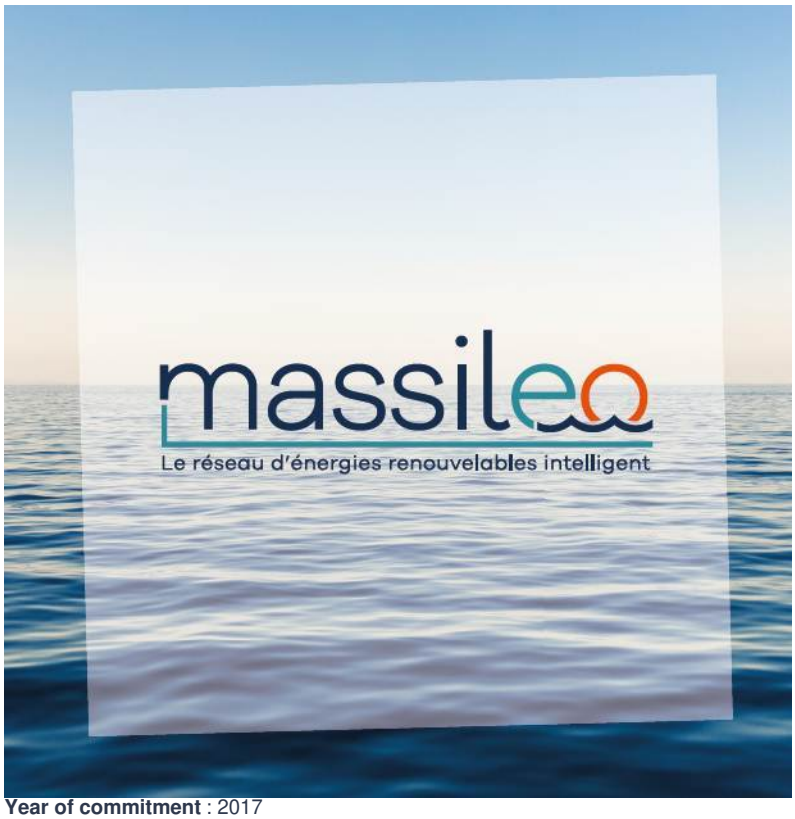
# Massileo, the smart renewable energy network






**Year of commitment** : 2017
**Address 1 - street** : MARSEILLE, France
**Green energies** : Marine energy
**Digital services** : Smart grid

**10 000 000 €**

**Builder**
Optimal Solutions

**Manager** / **Dealer**
Euroméditerranée

## GENERAL INFORMATION

In Marseille, Optimal Solutions, a subsidiary of the Dalkia group EDF, designed and built Massileo ©, a thalassothermic network that produces heating, air conditioning and hot water from 75% renewable energies.
The network is composed of a tempered water loop that connects the calorie recovery plant on seawater - located on the port of Marseille - to the heat pumps installed in the basement of buildings.

This virtuous system allows buildings to exchange their calories. For example, the heat generated by the air conditioning of offices is recovered to produce domestic hot water and vice versa.

**Result: zero energy waste.**

Since 2017, Massileo has been supplying the Smartseille eco-district with 58,000 m2 of offices, shops and housing. Tomorrow, the network will serve a much larger area, up to 500,000 m2.

KEY FIGURES:

- 75% renewable energy and recovery
- 80% less CO2
- 21 MW of hot and cold production

### Progress Status

Delivered

## Data Reliability

3rd part certified

## Funding Type

Private

## Website Enterprise / Infrastructure

http://www.massileo.fr

## Sustainable Development

Attractiveness :
A network to supply heating, air conditioning and domestic hot water 500,000 m2 of offices, shops and housing from 75% renewable energy.

Well Being :

- Suppression of collective gas / oil boilers
- Suppression of cold groups on the roofs of buildings
- Reduction of noise pollution in buildings

Social Cohesion :
Stimulation of the local economic fabric.

Preservation / Environmental Improvement :

- 75% renewable energy and recovery
- 80% less CO2

Resilience :
Seawater is a renewable, stable and local energy.

Responsible use of resources :
Seawater does not undergo any chemical treatment.

## Governance

Groupe EDF

Holder Type : Private Company
Optimal Solutions

Builder Type : Power producer
Euroméditerranée

Manager / Dealer Type : Public
Project supported by the EDF group: design / implementation via its subsidiary Optimal Solutions and operation / maintenance via its subsidiary Dalkia.

Business Model :
Project financed with European Union assistance via the ERDF, the European Regional Development Fund, ADEME, the French Environment and Energy Management Agency and the Caisse des Dépôts via the European Investment Program Future Investments.

## Sustainable Solutions

Energy transfer & Thalassothermie


Description :
The energy system of the network is based on:

- **the transfer of energy between complementary buildings:** the heat generated by the production of air conditioning for the offices is recovered for the production of domestic hot water of the houses;
- **the use of thalassothermy, the thermal energy of the sea:** 100% renewable, local, abundant, reliable and compatible with the stakes of the operation; indeed, the temperature of seawater varies little and never reaches negative values;
- **a temperate water network** between the source and the production plants located in each district where heat pumps allow the production of heating, air conditioning and hot water;
- **heating energy delivery substations** located in the basements of buildings to meet the specific needs of each subscriber.

- Energy/climate :
- Infrastructure
- Climate adaptation
- Renewable energies
- SmartGrids

http://www.massileo.fr/
Company (es) Website :

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Dalkia Smart Building (ex Optimal Solutions)
*@dalkia*

*70 av du Général de Gaulle 92800 Puteaux -*
*http://www.dalkiasmartbuilding.fr/*

Company (es) Website :
Company (es) Website :

EDF SA

## Contest

### Reasons for participating in the competition(s)

How to value renewable, local and available energy all year long: the sea? Massileo © demonstrates by supplying buildings with heating, air conditioning and domestic hot water by 75% of renewable energy thanks to the recovery of calories on the Mediterranean.

### Building candidate in the category

Coup de Cœur des Internautes

Grand Prix Infrastructure Durable

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