

The different evaluation-methods of the wind farm noise in Switzerland - Computer models / IN-SITU measurements

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ABSTRACT

The different evaluation-methods of the wind farm noise in Switzerland – computer models (project of new wind farms) or in-situ measurements (as for existing wind farms) are often discussed by the concerned authorities and organizations (federal and cantonal public authorities, Suisse Eole ...). For modeling the FOEN (Federal Office for the Environment) recommends the method based on the EMPA report “Lärmermittlung und Massnahmen zur Emissionsbegrenzung bei Windkraftanlagen” (2010). There is no official measuring method in Switzerland for the evaluation of the wind farms noise.

In order to improve the evaluation of the wind farm noise, this research project aims to compare the current Swiss calculation method with the results of in-situ measurements of a wind park.

The comparison between the results of the measurement and the modeling shows that the average global sound level (annual averaged LAeq by day) obtained from the measurements is 6 to 8 dB(A) higher than the values obtained by the modeling. If one takes into account the index L90, the difference is between 4 and 6 dB(A).