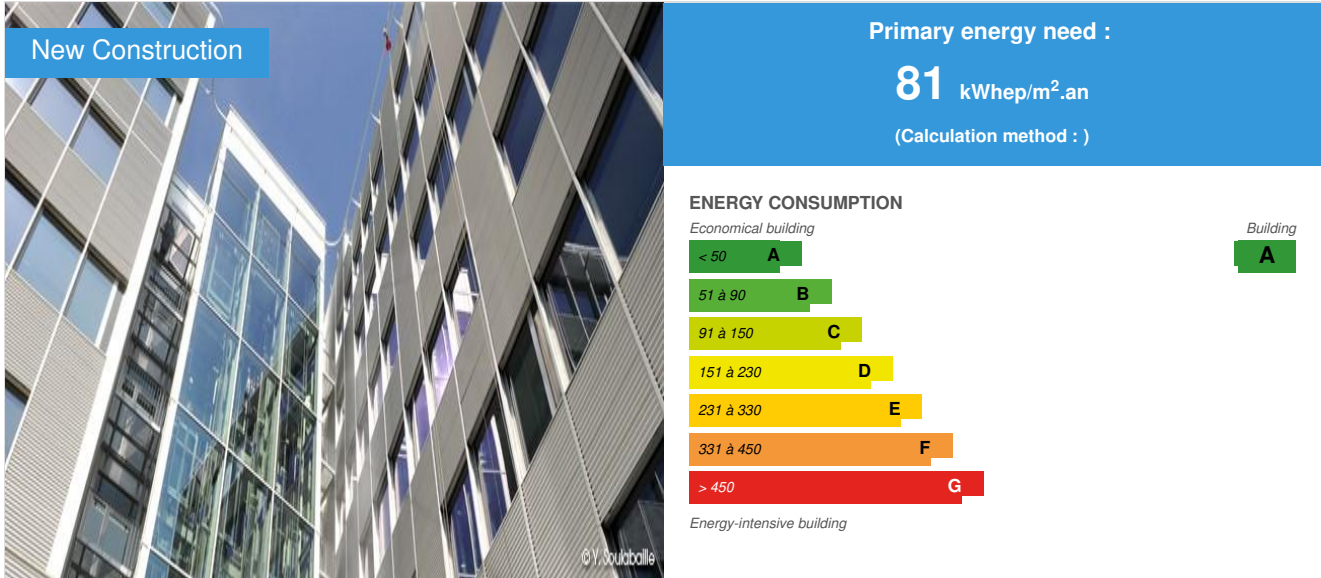


## Monet

by [Rodolphe Deborre](#) / 2015-07-06 15:58:23 / France / 14612 / FR



**Building Type :** Office building < 28m  
**Construction Year :** 2014  
**Delivery year :** 2015  
**Address 1 - street :** 265 Avenue du président Wilson 93310 SAINT DENIS, France  
**Climate zone :** [Cfb] Marine Mild Winter, warm summer, no dry season.

**Net Floor Area :** 20 600 m<sup>2</sup>  
**Construction/refurbishment cost :** 41 260 000 €  
**Number of Work station :** 1 600 Work station  
**Cost/m<sup>2</sup> :** 2002.91 €/m<sup>2</sup>

**Certifications :**



**Proposed by :**



### General information

Developed under real state promotion contract by Nacarat, this set of 20 600 m<sup>2</sup> of offices divided into four buildings, will host all future services of the SNCF, with capacity for 1600 people.

Designed by the Agency Devillers & Associates and built by Rabot Dutilleul Construction as general contractor, the Monet not only offers spacious and comfortable workspaces around a patio. The program, located in the new business district of Landy, is also fully engaged in urban renewal policy of "La Plaine Saint Denis" and the requalification of the former site of GDF gas plants. Certified Non-residential building under construction- HQE® and Low energy consumption building (BBC Effinergie), it contributes to the energy transition of its territory, as illustrated by the rooftop installation of 595 m<sup>2</sup> of photovoltaic panels. This "fifth facade" should allow an annual production of 70,000 kWh, redistributed on the public network. A first for Nacarat!

### Sustainable development approach of the project owner

A pioneer in the field of eco-design, Nacarat is engaged in a process of social and environmental responsibility, based on ISO 26000 reference. This commitment is definitely illustrated by high environmental and social value-added operations such as Monet . Project stakeholders, MOE, advice, business, were up to the high ambitions of the project yet. The stress. Anxious to anticipate the regulations on energy efficiency, Nacarat designed this project, responding to BBC standards even before the office repository is established. Certified NF tertiary buildings - HQE®, Monet focuses on controlling consumption thanks to increased external insulation. In order to obtain the label Effinergie® BBC, which embodies the reduction of more than 50% of energy consumption reference RT 2005, Monet welcomes 595 m2 of photovoltaic panels on the roof. Annual production is estimated at 70,000 kWh, this electricity is distributed to the public network.  
<https://www.youtube.com/watch?v=Am8pMwrfLW4&index=2&list=PLiM804js2Bd51petLU3FV79ccyRUo8Fv3>

## Architectural description

A modular project where transparency and vegetation coexist:

- We imagined an exceptional building by its flexibility. When the SNCF spoke about their interest, we could easily reshape the project to the specific needs of the company, including creating a second input and adding modular meeting rooms. The objective is to think the building over the long term.
- In addition, Monet consists of four buildings open on all four facades, connected by transparent bridges and the center of which extends a patio. The project provides a large place to vegetation; the terraces, roofs and patio will be widely planted promoting rainwater retention and creating an ecosystem pleasant to work.

<https://www.youtube.com/watch?v=ldSv9kHkRXM&feature=youtu.be&list=PLiM804js2Bd51petLU3FV79ccyRUo8Fv3>

## Building users opinion

Not yet occupied (in September 2015).

## If you had to do it again?

Complex project but very well executed: it is a great pride for Nacarat and Rabot Dutilleul Construction. We were referring to the same thing. Maybe taking into account the interest of the territory for the circular economy, integrating waste recycling in concrete by example ... to follow in other projects.

## See more details about this project

<http://www.leparisien.fr/saint-denis-93200/saint-denis-un-nouvel-immeuble-ecolo-livre-a-la-sncf-au-landy-23-06-2015-4886125.php#xtref=https%3A%2F%2Fwww.google.fr%2F>

<https://www.construction21.org/france/data/sources/users/4713/intervenants-a-lacte-de-construire.docx>

## Stakeholders

### Stakeholders

Function : Contractor

Nacarat

Sophie Galmard

<http://corporate.nacarat.com/fr/corporate/realisations/detailcorporate/4/saint-denis-le-monet.html>

Developer

Function : Company

Rabot Dutilleul Construction

Marc Sanoner

<http://www.rabotdutilleulconstruction.com/>

Green construction site at TP HQE

Function : Designer

Christian Devillers Architecte

Christian Devillers

<http://www.agencedevillers.com/>

Great architect

Function : Other consultancy agency

TERAO

Anne-Cecile Ledanois

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

AMO Eco Construction

## Contracting method

Other methods

## Energy

### Energy consumption

Primary energy need : 81,00 kWhEP/m<sup>2</sup>.an

Primary energy need for standard building : 99,00 kWhEP/m<sup>2</sup>.an

Calculation method :

Breakdown for energy consumption : Heating: 33 kWhEP / m<sup>2</sup> / year Cooling: ECS 7.9: 4.58 Ventilation: 22 Lighting: 20 Auxiliary: 1.8 PV Production: 7.85

### Envelope performance

Envelope U-Value : 0,79 W.m<sup>-2</sup>.K<sup>-1</sup>

More information :

Concrete curtain wall cladding effective Alu Glass. High density. See details on thermal study

Indicator :

Air Tightness Value : 1,38

## Renewables & systems

### Systems

Heating system :

- Urban network
- Radiant ceiling
- Fan coil

Hot water system :

- Urban network

Cooling system :

- Urban network
- Fan coil

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Solar photovoltaic

Renewable energy production : 10,00 %

See products

Solutions enhancing nature free gains :

Brise soleil. (voir produits). Inertie lourde.

## Environment

### Urban environment

Land plot area : 7 182,00 m<sup>2</sup>

Built-up area : 80,00 %

Green space : 1 526,00

New tertiary area around the Stade de France: <http://www.plainecommune.fr/les-projets/projets-urbains/landy-pleyel/> <http://www.semplaine.fr/realisation/zac-landy-pleyel-saint-Denis/>

## Products

### Product

Photovoltaic Module PW6-BIPV1

Photowatt

Resp Commercial

<http://www.photowatt.com/panneaux-solaires/panneaux-photovoltaiques-rendement/fabricants-panneaux-solaires.html>

Product category :

Integrated photovoltaic module to the frame.

RAS



Modelpak 82-58

modelsystemitalia

Resp Commercial

[http://www.modelsystemitalia.it/fr/produits/stores\\_venitiens/stores\\_venitiens\\_exterieur/Modelpak\\_82\\_58/](http://www.modelsystemitalia.it/fr/produits/stores_venitiens/stores_venitiens_exterieur/Modelpak_82_58/)

Product category : Gros œuvre / Système passif

The blinds Modelpak® 82 and 58 to metal blades are characterized by a desired profile, curved and designed to allow optimum levels of concealment and precise metering of daylight indoors.

No particular problem



## Costs

### Construction and exploitation costs

Cost of studies : 4 300 000 €

Total cost of the building : 52 840 000 €

## Health and comfort

### Indoor Air quality

Hygrometric comfort HQE TP validated during the audit

### Comfort

**Health & comfort :** Visual comfort noticed during audit HQE: "The architect has done a very important work on transparency in the whole building with such all-glass elevator shafts, very open stairs, glass strips end partition to optimize the buildings natural lighting"

**Measured thermal comfort :** Confort hygrométrique HQE TP validé lors de l'audit

## Carbon

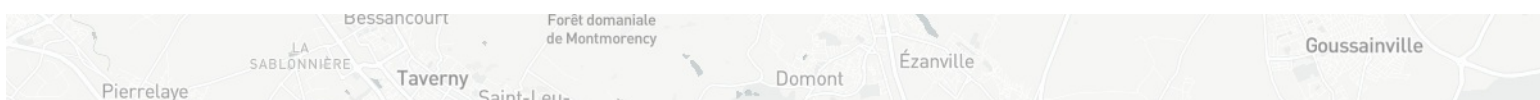
### GHG emissions

GHG in use : 10,00 KgCO<sub>2</sub>/m<sup>2</sup>/an

Methodology used :

RT calculation

### Life Cycle Analysis



## Reasons for participating in the competition(s)

Renewable Energy: 70000 kWh /year of photovoltaic electricity production

Zero energy: 20 000m<sup>2</sup> certified Lowenergy consumption building (BBC)

Health comfort: HQE certification with special attention of the architect Christian Devillers on the subject comfort / Health

Third Industrial Revolution:

- Renewable energy
- Energetic efficiency

