**Nice, France**

New built eco-district in Roquebrune Cap Martin (Nice): collective geothermal heat pump

### Key facts

**Buildings**
- Location: Nice, France
- Construction: 2012
- Heat distribution: collective
- DHW production: collective heat pump
- Heated area: 280 dwellings
- Level of insulation: very good

**Heat pump and source**
- Number of heat pumps: 8 x 12kW HP for DHW, 5 x HP for heating / cooling
- Heat source: treated water from water treatment plant

**Heating**
- Type of system: central
- Max temperature: 45°C

**Domestic hot water**
- Type of system: central
- Max. temperature: 55°C
- Hot water storage: 17000 l

**Other information**
- Substations: 4
- Consumption for DHW, heating, cooling: 40 kWhₑₑₑ/m²·yr
- Investments costs: 1 M€ for geothermal installation
- Renewables ratio: 69%

This first part of ecodistrict gathers 7 buildings of dwellings, offices, a nursery; representing almost 20000 m².

The district heating system, specific to this ecodistrict is quite innovative. It is based on the treated water rejected by a water treatment plant located 500 m far from the ecodistrict.

This water is used as the cold source of 8 heat pumps for domestic hot water production and 5 heat pumps for heating and cooling.
Description of the technical concept

The system consists of:

- Boreholes to collect the treated water (the water is collected at a temperature ranging from 12°C to 25°C and rejected at a temperature between 7°C and 30°C)

- 5 medium temperature (45/40°C) heat pumps (CIAT Dynaciát®) for heating and cooling (distribution is ensured by fan heaters)

- 8 high temperature (65/60°C) heat pumps (Heliopac Solerpac®) for domestic hot water production.

- Water tanks for domestic hot water storage (17000 liters)

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