MED-ENEC
Energy Efficiency in the Construction Sector in the Mediterranean

This project is funded by the European Union

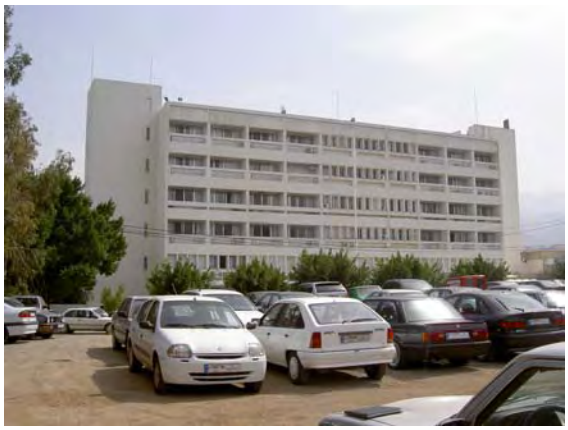
MED-ENEC Pilot Project on Energy Efficiency in Lebanon

Beirut, 14.03.2008 – A hospital in Zgharta, Lebanon, saves 55,000 Euros yearly of energy costs with the support of MED-ENEC, the European Union financed regional project for energy efficiency in buildings.

The Lebanese Success Story

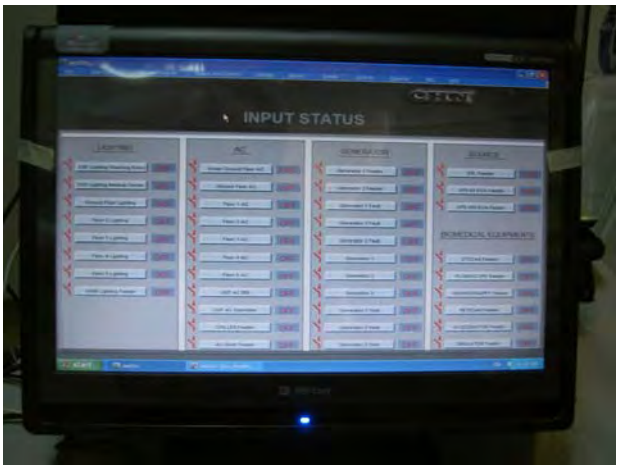
The Centre Hospitalier du Nord (CHN) is a private hospital with 140 beds, located in Zgharta - North Lebanon. Due to frequent power cuts, 75% of the hospital's electrical energy demand has to be produced by generators. The total energy bill was over 270,000 Euros in 2006. The CHN decided to conduct an energy audit that came out with the following recommendations:

- Improved maintenance of AC equipment
- Energy efficient lighting
- Thermal insulation of the roof
- Demand management system (software for peak shaving and control/monitoring)

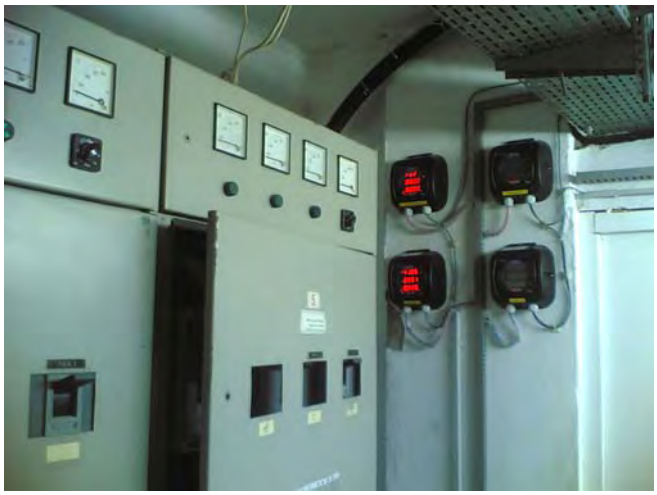


Results and potential for dissemination

After implementing the above measures in 2007, the hospital saves now 20% of its overall energy consumption. This corresponds to a annual saving of 55,000 Euros and a yearly reduction of CO_2 emissions of 410 tons.

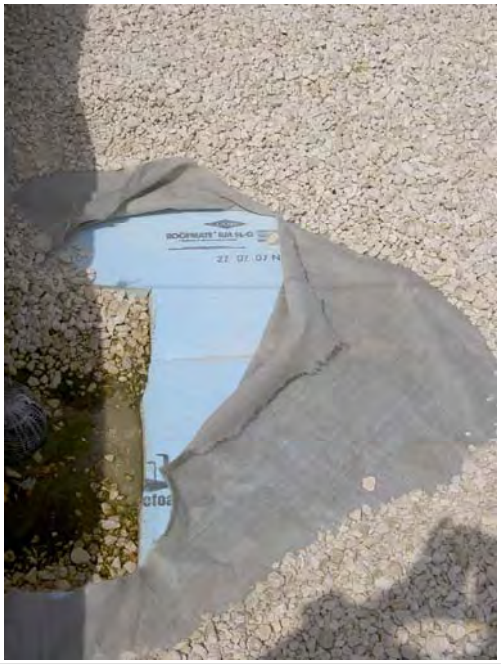


Demand management system



The needed investment of less than 60,000 Euros was subsidized partly by the MED-ENEC project. The pay-back time being estimated at slightly above one year only, the used technologies are replicable in most hospitals and similar buildings in Lebanon and in other countries in the region, even without any external financial assistance. CHN has already decided

to use the positive experiences of the Pilot Project for a new hospital building that is being constructed in Jounieh, a coastal city north of Beirut.



Thermal Insulation of roof

Energy in Lebanon

Lebanon is extremely dependent on energy imports, about 97% of all energy had to be imported in 2005. Buildings are the second biggest consumer of energy with a share of about 30%, transport being on the first and industry on the third place. With the sharp increase in world market prices for energy, and with energy prices subsidized in Lebanon, the National Electricity Company EDL alone absorbed 21% of the whole state budget in January 2008 (L'Orient Le Jour, 11/03/08). Moreover, people suffer from frequent power cuts due to insufficient and obsolete power plants and distribution lines and have to bear significant additional costs for private generators.

At the same time, a large potential for energy efficiency and for the use of renewable energies stays untapped in Lebanon. The building stock and particularly new buildings usually do not integrate technologies such as thermal insulation of the building envelope, energy efficient lighting or solar water heaters. The MED-ENEC Pilot Projects have shown in Lebanon and in the whole region, that with additional investments of 10-20%, energy consumption can be reduced dramatically by up to 60%.

MED-ENEC

MED-ENEC aims at boosting energy efficiency and the use of renewable energies in buildings in 10 countries south and east of the Mediterranean. MED-ENEC has an integrated project approach, combining activities for the improvement of framework conditions such as laws, standards and incentive programs with demonstration projects, capacity building and the promotion of business cooperation and technology transfer.

The Lebanese Pilot Project has been implemented by the Lebanese Association for Energy Saving & for Environment, ALMEE.

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For further MED-ENEC project information and contact:

MED-ENEC
Phone: 00216-71-860 472,
Fax: 00216-71-860 719
E-mail: med-enec@gnet.tn
www.med-enec.com

Information in Lebanon:
Lebanese Association for Energy Saving & for Environment (ALMEE)
Mr. Said Chehab, President,
almee@dm.net.lb
www.almee.org

Lebanese Center for Energy Conservation Project (LCECP)
Mr. Anwar Ali, Project Manager,
anwar.ali@lcecp.org.lb
www.lcecp.org.lb/