An energy clock integrated in a public building

Ville de Poissy [France]

Context

In August 2015 France passed the law "energy transition for green growth", aiming at:
- Reducing greenhouse gas emissions by 40% by 2030 (compared to 1990);
- Reducing energy consumption by 20% in 2030, 50% by 2050 (compared to 2012);
- Bringing the share of renewable energies (RES) to 23% of gross final energy consumption in 2020 and 32% in 2030.

By 2030 they will account for 40% of electricity production, 38% of final heat consumption, 15% of final fuel consumption and 10% of gas consumption;
- Reducing fossil fuels by 30% by 2030 (compared to 2012);
- Reducing the share of nuclear power in electricity generation to 50% by 2025;
- Multiplying by 5 the share of RES in district heating and cooling networks.

The law on the modernization of territorial public action and the affirmation of metropolitan areas (called MAPTAM law), of January 27, 2014, gives a new leadership role and several responsibilities to local authorities in the area of energy, namely:
- Management of transport, biodiversity, energy transition and Agenda 21;
- Sustainable mobility and air quality.

As a local actor, the Municipality of Poissy has implemented national policies through the realization of the Agenda 21.

Description and main objectives

The agenda was created between 2009 and 2011 and it took 3 years to be completely set up within the municipality and to carry out the first evaluations and improvements.

Three committees have been set up to ensure its steering:
1- A policy committee, led by the municipal councilor for sustainable development, who gives the main inputs for reflection and submits its work to the steering committee;
2- A steering committee, chaired by the Mayor, who validates the work of the steering committee. It chooses the projects, determines the strategies, guides the consultations as well as the communication actions;
3- A technical committee, under the authority of the Director General of Services, responsible for validating the technical feasibility of the selected actions, proposing complementary actions and accompanying the implementation of the projects decided upon.

A fourth committee called the "Partnership Committee" brings together socio-economic partners in the territory wishing to participate in the elaboration and the implementation of the Agenda 21.

The Agenda 21 focuses on five objectives:
- Fighting climate change;
- Preserving biodiversity, the environment and resources;
- Promoting social cohesion and solidarity between neighborhoods and generations;
- Fostering the development of all;
- Encouraging the economic development through responsible production and consumption.
In practical terms, the municipality of Poissy wanted to control its energy consumption in its public buildings, by setting up an "energy clock", set to give real-time information on the energy consumption. The objective is to raise awareness on the field of energy (both energy efficiency and consumption).

**Implementation Strategy**

With the implementation of its energy clock, the town of Poissy started to control its energy consumption, in accordance with the provisions adopted by the Environmental law of Grenelle I and II, and in coherence with the urban planning documents. The implementation of this clock is part of a holistic approach and aims to raise citizens’ awareness on energy efficiency. This commitment complies with the signing of the "Covenant of Mayors" in April 2010. In this framework, local and regional authorities voluntarily commit to improve energy efficiency and increase the use of renewable energy sources.

The purpose of the clock is to make the energy more intuitively visible, just like the time indicated by a watch. Its operation is based on a meter which measures consumption information. The clock collects real time information in a central server to processes it. All this information is then gathered into a database.

Its implementation involves several key players, such as the technical services of local authorities and external partners (maintenance company). It is part of the Négawatt approach.

It has several objectives:

- Decrease energy consumption;
- Raise citizens’ awareness on the matter.

Several actions will reduce the consumption of public buildings:

- The analyze the use of public buildings’ energy consumption;
- The decrease in consumption of boilers, air-conditioning, and lighting;
- The development of measurement system related to the public clock.

Key lessons Learnt:

The analysis and measurement of energy consumption are priorities, in order to be able to define concrete and locally applicable energy efficiency measures. The cooperation of all the actors of the municipality is also essential. Energy efficiency reduces operational costs and ensures a return on investment. But the municipality thinks also in the longer run. For 2020, it targets "3x20" (- 20% consumption of energy and greenhouse gas emissions, and cover 23% of energy needs thanks to renewable energies). For 2050, the objective is to reach "Factor 4", by dividing greenhouse gas emissions by 4 compared to a 1990 baseline.

**Time Frame**


**Budget**

The project costs 15,000 €, and it is financed by self-funding and equity.

**Contacts**

Dominique Bulle  
Website: www.ville-poissy.fr

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