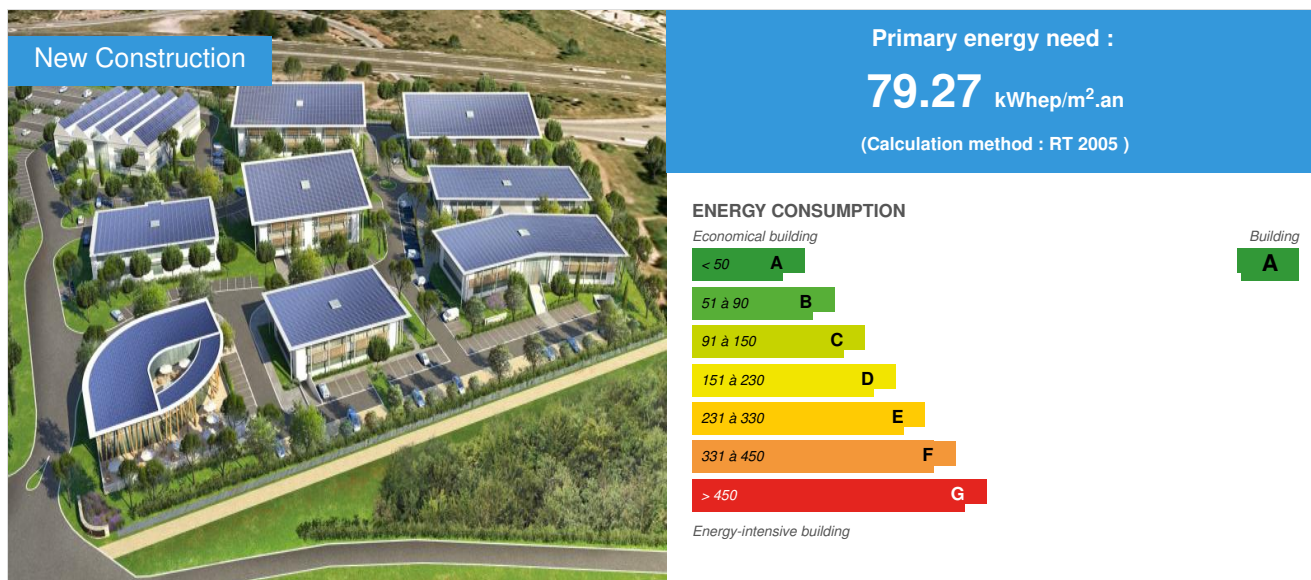


Arteparc Meyreuil

by Laëtitia CERUTTI / 2014-02-12 17:17:30 / France / 8831 / FR



Building Type : Office building < 28m
Construction Year : 2013
Delivery year : 2013
Address 1 - street : route de la Côte d'Azur 13590 MEYREUIL, France
Climate zone : [Csa] Interior Mediterranean - Mild with dry, hot summer.

Net Floor Area : 15 000 m² SHON
Construction/refurbishment cost : 18 000 000 €
Cost/m² : 1200 €/m²

Certifications :



General information

Arteparc Meyreuil is the first business park office buildings with positive energy in the PACA region. The park consists of 15,000 m² of offices, made on 3 acres and divided into nine thirty welcoming business buildings. Indeed, a solar photovoltaic power installed on each of the roofs of new buildings Arteparc producing more energy than the total consumption of the building. These solar power plants have a total capacity of 645 kWp.

nine buildings of Arteparc are therefore BEPOS - positive energy buildings - they produce on average 130% more energy than they consume. The new buildings are labeled Arteparc the BBC Effinergie 2005, in collaboration with CertivA body.

All buildings are energy efficient pumps for efficient heat insulation exterior sunshades, recovery of rainwater, VMC double flux ; heat recovery, ...

Arteparc Meyreuil goes further than standard office park, offering a range of services that reduce the environmental impact of tenants: - Electric vehicles in self-service the park - Carpooling service - Monitoring of energy performance - Fitness self-service, -. restoration services

Indeed, an array of innovative educational board is installed in the lobby of each building: the Greenview Â® system developed by Artea. It shows real-time power generation, the detailed consumption of each item of consumption of the building as well as temperatures and CO2 emissions. The information collected on each

building permit to establish regular reports which are the subject of teacher training among different users.

Sustainable development approach of the project owner

"The first returns of experience have shown that overconsumption of certain buildings FOUND HQE were very often due to lack of information and training of tenant companies and their staff, which generated counterproductive behaviors. "The fonciere ARTEA, which has invested six years in building environmental offices and is one of the companies leading the way in building construction office has positive energy, seeks to go beyond parks traditional office buildings. Indeed, ARTEA wish develop a business park innovative operating as a sustainable ecosystem, or is related comfort, energy savings and financial, flow of information, awareness, 'ARTEA therefore aims to instil behavioral changes that conjugates with the quality of buildings will achieve both a significant environmental performance but also, thanks to new behaviors, better quality of life for employees of companies and their partners. For this ARTEA continually developed a concept of office of the third generation park: the ARTEPARC. With Arterparc Meyreuil, the goal was to create an environmental ecosystem has to make a framework a part of life, while minimizing its impact on the environment. The Arterparc Meyreuil is designed as aecosystem seeking harmony between the life of the company and its environment. It consists of environmental performance buildings, facilities and services to help companies and their employees to work in a living promoting their activities at the same time that their well-being, while reducing their environmental impact . Buildings within the Arterparc are designed along three axes:- Passive bioclimatic designs,- Active Design / efficient equipment,- Renewable energy: solar photovoltaic plant. It should be noted that Arterparc Meyreuil is not the first project of building "green" ARTEA offices but this is his first operation of "green" business park, thereby 'PIECE concept of ARTEPARC for the first time. Indeed, ARTEA has realized buildings consume little energy since 2006 (BBC, HQE ') and since 2008 has realized ARTEA projects a positive energy buildings, producing more energy than they consume. In 2009, three office buildings, situated in the south of France, are books with solar plants located on their roof. Two new projects are delivered in 2010 and four others are in 2011.

Architectural description

Quality of interior spaces:Offices have direct access to daylight as well as a clear view of the outside. Particular attention was given in multiple areas:- Decoration and furniture for public areas- Choice of materials, textures, colors,- Quality of materials: acoustic and visual performance. Quality of outdoor areas: Many terraces and exterior spaces - parks - have been feeders for the well-being of occupants. Bioclimatic architecture: All office buildings of Arterparc Meyreuil are designed bioclimatic. Indeed, the architecture is designed according to the climatic constraints of the site orientation, masks, solar radiation, 'Insulation reinforced by outside Performance glazing: Double efficient and low-emission has argon filled windows have been put in place. Sunshades: The sunshades were established on the southern and western facades of the buildings of the Arterparc to maximize the use of sunlight. The sunshades were sized so that the windows receive sunlight in winter but in summer they block some or all of the sunlight to reduce heat gain.

Building users opinion

The Arterparc Meyreuil is a real success, it has been marketed and is fully occupied. Indeed, the first building of Arterparc book was in 2009 and was quickly full of tenants, despite the crisis. Tenants are satisfied and emphasize the energetics prowess buildings for rent to price the local market with lower loads. Indeed, the tenants did not expect a so energy efficient, their energetics budget being divided by four.

See more details about this project



Stakeholders

Stakeholders

Function : Investor

Artea

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<http://www.fonciere-arte.com/fr/1.aspx>

Function : Assistance to the Contracting Authority

Artesol

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Function : Developer

Arteprom

Tél.: 04 42 94 17 94

Function : Designer

Volume B

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Function : Certification company

Certiv  a

certivea@certivea.fr

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Function : Construction Manager

SLH

contact@groupe-slh.com

<http://www.groupe-slh.com/>

Energy

Energy consumption

Primary energy need : 79,27 kWh/m².an

Primary energy need for standard building : 146,50 kWh/m².an

Calculation method : RT 2005

Envelope performance

More information :

- Insulation reinforced by outside- Efficient Glazing: Double efficient and low-emission has argon filled windows have been put in place.- Break-suns: The sunshades were placed on some facades of buildings of Arteparc to maximize the use of sunlight. The sunshades were sized so that the windows receive sunlight in winter but in summer they block some or all of the sunlight to reduce heat gain.

More information

The pedagogical Greenview display screens informing real-time consumption and performance of the building have been set up in the lobby of each building to educate tenants - companies and their salaries - on their energy consumption and water. The ability to check and compare their consumption in real time allows tenants to optimize their consumption.

Renewables & systems

Systems

Heating system :

- Heat pump
- Fan coil

Hot water system :

- Individual electric boiler

Cooling system :

- Reversible heat pump
- Fan coil
- VRF Syst. (Variable refrigerant Volume)

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic

Renewable energy production : 254,50 %

Smart Building

BMS :

A BMS system is installed in each building to control the equipment. The system aims to maintain a constant temperature inside for comfort and to ensure a continuous air exchange for good hygiene.

Environment

Urban environment

Land plot area : 30 000,00 m²

Green space : 11 500,00

Geographical location and territorial integration: The Arterparc Meyreuil is Route de la Cote d'Azur, in the heart of the economic pole of Aix-en-Provence and the former mining area of Provence, currently undergoing economic restructuring. Transport infrastructure:- Road Network: the Arterparc is directly accessible by the A8/E80 linking Aix-en-Provence Nice motorway.- Network Rail: TGV stations of Aix-en-Provence and Marseille Saint-Charles are respectively 23 km and a 38 km, each reached within 20 and 30 minutes.- Aerial Network: the airport of Marseille Provence Marseilles is a 33 km - 17 km on which highways - is 25 minutes. Shops and services: The Arterparc Meyreuil goes further than standard office park, offering a range of services reducing the environmental impact of the tenants. Green spaces: More than 11,500 m² of green areas were established within the Arterparc, featuring local species adapted to the climate and requires little water: umbrella pine, olive, cypress de Provence, lavender '

Products

Product

Greenview Â®

Artesol

contact@artisol.fr

<http://www.artisol.fr/1.aspx>

Product category :

The Energy consumption display has become the standard suite has the implementation of the 2012 thermal regulations. For several years prior to the RT 2012 ARTEA has developed and implemented an operational pedagogical screen in the lobby of each of its buildings, displaying and communicating in real time with their tenants consumption: heating, ventilation, electricity, lighting, etc. 'and their renewable energy via photovoltaic solar panels. The pedagogical Greenview Â® display screens inform in real time consumption and performance of the building. They were set up in the lobby of each building to educate tenants - companies and their salaries - in their consumption of energy and water as well as the production of photovoltaic electricity. The ability to check and compare their consumption in real time allows tenants to optimize their consumption. Indeed, the purpose of the display Greenview Â® is to make accessible to any user information on different types of consumption of the building. The system Greenview, in addition to providing a specific service to businesses to participate in a reduction of their environmental impact to their binding activity, also makes service manager properties:- Detect the malfunction of the building in timereel,- Optimize operations and maintenance of the building.

Tenants are very satisfied with their display Greenview Â®, informing in real time their consumption in detail, which allows them to check and compare their consumption on the different positions (heating, ventilation, '). Accordingly, they can adopt behaviors economies and reduce the cost of their bill. Grace Greenview Â® and the energy performance of buildings, tenants were pleasantly surprised to see their energetics budget divided by four.



Health and comfort

Water management

Recovery of rainwater to irrigate landscapes: A retention tank-recovery of rainwater with a capacity of large capacity was implemented. Facilities hydro-economies: Taps all buildings are equipped with infrared detectors, to achieve economies of substantial water.

Indoor Air quality

Use of low-emission paints: Labelled painting "Ecolabel Europeenne" - ecological label of the Union Europeenne - RELEASING very low VOC. Ventilation: A CTA turbofan energy recovery was established to provide for the treatment of fresh air coming into the building. Floors: Establishment of a classified + carpet (very low VOC emissions in the air).

Carbon

GHG emissions

Building lifetime : 50,00 année(s)

Life Cycle Analysis

Eco-design material : The choice of materials was oriented according to the information provided in the EPD records (Record of Environmental and Health Declaration). For example, an ecological carpet, certified and recyclable was set up in buildings.Ventilation:CTA implementation conforms to the RT 2012, in anticipation since Arteparc is subject to the RT 2005 and the CTA and its filters are 100% recyclable.

Contest

