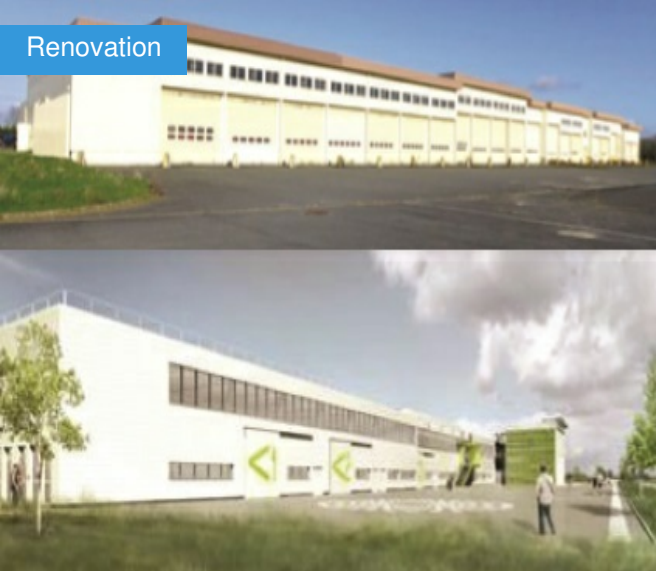


Atlantech

by Anne-Laure Grivot / 2017-05-16 14:11:31 / France / 2174 / FR



Renovation

Primary energy need :
32.6 kWhep/m².an
 (Calculation method : RT 2012)

ENERGY CONSUMPTION

Economical building *Building*


< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Energy-intensive building



Building Type : Logistics warehouse
Construction Year : 2014
Delivery year : 2016
Address 1 - street : rue François Hennebique 17140 LAGORD, France
Climate zone : [Cfc] Marine Cool Winter & summer- Mild with no dry season.

Net Floor Area : 6 750 m²
Construction/refurbishment cost : 10 200 000 €
Number of Installed Kw : 1 Installed Kw
Cost/m2 : 1511.11 €/m²

Certifications :



Proposed by :

General information

Rehabilitation of a former military hall into a demonstration building, hosting the technology platform tipee and the CESI (training center for the trades of rehabilitation) and a business incubator. The project is part of a research project Investing in Future.

Sustainable development approach of the project owner

The project is part of an innovative low-carbon approach and sets ambitious targets for energy performance. In response, the project manager develops a strategy based on sobriety, focusing on the conservation of existing elements and the use of low-carbon materials, and reducing energy consumption through an opportunistic bioclimatic architecture and the design of a Performance envelope. The LCA of the building has thus demonstrated the relevance of a rehabilitation, with a 25% gain on the GHG emissions for the "materials" item compared with a completely new building.

Architectural description

Rehabilitation of a former military hall into a demonstration building, hosting the technology platform tipee and the CESI (training center for the trades of rehabilitation) and a business incubator.

See more details about this project

<http://eco.agglo-larochelle.fr/grand-projet-technopolitain-atlantech>

<http://eco.agglo-larochelle.fr/documents/33800/310243/Brochure+atlantech.pdf/1ce63114-e652-4dbd-9e91-33b7879100c2>

<http://www.agglo-larochelle.fr/atlantech-un-parc-pilote-bas-carbone>

Stakeholders

Stakeholders

Function : Contractor

CDA de la Rochelle

05.46.30.34.00

<http://www.agglo-larochelle.fr/>

Owner

Function : Designer

AIA Architectes

aia.associates@a-i-a.fr

<http://www.a-i-a.fr/>

Architecture

Function :

AIA Ingénierie

aia.associates@a-i-a.fr

<http://www.a-i-a.fr/>

Structural and Electrical Engineering - Economist

Function : Other consultancy agency

AIA Studio Environnement

aia.associates@a-i-a.fr

<http://www.a-i-a.fr/>

HQE office

Energy

Energy consumption

Primary energy need : 32,60 kWh/m².an

Primary energy need for standard building : 96,90 kWh/m².an

Calculation method : RT 2012

Breakdown for energy consumption : - Heating -> 14.5 kWh / m² / an - Lighting -> 11 kWh / m² / year - Ventilation -> 5.2 kWh / m² / year - DHW-> 1.5 kWh / m² / year - Auxiliaries -> 0.3 kWh / m² / year

Initial consumption : 25,00 kWh/m².an

Envelope performance

More information :

- Structure and insulation (Conserved metal structure - Insulated double skin facade cladding - Wooden beam and wooden box beams with insulation straw - Insulation inside), Up = 0.26

-Low Low (Non-insulated Concrete Slab Conserved), Up = 0.19

- Roof (Insulated steel tray - Cool Roof Membranes - Bio-sourced polyurethane insulation), Up = 0.155

- Windows and doors (Double glazing - Electrochrome glazing - Parietodynamic glazing - Cool Lite Xtrem glazing), $U_w = 1.5$
- Treatment of thermal bridges (Continuity of the thermal envelope (double-skin cladding - roofing))
- Air permeability (Target: $1.2 \text{ m}^3 / \text{h.m}^2$ - Quality of air-tightness monitoring in the construction phase, site-phase tests, large volume test at delivery)
- Air quality and comfort (VOC-absorbing partitions, A + sanitary labeling for finishes, comfort probes)

Renewables & systems

Systems

Heating system :

- Heat pump
- Others

Hot water system :

- Other hot water system

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation
- Double flow heat exchanger

Renewable systems :

- Energy recovery from waste
- Heat pump

Smart Building

BMS :

Pilotage and monitoring of energy consumption and comfort

Environment

Urban environment

Land plot area : $6\,750,00 \text{ m}^2$

Built-up area : 89,00 %

At the gates of Ile de Ré, the agglomeration of Rochelle has decided to dedicate 27 hectares in its heart, to the great ATLANTECH technopolitan project. Unique in Europe, this low-carbon site, a precursor in the field of sustainable development, soft mobility and eco-construction, will welcome companies directly linked to the sustainable building-city chain, TIPEE® trials, training centers and a business incubator. A collaborative space, it is conducive to the development of innovations for the habitat of tomorrow.

Products

Product

Low Carbon Isolation Design

cbrezot@atlantech-Ir.f

<http://www.la-rochelle-developpement.com>

Product category : Structural work / Passive system

The low-carbon islands take place in the framework of the rehabilitation of the military buildings, one of these islets will be Atlantech's showcase and will include a laboratory, park management center and many services.



Costs

Construction and exploitation costs

Total cost of the building : 10 200 000 €

Subsidies : 1 593 649 €

Carbon

Life Cycle Analysis

Eco-design material : Volume biosourced materials (excluding assembly halls and storage) 39 kg / m² SPLA

Contest



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