



Directional Profiles of Wind Speed and Turbulence Intensity over Forest and Open Land

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More and more wind turbines are built onshore and reduce the available areas for wind energy. Forests are additional potential for wind energy priority areas. But the high roughness of wooded areas and the resulting turbulences make it difficult to assess sites in forests.

In order to cope with this problem some measurements were done inside and outside wooded areas. Therefore met masts equipped with ultra sonic and cup anemometers and LIDAR were used. With the measured wind speed and its standard deviation the turbulence intensity was calculated. The results are direction dependent profiles of wind speed and turbulence intensity.