

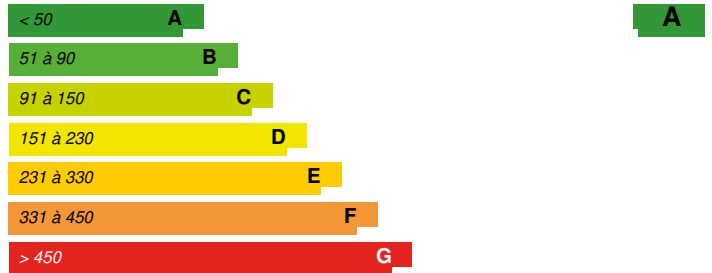
Headquarters of Crédit Agricole Charente-Maritime / Deux Sèvres

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New Construction

2



Building Type : Office building < 28m
Construction Year : 2016
Delivery year : 2016
Address 1 - street : 1 Rue François Hennebique 17140 LAGORD, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 15 746 m²
Construction/refurbishment cost : 42 950 000 €
Number of Work station : 585 Work station
Cost/m2 : 2727.68 €/m²

General information

This building of **19,000 square meters of offices**, built by Eiffage, is exemplary: it is a positive energy unit, labeled HQE (high environmental quality), with 2,600 **square meters** of photovoltaic panels and 35 probes of geothermal energy that plunge 200 meters into the ground.

This new headquarters, located in the Atlantech low-carbon business zone of Lagord, near La Rochelle, represented an investment of 50 million euros for the developer, Crédit Agricole.

Three subsidiaries of the Eiffage group were particularly involved in this project:

- Eiffage Construction Poitou-Charentes as a general contractor of the site, has found the right local partners (more than 80% of local companies), and coordinate the site with own production in shell and more than 200 people on the building site in point;
- The facadier Goyer designed and built glazed frames to meet the stress of a high-performance thermal envelope;
- Eiffage Route Sud Ouest carried out mass earthworks and various network roads throughout the operation.

This project owes its respect of the planning and its quality of work to the synergistic work of the Eiffage teams and local partners as well as the high quality of the client that we had with us.

Sustainable development approach of the project owner

It is a positive energy building with 19,000 square meters of office space, which has obtained the labels BEPOS Effinergie and NF HQE Exceptional Tertiary Building. With an impact on carbon, environmental performance beyond the 2020 international standards of eco-construction and corresponding to the best practices in the field: energy management, water, choice of materials, environmental integration, comfort of occupants ...

The building is remarkable in terms of energy, which is a positive energy building that uses fossil fuels. It produces its own electricity through a field of 35 geothermal probes that plunge to 250 meters deep, with 9 kilometers of networks for heat exchanges, which makes the largest of France, and 2,600 square meters of photovoltaic panels. Several technical choices made it possible to obtain these labels, and in particular a powerful thermal envelope

* The building is oriented East / West, which promotes the penetration of natural light in offices; * Insulation from the outside of 22 cm in summer set up (R = 6.25 m².K / W); * 1003 windows were installed, equipped with breathable triple glazing and integrated blinds (100% opening); An irreproachable air quality * The building is equipped with 35 geothermal probes 250 meters deep; * The diffusion by the cold beams on all the trays makes it possible to regulate the temperature of the desks automatically. A detection system makes it possible to stop the lungs autonomously when the windows are open.

Controlled energies * 2,600 m² of photovoltaic panels installed for a power of 400 kWp; * The recovery of rainwater is a business via a storm basin and a rainwater recovery basin that distribute water in the sanitary and in the watering system of green spaces.

In general, the concept of sustainable building at the center of the project, from design to operation, through the choice of land and construction. Location of the building The building is located on the carbon zone of La Rochelle.

An eco-mobility commuter train is a copy for employees: it combines shuttles, public transport, carpooling, bicycles and electric and charging car charging. Green building charter * Evaluation and monitoring of the different uses of the site (water, electricity, waste, ...). * The choice of construction products has been subjected to a validation by a HQE provider defined by the customer (vegetable oils, settling tanks, MSDS, ...). * Statement of conditions of use to limit the impact of the site on its direct environment. 80% of the amount of work done by companies in the Poitou-Charentes region.

User comfort * The employees obtained support by HR services as soon as the project was presented. Site visits were organized and employees regularly received photos of the progress of the project; * The X-shaped building enhances the brightness and exchange, with the atrium that centralizes the flow of traffic; * The employees are gathered on bright trays punctuated by many modern meeting rooms, such as the TGV Box or Bubble Box equipped with screens; * The climate is conducive to working together, and allows teams to gain synergy. Adaptability-reversibility * Aerial parking "silo" was designed to facilitate the redevelopment of the environment and facilitate the redevelopment of it; * The trays of the building are very little partitioned and therefore offer the possibility of various redevelopment.

Architectural description

In the firm Ory & Associates Architecture Studios

- a company founded in 1979 by the architect Jean-Jacques ORY, which currently has close to 60 employees

- the main architects of the Crédit Agricole project were Jean Pierre Duvert and Bojana Popovic, who have traced a modernist building with classical references, basement, body and frieze, as narrative.

The resolutely bioclimatic design aimed at the comfort of the occupants and the limitation of the needs: the orientation of the reflective building was conceived according to the solar contributions, the winds and the development of the zone.

Effective protections have been implemented: blind integrated in a double skin, factor solar efficient windows, low inertia to have a great flexibility of the spaces. The X configuration of the building promotes the influx of natural light and gives a sense of openness to the entire landscaped park.

The ground floor consists of a 678 m² atrium, meeting rooms and training, three dining areas, social spaces (works council, employee representation, etc.). The four floors are dedicated to offices. The basement includes car parks, logistics, technical and storage areas. A central atrium, the heart of the seat, directs all internal traffic flows to the four branches of the building.

The auditorium with its shell cladding and its huge preoxidized copper pebble is the figurehead of the project. It has 481 seats and a reception area of 400 m².

The Butech engineering department, part of the Porcelanosa group, has provided technical solutions for the façade of Ory & Associates Architecture Studios: this ventilated façade is based on Krion material, "warm to the touch and similar to stone natural." 6,000 square meters of Krion were affixed in 1100 Snow White. Thanks to its predominantly mineral composition and the low percentage of acrylic resins, this material is ideal for all kinds of projects. In this case, the ventilated facade was covered with textile trellis as required by the French CSTB regulations to prevent that in case of unlikely breakage caused by blows, the material does not come off.

Building users opinion

The employees of the site appreciate the general atmosphere of the new headquarters resulting from the facilities and comfort of the new offices.

See more details about this project

<https://www.lanouvellerepublique.fr/actu/video-lagord-visite-de-chantier-du-siege-regional-du-credit-agricole>

www.krion.com/fr/nouvelles/ory--associates-introduisent-6-000-m2-de-krion-fv-au-siege-du-credit-agricole-poitou-charentes-lagord-france

Stakeholders

Contractor

Name : Caisse régionale de Crédit Agricole Mutuel Charente-Maritime Deux Sèvres

Contact : Louis Duhamel

<https://www.ca-cmds.fr/credit-agricole-en-ligne.html>

Construction Manager

Name : Studios d'architecture Ory & associés SAS

Contact : Jean Pierre Duvert

<http://www.ory-associes.com/>

Stakeholders

Function : Assistance to the Contracting Authority
EGIS Conseil Bâtiments

Pierre Menneson

<http://www.egis.fr/organisation/egis-conseil-batiments>
Assist the client in the construction of the building

Function : Company
Eiffage Construction Poitou-Charentes

Laura Cambe, Responsable Commerciale, 05 49 34 07 07 -

<https://www.eiffage.com/>

General Company of the operation. Eiffage Construcion Poitou-Charentes mobilized a site management team bringing together local work drivers and directors from the South West. With a work schedule of 20 months, the workforce of the construction site is

Function : Company
GOYER

13 rue Henri Goyer 41 120 Fougères sur Bièvres France ; +33 (0)2 54 56 65 65

<http://www.goyer.fr>

The company Goyer has implemented its expertise by manufacturing and installing the curtain walls and glazed frames of the project. The exchanges with the Big Work were constant because of the layout of the chassis which left little tolerance to the concr

Function : Company
EIFFAGE ROUTE

MONAMY Roch / Roch.MONAMY@eiffage.com

<https://www.eiffage.com/>

As part of the service order, the Eiffage Route teams were present on the site from the first to the last day of the project. Realization of earthworks before the arrival of the three cranes of the Big Work until the finalization of the installations pay

Contracting method

Maximum Guaranteed Price

Energy

Energy consumption

Primary energy need : 21,80 kWhep/m².an

Primary energy need for standard building : 110,00 kWhep/m².an

Calculation method :

Breakdown for energy consumption : in Kwhef / m²shon.an heating 8; cooling 3.5; ECS 3.6; lighting 4; ventilation 13.4; at distribution 2 in Kwhep / m²shon.an heating 20.6; cooling 9; ECS 9.2; lighting 10.2; ventilation 34.7; to distribution 5

Real final energy consumption

Final Energy : 34,50 kWh_{ef}/m².an

Real final energy consumption/m² : 87,00 kWh_{ef}/m².an

Year of the real energy consumption : 2 017

Envelope performance

Envelope U-Value : 0,57 W.m⁻².K⁻¹

More information :

insulated concrete façade from the outside R = 6,25 m².K / W

insulated terrace roof under waterproofing R = 10.4 m².K / W

insulation of the low slab R = 3.75 m².K / W

low emissivity metal joinery U_w = 1.5 W / m².K FS = 0.33

Building Compactness Coefficient : 0,40

Indicator : EN 13829 - q50 » (en m³/h.m³)

Air Tightness Value : 0,69

Renewables & systems

Systems

Heating system :

- Geothermal heat pump
- Fan coil
- Others

Hot water system :

- Heat pump

Cooling system :

- Fan coil
- Chilled Beam

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic
- Heat Pump on geothermal probes

Renewable energy production : 75,00 %

Smart Building

BMS :

Convergence GTB makes it possible to stop the operation of the cold beams as soon as a window is opened on the trays of offices.

Environment

Urban environment

Land plot area : 19 403,00 m²

The building is located in the Atlantec business park on the outskirts of La Rochelle.

Products

Product

Breathable GC3A chassis with glass lightening

GOYER (Filiale EIFFAGE)

Contact commercial au 02 54 56 65 47

<http://www.goyer.fr/>

Product category : Second œuvre / Menuiseries extérieures

Breathable triple glazed windows with integrated blinds



Ventilated facades

Krion

<http://www.krion.com/fr/>

<http://www.krion.com/fr/nouvelles/ory--associates-introduisent-6-000-m2-de-krion-fv-au-siege-du-credit-agricole-poitou-charentes-lagord-france>

Product category : Gros œuvre / Structure, maçonnerie, façade

Ventilated facade made with Krion, 1100 Snow White



The engineering department of Butech, a company owned by Grupo Porcenalosa, provided technical solutions for the ventilated facade. The 6,000 square meters of Krion were 1100 Snow White. Thanks to its predominantly mineral composition and the low percentage of acrylic resins, it is ideal for all kinds of projects. In this case, the ventilated facade was covered with textile trellis as required by the French CSTB regulations to avoid that in case of improbable breaks caused by blows, the material does not come off.



Costs

Construction and exploitation costs

Total cost of the building :42 950 000 €

Subsidies : 225 500 €

Carbon

GHG emissions

GHG in use :3,34 KgCO₂/m²/an

Methodology used :

done with RT calculation on operating phase (RT use only)

Contest

Reasons for participating in the competition(s)

The concept of sustainable building has been at the center of the project, from design to operation, including the choice of land and construction.

The building has obtained the HQE tertiary building certification, excellent level.With a reduced carbon impact, its environmental performance goes beyond the current 2020 standards of eco-construction and correspond to the best practices in the matter: energy management, water, choice of materials, environmental integration, comfort occupants ...

The building is remarkable especially in terms of energy since it is a positive energy building that uses fossil fuels. It produces its own electricity through a field of 35 geothermal probes, one of the largest in France, and 2,600 square meters of photovoltaic panels.

Building candidate in the category



Energie & Climats Tempérés

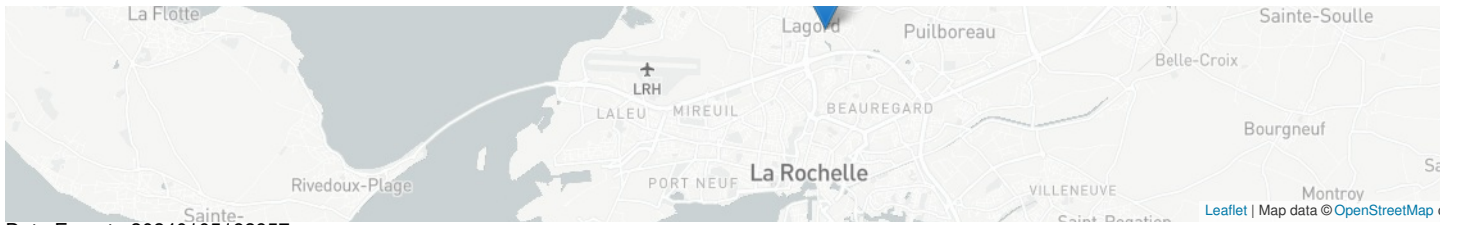


Prix du public



Prix des Etudiants





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