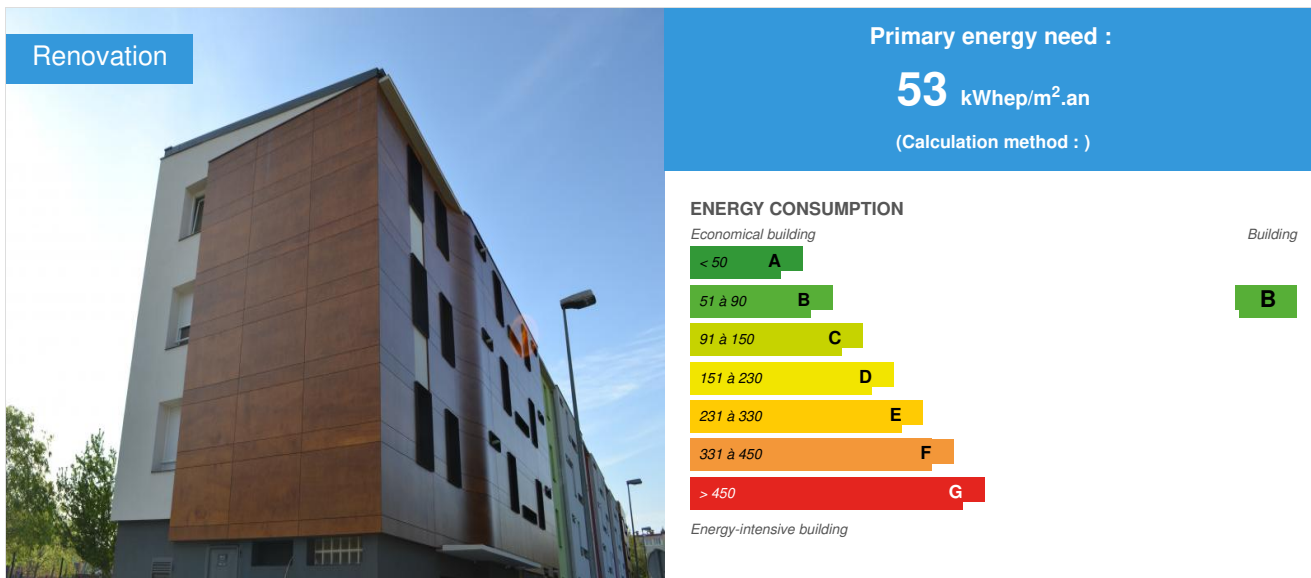


## Fourchevieilles NLP Residence

by Nicolas Guignard / 2014-11-25 10:30:04 / Francia / 15122 / FR



**Building Type** : Collective housing < 50m  
**Construction Year** : 2013  
**Delivery year** : 2014  
**Address 1 - street** : 84100 ORANGE, France  
**Climate zone** : [Csa] Interior Mediterranean - Mild with dry, hot summer.

**Net Floor Area** : 14 185 m<sup>2</sup>  
**Construction/refurbishment cost** : 4 950 000 €  
**Number of Dwelling** : 190 Dwelling  
**Cost/m2** : 348.96 €/m<sup>2</sup>

**Certifications :**



### General information

The social landlord, New Logis Provençal, has achieved a complete rehabilitation of 190 housing in Orange Fourchevieilles neighborhood thanks to the funding program **ADEME-Region ERDF**.

The six constructions built in 1960, had a negative image because of their appearance and a number of technical problems. The NLP adopted then, an overall response, in order to respond to 4 objectives:

- reduce energy consumption to reduce rental costs;
- change the image of the neighborhood by a complete transformation of the architecture allowed by the insulation of facades;
- improve comfort through renovation of common areas and equipment;
- enhance the attractiveness of housing.

These buildings are now reaching the level of thermal performance of the RT2012 (French certification), while providing quality architecture that completely transforms the perception of this neighborhood in the city.

## Sustainable development approach of the project owner

The project is part of the rehabilitation of buildings C, D and E located in "rue du Bellay" and buildings A, B and G located in "rue Descartes" on the perimeter of Fourchevilles District in Orange.

## Architectural description

Project management company highlighted the architecture of buildings with a complete redesign of the facades. This allows a simple reading of the buildings components and entrances. A game of superposition and offsets has been possible by varying the insulation thickness.

## See more details about this project

<http://www.enviroboite.net/habitat-residence-fourchevilles-nlp-orange-84>

## Stakeholders

### Stakeholders

Function : Contractor

Nouveau Logis Provençal

04 96 20 20 22 / Patrick.joubert[a]nlp.sni.fr

<http://www.nlprovençal-groupesni.fr/>

Function : Construction Manager

Oliver Seidel

09 51 70 98 48 - os[a]seidelarchitecte.fr

<http://www.seidelarchitecte.fr>

Function : Thermal consultancy agency

BET Durand

04 67 03 37 44

<http://betdurand.com/>

Function :

INDIGO Bâtiment

04 90 83 82 24

<http://www.indigo-batiment.fr/>

Facades / Insulations

Function :

Entreprise Pierre Laugier

04 90 70 32 66

<http://www.laugier-pierre-facades.fr/>

Facades / Insulations

Function :

SONIL

04 37 46 15 39

<http://www.vinci-construction.fr/france/construction-france/liste/Metiers-de-specialite.htm&categ=bois&doc=3691FD41C2994BDBC12579A4005AA449>  
photovoltaic panels

Function :

S.A. JCB

04 90 32 44 54

Plumbing / Heating / Ventilation

## Energy

### Energy consumption

Primary energy need : 53,00 kWhep/m<sup>2</sup>.an

Primary energy need for standard building : 100,00 kWhep/m<sup>2</sup>.an

Calculation method :

Breakdown for energy consumption : - Heating: 19 kWh / m<sup>2</sup>.year - ECS: 14 kWh / m<sup>2</sup>.year - Lighting: 11 kWh / m<sup>2</sup>.year - Auxiliary: 9 kWh / m<sup>2</sup>.year

Initial consumption : 211,00 kWhep/m<sup>2</sup>.an

### Envelope performance

Envelope U-Value : 0,75 W.m<sup>-2</sup>.K<sup>-1</sup>

More information :

- Walls: plaster coating + concrete shell (250 mm) + PES (140 mm) + Surface coating - Roof: concrete screed (50 mm) + Rock wool (50 mm) + TC concrete slabs (200 mm) + Mineral wool (300 mm) + False ceiling plaster

Indicator : I4

Air Tightness Value : 1,70

## Renewables & systems

### Systems

Heating system :

- Individual gas boiler
- Water radiator

Hot water system :

- Individual gas boiler
- Solar Thermal

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation
- Single flow
- humidity sensitive Air Handling Unit (hygro A)

Renewable systems :

- Solar photovoltaic
- Solar Thermal

Flat solar panels with individuals extra boilers 3-4 sensors of 2.11 m<sup>2</sup> (500 l + ball DRC) per cage. One to two installations per building being 10 throughout.

## Environment

### Urban environment

The buildings are arranged along the streets with parking alignment, creating a certain urbanity. Playback of traffic and access to the buildings is simple. The project contributes to the diversity of housing in the municipality.

## Products

### Product

ITE STO StoTherm

STO

[http://www.sto.fr/51193\\_FR-Produits-D%C3%A9tail.htm?prodId=507](http://www.sto.fr/51193_FR-Produits-D%C3%A9tail.htm?prodId=507)

**Product category :** Table 'c21\_spain.innov\_category' doesn't exist SELECT one.innov\_category AS current,two.innov\_category AS parentFROM innov\_category AS oneINNER JOIN innov\_category AS two ON one.parent\_id = two.idWHERE one.state=1AND one.id = '9'

- External Insulation system of expanded polystyrene, with multiple possible finishes. It is widespread and has been placed on nearly 400 million square meters of facades in the world. - Cladding PARKLEX S - TERREAL THERMOREAL GEBRIK Base pannels, hand molded appearance.

The external insulation system, is a key element of the performance of this project. It helped make the building more comfortable without reducing the living space. The choice of cladding panels brings a contemporary look to the project that is much appreciated.



## Costs

### Construction and exploitation costs

Total cost of the building : 4 950 000 €

## Contest

### Reasons for participating in the competition(s)

The building obtained the Mediterranean Sustainable Building certification (BDM), bronze level, with a primary energy consumption (TPEC) of 53 kWh / m<sup>2</sup>.year (a gain of 75 % compared to the TPEC 211 kWh / m<sup>2</sup>.year). The intervention focused on the envelope and systems, including photovoltaic and solar thermal generation.

This project contributed to re-qualify this particularly disadvantaged neighbourhood. A consultation and a sensitizing program were conducted. Social insertion provisions enabled unemployed persons from the neighbourhood to work during the construction phase.

### Building candidate in the category



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