

FOUR WIND FARMS NEAR BRUCK/LEITHA

Client: Energy Park Bruck/Leitha GmbH / Enercon GmbH

Development Period: since 1/2012

THE PROJECT

Northeast of Bruck an der Leitha, the wind farms Deutsch-Altenburg Carnuntum, Rohrau, Haadfeld and Höflein Ost with altogether 39 wind power stations are currently under construction. The facilities are designed for a nominal output power of 3 MW each. The height of the hub is 99 m and 135 m respectively, and the rotor diameter 101 m.

OUR FUNCTION

For this project, BGG Consult attended to the geotechnical investigation of the underground and the compilation of expert's reports with regard to geotechnics in preparation of the building permission documents.

For the survey of the underground situation, one direct (core drilling) and one or two indirect explorations (dynamic probing or cone penetration test) were conducted at the location of each plant. Furthermore, the dynamic soil parameters were established by means of seismic refraction surveys, and the grounding resistance by geo-electric measurements.

During construction, a geotechnical supervision is carried out, which includes the quality control of the underground construction works. This implies, among others, the verification of the static calculations regarding the pile foundations.

Varying Foundation Methods:

Based on the results of the exploration, the foundation methods were determined for each plant location. For the objective wind farms, shallow foundations with or without soil improvement (vibro-replacement compaction) and deep foundations (cast-in-place concrete driven piles) were implemented. In some cases, different foundations were carried out within one wind farm. The pile depths were also determined for each location individually.



Construction of foundation