



12 NEW ECO-BUILDINGS IN DE BONNE

ONE STEP CLOSER TO GRENOBLE'S 2020 GOALS

SYNOPSIS

About 12 eco-buildings are built in de Bonne with a minimum of 50% lower energy consumption level than the national average. The buildings present various architectural and technical characteristics.

BACKGROUND

In 2007 the City of Grenoble drafted its Energy Action Plan, in line with the Metropolitan Climate Plan with the aim to cut by four GHG emissions by 2050. Its objectives for 2020 are the EU's "3x20". As 80% of GHG emissions in Grenoble come from buildings, the City concentrates its efforts on this sector in recent years. Thus, the City of Grenoble has engaged to renew the 8.5 hectares of military barracks and to build 12 eco-buildings in the de Bonne district, representing a total of more than 850 dwellings; 435 are part of the SESAC project.

OBJECTIVES

- Erect 8 eco-buildings with an energy performance of 50 kWh/m²/year for heating (40% below applicable building standards in France).
- Educate all the stakeholders involved in the construction of these new energy efficient buildings (from property developer to end user).
- In the long term, speed the introduction of sustainable practices in the private local construction sector.



PROJECT DESCRIPTION

The eco-buildings are 7 floors high and contain 17 to 121 dwellings each. They have a compact form, concrete structure with external insulation, low emission glazes with special focus on thermal bridges. Each building is equipped with a double flow ventilation system, solar heating for hot water, a mini CHP boiler and there is a common natural gas boiler in case of extra needs for 2 or 3 buildings.



RESULTS

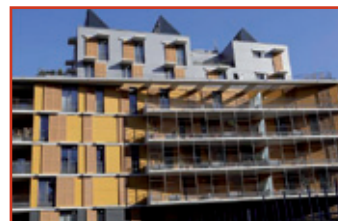
Consumption per year:

- 50 kWh/m² used floor area, final energy for heating.
- 35 kWh/m² used floor area for hot water.
- 10 kWh/m² used floor area for electricity.

The main success is that this demonstration project develops innovative methods at the local and national levels concerning both technical and management issues.

RECOMMENDATIONS

- The energy specifications need to be fixed and accepted by all actors early in the planning stage.
- The architects should collaborate with thermal consultants at the beginning of the design phase.
- The follow up of the energy targets has to be ensured during all the building process.



FURTHER INFORMATION

- **Name:** Valérie Diore
- **Position:** Director
- **Organisation:** SAGES, Developer
- **Tel. :** + 33 4 76 48 48 09
- **e-mail:** contact@innovia-sages.fr