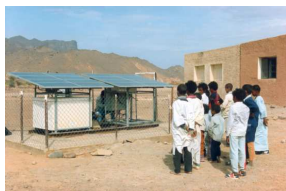
### Work advancement

A first review of the existing literature has led us to the conclusion that, if some existing initiatives such as the M&EED one have worked on this issue, there are no defined sets of indicators or an exiting methodology officially recognised among the international organisations.

In order to achieve a first selection of relevant indicators, a general framework has been determined: the measurement of the impact of electrification using renewables was comprehended through the scope of “ecodevelopment” which implies to assess social, economical, technical, environmental and civic aspects. Another criterion for the selection of the indicators was their ability to reflect the contribution to the Millennium Development Objectives (MDO).

The result of this preliminary selection is a set of 20 indicators.

## Planned activities for the next period



Rural decentralised electrification in Algeria

Next step will now be to adapt those general indicators to the field studies and to elaborate a relevant methodology. An important milestone in this process will be the organisation of a workshop about indicators during the Marrakech next coordination meeting. Meanwhile, the sites of the field studies are being selected in order to have the more precise inputs as possible.

#### Foreseen sites for the studies:

Algeria: Southern villages already electrified  
Egypt: villages in the remote desert governorate of Matrouh  
Morocco: still to be defined  
Tunisia: rural electrification with PV in the governorate of Le Kef

More information about the WP4 approach is provided by the additional leaflet to this newsletter.

## Events and meetings

- Management meeting, Paris, November 26<sup>th</sup>, 2007

The objective of this WPs leaders meeting was to present the advancement of the ongoing tasks and to discuss about possible synergies between WPs.

It has been agreed that it would be relevant to try to find synergies between WP2 & WP4 by working on the same site in some of the target countries.

Participations of ADEME in WP3 and of EDF in WP4 were also shifted in order to clarify the leadership of these tasks.

## The MEDRES project website

More information about the project consortium, contacts and the public deliverables are available at the following address:

[www.medres-ec.eu](http://www.medres-ec.eu)

## MEDRES coming events

- 2<sup>o</sup> coordination meeting of the project, Marrakech, 21st et 22nd January, 2008

- ADEME / HELIO International workshop organized in the framework of the second coordination meeting of the project, Marrakech, 22nd January, 2008

“assessing the impact of rural electrification using renewable energy sources on Southern Mediterranean countries ecodevelopment: defining appropriate indicators”

- PV-Hybrid conference, Athens, May 30<sup>th</sup>, 2008 morning

Presentation by Houda Ben Jannet Allal of “Cost Effective Renewable Energy For Rural Areas in the Mediterranean Region”

... and missions to be scheduled during Marrakech coordination meeting

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