

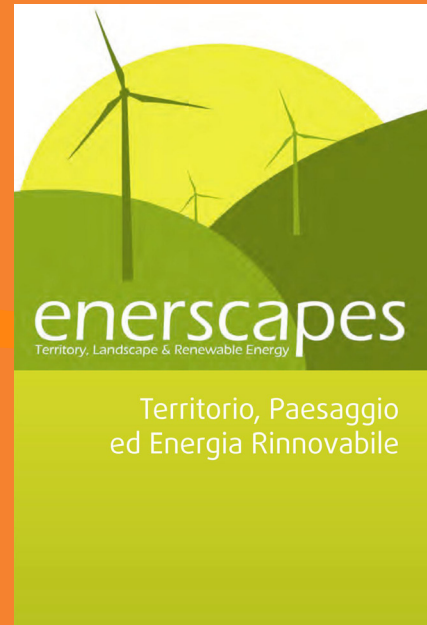
# Enerscapes

## KEYWORDS:

- Building culture
- Construction
- Closed loops
- Governance
- Planning Tools
- Ecology
- Energy efficiency
- Indicators
- Mobility
- Technology transfer

## TARGET GROUP:

- Architects
- Builders
- Citizens
- Craftsmen
- Home Owners
- Planners
- Politicians
- Policy Makers



## Results and outcomes (use cases):

Project Enerscapes, financed in the framework of Programme MED, was aiming at analysing the impact of renewable energy sources (RES) on landscape. The Vercelli Province has worked in particular for the definition of a methodology through which the foreseen impact of different RES (from photovoltaic to biomass) on various landscape typologies (urban residential areas, urban productive areas, agricultural areas, natural areas) can be assessed. The methodology has been defined in order to consider four main issues concerning RES impact:

1. environmental impacts (aiming at protecting and improving biodiversity and ecological networks, protecting and improving air quality, producing energy from RES and reducing wastage of water and at protecting and improving water quality);

2. socio-economic impacts (create new jobs related to green economy, improve social cohesion, support local economy);
3. impacts on landscape (protect and improve landscape quality, limit soil consumption);
4. the economic and administrative feasibility (integrate the new action plan within existing legal and planning framework).

A set of 20 indicators has been elaborated, so to give a quantitative measure of the different impacts, and therefore build a matrix through which scenarios can be assessed and evaluated.

**Description:** The methodology has been developed by the Planning Department of Vercelli Province between 2011 and 2013, with the support/consultancy of U-Space srl, LAND srl, APEVV (Energy Agency Vercelli Valsesia) and the Polytechnic of Torino - Energy Department, and has been tested in a pilot area that covers more than 60% of the Province's territory. The core point of the pilot project has been the definition of a series of scenarios for what the development of RES in the pilot area is concerned. Three types of RES had been

chosen, considering their profitability and efficiency in that specific territorial context, then through the application of indicators four main scenarios have been defined. Finally, through a discussion among various public authorities and Enerscapes scientific consultants a final scenario for each one of the chosen RES has been defined. In the pilot project the area involved was too vast, but for smaller cases the last step of this methodology could include forms of citizen's involvement.  
Type of measure: assessment tool

**Relevance for inter-municipal planning (AlpBC):**

The methodology has a great relevance both for spatial and energy planning, since it adopts an inter-sectorial approach. The basic idea is that the building of a RES plant produces effects (both positive and negative) on many levels, from the economic structure of the area to its landscape and environment, thus the decision has to be defined through a process that considers all the different aspects/outputs of the project, comparing and weighting them with the support of a specific methodology. This is also the reason why the indicators used for assessing the impact of RES are both quantitative (for example the amount of people living near RES plants, water

consumption, foreseen CO<sub>2</sub> savings and so on) and qualitative (like the visual impact of the RES plants, the possibility of conflicts etc). The use of this methodology could have a positive impact on the building culture too: the comparison among different scenarios and the attention paid to the interaction between energy, landscape and environment can stimulate the adoption of innovative solutions and of specific norms (for example, in the Italian case, building regulations linked to Municipal spatial plans that define the possible uses of elements such as photovoltaic modules in urban or rural contexts).

**Relevance for policy goals (Alpine Space, Europe and the region):**

The impact of RES plants can endanger seriously the values of Alpine Space landscapes, as already shown by many negative examples. On the other hand Alpine Space has great potentials for what RES are concerned, thus it is essential to find sustainable ways for exploiting this kind of resources. The methodology elaborated by Vercelli Province could be the key tool for coping with these issues, and therefore for elaborating long-term energy plans that can reach two main objectives at the

same time:

1. increase the economic capacity of the Alpine Space and its attractiveness, allowing the exploitation of one of its main resources;
2. protect its landscapes and natural capital, which is probably the main asset of the whole area.