

REFERENCE LIST

CCE

Abbreviations:

S.S. - Substation
T.P.P. - Thermal power plant
G.P.P. - Geothermal power plant
H.P.P. - Hydro power plant

The reference list is updated annually and includes major assignments only. End users are defined as last instance where the individual reference can be traced and verified. Therefore they do not necessarily coincide with owner of the plant in question.

| Site | Country | Year | Main Contractor | End User | Description |
|------------------------------|----------|------|--|------------------------|--|
| S.S. 220/22 kV AIT BAHA | Morocco | 2010 | ABB Energy Automation S.p.A. Italy | CIMAR Morocco | Configuration, setting and testing of the control and protection systems |
| TALUM d.d. S.S. 110/10 kV | Slovenia | 2010 | TALUM d.d. Slovenia | TALUM d.d. Slovenia | Overhaul testing of the protection systems |
| TALUM d.d. S.S. 110/10 kV | Slovenia | 2010 | TALUM d.d. Slovenia | TALUM d.d. Slovenia | Extension of SCS – Inclusion of bays K1 and K3 |
| S.S. 145/20/10KV HEDEMORA | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Design and delivery of protection and local control systems |
| S.S. 145/20/10KV HEDEMORA | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Commissioning of the protection system and local control system |
| S.S. 145/20KV LAGGARHULT | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Design and delivery of protection and local control systems |
| S.S. 145/20KV KATRINEHOLM | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Design and delivery of protection and local control systems |
| S.S. 145/20KV SKÖLDINGE | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Replacement the protection of 145kV lines |
| S.S. 145/20KV SNACKETORP | Sweden | 2010 | Goodtech AB Sweden | Vattenfall Sweden | Replacement the protection of 145kV lines |
| S.S. 145/20KV MALUNG | Sweden | 2010 | Goodtech AB Sweden | Fortum Sweden | Design and delivery of protection and local control systems for 145 kV |
| S.S. 145/20KV MALUNG | Sweden | 2009 | Goodtech AB Sweden | Fortum Sweden | Commissioning of the protection of 145 kV line |
| S.S. 145/20KV MOCKFJÄRD | Sweden | 2010 | Goodtech AB Sweden | Fortum Sweden | Design and delivery of protection and local control systems of 145 kV line |
| S.S. 145/20KV MOCKFJÄRD | Sweden | 2010 | Goodtech AB Sweden | Fortum Sweden | Commissioning of the protection system and local control system of 145 kV line |

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| Site | Country | Year | Main Contractor | End User | Description |
|--|--------------------|-------------|---|---|---|
| DESAL. PLANT RAS LAFFAN S.S. 400/220/66/11 KV | <i>Qatar</i> | <i>2010</i> | <i>ABB CH Switzerland</i> | <i>RGPC, AL KAHRA MAA Qatar</i> | <i>Commissioning of the protection system and SCS</i> |
| S.S. AIN DJASSER 220KV SWITCHYARD | <i>Algeria</i> | <i>2010</i> | <i>ABB Energy Automation S.p.A. Italy</i> | <i>SONELGAZ Algeria</i> | <i>Commissioning of the protection system and SCS</i> |
| S.S. 60/5 kV HASSI R'MEL | <i>Algeria</i> | <i>2010</i> | <i>ABB Energy Automation S.p.A. Italy</i> | <i>SONATRACH Algeria</i> | <i>Commissioning of the protection system and SCS</i> |
| S.S. 60/30KV EL MADHER | <i>Algeria</i> | <i>2010</i> | <i>ABB Energy Automation S.p.A. Italy</i> | <i>SONELGAZ Algeria</i> | <i>Intervention on gateway type COM581</i> |
| S.S. 220 kV ANGAMOS | <i>Chile</i> | <i>2010</i> | <i>ABB AB Sweden</i> | <i>Chile</i> | <i>Commissioning leadership of the secondary systems and high voltage equipment</i> |
| S.S. 220 kV ANGAMOS | <i>Chile</i> | <i>2010</i> | <i>ABB AB Sweden</i> | <i>Chile</i> | <i>Commissioning of the protection system and control system</i> |
| S.S. 765/400/230/20 KV YARACUY | <i>Venezuela</i> | <i>2010</i> | <i>ABB AB Sweden</i> | <i>EDELCA Venezuela</i> | <i>Commissioning leadership of the secondary systems and high voltage equipment</i> |
| S.S. 765/400/230/20 KV YARACUY | <i>Venezuela</i> | <i>2010</i> | <i>ABB AB Sweden</i> | <i>EDELCA Venezuela</i> | <i>Commissioning of the protection system and control system</i> |
| S.S. 765/400/230/20 KV LA ARENOSA | <i>Venezuela</i> | <i>2010</i> | <i>ABB AB Sweden</i> | <i>EDELCA Venezuela</i> | <i>Commissioning of the protection system and local control system</i> |
| S.S. 138/13.8KV TAMARE | <i>Venezuela</i> | <i>2010</i> | <i>ABB VE Venezuela</i> | <i>ENELVEN Venezuela</i> | <i>Commissioning of the protection system and local control system</i> |
| S.S. BANILAD, S.S. MANDAUE | <i>Philippines</i> | <i>2010</i> | <i>ABB Philippines</i> | <i>TRANSCO Philippines</i> | <i>Corrective maintenance-MBSC server repair and intervention</i> |

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|--|-----------------|-------------|---|---------------------------------------|--|
| <i>SULAIMANIYAH STAGE IV, 11 S.S. 132/33/11 kV</i> | <i>Iraq</i> | <i>2010</i> | <i>ABB Near East Trading Jordan</i> | <i>MoE Iraq</i> | <i>Design and delivery of protection and local control systems</i> |
| <i>H.P.P. ATATURK 8 GENERATORS</i> | <i>Turkey</i> | <i>2010</i> | <i>ABB AG Germany</i> | <i>EUAÇ Turkey</i> | <i>Elaboration of AS BUILT documentation</i> |
| <i>H.P.P. KARAKAYA 6 GENERATORS</i> | <i>Turkey</i> | <i>2010</i> | <i>ABB AG Germany</i> | <i>EUAÇ Turkey</i> | <i>Elaboration of AS BUILT documentation</i> |
| <i>T.P.P. BRESTANICA 2x114 MW TURBOGAS</i> | <i>Slovenia</i> | <i>2010</i> | <i>T.P.P. Brestanica Slovenia</i> | <i>T.P.P. Brestanica Slovenia</i> | <i>Upgrade of the control system</i> |
| <i>S.S. 110/20 kV VETROCOM</i> | <i>Bulgaria</i> | <i>2010</i> | <i>ABB EOOD Bulgaria</i> | <i>EON Bulgaria</i> | <i>Delivery of SCS and configuration of protection system</i> |
| <i>S.S. 110/20 kV VETROCOM</i> | <i>Bulgaria</i> | <i>2010</i> | <i>ABB EOOD Bulgaria</i> | <i>EON Bulgaria</i> | <i>Commissioning of SCS and protection system</i> |
| <i>S.S. 60/30KV OUED DJER</i> | <i>Algeria</i> | <i>2010</i> | <i>ABB AG Germany</i> | <i>ONID Algeria</i> | <i>Design and delivery of protection and SCS</i> |
| <i>REMOTE TERMINAL UNIT – ABB PRODUCT RTU560</i> | <i>Germany</i> | <i>2010</i> | <i>ABB AG Germany</i> | <i>ABB AG Germany</i> | <i>Development of communication protocols</i> |