The Alpine Convention and the promotion/regulation of renewable energy (M. Onida)

Most of the energy used in large cities in the late XIXth and first part of XXth Century was produced in the Alps. The large European rivers such as Rhine, Rhône, Danube and Po derive up to 75% of their waters from the Alps. This richness (water + gravity) led to a very intensive exploitation of the energetic potential of the Alps. Almost all alpine watercourses are exploited for energy purposes, some are exploited up to 90% of their waters. Today, even if large cities and industry are no longer dependent only on energy from the Alps, the intensification of the use of RES and the financial benefits associated to RES due to public policies are a matter of concern, since the Alps continue lending themselves very well to the exploitation of renewable energy, and this goes often to the detriment of environment and landscape protection. The issue of promotion of RES in the Alps deserves therefore careful attention and in this sense the Alps are a laboratory for the debate on the combination of the promotion of RES with nature and landscape conservation.

1. Data for the Alpine Convention territory are not available. Only some non- comparable data exist. In Austria renewable energy sources account for 27% of primary energy consumption (14% biomass, 10% hydropower, 3% solar, wind and geothermal). 23% of final energy consumption for room heating comes from biomass. As regards electricity, in 2008 5% was produced from biomass, 66% from hydropower, 3% by wind. Data for Italy are available for whole regions (some of which fall partly within the Alpine Convention area): production from RES represented 20% in Lombardy in 2008, 17% in Trentino Alto-Adige, 10% in Veneto, 5% in Valle d'Aosta, 3% in Friuli Venezia-Giulia. Slovenia produced in 2002 32% of its electricity from RES. A common feature of all Alpine regions is nevertheless clear: the share of RES is rapidly increasing (biomass, solar, enhancement of the efficiency of hydropower) .

   As regards the requirements of Directive 2009/28/EC, Austria set a target of 34% by 2020 (compared to 24% in 2005). Austrian legislation was amended in February 2010 in order to provide for support of feed-in tariffs. The target is 15% "labeled green electricity" by 2015. Italy aims at a achieving 28,97% RES out of the total gross production by 2020. France "Grenelle" established a target of 23% of energy to be covered by RES by 2020. In Germany 10% of the gross domestic energy consumption is covered by RES, and a target of 18% has been set for 2020.[1]

2. The Alpine Convention is a multilateral environmental Treaty signed in 1991 and in force since 1995 with the overall goal of protecting the Alpine ecosystems and protecting the interest of the Alpine population. Between 1994 and 2000, eight thematic protocols were adopted. They are in force since 2002 in the States which ratified them (Austria, Slovenia, France, Germany,

[1] Source: Sustainable rural development and innovation, Report on the State of the Alps, Alpine Signals, Special Edition 3, 2011.

Liechtenstein). The EU ratified 4 protocols, including the one on energy. Switzerland and Italy none[2].

The Alpine Convention sets out in its Article 2, letter K, the overall goal of introducing methods for the production, distribution and use of energy which preserve the countryside and are environmentally compatible, and to promote energy saving measures.
This objective is to be combined with the other goals of the Convention, such as conservation of nature and the countryside and the economic and rational use of land.

The 1998 Protocol on energy sets out an overall objective to "establish sustainable development in the energy sector which is compatible with the Alpine region's specific tolerance limits". The potential conflict between energy infrastructures and the Alpine environment is the basis of the Protocol. The Protocol mentions climate change in its 9th preamble.

Among the general commitments, the "promotion of renewables" is to be found: Parties shall take into account in their energy policies the fact that the Alpine region lends itself to using renewable energy sources (Art. 2(3)).

Furthermore, the promotion of RES is the subject of Art. 6. Parties shall promote and give preferential treatment to renewable energy sources which are environmentally friendly and do not harm the environment (Art. 6(1)); they shall encourage the use of decentralized plants for the use of RES, such as water, the sun and biomass (Art. 6(2)); Parties should in particular encourage energy produced though rational use of water and wood from sustainably managed mountain forests.

As regards impact mitigation, foreseen instruments are:

- EIA, including the evaluation of socioeconomic and territorial effects, in case of construction of new large power plants or significant capacity increase of existing ones (Art. 2(2)).
- Preservation of protected areas and their buffer zones as well as areas of unspoilt nature and countryside. Energy infrastructures shall be optimized according to the different levels of vulnerability , tolerance and ongoing deterioration of the ecosystems (Art. 2(4)).
- Developing methods for taking better account of the true costs in the field of energy (externalities) (Art. 2(6)).
- Hydroelectric power (Art.7). Safeguard the ecological functions of water courses, landscape integrity, maintenance of minimum flows, reduction of artificial fluctuations in water level, guarantee of animal migration, protection of water resources in areas reserved for drinking water as well as in protected areas and their buffer zones, in quiet

[2] The Swiss Parliament decided in September 2010 not to ratify the Protocols of the Alpine Convention. The decision of the Italian Parliament is still awaited.

zones and areas of unspoilt nature and countryside; principle of fair compensation of local population for services supplied in the general interest.

- Minimisation of the environmental impact by transport and energy distribution (Art 10).

The promotion of the use of RES is also one of the pillars of the 2009 Action Plan on climate change (non-binding document), which calls for :

- Participative energy policy in order to create consensus;
- Promotion of RES on a local level by communities and individuals;
- Information campaigns on the use of wood from mountain forests and other RES respecting the environment and produced locally.

3. In Austria the Protocols of the Alpine Convention are directly applicable. Several cases exists where administrative decisions (e.g. authorization of projects for new hydropower plants) refer to the conditions set out in Article 7 of the protocol on energy or impose mitigation measures deriving from such conditions[3]. Until now this seems to be, however, limited to Austria.

4. There are several lively debates at local level, related to specific projects, in the area covered by the Alpine Convention. This is also influenced by debates at national level. In the case of Italy, the Government recently decided to stop or significantly decrease the financial support which had been introduced to promote RES, since this had boosted the number of applications to the support-scheme, leading to a considerably increase in the price of electricity. This may however currently be reconsidered in light of the Japan nuclear crisis, which cast further doubts on the appropriateness of the planned nuclear investments by the current Government.
   The several ongoing debates on the sense or nonsense of renewable energy projects in the Alps recently led the Alpine Convention to adopt of common Guidelines on the construction and use of small hydropower stations in the Alps (adopted by COP XI on 9th March 2011). These guidelines, though non-binding, contain clear indications on the choice of appropriate areas and technologies for small hydropower. Among others, sites located in national protected areas as well as water-related Natura 2000 sites are classified as “non-favourable for hydropower use”.

5. Biomass and solar plants are generally well accepted. However, due to the already intense level of exploitation of natural resources in the Alps, there is a growing resistance by the public to new projects of hydropower stations, in particular by NGOs, Alpine Clubs and nature conservation associations. The resistance is related to the effects on the water courses as well as on nature in general (construction of roads for building the stations and ensure maintenance).
   As regards wind energy, there is a strong opposition due to the impact on landscape and on birds. South Tirol recently declared itself “wind-power free” which implies that the existing stations will have to be removed. However, an exception is foreseen for the Brenner corridor (where the largest ever built wind farm in the Alps - 32 wind mills - is planned: this would be

[3] E.G. Bescheid 14.2.2011 Gemeinde Innervillgraten, Kleinkraftwerke am Stallerbach und am Kalksteinbach – Verfahren nach dem Tiroler Naturschutzgesetz 2005; Bescheid 6.4.2006 Donau Chemie AG, Landeck, Kraftwerk Wiesberg, naturschutzrechtiches Bewilligungsverfahren.

located at the border with Austria and its "landscape protected area", the Government of Tirol expressed a negative opinion on 14.3.2011) . In light of the fact that the energy Protocol does not contain specific measures on wind farms, an amendment to the energy Protocol in order to provide for specific rules applicable to wind energy appears to be necessary.

6. Environmental impact assessment procedures in the Alpine Convention are governed by Art. 10 of the Protocol on land planning and sustainable development (referring to projects in general) as well as Art 2(2) and 12 of the Protocol on energy (referring to energy projects). These provisions are quite soft compared to those contained in EU law (Dir. 85/337/EEC as amended). However, they also refer to the assessment of the territorial and socioeconomic effects - as well as the interest of the local population - of projects. Since the effects of energy infrastructures for both the territory and the local population are seldom positive (scarce job creation, negative effects on tourism), these aspects can play an important role in the decision to (or not to) authorise them.

7. The EU ratified the energy protocol of the Alpine Convention on 27 June 2006, which is therefore part of the EU *acquis*. This seems however not to imply that EU policy on energy always takes the protection of the Alps into full account. A case in point is Decision 1364/2006 of the EP and the Council, laying down guidelines for trans-European energy networks (based on Art 172 TFUE, former Art 156 EC Treaty). These networks are aimed at ensuring interconnection and interoperability of the electricity grid, for internal market purposes. Article 3(d) mentions the contribution to sustainable development and protection of the environment, inter alia by involving renewable energies. Annex III to the decision lists a number of energy TENs, which are currently being built. Among these, power lines crossing the Alps, some affecting Natura 2000 areas, are listed (e.g. power lines between Austria and Italy). It is doubtful whether some of the projects listed in this Decision are compatible with Art. 10 of the Protocol on energy to the Alpine Convention, calling for a special consideration of protected areas and their buffer zones, quiet zones and those of landscape and naturalistic interest as well as bird habitats. A deeper and more comprehensive debate on the environmental effects of these TENs would have been necessary. It is very difficult for local authorities and NGOs to influence such projects once they are mentioned as TENs in a decision by the EU.

8. The Action Plan of the Alpine Convention on climate change is meant as the general framework act. Although it had been approved by COP X, it is a non-binding document and its implementation is left to the good will of the competent authorities. Moreover, the Action Plan on climate change does not directly deal with the effects of energy infrastructures on landscape and the environment. Still, it constitutes a framework for initiatives at local and regional level. Several local authorities have taken specific measures, in accordance with their competences, in order to implement this plan by means of concrete actions. A recent example is the "climate-energy plan" of the *Communauté des Communes de la Vallée de Chamonix-Mont Blanc.* [4]

[4] http://www.alpconv.org/climate/Territorial_example_it.htm