vivapolis
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KEY DATA

- Number of dwelings: 231
- Built date: 1964
- Renovation year: 2012
- Length of renovation: 18 months
- Label BBC Effinergie Rénovation, Category (A)
- Commitment EPG: - 40% on consumption
- Perimeter commitment: Heating and Domestic Hot Water
- Length of the commitment: 4 years

1st ENERGY PERFORMANCE CONTRACT IN SOCIAL HOUSING

RESIDENCE SAUSSEY LOGIREP - VITRY SUR SEINE

MODEL OF GLOBAL ENERGETIC RENOVATION ON EXISTING BUILDINGS, GUARANTYING PROJECT ECONOMIC AND ENVIRONMENTAL EFFECTIVENESS

Social housing energetic renovation is a fundamental matter for our societies. Either concerning environmental aspects in the fight against global warming or economic issues like fuel poverty, It must be ambitious. The model of "Energy Performance Contract" deployed on Saussey residence in Vitry sur Seine encourages this ambition by Guarantying 40% energy saving after renovation.

A success: Since the energetic renovation period ended, every year energy savings are higher than expected!

INNOVATIONS

Energy performance contract is an economic, legal, technical and social innovation.

- **Economic:** the contracting owner is now guaranteed of the substantial energy saving on his patrimony. It can consider the renovation cost as an investment and launch more environmentally ambitious projects.
- **Legal:** Root of the economic innovation, it's an evolution from obligation of means into obligation of results for the operator (here Bouygues Construction) in terms of energy performance.
- **Technical:** Make the legal innovation possible. Thanks to a thermal energy model, commissioning quality check process and performance follow up, the operator is able to commit on the energy performance.
- **Social:** Support the technical innovation. Raise residents awareness, before and after the renovation, the operator involve them in the project and at the same time increase the global performance.

STAKEHOLDERS

- **Bouygues Construction**

One of the main actors in sustainable construction and services, the group and its 53500 collaborators design, build and operate structures that improve daily living and workspaces: public and private buildings, transports infrastructures, energy and communication network.

- **LogiRep Groupe Polylogis**

Private Social Housing Association with more than 36000 dwellings in Ile-de-France and Normandy. It's a global actor in agglomeration program.

- **Lair et Roynette architectes**

Architects specialist of renovation in occupied environment, with high focus on energy efficiency.

- **CET ingénierie**

Technical consultant specialist in environmental engineering.

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IMPLEMENTATION

▶ The contracting owner launched an Energy performance contract tender under design, built and maintenance scheme, for the global renovation of Vitry Saussay residence. Cost and level of energy performance were the 2 mains factors for selection. Laureate, Bouygues Construction relied on the expertise of its subsidiaries specialized in renovation and energy efficiency, as well as its partners for this first implementation.

▶ Since this renovation concerned accommodations, specific support for the residents has been implemented, like information meetings, distribution of an educational guide and the launch of a website giving resident instantaneous consumption.

▶ This operation success rely on the combination of technical expertise, and residents support and involvement.

Bruno Marotte, Director Energetic Renovation of Bouygues Bâtiments Ile-de-France

This 1st Social Housing Energy Performance Contract is exemplary in many ways. It will allow to effectively reduce by 40% the energy bill of the residence (otherwise penalty for Bouygues Construction), it will use renewable energy via solar thermal creating 30% gain on Domestic Hot Water. Reduce the climate change impact, dividing by 4 the greenhouse gases released by the scheme. And create new dwelling with disable access.

RESULTS

/// With 40% energy savings contractually guaranteed for 4years, this project was a real challenge, by going from theory to practice on a global renovation project. In 2016 after 3 heating years elapsed, results exceed expectations (See the adjacent table).

/// This operation is a total success for all the actors involved. If the technical achievement in designing, building and maintaining is demonstrated. The main beneficiary is the tenant, whom on top of financial gain on its energy bills, can enjoy the improved level of comfort in the flats, as well as a social cohesion reinforced by its participation to this collective project.

	Engagement contractuel	Résultats		
		1ere année	2ème année	3ème année
Economies d'énergie	40%	-53,26%	-56,51%	-54,52%

This affects directly the building energy bill. At the end of the 1st year the EPG create over 40 € monthly economy, including 28 € of direct benefit for the tenants.

FINANCIAL DIMENSION OF THE OPERATION

/// Ambitious renovation financially secured

In case of non-achievement of the objectives, the operator (Bouygues Construction) supports 100% of overconsumptions.

/// A Win-Win project economically

- Energy savings are shared between landlord and tenants.
- If project outperform, gains are shared between project owner and operator. All stakeholders therefore have the same desire to perform.

KEY FIGURES

→ **Operation of €9m:**
- €4m Energetic renovation,
- €5m dwellings refurbishment.

→ **Subventions :**
- €400,000 from Ademe,
- €320,000 from city of Paris,
- €20,000 from the region, Ile-de-France.