

Wind Power On The Sintfeld

The wind area Sintfeld

Wind farm Eilerberg (Helmern)
Wind farm Eisenhof
Wind farm Meerhof
Wind farm Wohlbedacht





Vorsprung
setzt
Standards



Energie für die Welt



ENERCON GmbH
Dreekamp 5
26605 Aurich
Tel. 0 49 41/ 9 27 - 0

THE SINTFELD-TEAM

PLANUNG,
PROJECT ENGINEERING
AND REALISATION:



Günter Benik



Michael Flocke



Siegfried Rustemeier

CONTACT:



Johannes Lackmann
BWE- Regionalverband



Friedbert Agethen
Sintfeld REGO Strom GmbH

THE WIND AREA SINTFELD

The wind area Sintfeld, settled on the Paderborn plateau between Bad Wünnenberg and Marsberg-Meerhof which is rich in wind, is one of the biggest projects for the development of renewable energies in Germany and the largest inland wind area in Europe.



It consists of seven partial projects in the four wind farms Elisenhof, Eilersberg (Helmern), Meerhof and Wohlbedacht. 17 operation societies are involved. On a territory of 765 ha, 65 wind turbines of the megawatt class are running with an installed total output of about 105 megawatt. 14 operation societies joined in the Sintfeld REGO Strom GmbH and they built the biggest private German transformer station. The investment volume for all projects in the wind area Sintfeld and for the transformer station makes up about 220 million marks.

Right in the beginning, both planners and investors made sure that the new wind area finds support in the population. The wind area of Sintfeld is supported by the whole region which is especially due to the pathbreaking participation- and leasing model, but also to a planning in which there was always the will to find a compromise. With the wind area Sintfeld, the pioneers of regenerative energy in East-Westphalia-

Lip have given a crucial impulse for the development of other outstanding ideas in the future. Particularly in the field of biomass and photovoltaik, new projects have been stimulated in the region.



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IMPRINT

Editor: EWO Energietechnologie GmbH, Dipl.-Ing. Günter Benik, Tel.: 0 52 95/561;

Sintfeld REGO Strom GmbH, Friedbert Agethen, Tel.: 0 29 57/996 31; BWE-Regionalverband, Johannes Lackmann, Tel.: 0 52 52/35 04; **Concept and layout:** Pressebüro Flüter, Paderborn; **Photos:** Ulrich Mertens;

Print: Zimmer Print + MedienService, Wewelsburg; **Status:** August 2001

THE WIND FARMS IN THE SINTFELD WIND AREA



Wind farm Meerhof

- 13 E66, 70 m in rotor diameter, 98 m hub altitude
- 4 E58, 98 m hub altitude
- 2 E40, 40 m in rotor diameter 65 m hub altitude
- 11 V66 Optislip, 78 m in rotor diameter
- 2 V66 Optispeed, 78 m in rotor diameter



Wind farm Eilerberg (Helmern)

- 7 V66, Optispeed, 78 m in rotor diameter
- 1 V47, 70 m hub altitude
- 3 E66, 70 m in rotor diameter 98 m hub altitude
- 2 E58, 70 m hub altitude

Windfarm Wohlbedacht

- 10 E66, 70 m in rotor diameter, 98 m hub altitude

Windfarm Elisenhof

- 9 NEG Micon, 750 KW, 70 m hub altitude



A PROFIT FOR THE REGION

Regarding the choice of the investors for the wind area, first of all small and big financiers from the region were gladly appreciated. The owners of the turbines are not anonymous big investors, but citizens themselves.

The operation societies, with one exception, all have their headquarters in Marsberg and Bad Wünnenberg, so that the citizens of both cities can benefit from the trade tax. This is why there is no rejection by the people in the Sintfeld area concerning windpower. The realization of renewable energy, close to the needs of the citizens, is one of the biggest successes of the Wind Area Sintfeld-project.

Seven turbines are still in design and will be built up in 2002. The other arrangements have been or will be built in the period from August, 2000 to November, 2001. Nine turbines with a total output of 5 MW have already been operating in different locations on the Sintfeld for up to six years. Once the project has been finished, there will be about 80 wind turbines with a total output of 110,5 MW.

Annual power produced:

190 million kilowatt hours; Electricity for about 70.000 households

Total Investment:

232 million Deutschmarks

Investment for transformer station:

5 million Deutschmarks

Total area: 780 hectare



NEW PATHS

All wind parks of the Sintfeld wind area are connected with a brandnew transformer station in Meerhof. This is our new path. With a total investment of 5 million deutschmarks and a capacity of 105 MW, this constitutes the biggest transformer station, ever built under private initiative in Germany.

In the transformer station Meerhof, the produced energy is being transformed from the voltage level of 30 kV to 110 kV. To reach this aim, two high-power transformers with up to 50 MVA are in operation. With a 110 kV open-air switchgear and corresponding portals, the 110 kV

net accessibility takes place. The station is prepared for all eventualities. If it should, against expectation, come to the failure of an overhead cable system, most of the produced energy can nevertheless be fed into the grid by a system.

In times of little wind or maintenance, the capacity can be fed into the grid by a power transformer. Thus transformer losses can be reduced. The latest protective techniques and gas-isolated 30 KV switch-gears, which are poor in maintenance, guarantee smooth operation and greatest possible safety.



NEW SOLUTIONS

By a pathbreaking leasing-model sensible balancing of interests between the property-owners has succeeded in the Sintfeld wind area.

For the wind farms in Eilersberg and Meerhof there is for example an agreement between operators and lessors which makes sure that each lessor is involved in the sales. Thus, also fields with no turbines will pay off for their owners.

The interests of those land-owners who signed an usufruct-agreement for 30 years are represented by an advisory committee. The advisory committee is allowed to take part in all decisions concerning the plots.

