

ACTION FICHE FOR 2008 ENPI-SOUTH ANNUAL ACTION PROGRAMME

1. IDENTIFICATION

Title	MED-ENEC II (Energy Efficiency in the Construction sector in the Mediterranean, second phase) CRIS N°: 2007/019553		
Total cost	5 M €		
Aid method / Management mode	Project approach: centralised management		
DAC-code	23010	Sector	Energy policy and administrative management

2. RATIONALE

2.1. Sector context

The highest potential for energy saving worldwide lies in the construction sector. This is also true in the Mediterranean region, where energy needs, particularly for cooling purposes, can be satisfied by energy efficient solutions, combined with the extended utilisation of renewable energy sources, in particular solar energy.

A first EC-financed project (MED-ENEC¹ I), launched at the beginning of 2006, had the purpose of disseminating information on best practices and technologies regarding energy efficiency (EE) and renewable energies (RE), highlighting their interest, showing their practical feasibility (including through demonstration projects) and promoting their adoption. This first phase is expected to come to an end in December 2008. A second phase of this initiative, taking advantage of the results already achieved, but with more ambitious practical outcomes, is fully justified, seen both from project monitoring activities and stakeholders' views. An external evaluation mission to be carried out in the first few months of 2008 will provide recommendations that will help to guide the second phase.

It is anticipated that MED-ENEC II will help the Mediterranean Partner Countries (MPC) to develop their EE & RE markets in the area concerned, by further extending the required knowledge and capacities of the business sector and encouraging public bodies, utilities, banks, landlords and residents to introduce EE and the use of RE in new as well as existing constructions.

The interest of tackling these issues appears clearly from the MED-ENEC I regional workshop organised in Palmyra, Syria in June 2007, in the margin of the 4th MENAREC Conference².

¹ MED-ENEC I is a three year project, with a budget of 4 M €
See project website : <http://www.med-enec.com/en/>

² Middle East North Africa Renewable Energy Conference.

Moreover, the Ministerial Declaration on the Euro-Mediterranean Energy Partnership issued in Limassol, Cyprus, on 17 December 2007 states (point 15) that "Ministers decide to devote an increasing attention to the development of energy efficiency and renewable energies, in the light of the necessity to mitigate greenhouse gas emissions". The Priority Action Plan for 2008-2013 attached to the Declaration emphasises the need to "review the experience gained in the framework of the MED-ENEC project on energy efficiency in the construction sector in the Mediterranean, and mandate the Energy Experts' Group of the Euro-Mediterranean Energy Forum to set up new regional and/or sub-regional initiatives focusing primarily on aspects, such as improved energy performance of buildings, including energy efficiency measures and the use of new and renewable energy, notably for heating and cooling purposes".

This orientation is in line with the ENPI-South Regional Indicative Programme for 2007-2010, which assigns to energy cooperation the objective to "promote the potential of renewable energy sources and more efficient energy demand management".

At the EU level, the attention given to the energy efficiency of buildings is illustrated by the Directive on the Energy Performance of Buildings³, which entered into force in January 2003, and by the Buildings Platform established to ensure dissemination of information and facilitate cooperation between the EU Member States. A number of buildings-related projects carried out within the Union were also supported in the past few years under the SAVE component of the EU Intelligent Energy programme. Useful information can be drawn by non-Member countries from these experiences and from the pieces of legislation produced at the EU level, concerning directly or indirectly the building sector.

In the Commission's Communication entitled "A new Energy Policy for Europe", approved by the EU Council in March 2007, it is also established that reducing greenhouse gas emissions and developing EE and the use of RE, including internationally, are of primary importance. Improving energy efficiency is indeed the most immediate and the most cost effective manner to achieve the three interlinked goals of sustainability, competitiveness, and security of energy supply. This was one of the key messages from the Commission on the occasion of the publication of its Third Energy Package in January 2008, which also stresses the necessity to develop RE on a much larger scale.

Lessons learnt

A report issued by UNEP in March 2007 ("Buildings and climate change: status, challenges and opportunities") states that in the building sector, which accounts for 30 to 40% of global energy use, "many opportunities exist for governments, industry and consumers to take appropriate actions during the life span of buildings that will help mitigate the impacts of global warming".

Another study, published in May 2007 by the McKinsey Global Institute, estimates that energy demand growth will average 2.2% a year to 2020 and that the

³ Directive 2002/91/EC

consumption from the Middle East region, “where oil revenues are boosting GDP growth and energy subsidies encourage energy-intensive development”, will grow even faster. It highlights “the size of the demand abatement opportunities and how these can be captured in an economically sound way”, particularly in the residential sector, which is “the single largest energy consumer worldwide, and also the one where the largest non-captured energy productivity improvement lie”.

The International Energy Agency estimates for its part that energy efficiency measures, alone, could cut about 20% of current global CO2 emissions.

Despite the variety of energy tariffs and policies and the disparity of national energy resources in the region, all MPC express interest for innovative technologies and approaches in the sector concerned, seen from the discussions held in the context of the Experts’ Group created in 2006 in support of the Energy Forum. Many of them have already started to update their energy tariff policy, to revamp their legislation, to encourage their industries to reduce energy consumption and produce more energy-efficient materials, and to launch ambitious renewable energy projects (regarding wind-farming and concentrated solar power in particular). Some of them, such as Tunisia, Israel and Jordan, are in addition, actively engaged in promoting energy efficiency and the use of solar energy in the residential sector. The fact-finding study sponsored by BMZ/KFW and DANIDA in 2006-2007 to review the situation of RE and EE development and to identify the market potential for RE in the region confirmed the evidence of these trends.

This project will take advantage of the networks established and of the results already achieved under MED-ENEC I, which benefits from a positive image in the region. The aim of MED-ENEC I was to encourage the MPC to slow down the growth of their electricity consumption, particularly from air-conditioning installations, by encouraging insulation, natural ventilation, bio-climatic design and the use of solar thermal energy. The achievements of this initial phase in terms of awareness-raising, information on best practices, stakeholders’ mobilisation, demonstration projects, as well as, to some extent, legislation drafting and preliminary market opening, will be an asset for the next phase. MED-ENEC I impact can be deepened, particularly in the business sector, and amplified at consumers’ level (through increased collaboration with energy efficiency agencies, national ministries, energy utilities, regional financing institutions and local banks). Other lessons from MED-ENEC I will be drawn from the project evaluation entrusted by the Commission to an external consultant, whose results will be available by the end of May 2008.

MED-ENEC II will also build upon the achievements (regarding the promotion of heating and cooling systems generated by solar energy) of the SOLATERM⁴ Project (carried out under German technical assistance and sponsored by the 6th EU Research Framework Programme) and of the upcoming GEF initiative aimed to boost the adoption of appliance standards and labels in Middle East and North African countries.

⁴<http://www.solaterm.eu/>

The orientations provided by the Commission in its Energy Efficiency Action Plan of October 2006 and the recommendations of the Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings and of any subsequent EU pieces of legislation or guidelines, will also be taken into account in the implementation of the project.

Complementary actions

The European Investment Bank, which has decided to raise in the coming years up to 50% the share of EE and RE in its energy portfolio and intends to develop credit lines, public-private partnerships and other financial instruments dedicated to those areas, should offer opportunities for complementary actions. Synergies with EU Member States' financing institutions (such as AFD and KfW) and with the World Bank, which provides bank guarantees, supports the operations of the Global Environment Facility (GEF) and is increasingly involved in the same fields, should be contemplated, too, in consistency with the principles set out in the Paris Declaration.

The Kyoto Protocol's flexibility mechanisms will also be tapped, whenever possible, to make EE and RE investments in the construction sector more attractive.

Continuous contacts will be maintained by EC HQ with each of the EC Delegations concerned in order to ensure consistency of actions and regular exchange of information.

2.2. Donor coordination

Close collaboration with financing institutions, donor agencies, and other EC-funded projects (such as MED-EMIP⁵ and the project, entrusted to MEDREG⁶, entitled "Support to Cooperation between the Euro-Mediterranean Energy Regulators", which have both started in January 2008), will be sought systematically to increase aid effectiveness.

With respect to information on best practices and technologies (regarding district cooling, solar water heaters, heat pumps, insulation devices, electrical appliances, etc), the project will take advantage of the support provided by Denmark and Germany to the "MENA Regional Centre of Excellence on Renewable Energy and Energy Efficiency" (MCREEE), which will be set up in Cairo in the course of 2008. Similar exchanges with GEF, MEDENER⁷ and with the "Mediterranean Renewable Energy Centre" (MEDREC) supported by the Italian Government and UNEP will also have to be considered.

⁵ MED-EMIP is the acronym of the MEDA regional project: "Support for the Enhanced Integration and the Improved Security of the Euro-Mediterranean Energy Market".

⁶ "Mediterranean Working Group on Electricity and Natural Gas Regulation".

⁷ "Mediterranean Association of the National Agencies for Energy Conservation"

3. DESCRIPTION

3.1. Objectives

The overall project objective is to help the MPC to best control their energy consumption in the building sector, thereby reducing their dependency on fossil fuels, improving security of their energy supply, and increasing their contribution to climate change mitigation.

The project specific objective is to speed up the development, in the region concerned, of the market for EE and RE,⁸ both in the building sector and in the related industrial and services activities.

3.2. Expected results and main activities

The project specific objective will be achieved through: (i) working collaboration with relevant projects and institutions in the field of policy dialogue; (ii) business development, using the networks already established and developing new networks where necessary; (iii) mobilisation of financial means and (iv) users' demand development.

- (a) In the field of *policy dialogue*, the project will take advantage of the activities carried out by MED-EMIP and the MCREEE, or supported under other initiatives such as REN21, REEEP, MEDREP, GVEP⁹ and MENAREC or by other donors/institutions such as GEF, UNDP, UNEP and the International Energy Agency in the areas of: tariff setting, construction codes, public procurement, standards and labelling, economic instruments, EE benchmarking, cost/benefit analysis, information on best practices, etc.
- (b) In order to ensure *business development*, the project will (i) extend or reinforce MED-ENEC I partnerships with relevant Ministries (Electricity, Construction, Public Works, Tourism, Urban and Regional Development, Education, Health, etc), energy utilities and EE agencies, accreditation bodies, test laboratories, as well as industry representatives, construction entrepreneurs and importers, landlords and associations of architects; (ii) build capacities in the fields of: auditing, accreditation, monitoring, certification, construction, state-of-art industrial processes in relevant areas such as electrical appliances and construction materials, production and installation of EE equipment, using existing professional training structures; and (iii) facilitate access to information on good practices, training materials, financing opportunities, EE regulations and standards, market opportunities, cost/benefit analyses, demonstration projects, industrial and commercial contacts.
- (c) As regards *finance*, partnerships will be developed with EIB, KFW, AFD, the World Bank, GEEREF¹⁰, local banks and EE funds, or guarantee funds.

⁸ In consistency with the second Priority ("Promoting sustainable development of the energy sector") of the Action Plan decided by the Euro-Mediterranean Ministers in Limassol in December 2007.

⁹ REN21: "Renewable Energy Policy Network for the 21st Century"; REEEP: "Renewable Energy and Energy Efficiency Partnership"; GVEP: "Global Village Energy Partnership".

¹⁰ Global Energy Efficiency and Renewable Energy Fund.

Assistance will be given to the MPC for the setting up of economic instruments, EE/guarantee funds, energy service companies (ESCOs) and more generally, to develop financial engineering schemes together with commercial banks, in collaboration with MED-EMIP and FEMIP. Support for the development of proposals that could be eligible for financing under the Clean Development Mechanism of the Kyoto Protocol will also be provided, as well assistance in leveraging funding from Kyoto Protocol instruments and carbon funds.

- (d) *Users' demand development* will be ensured through promotion campaigns targeting public building developers, the media, NGOs, universities and municipalities, as well as tenants and residential users where applicable, in close conjunction with EE agencies and energy utilities.

Project activities will include: (i) raising awareness of the potential, of the benefits, and of the feasibility of EE measures; (ii) disseminating information on best practices, while highlighting the need to adopt an integrated perspective covering all pertinent aspects (tariff-setting, standards and regulations, economic incentives and disincentives, promotion campaigns undertaken in collaboration with EE agencies and/or energy utilities, adequate financing schemes, preferably incorporated into the existing economic, financial and social fabric of the MPC, capacity-building and market development measures); (iii) negotiating agreements with public bodies (including Ministries of Energy, Finance and Public Works), business associations, consumers associations (if any), local banks and municipalities, with the aim of developing EE schemes, to be then presented for funding to regional or international financing institutions; (iv) building the necessary auditing, accreditation or installation capacities to support these undertakings, using already established professional structures or the facilities made available by other projects, should the occasion arise.

The consultant team will also explore the possibility of developing an interface with key major EC-funded projects carried out in the EU, designed to promote energy efficiency and sustainable energy in buildings, such as the Energy Performance of Buildings Platform and other relevant initiatives funded under the EC "Intelligent Energy programme."

A specific approach and country-specific plans of action will be developed for each MPC willing to work with the project. The whole range of activities listed above is nevertheless, likely to be deployed primarily in those countries which have already started to raise their energy prices and are either heavily dependent on fossil fuels, or keen to reduce energy wastage and to improve their environmental performance.

The **main project outcomes** should be:

- Tangible evidence that EE measures, combined with the promotion of solar energy, can be widely introduced in the MPC in another key sector (construction) than the energy sector, with adequate government backing and market opening measures;
- Proven interest and increased capacities shown, with regard to EE measures and RE technologies in the building sector, by utilities, industries, the services sector

(including banks), municipalities and consumers, giving rise in future to a gradual change in the electricity consumption pattern currently prevailing in the region and to a more sustainable type of development;

- Leveraging of additional resources (tax reduction measures, targeted subsidies, lines of credit, loans, or direct investments) for wider introduction of EE and RE in the construction sector, from governments, donor sources, or lending institutions;
- Funding of climate change mitigation projects in the sector concerned, showing the increasing involvement of the MPC in the effective implementation of strategies and policies aiming at controlling CO2 emissions.

3.3. Stakeholders

Project partners will include a wide range of institutional, economic and social stakeholders who should be potentially interested in participating in the activities: Ministries, utilities, energy efficiency agencies (if any), major municipalities, banks, construction entrepreneurs, other business representatives (in particular from industries and services dealing with electrical appliances and construction materials, as well as importers), accreditation bodies and associations of architects.

In those MPC which heavily depend on imported fossil fuels, curbing demand growth and tapping locally available renewable resources have become vital to minimise balance of payments deficits, mitigate the impact for consumers and companies of ever-increasing energy prices, and control budget spending. In producer countries, demand-side management and diversification of supply also need to be introduced in order to avoid exhausting rapidly their national reserves and make the best of their export potential.

However, in these two categories of countries, the opening up of new markets for EE and RE in the building sector can give a strong impetus to the manufacturing sector and to services activities. It therefore represents both an economic and a social opportunity. Reducing energy wastage and further developing EE and RE will also give rise to environmental improvements, both by contributing to climate change mitigation at global level and by reducing air pollution at local level.

3.4. Risks and assumptions

Lack of political stability and possible tensions between the countries of the region may affect in a negative manner the satisfactory implementation of the activities.

Energy utilities in a strong monopolistic situation, or the limited ability of municipalities to take initiatives without government formal blessing, as well as practical difficulties to develop working relationships between government technical departments, could equally impede project progress in some countries. Possible reluctance on the part of a limited number of MPC to enter into a process of tariff reform, for fear of triggering social unrest, could also compromise the possibility of extending EE and the use of RE, where relevant, in the building sector.

These problems can nevertheless be circumvented through adequate communication, incorporating examples of success stories and highlighting the benefits of EE and RE.

3.5. Crosscutting Issues

This project fully integrates sustainability goals in its design: it aims to consolidate a process initiated under MED-ENEC I (which already enjoys credibility and support throughout the region) and entails collaboration with the key stakeholders concerned, as well as other donors and financial institutions. Possibilities of working together with interested municipalities, NGOs, and universities will be explored, too, with a view to increasing sustainability of actions and enlarging project impact.

MED-ENEC II design is in line with the recent evolutions of energy policies at each country level and with their commitments or expectations in relation to Kyoto Protocol implementation. It also represents a practical means for the MPC to put in motion EE measures on the basis of proven, cost effective approaches and techniques in a key area where the highest potential of improvement exists. Prospects for sustainability of the project achievements are therefore expected to be high.

Dialogue with municipalities and contacts with citizens' representatives to present the project and to seek their support and participation should also help bring about lasting results, while stimulating the introduction of good governance practices when it comes to dealing with the population.

In the specific case of this project, gender is not, in principle, a crosscutting issue to be addressed. However, if it appears, worthwhile informing and working with, women's groups, such prospects for collaboration will be explored.

4. IMPLEMENTATION ISSUES

4.1. Implementation method

Centralised management.

4.2. Procurement procedures

All contracts implementing the project will be awarded and executed in accordance with the documents regarding procedures and standards published by the European Commission for the implementation of external operations in force at the time of the launch of the operations.

4.3. Budget and calendar

The total project budget, of 5 M € will be used for technical assistance purposes, to be recruited following a tender procedure (service contract).

Implementation will cover a four year period, starting in 2009 in principle, after contract signing.

4.4. Performance monitoring

A Steering Committee will be established to endorse strategic orientations, oversee project execution, and facilitate implementation of the activities. It is expected that at least some of its members will also be members of the MED-EMIP Steering Committee, with a view to developing synergies between these two projects.

Key indicators¹¹ measuring progress will include, inter alia: number and outcomes of information sessions organised; communication materials developed; surveys and market development studies undertaken; partnerships generated (with government departments, energy utilities, donors, dedicated funds, lending institutions, business associations, municipalities, cities' networks, accreditation bodies, etc); training modules prepared and training activities organised (for instance on economic instruments and financial engineering schemes); draft legislation prepared (regarding e.g. construction codes); additional resources generated (subsidies, loans, etc) to develop the EE/RE market in the construction sector; estimates of the number of project beneficiaries and of the number of buildings concerned (public and private, new as well as existing); and lastly, CO2 emissions saved.

4.5. Evaluation and audit

Expenditure incurred will have to be certified, as part of the obligations of the contracted parties in the framework of the implementation of this project. Evaluation of the results achieved will be entrusted to independent consultants, as well as external audits (which will be carried out if necessary). These evaluations and audits will be funded from other sources than the project budget, since no commitment will be possible once the validity of this Decision has expired ("N+1" rule will apply).

A mid-term and a final project evaluation will be carried out to assess project performance, achievements and impact.

4.6. Communication and visibility

MED-ENEC II will take advantage of, and elaborate further on, the actions initiated under MED-ENEC I and MED-EMIP to improve information on EC-funded cooperation activities and more generally, on energy-related issues in the region. This will contribute to raising the visibility of EU-funded operations.

The project will, in addition, work out its own communication strategy and develop specific awareness-raising, information and dissemination activities in order to inform MPC and potential stakeholders of the opportunities that it provides, to generalise the perception that EE/RE have a considerable potential of development in the building sector, and to generate active support from energy stakeholders and consumers.

¹¹ There are not any DAC standard indicators that would be relevant for this particular project.