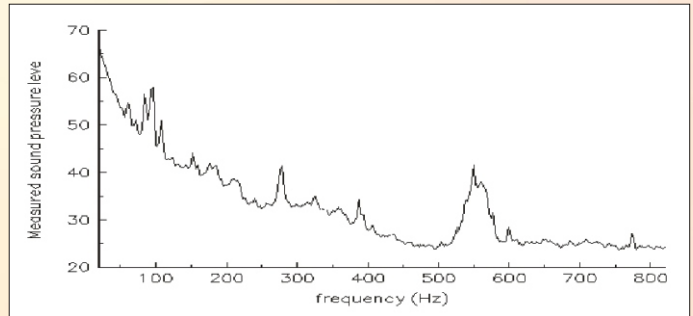


WIND TURBINE NOISE MEASUREMENTS

The **noise** emitted from wind turbines is recognised as a negative environmental impact of wind energy applications. As the installed number of wind turbines grows, noise becomes one of the significant factors in the siting and planning of wind farms or individual wind turbines.

The emitted noise level, as a function of wind speed and the tonality of the noise are crucial for the nearby dwellings.



The Laboratory for Wind Turbine Testing (LWTT) of CRES performs complete noise emission measurements characterising a wind turbine and noise immission measurements at the receptor site in order to evaluate the noise impact from wind parks. With mobile units, sophisticated instrumentation and high quality staff LWTT performs measurements and analysis according to **IEC standards**, **MEASNET** and **FGW procedures**.



LWTT has considerable experience in noise propagation measurements and validation of noise propagation models. Within MEASNET, LWTT participates in the regular round robin tests between the network members. Apart from using standard techniques, CRES is developing new and more cost effective methodologies for measuring noise emission from wind turbines under strong wind conditions.

LWTT has issued test reports for type certification purposes of prototypes, for validation of different variable speed control algorithms as well as for noise levels at residential receptor locations.

