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EDITORIAL

Despite being neighbours, the Southern Mediterranean countries are not equally endowed with energy resources.

In addition, they are facing rapid demographic growth combined with relatively low incomes, rapid urbanisation and high socio-economic development, which translates in new and growing needs for energy services and related infrastructures, financing means and environmental impacts.

Access to energy of rural areas in these countries is limited. More important efforts and actions have to be undertaken in this area in order to alleviate poverty and promote the socio-development of these regions. Energy efficiency and renewable energy can play an important role. In this regard, a regional cooperation is necessary and the MEDRES research project is expected to play an important role.

Indeed, the research MEDRES project, financed under the 6th RTD Framework Programme of the European Union will enhance the situation of sustainable energy in rural and peri-urban areas by assessing the opportunities for cost-effective renewable energies for rural areas and villages, the real effectiveness of “new” technologies through better knowledge of end user acceptability for energy efficient technologies and practices and measuring 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 proposed adapted strategies to be largely disseminated in the Mediterranean region and a portfolio of projects. This will serve support the decision makers in these countries to better define the best practices of sustainable energy in the rural and peri-urban areas and especially regarding renewable energy and energy efficient technologies.

Enjoy the reading.

Mustapha Kamel FAÏD
Director General OME

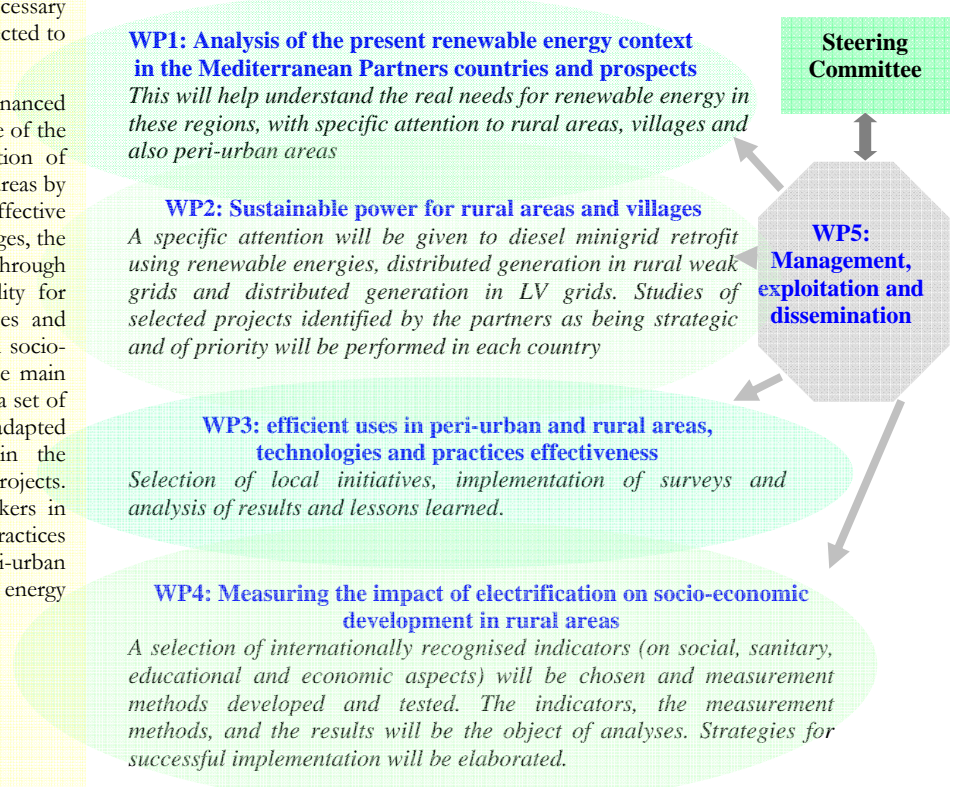
MEDRES in brief

Objectives

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.

PROJECT PHASES OVERVIEW AND EXPECTED RESULTS

The MEDRES project is structured along five main work packages and the related deliverables:



- A Steering Committee with representatives from European and Mediterranean associations, international organisations, public authorities, industry ... will be set up in order to support the dissemination of the results and to promote analysed projects in the selected countries. Also, a high level Conference will be organised towards the end of the project with participation of major stakeholders. The MEDRES research is expected to have large impact on the sustainable development in Selected Mediterranean Partner Countries and will serve support the decision makers in

these countries to better define the best practices of sustainable energy in the rural and peri-urban areas and especially regarding renewable energy and energy efficient technologies.

The project will also serve to support the European Commission with respect to the formulation of future programmes focussing on the thematic issue of Sustainable Energy as well as to elaborate draft concepts for Renewable Energy projects which may be supported by the EC and the Mediterranean Countries.

Rural and peri-urban energy access, the need to get detailed indicators: the MEDRES approach

End user energy demand side management is often considered based on technological solutions or advices for best practices. But it is also needed to assess the real effectiveness of such solutions. MEDRES will work on these issues by:

- 1) Conducting socio-cultural surveys in southern Mediterranean countries to approach "new" technologies and/or practice acceptability (including misappropriation) as well as user feedback compared with traditional practices.
- 2) Measuring this impact in a quantitative way to help the decision makers to make the right choices, because the impact of electrification may be different depending on the technologies used and the way they are implemented and managed. A selection of internationally recognised indicators (on social, sanitary, educational and economic aspects) will be chosen amongst those used by UNDP, WB, EU etc., and measurement methods developed and tested. "Before-after" comparisons will be made on selected villages to be electrified in the project. The indicators, the measurement methods, and the results will be the object of analysis.

PROJECT ADVANCEMENT AND PLANNED ACTIVITIES IN THE NEXT SIX MONTHS

The MEDRES kick off meeting was hosted by EDF, on March 5 in Paris. Minutes are available on the website. Project headlines and deliverables have been recalled as well as the role of each partner. Administrative obligations have been underlined and a Consortium Agreement will be signed by all partners.

Work packages advancement

WP1: questionnaires have been sent to Mediterranean Partner Countries for data collection and deliverables elaboration. The partners agreed that each country will collect data according to its own definition of rural and peri-urban areas, which will be clearly presented in each report.

Contact: allal@ome.org (OME)

WP2: Within the frame of Task 2.6, STEG and ISET have visited the Kerkennah islands (7-10.05.2007). Meetings were organized with the local authorities and electrical grid data was collected. The next steps will be the installation of a new wind measurement station and a pre-feasibility study for the integration of wind and photovoltaic generators. Within task 2.2, a market study was realized for power quality metering equipment. Based on the study, STEG, CDER, SONELGAZ and NREA will buy the equipment required for power quality studies.

Contact: mvandenbergh@iset.uni-kassel.de (ISET)

WP3: The methodology and the questionnaires for the assessment of efficient uses and practices effectiveness will be elaborated for the end of August and local initiatives will be soon selected.

Contact: olivier.normand@edf.fr (EDF)

WP4: ADEME will soon start choosing the most appropriate socio-economical indicators to measure the impact of rural electrification, as well as adapting measurement methods. The corresponding field studies will be led in the four SMC from December 2007, with the help of qualified economists and sociologists.

Contact: stephane.pouffary@ademe.fr (ADEME)

As for WP5, the main action of cooperation and information dissemination is the website, which is now operational. To access to the website, please visit: <http://www.ome.org/medres> - Contact: allal@ome.org (OME)



MAIN EVENTS...

- July 2, 2007: WP leaders meeting in Paris, with discussion for coordinating WP3 and 4
- July 2007: meeting of the Management Committee
- January 2008: second plenary meeting

PROJECT PARTNERS



The **Observatoire Méditerranéen de l'Énergie (OME)** is an association of Mediterranean energy companies. Its missions are: (i) to promote regional cooperation based on concrete projects, (ii) to promote dialogue, and (iii) to carry out joint and shared analysis on issues related to long term energy supply and demand, infrastructure needs, financing, institutional framework, regulation, renewable energy and sustainable development, economic development and environmental protection. OME is the general co-ordinator of MEDRES and also co-ordinator of the Work package1 on the analysis of the present renewable energy context in the Southern and Eastern Mediterranean countries and prospects and the Work package 5 on management, exploitation and dissemination.



The **French Agency for the Environment and the Energy Management (ADEME)**, which reports to the Ministries of Ecology and Sustainable Development, Research and Industry, is actively involved in the implementation of policies pertaining to the environment and energy issues. ADEME advises local authorities and business and provide financial support for their projects. The Agency has also consolidated a vast network of specialists working on the international scene. It will coordinate the WP4 (impact of electrification on socio-economic development in rural areas), and will support the WP2 (task 2.1.2, financing models for rural communities) and WP3, as well as project's dissemination.



The **National Agency for Energy Conservation (ANME)** is a public establishment placed under the Ministry of Industry and Energy. Its role is to implement the state policy for energy conservation through promoting RE, energy efficiency and clean technologies. In MEDRES, ANME will support the research in Tunisia and the elaboration of an action plan for sustainable RES integration in Kerkennah island and potential for grid connected PV generation. It will have a leading role in WP1, WP3 (selection of local initiatives and implementation of surveys) and will analyse the financial modes for rural communities (WP2).



Electricité de France (EDF) has the responsibility for generating, transmitting and distributing electricity in France. R&D division aims at keeping electricity cost competitive, preparing the generating facilities of the future, and enhancing the quality of the supply while preserving the environment, as well as developing initiative solution with the customer in mind; In the project, EDF will coordinate the WP3 on energy efficient users in periurban and rural areas, technologies and practices effectiveness. EDF will also lead the research in the WP4 on measurements of the impact of electrification on socio-economic development in rural areas and analyses of results. EDF will participate in the Steering Committee.



LABEIN is a Spanish non profit private research centre. Its mission is to support enterprises and administration bodies in their research and innovation needs by means of research, development and innovation projects as well as in technology transfer, technological services, training and dissemination activities. Labein will have a leading role in the research on distributed generation in LV grid (micro grid energy management systems, safety and reliability), and rural weak grid. It will also contribute to the WP4.



SONELGAZ is the public Algerian company in charge with production, transmission and distribution of electrical energy, public distribution of gas in compliance with the conditions of quality, safety and at lower costs. It is more and more involved in the RE activities and has established a Research and Development centre on electricity and gas, including renewables (CREDEG). In the project, it will have a leading role in the research in Algeria on PV / diesel hybrid power generation (WP2), will contribute to the analysis of RE situation in rural areas and prospects. It will also participate in the WP4.



ISET is a German research institute specialized in the fields of electrical engineering and systems technology for the use of renewable energies. The activities of ISET are structured into four programme areas: Engineering and Power Electronics, Energy Conversion and Control Engineering, Energetic Use of Biomass, Information and Energy Economy. ISET is coordinating the WP2 of the MEDRES project. (www.iset.uni-kassel.de)



SMA Technology AG is a successful and expanding enterprise in the fields of Industrial computers, Solar technologies and Railways technology. The solar technology unit develops and produces inverters for grid tied and off grid operation of PV plants. It will have a leading role in the research of diesel minigrd retrofit using RE. It will also contribute to the research on energy management of distributed generation in rural weak grids, micro-grid energy management systems and studies in Egypt (WP2).

CESI RICERCA

CESI RICERCA, established at the end of 2005 as a separate company owned entirely by CESI, carries out research in the electricity and energy sector, with strong emphasis on experimental applications. Its mission is to take over funded research activities of national and international interest. CESI RICERCA works actively in WP2, Task 4 for improving the electricity delivery on demand side and in WP4, Tasks 3 and 4, as regards the before-after measurements on selected villages with a number of surveys and tests on site (Tunisia) and the consequent data analysis.

U N I K A S S E L
V E R S I T Ä T

Kassel University, Electrical Engineering Institute, Dept. of Wind Power Engineering

For more than 25 years, this department works in the field of electrical power supply and wind energy research. The research fields of the department are: power conditioning, PV hybrid systems and wind energy technology. The University of Kassel is involved in three work packages (WP2, WP3 and WP5), whose main work is focused on task 2.2 of WP2. The power quality in rural weak grids will be assessed by respecting international developed standards like IEC.



NRC is the largest multidisciplinary research centre in Egypt and is devoted to basic and applied research within the major fields of interest. NRC consists of 13 Research Divisions including among them 81 departments. The department of Mechanical engineering started researches in wind energy since 1975 in cooperation with IDTG in the UK. In the project, NRC will support the research in Egypt on power systems and potential for distributed generation with RE. It will also support the analysis of RE situation in rural areas and prospects and will be involved in the WP3 (selection of local initiatives) and WP4.



NREA is the **New and Renewable Energy Authority of Egypt**, based in Cairo. Its main objective is to develop and promote renewable energy resources utilisation along with deepening the local capacities to use, produce and develop its technologies, equipment and systems in different applied fields. NREA will have a leading role in the research in Egypt on power systems and potential for distributed generation with RE (WP1&WP2). NREA will also be involved in WP3 (selection of local initiatives) and WP4.

MENA
INSTITUTE

The **MENA-Institut** "Institute for applied research and cooperation with MENA countries" (Middle East and North Africa) is an independent and non-profit organisation founded in 2002 in Kassel on the initiative of German and Moroccan scientist and engineers. Its goal is to promote the cooperation in science, research and development between Europe and the MENA countries in the area of renewable energies, waste management technology and communication and information technology. It is the first institute of its kind established in Germany. The MENA-Institut is involved in two work packages (WP4 and WP5).



The **Centre for Renewable Energies development (CDER)** is a public institution with commercial and industrial characters. It contributes to the development, at large scale of RE, targeting the important energetic, economic and environmental stakes with the strategic use of this type of energy; Main axes of CDER intervention are development area (technological adaptation, quality control...) and promotion of financing and communication tools. CDER will have a leading role in the research in Morocco: local RE situation analysis (WP1), selection of local initiatives and implementation of surveys for the WP3, as well as active involvement in WP4.



The **Société Tunisienne de l'Electricité et du Gaz (STEG)**, is a public utility in charge of the electricity production, transport and distribution of electricity and gas. STEG is interested in RE field and energy efficiency. A particular effort is done to gather wind data, to optimise wind sites in order to develop cost effective projects. STEG is also interested in applications of solar energy. STEG will have a leading role in the research in Tunisia (WP2, Kerkennah island). In the WP3, it will have a leading role with ANME in the selection of local initiatives and implementation of surveys, and will be involved in the WP4.



Electriciens sans Frontières has been created in 1986. Its working methods have proven effective in setting up community-based services and mobilizing local talents. ESF has taken into account problems of health, education, rural development, to adapt its aims to the sustainable development issue as an integral part of its activities. In MEDRES, ESF will particularly support activities to be undertaken within WP3 and WP4 and will contribute to the dissemination of information in the region.

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This newsletter is also downloadable from <http://www.ome.org/medres>*