

Wind power plants in mountain areas

1. Preamble

In the energy policy of the CAA, the implementation of energy saving potentials takes priority over the utilisation of renewable energy sources. In this order the CAA member associations support the utilisation of wind energy as a climate-friendly form of energy that preserves resources and the environment. However, this utilisation should be restricted such that impairment of landscape and nature by wind power plants is kept as small as possible.

Especially in the mountains and mountainous regions, strict standards shall be applied for planning and approval of wind power plants. This is to ensure the preservation and maintenance of existing ecologic, aesthetic, touristy assets of such areas.

Therefore, the CAA makes specific demands for wind power plants in the alpine region and extra-alpine mountain areas in which CAA member associations operate (e.g., Apennine, Pyrenees, low mountain ranges).

2. Background and validity

The CAA policy is based on various existing policies of its member associations, amongst others, the OeAV, DAV, CAI and FFCAM. These associations are no less strict in their regulations than the present CAA position paper.

The requirements of the CAA policy correspond widely with the Swiss concept "Wind energy 2004" (www.swiss-eole.ch/images/1140/CH/KonzeptWindenergieCH-d.pdf), which has been developed in a consensual, broad consultation with all stakeholders.

Furthermore CAA policy is concordant with the alpine convention (specifically, with articles 9 and 10 of the protocol on nature protection and landscape conservation, and article 6 paragraph 1 of the protocol on energy).

The CAA position paper "Wind power plants" is binding for all CAA member associations. However, member associations are free to adopt additional more comprehensive country-specific regulations.

3. Starting position

Energy generation through wind power is increasing on a global scale. In Europe, this development has been supported by the EU-directive on the promotion of energy produced from renewable energy sources for the internal energy (EURL 2001/77/EG).

In low lands and off-shore areas across Europe, a multitude of wind power plants and wind parks has already been erected. But construction is rising also in mountain areas.

In power generation from wind, positive aspects like preserving resources, prevention of air pollution and climate protection are contrasted by negative aspects like aesthetic devaluation of the landscape, noise emission, umbrage, disturbance of fauna (especially avifauna) and impairment of natural and cultural assets.

In mountain areas these negative consequences of wind power plants are particularly noticeable. Hence all decisions for or against planning and erecting wind power plants need most diligent consideration of all issues.

Due to topographical and wind conditions (wind either too strong or too weak) in the Alps, truly large scale wind energy plants will never be feasible. They will not be able to contribute a substantial amount to total energy supply.

When gauging aspects of utility and protection, this fact has to be recognised as a factor leading to a comparatively smaller emphasis on utility aspects.

4. Locations

The CAA defines the following environmental criteria that are necessary for the site selection of wind power plants. Determining concrete criteria opens the possibility to assess individual projects in their compatibility with regional planning and implement an appropriate appreciation process. These criteria define audit areas and exclusion areas, closely matching the criteria developed by the Swiss project "Wind Energy 2004".

4.1 Possible locations for wind power plants in the alps = audit areas

The construction of wind power plants has to comply with applicable legal regulations concerning environment, land use planning and landscape on European, country, and county level. Central regulations are:

- strategic environmental audit (EU-RL 2001/42/EG)
- environmental compatibility audit (EU-RL 97/11/EG)
- alpine convention

Potential audit areas are characterised as follows:

- Sufficient distance from exclusion areas
- Favourably locations with existing structural works and technical infrastructure
- No disturbance of view axes, small intrusion of natural scenery, few (negative) consequences on nature, especially birds.
- Site selection at existing traffic structures suitable for heavy vehicle use
- Existence of a regional environment-energy-plan.

These suitable areas are to be defined as legally binding in instruments of regional planning and legal documents on council/county/country level.

4.2 Exclusion areas

The CAA member associations exclude wind power plants in protection areas as well as in spaces with special importance for the avian fauna and in regions of a special natural beauty or cultural importance as "no go spaces". Excluded from this definition are small individual power plants which serve exclusively for the power supply of isolated locations (e. g. hamlets, mountain huts).

Exclusion areas are all areas legally defined as protection areas, such as

- Natura 2000 areas (EU-RL 79/409/EEG (FFH-RL) and 92/43/EEG (bird protection - RL)
- National parks
- nature reserves
- resting areas
- landscape conservation area
- protected biotopes

- Ramsar – protection areas
- UNESCO – world natural heritage areas

Further, the following are routinely not suitable for wind power plants:

- areas of special importance for birds: areas of bird migration, resting areas, food and breeding areas, grassland breeding areas, wetland areas
- visually exposed location with prominent view axes
- areas of outstanding beauty
- historical cultural landscapes
- memorials of cultural, architectural or archaeological interest that are protected or worth of protection
- areas with distinctive view axes to points of interests
- areas of importance for alpine tourism
- settlement areas:
 - a) pure residential area < 500m radius distance
 - b) mixed use zone < 250m radius distance

4.3 Disassembly of wind power plants

A disassembly plan shall be mandatory for all wind power plants. Disassembly upon end of production period is at the operator’s expense. An appropriate financial deposit has to be made in favour of the councils. This deposit covers both structural damages and disassembly costs.

5. Involvement

All landowners, abutters and other stakeholders affected have to be involved in the selection of wind power plant sites. In mountain areas this includes the respective alpine clubs who routinely have a thorough knowledge and longstanding experience of the region at their disposal.

6. Summary

CAA appreciates wind power plants as a method of extracting renewable energy if these plants are located at environmentally friendly locations. CAA prefers the selection of “audit areas” over “exclusion areas. However, CAA understands that topographical and wind-practical characteristics of the Alps render large-scale wind power plants not feasible. Therefore wind power is of only minor importance in the Alps.

Moreover, the Alps are of enormous economic interest for tourism due to natural and cultural characteristics of their landscape. CAA puts forward clear conditions and exclusion criteria closely aligned with the Swiss concept “wind energy 2004”.

It demands the involvement of all affected stakeholders and interest groups in the planning of wind power plants – in mountain areas, this includes alpine clubs.

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