



## The gain of the wind!

For the effective use of your site's wind conditions, we will arrange an optimised wind park layout. The expected energy yields will be predicted by us in accordance with all relevant guidelines. This will win you the trust of your financing bank.





## 6 Final Micrositing

Within the scope of the final micrositing, we will ensure that your wind park effectively uses the prevailing wind potential and arrange for an optimized energy yield appropriate for your site.

We will provide you with advice regarding the optimal hub height as well as converter type. An efficient arrangement of the wind energy plants will minimise mutual shadowing effects of the single turbines and make optimum use of the spatial distribution of the area's wind potential. The estimation of the park layout is conducted via extensive GIS-based analysis which is based on the detailed wind field information derived by FITNAH-3D modelling, among other sources.

Here, minimum distances to streets and buildings are considered, as well as distances between the single wind energy plants themselves. To secure compliance with all respective regulations, turbine layout can be optimised regarding all legal requirements (noise, shadow-casting, etc.), and a suitable crane parking area and access route can be planned. All Micrositing tasks will be carried out by GEO-NET in a customised fashion using a wind direction distribution which is suitable for the selected hub height and desired WTG type.

In this way, your future wind farm will work even more efficiently, letting you look forward to noticeably increased energy yields!



## 7 Bankable wind and energy yield report

GEO-NET has been accredited for many years by the DAkkS in accordance with DIN EN ISO/IEC 17025:2005 for the „estimation of wind potential and energy yields of wind energy plants“ as a test laboratory. In accordance with all national and international technical directives and standards (FGW TR6 etc.), we will provide you with bankable wind and energy yield assessments as an essential basis for the financing of your wind energy project.

Since our foundation, we have intentionally abstained from standard procedures, but exclusively use the mesoscale model FITNAH-3D for the calculation of wind fields. FITNAH-3D is applicable worldwide, is subject to a continuous improvement process and is suited best to produce plausible results even for complicated

and forest sites. The wind field is always verified with the wind measurement conducted beforehand and/or energy yields of existing wind energy plants. Only after this step energy yield calculations are carried out for your planned turbine type at the selected sites. The range of our services also includes: the calculation of reduced yields for operation restrictions, such as throttling or occasional switching off of the WEA on the basis of noise or shadow-casting restrictions, sector management, icing or for the protection of birds and bats.

The survey is rounded off by an expert evaluation of the results with a view to the profit forecast and respective uncertainty analysis. This provides you with reports which are fully bankable.