

Best practices report
Ecole de La Garenne
(Ville de Bron - Rhône)

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Example of good practices in the implementation of an energy service

Country: France

Project: Ecole de La Garenne: renovation of the heating installation via leasing agreement

Beneficiary of the energy service: Ville de Bron

Supplier of energy service: DALKIA, formerly ESYS-MONTENAY

Backer (if different): FIP (Fond d'Investissement de Proximité)

1 Summary

At the origin of this project was the need to renovate the old furnaces at the La Garenne site – a site consisting of a nursery school, a primary school, a building with 9 apartments, a cafeteria and a gymnasium. This represented a surface area of 7,443 m².

The objective of this project was to find a solution that included the implementation of the necessary works, the operation and maintenance of the equipment and a financial solution, which would be accompanied by ensured savings.

The internal preparation for the introduction of an energy efficiency service was fairly simple. Aware of the need to control energy consumption, the elected representatives welcomed the project. Technical and economic studies were carried out by SIGRE (intermunicipal syndicate for rational energy management) in cooperation with the Bron Municipal technical department.

The choice of contract was made with scrupulous regard to the Public Markets Code. Two distinct tender calls were organised:

- The renovation of the heating system (switching over to natural gas) and the operation and maintenance of the system,
- Finance of the renovation in the form of a leasing agreement.

Two contracts were signed at the end of 1993: the first one with ESYS-MONTENAY for the renovation, operation and maintenance of the system, and the second one with local investment fund (Fond d'Investissement de Proximité) for the leasing agreement.

ESYS-MONTENAY guarantees an energy saving of 26 %. The contract includes the supply of energy (P1), operation and upkeep (P2), and major maintenance (P3). If energy savings are less than 26 %, ESYS-MONTENAY will cover the entire excess. If savings are greater than forecast, the gain will be shared between ESYS-MONTENAY and the Municipality of Bron. Energy, operation and upkeep and major maintenance costs are imputed directly by The Municipality of Bron to ESYS-MONTENAY.

The investment reimbursement is paid in the form of rent to the FIP for a ten-year period.

Globally, **the results** of this operation over the first 12 years have been good. The average energy saving has been equal to or higher than the guaranteed energy saving.

This has been a very positive experience.

2 Context



For many years, the Municipality of Bron has been aware of the need to economise energy and respect the environment.

The La Garenne site consisted of a nursery school, a primary school, a building with 9 apartments, a cafeteria and a gymnasium. It covered a surface area of 7,443 m². In 1993, the site's heating installation consisted of 3 furnaces fired by domestic heating oil. Total thermal output was 1,700 kW. The furnaces were respectively 24, 29 and 33 year-old. Maintenance costs were growing because of the age of the installation. The cafeteria also needed to be renovated.

In 1992, the heating installation costs were as follows:

- energy for heating and hot water: € 58,922 (incl. VAT)
- propane for cafeteria: € 1,136 (incl. VAT)
- rent of propane tank: € 915 (incl. VAT)
- operation and light maintenance contract, P2 type service: € 4,322 (incl. VAT)

Total costs were around € 65,300 (incl. VAT).

SIGRE (intermunicipal syndicate for rational energy management) suggested a change of fuel, switching to gas for cooking and heating. It also suggested using the savings made because of the renovation of the heating system to reimburse the investment.

The Municipality of Bron showed a real interest in this solution and, in cooperation with SIGRE, studied the means of implementing it.

3 Objectives of the project of introducing an energy efficiency service

The general objective of this project was to renovate the heating installation to reduce maintenance costs and improve energy performance without incurring any investment costs for The Municipality of Bron.

It meant to find a solution that included the implementation of the necessary works, the operation and maintenance of the equipment and a financial solution, which would be accompanied by ensured savings.

4 Internal preparation prior to the introduction of the energy efficiency service

The elected representatives welcomed this project, which enabled innovative improvement of the energy efficiency.

As the Municipality of Bron is a member of SIGRE, the municipal staff and the SIGRE energy advisors collaborated in missions relative to energy management, which explains the enthusiasm of the technical departments for this project.

It was agreed that technical and economic studies would be carried out by SIGRE in collaboration with the Bron Municipal technical departments. As the municipal authorities already had the energy bills, it was not necessary to approach the energy suppliers for these data.

An independent agency carried out energy audits at the La Garenne site in 1986. These audits were used as the basis of the technical studies.

Annual energy consumption for domestic hot water and heating was 1,706 MWh. The total cost in energy and maintenance (type P1 and P2 services) was € 65,300.

5 Choice and negotiation of contract

Like all public bodies, The Municipality of Bron had to choose a type of contract that ensured respect of the Public Markets Code.

This is why there were two distinct invitations to tender:

- One for the renovation of the heating system (switching over to natural gas) and the operation and maintenance of the system,
- One for financing of the renovation in the form of a leasing agreement.

This procedure did not leave any margin for negotiation.

For the renovation, operation and maintenance of the heating system, three candidates submitted complete propositions. They offered energy savings ranging from 19 % to 26 %.

Legal requirements insisted that the lease agreement satisfied two conditions: the annual energy savings should be higher than the annual instalments of the leasing agreement, and the leasing agreement contract should be for a period of less than 10 years.

Only SOLYCAF (ESYS-MONTENAY), which proposed the most successful energy savings, was able to meet these conditions.

In addition, its bid was the lowest one. Therefore, SOLYCAF (ESYS-MONTENAY) won the market for the renovation, operation and maintenance of the heating installation.

The Fond d'Investissement de Proximité won the market for the leasing agreement.

6 Contents of the contract

Bron Municipal authorities signed two contracts at the end of June 1993:

- the first one for the renovation, operation and maintenance of the heating installation,
- the second one for the leasing agreement.

The major part of the works was carried out in July and August 1993 (during the school holidays).

Investment for the renovation was € 228,700 and Gaz de France gave a subsidy of € 45,700 for it.

ESYS-MONTENAY guaranteed a 26 % energy saving. The contract also covered:

- A type P1 service for the supply of energy: natural gas.
- A type P2 service for the operation and maintenance: set at a fixed rate, it includes minor repairs, without the replacement of large parts (major maintenance).
- A type 3 service for major maintenance: in particular, this involves a set annual payment that enables replacement of heating system parts that cannot be repaired, and operates like an insurance policy (ESCO, the energy service company should carry out all necessary repairs).

If energy savings were less than the planned savings figure, ESYS-MONTENAY would cover the entire excess cost. If savings were greater than the forecast figure, ESYS-MONTENAY would receive 1/3 of the difference and the Municipality of Bron 2/3 (with 1/3 going for re-investment in energy savings).

The leasing agreement contract was signed for a 10-year period. Two instalments a year were paid to the Fond d'Investissement de Proximité. The Municipality of Bron became owner of the installation at the end of the 10-year contract and on payment of the outstanding balance (€ 2,281, incl. VAT).

The scheduled costs are as follows:

- Type PI service, natural gas for domestic hot water and heating: € 32,735 (incl. VAT)
- Type P1 service, natural gas for cooking: € 887 (incl. VAT)
- Type P2 service, operation and maintenance: € 3,407 (incl. VAT)
- Type P3 service, major maintenance: € 1,677 (incl. VAT)
- Rent: € 24,457 (incl. VAT).

The total cost (including rental payments concerning leasing agreement) was around € 64,200 (incl. VAT).

The Municipality of Bron paid ESYS-MONTENAY for the type P1, P2 and P3 services and paid the lease rent to the Fond d'Investissement de Proximité. ESYS-MONTENAY sent, and continues to send, a detailed monthly energy consumption report.

For the first ten years (duration of the lease agreement), the scheduled annual saving was € 1,126.

After that, the scheduled annual saving is € 25,538.

7 Results

During the first season of heating, the energy saving was 30 % - greater than the guaranteed forecast figure of 26 %. The gain was shared between The Municipality of Bron and ESYS-MONTENAY (collate previous explanation).

After 12 years of operation, the average energy saving equals the guaranteed figure and the forecast annual financial saving has been reached.

The renovation of the 3 furnaces also reduced NO₂ emissions by 60 %.

Financing the renovation via a leasing agreement did not enable the municipality to recover the VAT. The TVA would be recoverable if the municipality financed the investment itself.

8 Acquired experience and lessons learned

The general opinion is that this has been a highly positive experience. The solution of leasing enabled renovation of the heating installation without any investment by the Municipality of Bron and without any extra operation budget.

One of the benefits has been a good analyse of the technical features of the site, thanks to the collaboration between the Municipality of Bron and SIGRE.

9 Contacts

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