

Onshore Substations (HV)

We are planning substations for wind farm operators, transmission and distribution network operators with a voltage of up to 400 kV.

As a result of the takeover of the company IEE (Ingenieurbüro für Elektrische Energieversorgung) in November 2015, we can refer to an experience in planning HV substations of nearly 20 years.

We carry out the complete range of required planning work, including conceptual design, detail design and the preparation of tender documents. During the procurement phase, we support our clients by evaluating tenders, carry out tender negotiations and finally recommend a preferred bidder.

During the implementation phase, we take the "Owners Engineer Role": We are in charge of the construction supervision, carry out inspections and support the commissioning process. We further take over all communication with network operators, authorities and all other parties involved.

A selection of onshore substations planned by MPE (and formerly IEE) are summarized in the following table. For all these substations, we executed the above described scope, including conceptual planning, detailed planning, preparation of tender documents, procurement and construction supervision. The typical contract value of such a project is in the range between 40 000,- Euro and 60 000,- Euro. All listed projects have been executed during the last 10 years. Currently, M.P.E. realizes around 10 HV substation projects (with the above described scope) per year. The clients are "anonymous" but can usually be disclosed upon request.

| Name of Substation | Capacity [MVA] | Voltage level [kV] | Network operator | Usage |
|---------------------------------------|----------------|--------------------|------------------|----------|
| Alikendorf UW | 40 | 115/31,5 | Avacon | Wind |
| Aschersleben Nord UW | 63 | 110/20 | Mitnetz | Wind |
| Berching UW Oening | 50 | 115/21 | E-ON Netz | Wind |
| Bernburg Stw. UW | 80 | 110/20 | Mitnetz | Industry |
| Biere UW 1.Expansion | 40 | 110/20 | Avacon | Wind |
| Biere UW | 40 | 110/20 | Avacon | Wind |
| Biere West UW | 50 | 110/20 | Avacon | Wind |
| Blockwinkel UW (formerly Schwaförden) | 50 | 110/20 | E-ON Netz | Wind |
| Burghausen UW (formerly Mүнnerstadt) | 40 | 115/21 | E-ON Netz | Wind |
| Burghausen UW | 63 | 115/21 | E-ON Netz | Wind |
| Bützfleth UW | 40 | 110/32,5/6,9 | Avacon | Industry |
| Ciechanów, WP-UW | 63 | 115/21 | Energa (Poland) | Wind |
| Cottbus Ost UW | 40 | 110/20 | enviaM | Wind |
| Cottbus-Halde UW | 40 | 110/20 | enviaM | Wind |
| Diele (Stapelmoor) Wind UW | 25 | 110/30 | E-ON Netz | Wind |
| Drohndorf UW | 40 | 110/20 | E.Dis | Wind |
| Eisenhüttenstadt UW ProPapier | 80 | 110/20 | E.Dis | Industry |
| Eixen UW | 25 | 110/20 | E.Dis | Wind |
| Elm UW | 63 | 115/21 | E-ON Netz | Wind |
| Elster UW | 25 | 110/20 | ESSAG Cottbus | - |
| Freiburg-Elbe (Kajedeich UW+WP) | 13 | 110/20 | E-ON Netz | Wind |
| Genthin UW (formerly Altenplathow) | 40 | 110/31,5 | HSN Magdeburg | Wind |
| Gerbstedt UW | 40 | 110/20 | EnviaM | Wind |
| Gratze UW (Freudenberg-Beiersdorf) | 40 | 110/20 | E.Dis | Wind |
| Harsleben Süd UW | 40 | 110/30 | HSN Magdeburg | Wind |
| Harsleben UW | 40 | 110/30 | Avacon | Wind |
| Hof-Nord UW | 63 | 110/30 | E-ON Netz | Wind |
| Holtriem II UW | 63 | 110/20 | E-ON Netz | Wind |

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|-----------------------------------------------------|-----|----------|-----------------|--------------|
| Kampen UW (formerly Südkampen) | 63 | 110/20 | E-ON Netz | Wind |
| Kiel Stw.-UW Malmöweg | 95 | 110/20 | SW Kiel | - |
| Klein-Bünsdorf UW | 40 | 110/30 | E.Dis | Wind |
| Kuhsdorf II UW (UW Kuhsdorf-Süd) | 40 | 110/20 | E.Dis | Wind |
| Kuhsdorf UW | 40 | 110/20 | E.Dis | Wind |
| Lalendorf UW | 25 | 110/20 | WEMAG | - |
| Langenhorn UW BA 1 + 2 | 63 | 110/20 | E-ON Netz | Wind |
| Lausitz UW 67-12 (construction supervision) | 80 | 110/20 | Mitnetz | Wind |
| Level UW-WP Ungarn | 32 | 120/22 | EDASZ (Hungary) | Wind |
| Liepen UW | 50 | 110/20 | E.Dis | Wind |
| Lochum UW | 40 | 110/20 | RWE | Wind |
| Lübz UW | 40 | 110/20 | WEMAG | Wind |
| Mahlwinkel UW Uchtorf I | 50 | 110/20 | HSN Magdeburg | Wind |
| Meuro - UW Schipkau | 63 | 110/20 | envia | PV |
| Mücke UW (formerly Seibertenrod) | 50 | 110/20 | E-ON Netz | Wind |
| Nemsdorf UW, Farnstädt 2 WP | 40 | 110/20 | enviaM | Wind |
| Nessa UW | 63 | 110/20 | envia | Wind |
| Neuburg UW (PV Jännersdorf Nord) | 40 | 110/33 | WEMAG | PV |
| Neukammer (Nauen) UW | 32 | 110/20 | E.Dis | Wind |
| Neukammer (Nauen) UW Expansion 2.BA | 63 | 110/20 | E.Dis | Wind, Biogas |
| Nielebock UW | 40 | 110/20 | Avacon | Wind |
| Oppeln UW | 32 | 110/20 | ESAG | - |
| Otterndorf UW | 100 | 110/20 | E-ON Netz | Wind |
| Pakistan UW Cube Engineering | 40 | 132/22 | NTDC (Pakistan) | Wind |
| Parchim-Süd UW Trafo 103 (construction supervision) | 80 | 110/31,5 | WEMAG | Wind |
| Parchim-Süd UW Trafo 104 (construction supervision) | 80 | 110/31,5 | WEMAG | Wind |
| Raguhn UW (WP Salzfurkapelle) | 63 | 110/31,5 | enviaM | Wind |
| Reinstedt UW | 32 | 110/20 | MEAG Halle | Wind |
| Sadenbeck UW | 63 | 110/20 | E.Dis | PV |
| Sallenthin UW (Jeggeleben-Liesten) | 50 | 110/20 | Acavon | Wind |
| Schnabelwaid formerly Schmellenhof UW | 63 | 110/20 | E-ON Netz | Wind |
| Schönbrunn UW | 32 | 110/20 | ESAG | - |
| Schwaförden (Blockwinkel) UW | 40 | 110/20 | E-ON Netz | Wind |
| Schwerinsburg UW | 32 | 110/20 | E.Dis | Wind |
| Sieverstedt (formerly Eggebek) UW-PVA | 80 | 110/20 | E-ON Netz | PV |
| Simmern UW Bürgerstück | 63 | 110/20 | RWE | Wind |
| Stolpe UW | 40 | 110/20 | E.Dis | Wind |
| Uettingen UW (formerly Kirchberg) | 40 | 110/20 | E-ON Netz | Wind |
| Wächtersbach UW | 63 | 115/20 | E-ON Netz | Wind |
| Wasserleben II UW | 8 | 110/30 | Avacon | Wind |
| Wiesmoor-Süd UW-WP | 50 | 110/20 | E-ON Netz | Wind |