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Promoting Energy efficiency to Local Organisations
through dissemination Partnerships in Europe
Best Actions for Collaboration in Countries
for a High efficient Use of energy in Structural funds

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A TPF scheme at public level for environmental policies - Piemonte - Italy

A Third Party Financing (TPF) consisting in a contract awarded to a Energy Service Company (ESCO) to provide audit, financing, installation, operation and maintenance of technological plants for the regional hospital and public lighting sectors.

Target Groups	Sector	Field
<ul style="list-style-type: none"> - Local authority - Regional authorities - Domestic consumers 	<ul style="list-style-type: none"> - Energy supply - Buildings (including municipal properties) 	<ul style="list-style-type: none"> - RES - Third Party Financing - Contracting

ANALYSIS

BACKGROUND

In the frame of the activities carried out by the Energy and Environment Department of Piemonte Region to promote TPF in Italy, special attention has been paid to the phase of development of contracts. At this regards, an Energy Service Company (ESCO) has been charged to finance all the costs of a programme to develop energy saving and pollution reduction actions (design, equipment, labour capital, managing, maintenance and monitoring). The company will be remunerated according to the future client's profits.

With this formula the ESCO becomes a reliable partner for its client since it is in its own interest to achieve good results.

Two important sectors have been included in this initiative: regional hospital and public lighting. They both have a high level of final consumptions and significant costs. So far, very scarce attention had been devoted to improve energy efficiency in these sectors.

TEST CASE - HOSPITAL SECTOR

A pilote contract was approved by the Regional Government of Piemonte on May 11, 1998. It concerned energy services and technological improvement of plant to reduce energy consumption in the local Health and Hospital Board consisting of three hospitals (Verbania, Omegna and Domodossola) in Northern Piemonte (750 beds, plus external patients, and other facilities). The services requested concerned the implementation of technological and operational actions aimed at improving the total average efficiency of heat/cool generation and distribution plant, electricity generation and operation of lighting services. The primary objective was to achieve better comfort, greater economic and energy saving through the use of advanced techniques.

DESCRIPTION OF THE INITIATIVE OF THE HOSPITAL TEST CASE

In this TPF formula for hospital, the contractor was charged to:

- executive design, financing and implementation of a co-generation plant fuelled by natural gas, and any additional actions for its optimisation;
- operation of the plant;
- ordinary and extraordinary maintenance of the co-generation plant and of heat/cool generation and distribution plant;
- future actions to improve the plant and ensure its perfect and efficient functioning;
- implementation of an automated system of supervision and control to optimise system operation of the technological plant for the production and distribution of energy in the hospital.

COST AND BENEFITS

COSTS

The efficiency level of energy services in the concerned local Health and Hospital Board before the TPF experimentation contract was low: high energy consumption, old technological plants, insufficient quality of energy service, high operation and maintenance costs, lack of attention in the rational use of energy. In 1999 the total costs for the three hospitals and related health districts for fuel, maintenance, staff and electric power amounted to 2.170.100 Eur.

After this initiative the following results have been obtained:

- Energy saving guaranteed: 325 toe/year
- Economic result from energy saving guaranteed by ESCO: 25% (542.525 Eur per year)
- Investments realized by the ESCO: 1.885.584 Eur (CHP 974.037 Eur; heat generation/distribution plant 911.546 Eur).

BENEFITS

The Local Health Board has obtained other general results from administrative, technical, economic and financial points of view, such as: administrative simplification, issuing a single call for tenders covering a large number of services, use of budget allocations for current expenditure whose financing cover is generally assured, overcome of Administration's weakness in design and operation in the energy sector, transfer of the technical risks to the contractor, immediate savings of energy with no extra capital expenditure, acquire of the ownership of the new plant at the end of the contract time.

PARTNERSHIP

- Environment and Energy Department - Piemonte Region - Torino
- an Energy Service Company (ESCO)
- Health and Hospital Board of Verbania, Omegna and Domodossola (Piemonte Region).

The main stakeholders of this initiative are the patients, doctors and other medical staff operating in hospitals.

RECOMMENDATIONS

TPF contractual approach contributes to remove the traditional difficulties of rational use of energy initiatives in the public sector, such as: lack of financial resources to be assigned to the financing of projects, lack of specific technical project know-how, lack of motivation, bureaucratic difficulties. The test case shows that this formula can contribute to reduce energy costs, improving at the same time quality and service, ensure the effective performance of the investments, control the performance of the new plants, reduce gap time between investments and energy saving, ensure studies, audits and checks, satisfy the expectations of result without supporting technical and financial risk.

TO KNOW MORE

Name organisation [Piemonte Region](#)

:

Phone number : + 390114326476

E-mail : filippo.baretti@regione.piemonte.it

Website : <http://www.regione.piemonte.it>

USEFUL INFORMATION

List of Internet sites

/ <http://www.regione.piemonte.it>

THIS CASE HAS BEEN REALISED BY

Organisation : [ENEA](#)

E-mail : peronaci@casaccia.enea.it,
casali@casaccia.enea.it

Internet : <http://www.enea.it>

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