Condominium Les Vignes

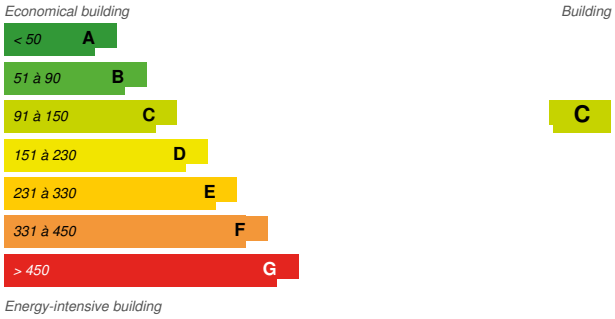
by Benjamin Le Guennec / 2019-02-21 14:26:41 / Francia / 4784 / FR

Primary energy need :

72 kWhep/m^2.an

(Calculation method :)

ENERGY CONSUMPTION



Building Type : Collective housing < 50m
Construction Year : 1973
Delivery year : 2019
Address 1 - street : 51 rue Jean Bleuzen 92170 VANVES, France
Climate zone : [Cfc] Marine Cool Winter & summer- Mild with no dry season.

Net Floor Area : 5 282 m^2
Construction/refurbishment cost : 1 436 270 €
Number of Dwelling : 59 Dwelling
Cost/m2 : 271.92 €/m^2

General information

In 2014, aware of the renovation work to be done on their building, the union council decided to carry out an energy audit. Oriented by GPSO, he is moving towards a global audit of their residence.
Following this audit by Reanova, the condominium decided to carry out a design mission for one of the scenarios.

This scenario includes:

- the thermal insulation of the facades from the outside
- insulation of low floors
- the establishment of a humidity-sensitive type B ventilation
- the passage of fuel oil to gas
- the installation of thermostatic faucets
- the replacement of the original private joinery
- lighting common areas

With an energy gain of 58%.

After the design, the condominium voted the completion of the work in 2017.

It is a **global and ambitious renovation project** , with thermal insulation of the building (external walls, floor, windows) but also a renovation of the systems (boiler room, terminal regulation, ventilation). This works can achieve up to **58% energy savings.**

The approach initiated by the condominium is also exemplary. From the energy audit to the works. A thoughtful and coherent approach from the beginning to the end.

Consult the map of renovated condominiums on the Paris metropolis
https://paris.coachcopro.com/pages/carte-des-coproprietes-renovees

Sustainable development approach of the project owner

For many years, the condominium complained of problems of air leakage around windows and difficult heat regulation. As part of the **energy and architectural audit** of the condominium, a survey of the occupants was carried out in 2014, identifying the precise expectations of the condominium on the renovation of their building. It confirmed the strong expectations concerning the **improvement of the thermal comfort** , but also the **control of the consumptions of energy** .

In October 2015, an extraordinary general assembly voted on the design mission and retained the most ambitious scenario proposed following the energy audit, to reach the **BBC renovation** (building low energy consumption) level, set at 104 kWh / m² / year. in Ile de France. The result should eventually reach 97 kWh / m² / year, which makes the condominium class E to class C, allowing a saving of nearly 60% on energy consumption.

Architectural description

The condominium Les Vignes is composed of a building (R + 13) and 58 dwellings. It dates from 1963.

The works carried out are:

- Thermal insulation from the outside with 14 cm of rockwool
- Insulation of low floor with flocking of 12 cm mineral wool
- Replacement of joinery in single glazing by double glazed PVC joinery
- Installation of a gas condensing boiler instead of a fuel boiler
- Installation of a humidity-controlled type B ventilation
- Modernization of the lighting of common areas (LED + detectors)

See more details about this project

https://gpsoe.coachcopro.com/fiche-de-site/7063eda7-f49c-45de-a11a-b152a83bef40

Stakeholders

Contractor

Name : Copropriété Les Vignes

Construction Manager

Name : Reanova
Contact : Benjamin Le Guennec
http://www.reanova.fr/

Stakeholders

Function : Thermal consultancy agency

Pouget consultant

http://www.pouget-consultants.eu/

Function : Company

ARCTCE

https://www.arctce.fr/offline/
Lot facades

Function : Company

Norba

https://www.norba-menuiserie.com/
Lot joineries

Function : Company

Engie

http://www.engie.fr/
Heating batch

Function : Company

AIRTEC

Lot ventilation

Contracting method

Separate batches

Type of market

Table 'c21_italy.rex_market_type' doesn't exist

Energy

Energy consumption

Primary energy need : 72,00 kWhep/m^2.an

Primary energy need for standard building : 93,00 kWhep/m^2.an

Calculation method :

Breakdown for energy consumption : Heating: 59%
Domestic hot water: 36%
Cooling: 0%
Lighting of the common parts: 2%
Auxiliaries: 3%

Initial consumption : 222,00 kWhep/m^2.an

Real final energy consumption

Final Energy : 85,00 kWhef/m^2.an

Envelope performance

Envelope U-Value : 0,84 $W.m^{-2}.K^{-1}$

Indicator : n50

Renewables & systems

Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Condensing gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Humidity sensitive Air Handling Unit (Hygro B

Renewable systems :

- No renewable energy systems

Environment

Urban environment

Dense urban environment.

Products

Product

Joinery

TRYBA

Product category : Table 'c21_italy.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 = '10'

Joinery PVC double glazing

ECOROCK DUO insulation

ROCKWOOL

Product category : Table 'c21_italy.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 = '6'

Rockwool

Ventilation

ALDES

Product category : Table 'c21_italy.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 = '19'

vmc hygro B BAHIA

Heating Prduction

ATLANTIC GUILLOT

Product category : Table 'c21_italy.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 = '18'

gas boiler with condesation

Heating regulation

DANFOSS

Product category : Table 'c21_italy.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 = '18'

thermostatic faucets

Costs

Construction and exploitation costs

Cost of studies : 63 841 €

Total cost of the building : 1 428 530 €

Subsidies : 260 119 €

Health and comfort

Comfort

Health & comfort :

Work on the insulation of walls and joinery has, among other things, increase the thermal comfort of occupants by eliminating the phenomenon of cold walls in winter and limiting overheating in summer. In addition, the improvement of the ventilation makes it possible to ensure a renewal of air all the year, that further improves the comfort of use of the building.

Carbon

GHG emissions

GHG in use : 23,00 $KgCO_2/m^2/an$

Contest

Reasons for participating in the competition(s)

It is a global and ambitious renovation project, with thermal insulation of the building (external walls, floor, windows) but also a renovation of the systems (boiler room, terminal regulation, ventilation). This works can achieve up to 58% energy savings.

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end.

Building candidate in the category

Energie & Climats Tempérés

Prix du public

Prix des Etudiants

Date Export : 20230524122400