PROMISE Procurement in Municipalities for Integrative Solutions on Energy

Case Study:
Energy Performance Contracting (EPC) in Viennese Schools

Introduction

For Vienna, the majority of federal buildings are subject to low budgets, accompanied by preservation requirements. In many cases, energy saving investments are postponed in the face of more important repair works. Therefore, the demonstration project called “Energy Performance Contracting for Federal Schools in Vienna” was started in September 1997, involving 46 schools, divided into two pools.

Aims and objectives

The building owner, the Bundesimmobiliengesellschaft (BIG) aims to reduce the energy consumption and energy costs despite a tight budget for maintenance and building repairs. This was the motivation to propose energy performance contracting ("EPC") in order to realise a demonstration project in Vienna. Further objectives were:

- High rate of building utilisation by increasing its lifetime and building quality through continuous maintenance and implementation of energy efficiency measures.
- Positive environmental impacts
- To increase user awareness concerning energy efficiency.

Who was involved?

Between the owner of the buildings (BIG) and the user, the Federal Ministry of Education, Science and Culture (BMBWK), a tenancy agreement has been set up. The BIG is responsible for the preservation of the building as a whole, including facades, roofs and windows as well as for installations. Two energy service companies (ESCOs), one for each pool, are contracted by the BIG, and are responsible for the financing and implementation of the energy saving measures, as well as for operation and maintenance of the installations. The project management for the technical and organizational process was handed over to the E.V.A., the Austrian Energy Agency. The Berlin Energy Agency and Kommunalconsult Berlin also contributed with expertise from the energy efficiency partnership in Berlin. The specific knowledge about the federal buildings was contributed by the Federal Ministry of Economy and Labour’s energy specialists.

The approach

BIG initiated the project in September 1997. The first step included a selection of schools that are appropriate for an EPC project. Two pools have been formed including 46 schools in total. Energy data from 1996 was used to establish a baseline, from which potential contractors would be able to estimate energy savings. In April 1998, ESCOs from all over Europe were invited to express their interest in the call for tender. At the end of the tendering process, two were selected. The contracted partners guaranteed a decrease of the annual energy costs of 24.3% (for pool 1) and 21.1% (for pool 2). 20% of the energy costs savings would go to the schools as a reward for their participation. If the cost savings exceeded the original expectations, both the consumer and the ESCO received half of these gains. After the contract period of 10 years, the contracting fee is not applied any longer and the customer will fully release all the advantages of the lower energy costs.

Achievements/results

The potential savings were largely confirmed during the detailed planning stage. Energy saving measures have now been implemented and, in the first two accounting periods (2000 and 2001), the saving targets were mainly achieved. Pool 2 already exceeded the target in 2000. For pool 1, further energy saving measures and additional effort was required to achieve the guaranteed target. The ESCOs also closely examined the conditions for energy delivery, and, in some cases, financial savings were identified, for example, more favourable electricity supply contracts.

Next steps

As result of this positive experience, the Cabinet has established an energy efficiency program for federal buildings. The EPC of Viennese School project is regarded as one of the pillars of this program. By making use of the energy saving potential in federal buildings, the government will be a role model for other building operators, both in Austria and abroad.

Further information

Klemens Leutgöb, Project Manager, Austrian Energy Agency, e-mail: leutgoeb@eva.ac.at

Abbreviations used

E.V.A	Austrian Energy Agency
EPC	Energy Performance Contracting
BIG	Bundesimmobiliengesellschaft
ESCO	Energy Service Company
BMBWK	Federal Ministry of Education, Science and Culture