

WINDBLATT

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Wind turbine at Alpine Heights

 **ENERCON**
ENERGY FOR THE WORLD

Turbine at Alpine Heights

An ENERCON E-40 is producing clean energy on the Swiss GÜtsch.



Tricky: The transport of a tower part for an E-40 on the GÜtsch with 2,323 metres height.

A wind turbine 2,332 metres above sea level – with this project on the Swiss GÜtsch overlooking the small city of Andermatt ENERCON has realised the world's highest-lying turbine. Switzerland is coming closer to reaching its goals concerning its energy policies. In 2010, ten to twenty percent of renewable energy is expected to be generated by wind turbines. Governmental, regional, communal and environmental organisations are working together to create a "Swiss Wind Energy" concept. The GÜtsch Project is part of this concept.

In the year 2000 the operators of the "Elektrizitätswerk Ursern" (EWU) had a turbine from ABB installed at the GÜtsch site. Numerous problems with this wind turbine finally led to a shutdown in 2004. Although the project was broken off, EWU was still convinced about the GÜtsch site. It is a particularly well-exposed location with high wind speeds of 7 m/s which arrive from the three surrounding valleys. Moreover, the location is equipped with mountain railways and ski lifts. EWU quickly negotiated with ENERCON to install an E-40/600 kW. For both parties, it was clear that a wind class I version for this extremely windy site was the best

solution. "We wanted only ENERCON turbines because ENERCON is the only well-known company which has been successfully using the gearless concept for years and also features a multitude of other technological innovations. This of course is a huge advantage for a site such as GÜtsch", Markus Russi from EWU reports.

Last year the first parts such as the tower, the nacelle and the rotor blades arrived at GÜtsch on heavy transport trucks. It was soon easy to see that the ENERCON turbine was able to master the winds at the GÜtsch site and already produced 100,000 kWh of green energy in the first month. Residents are also positive about the wind energy converter. According to a survey carried out by Mediactifaus Vevey, those questioned were in favour of wind energy and see the wind turbines as an asset to their environment.

The expectations for the ENERCON turbine are high: It is expected to reach an annual power production of 1.3 mn kWh. This corresponds to a yearly energy requirement for 400 medium sized households in Switzerland. So far the ENERCON turbine has had no problems fulfilling the set re-

quirements. Because of the positive experience with this turbine, EWU is planning to add two further ENERCON machines on the GÜtsch. "The turbine is all by itself up there, it really needs company to reap the average winds of 7m/s", says Russi. In order to make more efficient use of the winds on the GÜtsch, EWU is planning to install higher performance E-70/2 MW wind turbines.

More ENERCON wind farm projects are on the drawing board in Switzerland. And this mostly due to the positive framework conditions: "The current power purchase price, which is at an average of SF 0.15 (approx. 0.10 Euro) per kWh, makes it even possible to reach profitable results at sites with less wind", states Andrea von Lindeiner, ENERCON sales representative for Switzerland.

Currently, ENERCON is erecting the first E-70/2 MW wind turbine for the project Cime de l'est near Collognes in the Rhône Valley. Here the composition of the operating company shows that the residents are in favour of the installation. Several communities and power supply companies form an association called Rhône-Eole in order to realise this project.