

Wind farm Fischbeck & wind farm Holzacker-Knorbург

8 wind farm sites

Impulse compaction »System TERRA-MIXTM«

**_Building
site report**

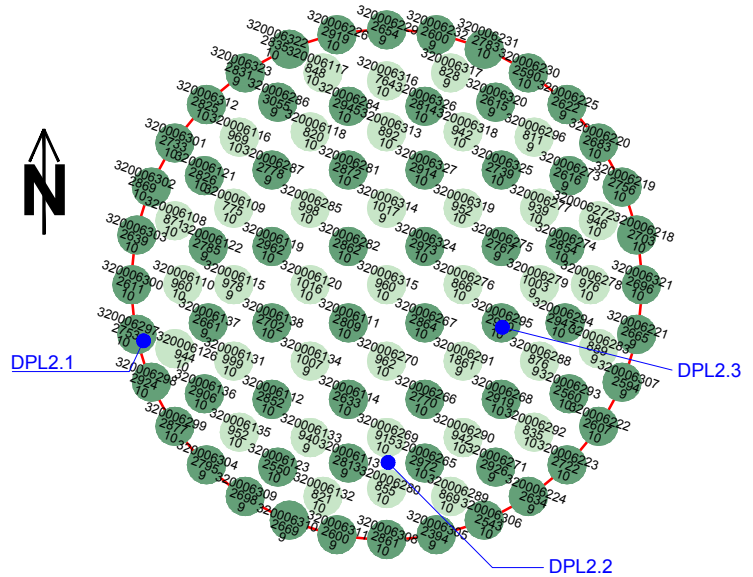
- _Execution: September 2013 & March 2014
- _Prime contractor: Siemens AG Energy Sector
- _Area per site: some 420 m² (with overlap)



_Building site report

Job description:

For both sites applies the need to turn the loosely bedded sands (fine to medium dense sand with some silty enclosures) into an at least medium dense bedding, such that the building ground for the surface foundation (circular foundations, diameter 19.0 to 20.0m) could be transformed into a good bearing state.



Solution:

In order to compact the loosely bedded sands the principle of Impulse Compaction was successfully applied. The groundwater close to the surface was dropped by means of water drainage down to some 80cm below the working plane. As a compaction grid a base grid of 3,0m was used, whereby up to three transitions were necessary. The intervals were compacted in one transition with so called „finish points“, in order to ensure an even bedding density over the whole area. Consideration of the geometry of the circular foundations, especially in the border areas with the highest edge compression, was taken into account.

Results:

At least a medium dense to even in large parts a dense bedding up to a good bearing building ground could be achieved (- to a depth up to some 5.0m below the working plane). The degree of compaction could be proven by means of recordings of the compaction unit, as well as by samples from dynamic probing carried out single-handedly as well as externally by the geotechnical building supervision.

