

## **Case study: Varese Ligure towards 100% renewable**

### **Background information**

The small rural village of Varese Ligure with its 2400 inhabitants was the first local authority in Liguria to install two 0.75 MW wind power generators. Varese is a small rural local authority in the region of Liguria, in Italy. 95% of the land of the rural local authority has not been built on and is covered by forests.

A decade ago, Varese Ligure found itself in difficulties due to a weakening economy, declining settlements and people moving away. This prompted the mayor to try to do something to reverse the trend and revitalize the local authority by investing in its main resources within the framework of sustainable development.

The investment in renovation of the urban centre, in organic farming and renewable energies boosted the environmental quality of the village, which eventually allowed it to become the first ISO 14001 certified Italian local authority in October, 1999 and the first European EMAS-registered local authority in November 1999. All these actions have resulted in important synergies that support each other towards the final aim of being 100% renewable and 100% organic.

### **Objectives**

The local authority of Varese Ligure is close to its target which is to become 100% renewable and 100% organic. A comprehensive programme of sustainable development was put in place to achieve self-sufficiency through the promotion of renewable energy sources and through energy efficiency.

Within the energy framework, the objectives are the following:

- Promotion of renewable energy sources: the focus is on wind (two windpower generators with a capacity of 2 millions kWh/year will soon be installed), solar (a third solar photovoltaic installation on the public wastewater treatment station is scheduled) and biomass technologies.
- Promotion of energy efficiency: focus on biomass: the authorities are promoting the use of pellet boilers by encouraging local production of pellets as a means of generating income and contributing to forestry maintenance.
- Awareness-raising: One of the main actions is the participation in the EU project for schools called FEE (Force Energetique par les Enfants), to raise the awareness of pupils, families and local stakeholders on energy issues (energy saving and renewable sources) and to the environment in general.

### **The State of activities**

The local authority is now completely self-sustainable as far as electricity is concerned thanks to two windpower generators able to produce 4 million kWh/year and two photovoltaic plants with a capacity of 23.000 kWh/year and meets 98% of the municipal building needs. In addition, 39 PV panels have been installed on a school that produces 4600 kWh. Other two windpower generators with a capacity of 2 millions kWh/year will soon be installed. The establishment of these plants brings also about a considerable CO<sub>2</sub> reduction (approximately 9600 kg/year).

## Implementation

The strategy is managed by the City Council under the direct supervision of its mayor, who is supported, as far as the environmental certification aspects are concerned (periodical audits), by an ad hoc committee.

The wind farm was financed by EU and regional funds (30%) as well as by private investments (60%) for a total of €1,800,00. The PV installation was funded by regional and local funds (€155,000).

## Results and Impacts

The strategy will result in an improvement of the environment and health protection, more security, comfortable lives and higher standards of living.

The ISO 14001 and EMAS certifications have been key to raise the village's environmental awareness and to promoting it outside its boundaries.

In January 2004, at the European conference on renewable energy in Berlin, the local authority received the award of “Best rural EU-local authority for the promotion of renewable energy”.

## Additional information

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