



References

March 2021

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2001-curr.	30.0	20	GE	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
ESP	2002-curr.	99.0	132	NEG Micon	0.75	Operator	Due diligence/contract negotiations, structuring of the project, technical controlling during construction phase, acceptance and operational phase
DEU	2002-curr.	13.5	9	Nordex	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2002-curr.	14.0	7	Vestas	2	Investor	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2003-curr.	12.0	8	GE	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction, acceptance and operational phase
DEU	2004-curr.	14.4	8	Enercon	1.8	Operator	Due diligence/contract negotiations, technical controlling during construction, acceptance and operational phase
						Operator	
DEU	2021	5.6	1	Vestas	5.6	Projektentwickler	energy yield estimation
DEU	2021	12.6	3	Nordex	3.6	Investor	Pre-Due Diligence
DEU	2021	6.0	2	Enercon	2.99	Projektentwickler	energy yield estimation
DEU	2021	8.4	2	Enercon	4.2	Projektentwickler	energy yield estimation
DEU	2021	3.0	1	Enercon	3	LHI Kapitalverwaltungsgesellschaft mbH	As-built document assessment
DEU	2021	9.0	3	Nordex	3	LHI Kapitalverwaltungsgesellschaft mbH	As-Built document assessment
DEU	2021		3			Stadtwerke Tübingen	Site Check
DEU	2020	16.8	7	Nordex	2.4	Operator	effect bat hysteresis
DEU	2020	17.0	5	Nordex	3.4	Project developer	Yield Review
DEU	2020	22.8	4	Nordex	5.7	Project developer	Yield Estimation
DEU	2020	17.1	3	Nordex	5.7	Project developer	Yield Estimation
DEU	2020	17.1	3	Nordex	5.7	Project developer	Yield Estimation
AUS	2020	22.4	4	Vestas	5.6	Project developer	Yield Estimation and micro-siting

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2020	13.8	5	GE	2.75	Operator	production data analysis
DEU	2020	13.8	5	GE	2.75	Operator	Energy Yield Review
DEU	2020	12.6	3	Vestas	4.2	Project developer	Grid Connection Optimisation
FRA	2020	87.7	41	Nordex	2.5	Investor	Technical Due Diligence
DEU	2020	10.8	3	Vestas	3.6	Investor	Technical Due Diligence
DEU	2020	3.0	1	Enercon	3	Investor	Technical Due Diligence
AUS	2020	229.6	41	Vestas	5.6	Project developer	yield estimation
DEU	2020	6.9	3	Enercon	2.3	Operator	Estimation of energetic losses due to noise restrictions
DEU	2020	15.4	5	Vestas	3.075	Operator	Technical consulting
DEU	2020	32.4	9	Vestas	3.6	Operator	Technical Due Diligence
DEU	2020	8.4	2	Siemens Gamesa	4.2	Project developer	Determination of the site quality
DEU	2020	13.2	4	Vestas	3.3	Operator	energy yield review
DEU	2020	27.5	7	Enercon	4.2	Operator	energy yield estimation
NLD	2020	100.6	14	Nordex	3.6	Operator	Yield Assessment hybrid power plant
GRL	2020	29.4	7	Enercon	4.2	Investor	energy yield estimation
SWE	2020	0.0				Project developer	wind speed estimation
DEU	2020	16.8	3	Vestas	5.6	Project developer	site visit before measurement
DEU	2020	13.8	5	General Electric	2.75	Operator	calculation losses due to bat protection
DEU	2020	11.2	2	Vestas	5.6	Projektentwickler	energy yield estimation
DEU	2020	16.8	3	Vestas	5.6	Projektentwickler	energy yield estimation
DEU	2020	10.8	3	Nordex	3.6	Projektentwickler	CFD-Yield assessment
DEU	2020	1.7	2	Vestas	0.85	Betreiber	Site Visit and lifetime extension assessment consulting
SWE	2020	62.0	10	SGRE	6.2	Investor	Technical Procurement support during PSA/SMA negotiations
ITA	2020	12.5	5	Nordex	2.5	Investor	Technical Due Diligence
DEU	2020	8.4	2	Vestas	4.2	Investor	Technical Due Diligence
DEU	2020	15.9	3	GE	5.3	Betreiber	Technical Due Diligence

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2020	13.5	3	Nordex	4.5	Investor	Technical Due Diligence
DEU	2020	346.0	203	Vestas	2	Operator	Pre-Due-Diligence
DEU	2019	16.5	6	GE	2.75	Investor	Production data analysis
DEU	2019	13.8	4	Vestas	3.45	Investor	Energy yield review
FRA	2019	74.2	32	Vestas	3.45	Investor	Yield Assessment
DEU	2019	10.4	3	Vestas	3.45	Operator	Repowering Study
DEU	2019	8.4	2	Siemens	4.2	Project developer	Yield Assessment
DEU	2019					Project developer	Lidar measurement
AUS	2019	9.0	2	Nordex	4.5	Project developer	Yield Report
DEU	2019	14.4	4	Vestas	3.6	Operator	Yield Review
GRC	2019	26.4	11	Nordex	2.4	Project developer	Yield Assessment
TUR	2019						Met Mast Measurement Turkey
DEU	2019	13.8	4	Vestas	3.45	Investor	Due Dilligence
DEU	2019	66.6	27	Enercon	3	Investor	Technical Due Diligence Portfolio
DEU	2019	3.0	2	GE	1.5	Operator	Noise Assessment
ESP	2019	108.0	18	Siemens Gamesa	6	Project developer	Feasibility Study
DEU	2019	23.0	14	Nordex	1.5	Operator	Performance Analysis
DEU	2019	27.4	9	Enercon	3.05	Operator	yield Assessment
FRA	2019	31.5	9	Vestas	3.6	Investor	Technical Due Diligence
DEU	2019	27.4	9	Enercon	3.05	Operator	Technical Consulting
DEU	2019	14.4	4	Vestas	3.6	Project developer	Preliminary planning
DEU	2019	28.8	8	Nordex	3.6	Project developer	Approval planning, Execution planning
DEU	2019	16.8	7	Nordex	2.4	Operator	Technical Consulting
DEU	2019		2			Project developer	LiDAR Wind Measurement
GBR	2019	102.2	58	Gamesa	0.85	Operator	Document review for technical management contract
DEU	2019	25.2	8	Siemens	3.15	Operator	Contract review power curve warranty, noise warranty

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2019	10.4	3	Vestas	3.45	Investor	Energy yield review
DEU	2019					Operator	Lidar measurement
DEU	2019	4.0	1	Nordex	4	Municipal utilities	Yield Assessment
DEU	2019	61.2	20	Enercon	3	Operator	Technical Due Diligence
FRA	2019	118.0	50	Enercon	3	Investor	Technical Due Diligence
FRA	2019	10.0	5	Vestas		Investor	Technical Due Diligence
DEU	2019	28.5	8	Vestas	3.45	Investor	Ertragsreview
DEU	2019	3.6	2	Vestas	3.6	Project developer	Noise Assessment Report
DEU	2019	3.6	2	Vestas	3.6	Project developer	Shadow flicker report
DEU	2019	5.6	2	Vestas		Project developer	Noise Assessment Report
DEU	2019	9.9	3	Vestas	3.3	Investor	Due Diligence
DEU	2019	7.5	5	GE	1.5	Operator	life time calculation
NOR	2019	42.0	9	Siemens	4.3	Project developer	Yield Review
DEU	2019	13.8	5	GE	2.75	Operator	LiDAR Wind Measurement
DEU	2019	13.8	5	GE	2.75	Operator	scada data analysis
DEU	2019	4.0	1	Nordex	4.0	Project developer	Planning Design / Permissioin
DEU	2019	31.0	8	Vensys	4.1	Project developer	Energy yield assessment
SWE	2018	90.0		div.		Project developer	Yield Study
DEU	2018	76.1	22	Vestas		Investor	Pre-due-diligence
DEU	2018			div.		Project developer	Preliminary technical examination
DEU	2018	7.2	2	Senvion		Project developer	Yield estimation
DEU	2018	13.2	6	e.n.o.		Operator	SCADA Analysis End of Warranty
DEU	2018	16.5	5	Vestas		Operator	Condition detection
AUS	2018	42.0	10	Vestas		Project developer	Yield estimation
DEU	2018	16.8		Nordex		Investor	Evaluation of operating data, yield study
AUS	2018	7.2	2	Vestas		Project developer	Yield estimation

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2018	49.5		div.		Project developer	Yield estimation
FRA	2018	10.0	5	Vestas		Operator	SCADA Analysis End of Warranty
DEU	2018	10.4	3	Vestas		Operator	Technical Due Diligence
DEU	2018	136.0	42	div.		Project developer	Technical Due Diligence
DEU	2018	11.8	5	Enercon	2.35	Investor	Yield Assessment
DEU	2018					Project developer	LiDAR wind measurement
DEU	2018					Project developer	LiDAR wind measurement
SWE	2018	90.0				Project developer	Yield Assessment
DEU	2018	16.5	6	GE	2.75	Investor	Yield Assessment
SWE	2018	99.0	22	Nordex	99	Project developer	Calculation Electrical Losses
DEU	2018	36.0	12	Enercon	3.05	Operator	Yield Assessment
SWE	2018	42.0	10	Vestas	4.2	Project developer	Yield Assessment
SWE	2018	25.2	6	Vestas	4.2	Project developer	Yield Assessment
DEU	2018	12.0	4	Enercon	3	Project developer	LiDAR measurement
DEU	2018	11.8	5	Enercon	2.35	Investor	Energy yield review
KOR	2018	39.6	11	Vestas	3.6	Project developer	Energy yield review
FRA	2018	31.0	9	Nordex	3.45	Investor	Energy yield review
DEU	2018	3.7	1	Senvion	3.7	Project developer	Energy yield review
DEU	2018	9.0	2	Nordex	4.5	Project developer	Energy yield review
DEU	2018	16.8	4	Vestas	4.2	Project developer	Energy yield review CFD
DEU	2018	14.4	4	Vestas	3.6	Project developer	Energy yield review
DEU	2018	7.2	3	Nordex	2.4	Operator	Production data analysis
DEU	2018	13.8	5	GE	2.75	Operator	Production data analysis
DEU	2018	4.2	1		2.75	Municipal utilities	
DEU	2018	18.0	6	Enercon	3	Operator	Noise and shadow flicker assessment
MEX	2018	200.0	91	Vestas	2.2	Project developer	Preliminary examination site assessment

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
KOR	2018	39.6	11	Vestas	3.6	Project developer	Preliminary examination site assessment
DEU	2018	6.1	2	Enercon	3.05	Operator	Noise assessment
DEU	2018	12.2	4	Enercon	3.05	Operator	Noise assessment
DEU	2018	12.2	5	GE	2.75	Municipal utilities	Technical inspection
AUT	2018	27.6	8	Vestas	3.45	Project developer	Grid Connection Planning
DEU	2018	13.5	3	Nordex	4.5	Project developer	Grid Connection Optimisation
DEU	2018	12.8		Siemens	3.2	Investor	Technical Due Diligence, Energy yield review
DEU	2018	13.6	4	Senvion	13.6	Operator	SCADA data analysis
DEU	2018	10.2	3	Senvion	3.4	Investor	Energy yield review
DEU	2018	6.4	7	Enercon	2.35	Project developer	Energy yield review
DEU	2018	12.0	6	Vestas	2	Operator	SCADA data analysis
DEU	2018	12.0	6	Vestas	2	Operator	SCADA data analysis
DEU	2018	4.0	2	Vestas	2	Operator	SCADA data analysis
SWE	2018	42.0	10	Vestas	4.2	Project developer	LiDAR measurement
DEU	2018					Project developer	Energy yield review
DEU	2018	12.2	4	Enercon	3.05	Operator	Noise study
DEU	2018	26.4	11	Nordex	2.04	Project developer	Digital Twin
DEU	2018	47.0	16	Enercon	3	Investor	Asset Audit
FRA	2018	18.0	6	Nordex	3	Investor	Technical Due Diligence Portfolio
DEU	2018	63.5	22	GE	2.53	Investor	Technical Due Diligence Portfolio
DEU	2017	6.9	2	Vestas		Municipal utilities	Technical Due Diligence, yield review
GBR	2017	26.0	13	Enercon		Investor	Yield review
DEU	2017	9.4	4	Enercon		Investor	Yield review
DEU	2017	38.0	11	Vestas		Project developer	Analysis grid optimization
DEU	2017	30.0	20	GE		Operator	Expansion analysis
DEU	2017	16.5	5	Vestas		Municipal utilities	Technical Due Diligence

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2017	9.0	3	Nordex		Project developer	Yield review
DEU	2017	6.0	2	Nordex		Project developer	Yield review
DEU	2017	21.0	5	Vestas		Project developer	Yield study / sound analysis
FRA	2017	14.0	7	Vestas		Investor	Yield study / technical Due Diligence
FRA	2017	12.3	6	Repower		Investor	Yield study / technical Due Diligence
FRA	2017	113.0		div.		Utility	Technical advisory project contracts
SWE	2017	16.0	5	Siemens		Project developer	Yield review
DEU	2017	5.0	2	GE		Investor	Technical Due Diligence
DEU	2017	6.9	2	Vestas		Municipal utilities	Technical acceptance
DEU	2017	94.2	31	div.		Investor	Technical device management services
DEU	2017	6.0	2	Enercon		Investor	Yield study / technical Due Diligence
DEU	2017					Operator	LIDAR measuring
DEU	2017	21.0	7	Nordex		Operator	Analysis of bat shutdowns
DEU	2017	12.6	3	Vestas		Project developer	Yield Study
POL	2017	30.0	12	Nordex		Operator	Assessment of total life expectancy
FRA	2017	10.0	5	Gamesa		Operator	Coordination End of Warranty testing
DEU	2017	15.0	5	Enercon		Investor	Technical Due Diligence
DEU	2017	27.2	8	Senvion	3.4	Project developer	Preliminary planning, approval planning, execution planning, tendering
DEU	2017	16.5	5	Nordex	3.3	Operator	Planning Permission (partly)/ Execution
POL	2016	30.0	12	Nordex	2	Investor	Production data analysis, bat losses assessment
DEU	2016	6.9	2	Vestas		Project developer	Yield analysis, sound analysis and shadow analysis, approval planning
DEU	2016	10.4	3	Vestas		Project developer	Sound analysis assessment
FIN	2016	29.7	9	Vestas		Project developer	Energy yield assessment (based on meteorological mast data)
FRA	2016	22.0	11	Senvion		Project developer	Energy yield assessment (based on meteorological mast data)
FRA	2016	21.0	7	Vestas		Project developer	Energy yield assessment (based on meteorological mast data)

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2016	5.5	2	GE		Project developer	Determination of yield losses due to shading, bats and ret kite, execution planning
DEU	2016					Project developer	LiDAR measurements
DEU	2016	2.4	1	Nordex		Project developer	Construction supervision, project management and health and safety coordination
GBR	2016	18.4	8	Enercon		Project developer	Technical consulting
DEU	2016	40.4	17	GE		Investor	Technical due diligence incl. energy yield assessment
DEU	2016	33.3	11	Vestas		Municipal utilities	Technical consulting sound emissions and measurement
DEU	2016	42.0	14	Vestas		Investor	Technical consulting sound emissions and measurement
DEU	2016	9.9	3	Vestas		Investor	Technical consulting take over procedure and warranties
DEU	2016	9.9	3	Nordex		Municipal utilities	Approval and execution planning, shadow analysis, project supervision
DEU	2016	25.6	8	Senvion		Investor	Technical due diligence incl. energy yield assessment
DEU	2016	158.0	50	GE		Project developer	Technical consulting grid connection
DEU	2016	13.8	5	GE		Investor	Technical due diligence incl. energy yield assessment
DEU	2016	10.0	4	GE		Investor	Technical due diligence incl. energy yield assessment
DEU	2016	4.8	2	Nordex		Project developer	Project management construction, technical consulting take over procedure
DEU	2016	21.6	9	Nordex		Municipal utilities	Project management construction, planning of cable route
DEU	2016	6.9	2	Vestas		Project developer	Approval and execution planning, project management construction, construction supervision
DEU	2016	39.6	12	Vestas		Project developer	Approval planning, energy yield assessment, sound and shadow analysis
DEU	2016	25.6	8	Senvion		Project developer	Approval and execution planning, energy yield assessment incl. LiDAR measurement, sound and shadow analysis
DEU	2016	6.6	2	Nordex		Investor	Approval planning
DEU	2016	12.5	3	GE	2.5	Project developer	Technical consulting take over procedure
DEU	2016	2.4	1	Nordex		Energy cooperative	Approval planning
DEU	2016	25.6	8	Senvion		Project developer	Approval procedure
DEU	2016	25.6	8	Senvion		Project developer	LIDAR measuring



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2016					Utility	LIDAR measuring
DEU	2016	12.5	5	GE	2.5	Municipal utilities	Construction supervision, acceptance
DEU	2016	9.0	3	Enercon		Investor	Yield review
DEU	2016	19.8	6	Vestas		Investor	Technical Due Diligence, yield review
DEU	2016	26.4	11	Nordex	2.04	Project developer	Project Management
DEU	2016	9.9	3	Nordex	3.3	Investor	Planning
DEU	2016	9.9	3	Nordex	3.3	Investor	Project Management
DEU	2007-2015	4.0	2	Gamesa	2	Investor	Due diligence, contract negotiations, technical consulting in operation phase
ITA	2009/2015	18.0	12	Nordex	1.5	Project developer	Production data analysis
ITA	2010/2015	10.5	7	Nordex	1.5	Project developer	Production data analysis
GBR	2014-2015	29.0	9	Vestas	3.3	Project developer	Determining yield reduction due to sectoral and shadow shutdown
DEU	2015	4.6	3	Nordex		Investor	Technical due diligence
DEU	2015	9.0	3	Enercon		Investor	Noise emission and shadow impact report, amendment BImSch-approval
DEU	2015	10.0	4	Enercon		Investor	Sound analysis, shadow analysis, adaptation of permit application
DEU	2015	9.6	4	Nordex		Municipal utilities	Technical due diligence
DEU	2015	5.0	2	GE	2.5	Investor	Technical pre-due diligence
DEU	2015	27.5	10	GE	2.75	Project developer	Energy yield assessment
DEU	2015	42.0	15	GE	2.75	Project developer	Energy yield assessment
DEU	2015	79.8	29	GE	2.75	Project developer	Energy yield assessment
DEU	2015					Project developer	LiDAR measuring
DEU	2015	9.6	4	Nordex		Investor	Technical pre-due diligence
DEU	2015	11.5	5	Nordex		Investor	Approval planning cable route
DEU	2015	9.6	4	Nordex	2.4	Investor	Technical due diligence
DEU	2015	40.0	10	Vestas		Project developer	Energy yield assessment
FRA	2015	10.0	5	Gamesa	2	Investor	Technical due diligence, technical consulting
DEU	2015	8.0	4	Vestas		Investor	Technical due diligence



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2015	4.8	2	Nordex		Energy cooperative	Construction supervision, project management, health and safety coordination
DEU	2015	12.0	4	Enercon		Energy cooperative	Construction supervision, project management
DEU	2015	22.3	11	Enercon		Investor	Technical due diligence
DEU	2015	17.5	7	GE		Investor	Technical consulting on construction progress
DEU	2015	161.0	54	Vestas		Investor	Technical due diligence
DEU	2015	17.5	11	NEG Micon		Investor	Pre-due diligence
DEU FRA	2015	206.0	17	Enercon		Investor	Pre-due diligence
DEU	2015	13.8	5	GE		Investor	Technical due diligence incl. energy yield assessment and take over inspection BOP
DEU	2015	6.0	3	Vestas		Investor	Technische due diligence
DEU	2013-2014	35.0	14	GE		Investor	Technical due diligence, construction monitoring
DEU	2013-2014	12.0	5	Nordex		Community foundation	Yield report based on LIDAR
DEU	2014	8.0	4	Vestas		Investor	Repowering analysis, technical due diligence
DEU	2014	4.8	2	Nordex		Project developer	Calculation of cable losses
DEU	2014	2.0	1	Vestas		Municipal utilities	Technical due diligence
DEU	2014	12.0	4	Enercon		Regional wind cooperative	Noise emission and shadow impact report
DEU	2014	6.0	2	Vestas	3	Project developer	Evaluation of yield analysis
DEU	2014	9.6	4	Nordex	2.4	Project developer	Photo visualisation
DEU	2014	6.0	2	Vestas	3	Project developer	Evaluation of yield analysis
DEU	2014	4.7	2	Enercon	2.35	Municipal utilities	Technical due diligence
DEU	2014	9.6	4	Nordex	2.4	Project developer	Yield assessment
DEU	2014	8.0	4	Gamesa	2	Investor	Technical due diligence, yield report review
DEU	2014	24.0	10	Nordex	2.4	Project developer	Review yield report
DEU	2014	12.0	4	Enercon	3	Investor	Review yield report, loss verification bat protection shutdown
DEU	2014	4.8	2	Nordex	2.4	Energy cooperative	Yield review, loss estimate bat requirements

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2014	9.6	4	Nordex	2.4	Project developer	Photo visualisation
DEU	2014			div.		Project developer	Technical due diligence of project pipeline
SWE	2014	242.0	117	2 Anlagentypen		Project developer	Yield analysis, sound analysis and shadow analysis for 9 wind parks
DEU	2012-2013	9.0	3	Nordex		Project developer	Yield analysis, sound analysis and shadow analysis
DEU	2012-2013	9.6	4	Nordex		Project developer	Preliminary planning
DEU	2013	4.0	2	Vestas		Financing bank	Due Diligence
DEU	2013	18.0	7	2 Anlagentypen		Project developer	Yield assessment
GBR	2013	10.3	5	Repower	2.05	Project developer	Yield assessment
DEU	2013	7.2	3	Nordex	2.4	Project developer	Yield assessment
DEU	2013	12.0	8	GE	1.5	Investor	Repowering Analysis
DEU	2013	7.2	3	Nordex	2.4	Project developer	Yield assessment
DEU	2013	7.2	3	2 Anlagentypen		Project developer	Yield analysis, sound analysis and shadow analysis
DEU	2013	9.2	4	Enercon	2.3	Project developer	Determination of yield losses due to shading
DEU	2013	14.0	7	Vestas	2	Investor	Repowering Analysis
DEU	2013	4.6	2	Enercon	2.3	Project developer	Implementation planning access roads and crane sites, drainage concept
GBR	2013	16.4	8	Repower		Project developer	Sound analysis, shading loss analysis
GBR	2013	27.6	12	Enercon	2.3	Project developer	Micrositing, yield analysis
DEU	2013	33.0	11	Siemens	3	Project developer	Preliminary planning
DEU	2013	16.1	7	Enercon		Investor	Due diligence and yield analysis
DEU	2013	4.6	2	Enercon		Investor	Yield analysis
DEU	2013	4.6	2	Enercon		Investor	Yield analysis
DEU	2013	4.8	2	Nordex		Energy cooperative	Micrositing
DEU	2013	12.0	4	Enercon		Energy cooperative	Micrositing
DEU	2013	60.0	18	4 Anlagentypen		Energy cooperative	Yield analysis, sound analysis and shadow analysis
DEU	2013	21.0	7	Nordex		Energy cooperative	Yield analysis
DEU	2013	2.4	1	Nordex		Energy cooperative	Approval planning

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2013	12.5	5	GE	2.5	Energy cooperative	Approval planning
DEU	2013	2.4	2	Nordex		Energy cooperative	Feasibility study
DEU	2013	12.5	5	GE	2.5	Energy cooperative	Feasibility study
DEU	2013	28.8	12	2 Anlagentypen		Project developer	Evaluation of yield analysis
DEU	2013	7.2	3	Nordex		Investor	Yield review
DEU	2013	6.4	2	Repower		Project developer	Yield assessment
DEU	2013	60.0	20	Enercon		Project developer	Implementation planning drainage, incl. application for water rights permit
DEU	2013	41.4	18	Siemens	2.3	Project developer	Implementation external power path, incl. application forestry permit
DEU	2013	91.8	39	Enercon		Project developer	Due diligence, assessment of project pipeline
DEU	1993-2012	2.6	9	Vestas	0.225	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	1998-2012	48.0	32	NEG Micon	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	1999-2012	12.0	12	NEG Micon	1	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	1999-2012	8.2	5	Vestas	1.65	Investor	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2000-2012	31.5	21	GE	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2002-2012	31.5	21	Nordex	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2012	16.0	8	Gamesa	2	Investor	Due diligence
DEU	2012	9.6	4	Nordex		Project developer	Sound analysis, shadow analysis
DEU	2012	16.8	7	Nordex		Project developer	Yield analysis
DEU	2012	14.4	6	Nordex		Project developer	Yield analysis
DEU	2012	18.0	9	Vestas	2	Investor	Yield analysis
DEU	2012	48.8	16	Repower		Project developer	Yield analysis
DEU	2012	15.0	5	4 Anlagentypen		Project developer	Yield analysis, sound analysis and shadow analysis

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2012	19.2	6	Nordex		Project developer	Yield analysis
DEU	2012	13.3	9	GE		Investor	Due diligence
POL	2012	112.0	47	Vestas	1.8	Investor	Preliminary examination
DEU	2012	8.3	5	Vestas	1.65	Investor	Repowering Analysis
DEU	2011	12.5	5	Nordex	2.5	Investor	Due diligence
DEU	2011	6.9	3	Enercon	2.3	Investor	Due diligence
FRA	2011	12.0	6	Enercon	2	Project developer	Yield analysis
DEU	2011	2.0	1	Enercon	2	Investor	Due diligence
DEU	2011	30.0	12	Nordex	2.5	Investor	Due diligence
DEU	2011	9.2	4	Nordex	2.3	Investor	Due diligence
DEU	2007-2010	3.0	2	Nordex	1.5	Investor	Technical controlling during construction, acceptance and operational phase
DEU	2007-2010	12.0	6	Vestas	2	Investor	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	8.0	4	Vestas	2	Investor	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	20.0	10	Vestas	2	Investor	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	10.0	5	Vestas	2	Investor	Technical controlling during construction, acceptance and operational phase
DEU	2010	6.0	3	Vestas	2	Project developer	Yield analysis
DEU	2010	16.0	8	Enercon	2	Investor	Due diligence
FRA	2010	12.0	6	Enercon	2	Project developer	Yield analysis
DEU	2010	2.0	1	Enercon	2	Project developer	Yield analysis
DEU	2010	7.5	10	Südwind	0.75	Financing bank	Value expertise for sale
DEU	2009	6.0	4	Fuhrländer	1.5	Investor	Yield analysis
DEU	2009	16.0	8	Enercon	2	Operator	Consulting for the implementation to conform to grid code requirements
DEU	2009	14.0	7	Enercon	2	Project developer	Yield analysis
DEU	2003-2008	16.0	8	Vestas	2	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2008	22.0	11	Vestas	2	Investor	Technical controlling during construction and acceptance

Wind energy



Country	Year	MW	Number of turbines	Manufacturer	Turbine performance in MW	Client	Description
DEU	2007	6.0	7	Gamesa	0.85	Investor	Due diligence/contract negotiations
DEU	2007	8.8	7	DEWind	1.25	Operator	Technical consulting at the end of warranty
DEU	2007	1.5	1	Nordex	1.5	Investor	Due Diligence
DEU	2007	8.0	4	Gamesa	2	Investor	Due diligence/contract negotiations
DEU	2007	1.7	2	Gamesa	0.85	Investor	Due diligence/contract negotiations
DEU	2007	10.0	5	Repower	2	Project developer	Yield analysis
DEU	2007	4.0	2	Enercon	2	Project developer	Yield analysis
DEU	2005/2006	27.0	18	Nordex	1.5	Investor	Due Diligence
DEU	2006	8.0	4	Enercon	2	Investor	Due Diligence
DEU	2002-2005	30.6	17	Enercon	1.8	Financing bank	Technical controlling during construction, acceptance and operational phase
DEU	2003-2005	28.8	20	NEG Micon	1.5	Operator	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2005	19.5	13	Nordex	1.5	Investor	Due Diligence
DEU	2002	5.2	7	Frisia	0.75	Financing bank	Conceptual consulting of the bank to restructure the project
GRC	1995-2000	9.9	18	Zond	0.55	Financing bank	
GRC	1995-2000	5.0	9	Zond	0.55	Financing bank	
DEU	1995-2000					European Commission Directorate-General of Research	Conceptual studies
DEU	2000	0.6	1			Operator	Feasibility study of wind powered seawater desalination stations
Total		8,010					



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2020	0.7	Rooftop	Trina Solar / Astronergy	Huawei	Project developer	Planning
DEU	2019	0.7	Rooftop	Risen Energy	Huawei	Investor	Yield Assessment
DEU	2019	42.0	Ground-mounted	First Solar	SMA, Xantrex	Operator	Data Analysis
GRC	2019	50.0	Ground-mounted			Project developer	Site evaluation for Solar projects
NLD	2019	10.0	Ground-mounted	Jolywood	Huawei	Investor	Technical Due Diligence
DEU	2019	76.2	Ground-mounted, rooftop	Chaoi, Suntech, Talesun, Tianwei	ABB, AEG, Eltek, Emerson, Huawei, Siemens u.a.	Operator	Technical Review
DEU	2019	0.8	Ground-mounted	Astronergy	SMA	Project developer	Feasibility Study and Planning
NLD	2019	6.7	Ground-mounted	QCELLS	Goodwe	Project developer	Yield Assessment
NLD	2019	2.2	Ground-mounted	REC	Goodwe	Project developer	Yield Assessment
NLD	2019	6.2	Ground-mounted	Q.CELLS	Huawei	Project developer	PR-Test
NLD	2019	30.7	Ground-mounted	Q.CELLS	Huawei	Project developer	PR-Test
NLD	2019	12.6	Ground-mounted	REC	Goodwe	Project developer	Yield Assessment
DEU	2019	8.5	Ground-mounted	Astronergy	SMA	Project developer	Yield Assessment
DEU	2019	3.1	Ground-mounted	IBC PolySol	Sungrow	Project developer	Acceptance Inspection
DEU	2019	5.4	Ground-mounted	IBC PolySol	Sungrow	Project developer	Yield Assessment PV
DEU	2019	4.2	Ground-mounted	Astronergy	ABB	Project developer	Yield Assessment PV
DEU	2019	0.5	Rooftop	GCL	Delta	Project developer	Planning
DEU	2019	0.8	Ground-mounted, rooftop	IBC PolySol	SMA	Operator	Ausschreibung und Vergabe Bauleistungen
DEU	2019	0.8	Ground-mounted	Viessmann	SMA	Operator	Planning
DEU	2019	21.9	Ground-mounted	t.b.d.	t.b.d.	Investor	Technical Due Diligence Portfolio
DEU	2019	20.0	Ground-mounted	GCL	SMA	Project developer	Planning
DEU	2019	0.8	Ground-mounted	E.ON	Huawei	Project developer	Planning
AUT	2019	0.2	Ground-mounted	GCL	Huawei	Project developer	Planning

Photovoltaics



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2019	0.8	Ground-mounted, rooftop	IBC PolySol	SMA	Operator	Technical Inspection
DEU	2019	3.2	Ground-mounted	Sunrise, URE	Goodwe	Project developer	Yield Assessment PV
DEU	2019	1.0	Rooftop	Winaico	Delta	Operator	Thermographic Inspection
DEU	2019	5.3	Ground-mounted	URE	Sungrow	Project developer	Yield Assessment
DEU	2019	19.7	Ground-mounted	Talesun	Kaco Powador	Operator	Thermographic Inspection
DEU	2019	10.0	Ground-mounted			Project developer	Grid Connection Optimisation
DEU	2019	0.8	Ground-mounted	Eging	Huawei	Financing bank	Technical inspection
DEU	2019	24.1	Ground-mounted	First Solar	SMA	Operator	Power curve analysis
DEU	2019	8.0	Ground-mounted	First Solar	SMA	Operator	Power curve analysis
DEU	2019	8.0	Ground-mounted	First Solar	SMA	Operator	Power curve analysis
GRC	2019	5.0	Ground-mounted	Phono Solar	Huawei	Investor	Technical Due Diligence
DEU	2019	3.3	Ground-mounted	Solar Frontier	Sputnik, Solar Max	Investor	Technical Due Diligence
DEU	2019	1.0	Ground-mounted	First Solar	SMA	Project developer	Power curve analysis
DEU	2019	3.8	Ground-mounted	First Solar	SMA	Project developer	Power curve analysis
DEU	2019	2.2	Ground-mounted	First Solar	SMA	Project developer	Power curve analysis
DEU	2019	0.8	Rooftop	Q.CELLS	Huawei	Project developer	Thermography
MLI	2019					Project developer	Planning
NLD	2019	144.0	Ground-mounted	Astronergy	SMA, SMA	Investor	Technical Due Diligence
ESP	2019	174.0	Ground-mounted	Astronergy, GCL, LONGi Solar	Huawei	Project developer	PR-Test
MLI	2019	36.0	Ground-mounted	Canadian Solar	Huawei	Project developer	Planning
	2019						
	2019					Project developer	PR-Test
DEU	2019					Project developer	Planning
DEU	2019					Project developer	Yield Assessment



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2019						Grid Connection Optimisation
DEU	2018	0.6	Ground-mounted	Q.CELLS	Huawei	Project developer	Planning application
IRN	2018	14.0	Ground-mounted	Candian Solar	Huawei	Project developer	Yield study
DEU	2018	0.8	Ground-mounted			Investor	Feasibility study 750 kW plant
DEU	2018	15.0	Ground-mounted	First Solar	Huawei	Operator	Examination end of warranty
DEU	2018	10.0	Ground-mounted	Solar Frontier	Huawei	Operator	Performance examination
AFG	2018	15.0	Ground-mounted			Project developer	Feasibility study 15 MW plant
ZMB	2018	1.0	Ground-mounted	Q.CELLS	Huawei	Operator	PR test
GBR	2018	23.1	Ground-mounted	Astronergy	ABB	Operator	End of Warranty Inspections
DEU	2018	1.9	Ground-mounted	First Solar	Schneider Electric / Xantrex	Operator	
DEU	2018	0.1	Rooftop	Tianwei	SMA	Operator	Drone thermography
DEU	2018	0.3	Rooftop	BP	SMA	Operator	Drone thermography
DEU	2018	0.5	Rooftop	Suntech, Inventux	SMA	Operator	Drone thermography
DEU	2018	7.6	Ground-mounted	Canadian Solar	Huawei	Operator	Drone thermography
DEU	2018	0.8	Ground-mounted	First Solar	SMA	Operator	
DEU	2018	4.4	Ground-mounted	First Solar	Xantrex	Operator	Acceptance Inspection
GBR	2018	30.1	Ground-mounted	Astronergy	Huawei	Operator	End of Warranty Inspections
GBR	2018	45.9	Ground-mounted	Astronergy	Huawei	Operator	End of Warranty Inspections
DEU	2018	4.8	Ground-mounted			Project developer	Grid Connection Optimisation
DEU	2018	6.0	Ground-mounted			Project developer	Grid Connection Optimisation
FRA	2018	11.1	Ground-mounted	REC	Huawei	EPC	PR-Test
FRA	2018	8.7	Ground-mounted	Trina Solar	Huawei	EPC	PR-Test
FRA	2018	12.0	Ground-mounted	JA Solar	Huawei	EPC	PR-Test
FRA	2018	9.4	Ground-mounted	Talesun, Astronergy	Huawei	EPC	PR-Test
DEU	2018	3.9	Ground-mounted	First Solar	SMA	Operator	End of Warranty Inspections
DEU	2018	10.0	Ground-mounted	First Solar	GE	Operator	End of Warranty Inspections

Photovoltaics



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2018	7.1	Ground-mounted	First Solar	SMA	Operator	End of Warranty Inspections
DEU	2018	2.4	Ground-mounted	First Solar	GE	Operator	End of Warranty Inspections
DEU	2018	3.0	Ground-mounted	First Solar	GE	Operator	End of Warranty Inspections
HUN	2018	57.4	Ground-mounted	Suntech	SMA	Financing bank	Technical Due Diligence
HUN	2018	12.0	Ground-mounted	Talesun	Huawei	Investor	Technical Due Diligence
ITA	2018	29.5	Ground-mounted	Diverse	Diverse	Investor	Technical Due Diligence
DEU	2018	4.0	Ground-mounted	Solea, Canadian Solar	Huawei	Investor	Technical Due Diligence
DEU	2018	107.0	Ground-mounted	SunFarming, Astronergy, JA Solar	SMA, Danfoss, Huawei	Investor	Technical Due Diligence
DEU	2018	0.8	Ground-mounted	Trina Solar	SMA Solar Technology AG	Project developer	Feasibility Study
DEU	2018	6.0	Ground-mounted	Hanwha Q.Cells	Huawei	Investor	energy yield assessment
DEU	2018	2.5	Ground-mounted	REC	Huawei	Municipal utilities	Technical Inspection
ITA	2018	1.0	Ground-mounted	Renesola	Power One	Investor	Technical Due Diligence
DEU	2017	5.0	Ground-mounted	Trina Solar	Satcon	District Court Stuttgart	Survey Report
IRN	2017	7.9	Ground-mounted	Canadian Solar		Project developer	Yield study
DEU	2017	20.0	Ground-mounted	Talesun	Kaco	Investor	Technical inspection by end of warranty period
DEU	2017	9.6	Ground-mounted	Trina Solar	Sungrow	Project developer	Yield study
DEU	2017	2.3	Ground-mounted	First Solar	SMA	Investor	Acceptance Inspection
DEU	2017	0.5	Rooftop	Astronergy	Delta	Project developer	Acceptance Inspection
DEU	2017	10.0	Ground-mounted	REC	Huawei	Project developer	Test run
DEU	2017	20.0	Ground-mounted	Talesun	Kaco	Investor	Thermographic Inspection
ITA	2017	0.0	Rooftop	REC	Huawei	Project developer	Planning
NLD	2017	0.5	Rooftop	Trina Solar	Delta Energy	Project developer	Design Planning / Yield Study
DEU	2017	1.0	Rooftop	Trina Solar	Delta Energy	Project developer	Design Planning
DEU	2017	0.8	Rooftop	Astronergy	Delta Energy	Project developer	Design Planning
ESP	2017	1.2	Rooftop	Trina Solar	Delta Energy	Project developer	Design Planning



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2017	0.3	Ground-mounted	Astronergy	Delta Energy	Project developer	Design Planning / Yield Study
DEU	2017	0.5	Ground-mounted	Astronergy	Delta Energy	Project developer	Design Planning / Yield Study
AFG	2017	8.0	Ground-mounted	Astronergy	Delta Energy	Project developer	Design Planning / Tender
DEU	2017	4.4	Ground-mounted	Astronergy	Huawei	Investor	Technical Due Diligence
GBR	2017	75.7	Ground-mounted	Hanwha Q.Cells, REC, Astronergy	Huawei	Project developer	Test run
NIC	2017	12.8	Ground-mounted	Recom	SMA	Investor	Technical acceptance
DEU	2017	52.8	Ground-mounted	First Solar	SMA	Investor	Modul inspection
GBR	2017	4.8	Ground-mounted	Jinko Solar	ABB	Investor	Thermographic Inspection
DEU	2017	79.0	Ground-mounted, rooftop	Chauri , Frankfurt Solar, Suntech, Talesun	div.	Investor	Technical Due Diligence
DEU	2017	3.4	Ground-mounted	First Solar	SMA	Operator	State determination and examination of documentation
NLD	2017	155.0	Rooftop	div.	div.	Project developer	Technical Due Diligence
DEU	2017	4.4	Ground-mounted	First Solar	Xantrex	Operator	Supervision repairs
DEU	2017	3.8	Ground-mounted	SolarWorld	SMA	Investor	State determination
GBR	2017	26.9	Ground-mounted			Project developer	On-Site Inspection - Cable Entries of Transformer Station
DEU	2016	9.2	Ground-mounted	Solarworld	Diehl	Investor	Technical Due Diligence
DEU	2016	8.9	Ground-mounted	Solar Frontier	Huawei	Investor	Technical Due Diligence
ITA	2016	7.8	Ground-mounted	Solarwatt	SMA	Financing bank	Technical inspection by end of warranty period
GBR	2016	20.0	Ground-mounted	Atersa	Power Electronics	Project developer	Yield study
DEU	2016		Rooftop		div.	Project developer	
GBR	2016	82.7	Ground-mounted	Astronergy	Huawei	Project developer	Test run
DEU	2016	39.6	Ground-mounted	Q-Cells	Schneider Electric	Financing bank	Technical Due Diligence
GBR	2016	11.2	Ground-mounted	Astronergy	Huawei	Project developer	Project and construction management
USA	2016	41.7	Ground-mounted, rooftop, tracker	Astronergy, BYD	Huawei	Project developer	Feasibility study, planning, yield study

Photovoltaics



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2016	0.8	Rooftop	Astronergy	ABB	Project developer	Technical acceptance AC-part
POL DEU	2016	2.6	Rooftop	Astronergy	Huawei	Project developer	Yield study
PHL	2016	19.9	Ground-mounted	REC, Canadian Solar	SMA	Project developer	Yield study
GBR	2016	30.0	Ground-mounted	Astronergy	Huawei	Project developer	Grid study
DEU	2016	19.3	Ground-mounted	First Solar, MiaSolAR	SMA	Investor	Technical inspection by end of warranty period
IRN	2016	14.0	Ground-mounted	Canadian Solar	Huawei	Project developer	Yield study
DEU	2016	51.0	Ground-mounted	Qcells	Schneider	Investor	Technical Due Dilligence
DEU	2016	0.7	Rooftop	Astronergy	Delta Energy	Project developer	Design Planning
POL	2016	1.1	Rooftop	Astronergy	Huawei	Project developer	PR Analysis
DEU	2016	0.8	Rooftop	Astronergy	Huawei	Project developer	Design Planning / Yield Study
DEU	2016	0.1	Rooftop	Astronergy	Delta Energy	Project developer	Planning
DEU	2016	0.1	Rooftop	Astronergy	Delta Energy	Project developer	Planning
DEU	2016	2.0	Rooftop	Astronergy	Delta Energy	Project developer	Planning
DEU	2007-2015	40.0	Ground-mounted	First Solar	SMA	Operator	Due diligence/contract negotiations, acceptance, technical controlling during operational phase
DEU	2009-2015	7.2	Ground-mounted	First Solar	Xantrex	Operator	Due diligence, acceptance, technical consulting during plant operation
DEU	2011-2015	24.7	Ground-mounted	Canadian Solar	ABB	Investor	Due diligence, acceptance, module examinations, technical inspection at end of warranty period, technical consulting during plant operation
DEU	2011-2015	17.3	Ground-mounted	First Solar		Operator	Due diligence, acceptance, technical consulting during plant operation
DEU	2011-2015	15.8	Ground-mounted	Canadian Solar		Investor	Due diligence, acceptance, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2011-2015	19.2	Ground-mounted	First Solar		Operator	Due diligence, acceptance, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2012-2015	1.3	Ground-mounted	Canadian Solar		Investor	Due diligence, acceptance, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2012-2015	2.4	Ground-mounted	BYD	Power One	Investor	Due diligence, acceptance, technical inspection by end of warranty period, technical consulting during plant operation



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
DEU	2012-2015	4.3	Ground-mounted	Canadian Solar		Investor	Due diligence, acceptance, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2013-2015	20.0	Ground-mounted	Talesun	Kaco	Investor	Due diligence, acceptance, Thermogeographics, technical consulting during plant operation
DEU	2014-2015	52.8	Ground-mounted	First Solar		Investor	Technical consulting at the end of warranty, technical controlling during operational phase
FRA	2014-2015	4.5	Ground-mounted	Q-Cells	Schneider Electric	Investor	Technical due diligence, technical acceptance
DEU	2015	1.8	Ground-mounted	Solon	Solarmax	Investor	Technical inspection by end of warranty period
GBR	2015	27.0	Ground-mounted	Yingli	ABB	Project developer	Construction management
DEU	2015	3.4	Ground-mounted	First Solar	SMA	Investor	Technical due diligence
ESP	2015	5.8	Ground-mounted	Aleo, Evergreen		Investor	Operational consulting , O&M; agreements examination
ESP	2015	9.1	Rooftop	Yingli	div.	Investor	Yield review
ESP	2015	35.8	Ground-mounted, rooftop, carport, tracker	JA, Yingli	div.	Investor	Operating data analysis
DEU	2015	5.2	Ground-mounted	Moser Baer, Trin, Hanwha	SolarMax	Investor	Technical consulting before aquisition
GBR	2015	57.0	Ground-mounted	Astronergy , REC	ABB	Project developer	Construction support
DEU	2015	1.2	Ground-mounted	Yingli	Power One	Project developer	Declaration of conformity
DEU FRA	2015	30.9	Ground-mounted	Solarworld, Talesun, Hanwha	REFUsoI	Project developer	Evaluation of lifetime, cost of dismantling, residual value
DEU	2015	1.2	Ground-mounted	Yingli	ABB	Project developer	Declaration of conformity
GBR	2015	5.9	Ground-mounted	Canadian Solar	SMA	Project developer	Yield study
DEU	2015	1.2	Ground-mounted	Conergy	Conergy	Investor	Technical inspection by end of warranty period
DEU	2013-2014	8.8	Ground-mounted	Yingli	Power One	Project developer	Approval mechanical assembly, technical support system certification and declaration of conformity
DEU	2013-2014	34.4	Ground-mounted	Yingli	SMA	Investor	Evaluations of feed-in managment measures/ review O&M; contracts
DEU	2014	46.0	Ground-mounted	First Solar	SMA	Investor	Performance curve analysis



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
GBR	2014	18.4	Ground-mounted	SolarWorld	Power One	Project developer	Inspection eradication of deficiencies
DEU	2014	6.1	Ground-mounted	REC	SMA	Investor	Technical consulting at the end of warranty
ITA	2014	12.6	Carport	REC	SMA	Investor	Technical consulting before aquisition
DEU	2014	0.4	Ground-mounted	First Solar	SMA	Investor	Technical inspection by end of warranty period
DEU	2014	39.6	Ground-mounted	Q-Cells		Investor	Performance curve analysis
GBR	2014	4.8	Ground-mounted	Jinko Solar	Power One	Project developer	Technical acceptance, trial operation
DEU	2014	17.3	Ground-mounted	First Solar		Investor	Technical inspection by end of warranty period
DEU	2014	2.0	Ground-mounted	SchÄ¼co, Yingli	KACO	Investor	Technical inspection by end of warranty period
DEU	2014	0.7	Rooftop	Solarfabrik	Power One	Project developer	Technichal acceptance AC-port
DEU	2014	2.2	Ground-mounted	First Solar	SMA	Investor	Technical due diligence
GBR	2014	4.9	Ground-mounted	REC	ABB	Project developer	Test run
DEU	2014	26.4	Ground-mounted	First Solar	SMA	Investor	Technical due diligence, technical acceptance
DEU	2014	10.5	Ground-mounted	Risen, Megasol, ET Solar	Huawei	Investor	Technical consulting before aquisition
DEU	2014	1.0	Rooftop	Heckert	Sungrow	Investor	Technical consulting before start of project
DEU	2014	3.5	Ground-mounted	First Solar	SMA	Investor	Technical consulting before aquisition
DEU	2014	8.7	Ground-mounted	ReneSola		Investor	Technical inspection by end of warranty period
DEU	2014	7.2	Ground-mounted	First Solar	Xantrex	Investor	Module examinations
DEU	2014	0.1	Rooftop	Refusol		Project developer	Technical acceptance AC-port
DEU	2014	5.1	Ground-mounted	Trina Solar	Kaco	Investor	Technical consulting before aquisition
GBR	2014	50.0	Ground-mounted	Yingli	Power One	Project developer	Yield report
DEU	2014	0.4	Rooftop	REC	SMA	Project developer	Technical acceptance
GBR	2014	17.9	Ground-mounted	REC	Power One	Project developer	Technical acceptance, trial operation
DEU	2009/2013	6.0	Ground-mounted	First Solar	Xantrex	Investor	Due diligence/contract negotiations, acceptance, technical controlling during operational phase
DEU	2012-2013	40.0	Ground-mounted	First Solar	SMA	Operator	Technical inspection by end of warranty period



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
FRA	2013	1.7	Ground-mounted	Suntech		Operator	Technical inspection by end of warranty period
DEU	2013		Ground-mounted			Financing bank	Analysis of inverter maintenance costs and technical operations management
DEU	2013	0.4	Rooftop	REC	Refusol	Project developer	Acceptance Test
DEU	2013	2.8	Ground-mounted	Canadian Solar		Investor	Technical inspection after commissioning
SVZ CZE	2013	30.0	Ground-mounted	Diverse	div.	Investor	Technical assistance due diligence
ITA	2013	10.0	Ground-mounted	Tianwei	Kaco	Investor	Technical consulting before aquisition
DEU	2013	24.1	Ground-mounted	First Solar	SMA	Operator	Performance analysis
DEU	2013	8.0	Ground-mounted	First Solar	SMA	Investor	Performance analysis
DEU	2013	0.1	Rooftop	Suntech	Kaco	Investor	Technical consulting before aquisition
DEU	2009/2012	52.8	Ground-mounted	First Solar	SMA	Investor	Due diligence/contract negotiations, acceptance, technical consulting during operational phase
DEU	2012	8.5	Ground-mounted	Jinko Solar	RefuSol	Investor	Due diligence
DEU	2012	3.3	Ground-mounted	First Solar	Voltwerk	Operator	Technical consulting at the end of warranty
DEU	2012	20.0	Ground-mounted	Sunowe	SolarMax	Operator	Monitoring module tests
DEU	2012	40.0	Ground-mounted	Trina Solar	Siemens	Investor	Due diligence
DEU	2012	81.8	Ground-mounted	Trina Solar, Jinko Solar, Talesun, C-Sun		Investor	Red Flag Due Diligence
DEU	2012	2.6	Ground-mounted	First Solar	Voltwerk	Operator	Technical consulting at the end of warranty
DEU	2012	34.4	Ground-mounted	Yingli	SMA	Operator	Module quality tests
DEU	2012	8.1	Ground-mounted, tracker system	Trina Solar	div.	Investor	Due diligence
FRA	2012	32.4	Ground-mounted	Yingli	div.	Investor	Feasibility study, grid connection, EPC contracts, O&M; concept
DEU	2012	6.0	Ground-mounted	First Solar	Xantrex	Investor	Technical inspection by end of warranty period
DEU	2012	7.2	Ground-mounted	First Solar	Xantrex	Operator	Technical inspection by end of warranty period
FRA	2011	0.7	Rooftop	Solarfun		Investor	Due diligence (preliminary test)



Country	Year	MWp	Design	Module manufacturer	Inverter manufacturer	Client	Description
FRA	2011	0.4	Rooftop	Solarfun		Investor	Due diligence (preliminary test)
FRA	2011	1.7	Ground-mounted	Suntech		Operator	Due diligence, acceptance
ITA	2011	25.5	Ground-mounted	Helios	div.	Investor	Due diligence (preliminary test)
FRA	2011	2.3	Rooftop	Solarfun		Investor	Due diligence (preliminary test)
FRA	2011	1.5	Rooftop	Solarfun		Investor	Due diligence (preliminary test)
DEU	2010	39.6	Ground-mounted	Q-Cells		Operator	Technical Management
DEU	2010	1.6	Ground-mounted	GS-Solar		Investor	Due diligence
DEU	2010	2.0	Ground-mounted	GS-Solar		Investor	Due diligence
CZE	2010	4.8	Ground-mounted	First Solar		Operator	Due diligence, acceptance
DEU	2010	0.3	Rooftop	Total Energie		Operator	Technical inspection by end of warranty period
CZE	2010	13.6	Ground-mounted	Yingli		Investor	Due diligence
CZE	2010	1.0	Ground-mounted	First Solar		Operator	Due diligence, acceptance
DEU	2009	3.3	Ground-mounted	First Solar	Conergy	Operator	Due diligence
DEU	2009	2.6	Ground-mounted	First Solar	Conergy	Operator	Due diligence
DEU	2008	5.8	Ground-mounted	First Solar	Conergy	Operator	Technical controlling during construction and acceptance
DEU	2008	3.3	Ground-mounted	First Solar	Conergy	Operator	Technical controlling during construction and acceptance
Total		3,353					

Grid connection Wind



Country	Year	MW	Number of turbines	Manufacturer	Client	Description
DEU	2019	9.0	2	Nordex	Project developer	Optimization of grid connection
SWE	2019	14.4	3	Nordex	Project developer	Preliminary Design Grid Connection
DEU	2019	31.8	6	GE	Project developer	Preliminary Design Grid Connection
DEU	2019	59.6			Project developer	Planning/Project Management
AUT	2018	16.8	5	Vestas	Project developer	Preplanning of grind connection
DEU	2018	14.4	4	Senvion	Project developer	Optimization of grid connection
DEU	2018	7.6	2	Vestas	Project developer	Optimization of grid connection
DEU	2018	7.2	2	Senvion	Project developer	Optimization of grid connection
DEU	2018	27.6	8	Vestas	Project developer	Preplanning of grind connection
DEU	2018	18.0	4	Nordex	Project developer	Optimization of grid connection
DEU	2018	6.9	2	Vestas	Project developer	Optimization of grid connection
DEU	2018	16.0	4	Vestas	Project developer	Grid access optimization
DEU	2017	6.9	3	Enercon	Project developer	Calculation electrical losses
DEU	2017	16.8	4	Enercon	Project developer	Calculation electrical losses
DEU	2017	5.5	2	GE	Project developer	Calculation electrical losses
DEU	2017	6.9	2	Vestas	Project developer	Calculation electrical losses
DEU	2017	4.2	1	Enercon	Project developer	Identification of supply capacity to existing cables
DEU	2017	18.0	5	Vestas	Project developer	Optimization of cable cross section/calculation of electrical losses
DEU	2017	9.9	3	Nordex	Project developer	Optimization of grid connection
DEU	2017	16.5	5	Vestas	Project developer	Optimization of grid connection
DEU	2017	2.8	1	GE	Project developer	Optimization of grid connection
DEU	2017	18.0	5	Senvion	Project developer	Optimization of grid connection
DEU	2017	10.4	3	Vestas	Project developer	Optimization of grid connection
DEU	2017	7.2	2	Senvion	Project developer	Optimization of grid connection
DEU	2017	6.9	2	Vestas	Project developer	Optimization of grid connection
DEU	2017	9.9	3	Vestas	Project developer	Optimization of grid connection

Grid connection Wind



Country	Year	MW	Number of turbines	Manufacturer	Client	Description
DEU	2017	6.0	2	Nordex	Project developer	Optimization of grid connection
DEU	2017	3.3	1	Vestas	Project developer	Examination situation grid connection
DEU	2017	31.5	21	GE	Investor	Validation of reactive power
AUT	2017	16.8	5	Vestas	Project developer	Optimization of grid connection
DEU	2017	37.8	9	Vestas	Project developer	Optimization of grid connection
DEU	2016	6.6	2	Vestas	Project developer	Calculation electrical losses
DEU	2016	6.9	2	Vestas	Project developer	Calculation electrical losses
DEU	2016	19.8	6	Vestas	Investor	Calculation electrical losses
DEU	2016	6.6	2	Vestas	Project developer	Optimization of grid connection
Total		504				

Grid connection Photovoltaics



Country	Year	MWp	Design	Client	Description
DEU	2019	9.0		Project developer	Grid Connection Planning
DEU	2019	5.2		Project developer	Grid Connection Planning
DEU	2018	0.8	Ground-mounted	Project developer	Optimization of grid connection
DEU	2018	10.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2018	10.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2018	5.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2018	5.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2017	7.0	Ground-mounted	Project developer	Identification of input capacity via existing wind farm grid
DEU	2017	10.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2017	1.5	Ground-mounted	Energy cooperative	Pre-planning grid connection
DEU	2017	10.0	Ground-mounted	Project developer	Optimization of grid connection
DEU	2017	0.8	Ground-mounted	Project developer	Optimization of grid connection
DEU	2017	0.8	Ground-mounted	Project developer	Optimization of grid connection
Total		74			



Country	Year	Client	Description
DEU	2004-curr.	Süddeutsche Geothermie	Dürrnhaar: Project development since 2004, project management since 2007
DEU	2004-curr.	Süddeutsche Geothermie	Kirchstockach: Project development since 2005, project management since 2007
DEU	2016-curr.	Municipal utilities	Dürrnhaar/Kirchstockach: Supervision technical operations and project management
DEU	2018	Municipal utilities	Extension of main operating plan
DEU	2018	Municipal utilities	Extension of main operating plan
DEU	2018	Municipal utilities	5-year report according to mining law
DEU	2018	Municipal utilities	SCADA analysis to optimize operation of air condensers and cycle timing of clean-up cycles
DEU	2018	Municipal utilities	Evaluation Requirements arising from changes in the status of the Kirchstockach site as a protected area under water law
DEU	2017	Municipal utilities	Dimensioning of ORC-plan, municipality in Upper Bavaria
DEU	2017	Construction group	Workshop ORC-plants, molasse basin
DEU	2017	Municipal utilities	Munich-Freiham: Supervision reconditioning of drilling site
DEU	2017	Financing bank	Red Flag Due Diligence ORC-Power Plant & Status Project Development, molasse basin
DEU	2017	Investor	Due Diligence mining law portfolio, Upper Rhine Graben
DEU	2017	Municipal utilities	Dürrnhaar: Annual report in mining law 2016
DEU	2017	Municipal utilities	Dürrnhaar: Mining law permit application for retrofitting a frequency converter for pump system
DEU	2017	Municipal utilities	Dürrnhaar: Application for raised/extended water quality approval
DEU	2017	Municipal utilities	Dürrnhaar: Notification insurance activated carbon filter
DEU	2017	Municipal utilities	Kirchstockach: Annual report in mining law 2016
DEU	2017	Municipal utilities	Kirchstockach: water concessions law permit application for water extraction
DEU	2017	Municipal utilities	Kirchstockach: Extra operating plan tracer test
DEU	2017	Municipal utilities	Kirchstockach: Mining law permit application for filter system in thermal water circuit
DEU	2017	Municipal utilities	Kirchstockach: Permit application for exemption from ATEX requirements at back-flushing reservoir
DEU	2017	Municipal utilities	Kirchstockach: Mining law notification TKP acidification
DEU	2017	Municipal utilities	Kirchstockach: Application drain system discharge acidification water
DEU	2012-2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Control of multiple processes of obtaining a superior water license
DEU	2013-2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Various approval procedures for wastewater discharge



Country	Year	Client	Description
DEU	2013-2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Procurement own power requirement
DEU	2013-2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Supervision technical operations and project management
DEU	2013-2016	Investor	Chiemgau: Project management of implementation of mining law portfolio in a molasse basin
DEU	2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Amendments main business plans for modifications in technique of power plant
DEU	2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Applications to obtain necessary temporary water permits for step test
DEU	2013-2016	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Annual reports in mining law
DEU	2015-2016	Municipal utilities	Consulting power plant conception and tender, municipality in Upper Bavaria
DEU	2007-2015	Various Investors	Approval procedure of an electrical connection (procurement and feed), various locations in Upper Bavaria
DEU	2015	Municipal utilities	Construction supervision drilling site, municipality in Upper Bavaria
DEU	2015	Municipal utilities	Establishing special operations plan soil treatment, municipality in Upper Bavaria
DEU	2015	Investor	Chiemgau: Economic evaluation of CHP plant to provide own power requirement for a geothermal power plant
DEU	2014		Obtaining and evaluation standard price offers for ORC power plants for private
DEU	2014	Investor	Obtaining and evaluation standard price offers for ORC power plants, mining law northern molasse
CHE	2014	Utility	Lake Geneva: Feasibility study of geothermal power plant
DEU	2010-2013	Süddeutsche Geothermie	Kirchstockach: Project management power plant construction 5.5 MW ORC
DEU	2010-2012		Project development, general consultation, municipal utilities Upper Bavaria
DEU	2010-2012	Süddeutsche Geothermie	Dürrnhaar: Project management power plant construction 5.5 MW ORC
DEU	2011-2012	Municipal utilities	Project development, general consultation, municipality in Upper Bavaria
DEU	2012		Support for prospecting for private
DEU	2012	Investor	Value expertise for sale, mining law region Isar/Loisach
DEU	2004-2011	Süddeutsche Geothermie	Prospection in 11 claims, molasse basin, mining law Upper Bavaria
DEU	2009-2011	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Control of multiple processes of obtaining building permit for an ORC system from different manufacturers
DEU	2008-2010	Süddeutsche Geothermie	Kirchstockach: Project management doublet drilling project (2 x 4,000m), long-term pumping test
DEU	2010	Süddeutsche Geothermie	Dürrnhaar/Kirchstockach: Creation of special operation plan dismantling drilling site
DEU	2007-2009	Süddeutsche Geothermie	Dürrnhaar: Project management doublet drilling project (2 x 4,000m), long-term pumping test
DEU	2004-2008	Süddeutsche Geothermie	Kirchstockach: Project development until "ready to drill"



Country	Year	Client	Description
DEU	2004-2007	Süddeutsche Geothermie	Dürrnhaar: Project development until "ready to drill"



Country	Year	Client	Description
DEU	2019	Operator	Analysis Energy Efficiency Training Grounds
DEU	2019	Operator	Analysis Energy Efficiency Training Grounds
DEU	2018	Project developer	Grid Connection Optimisation
DEU	2018	Retail company	Study Power-to-X und Biomass-to-X
DEU	2018	Fuel dealer	Technical Controlling Pellet Production Plant/CHP Plant Wunsiedel
DEU	2017	Fuel dealer	Techn.-economical evaluation of wood destillated bloc heat power plant with pellets compared to a natural gas bloc heat power plant
DEU	2016	Investor	Pre-due-diligence, 3 ORC-heat-and-power-plants with pelletproduction
DEU	2015	Financing bank	Evaluation of the technology concept and the economic calculation for a 75-kW-manure plant, Brandenburg
DEU	2015	Holding company	Review business plan for different biomass power plants
DEU	2007	Investor	Feasibility study: biomass power plant, Miesbach
DEU	2007	Investor	Due diligence of a decentral ethanol plants, Gröden
DEU	2007	Investor	Technical evaluation of biodiesel production plants, Brunsbüttel
DEU	2006	Investor	Due diligence, Alteno
DEU	2006	Investor	Due diligence Thüringer Methylesterwerke, Niederpöllnitz
DEU	2005	Investor	Due diligence biogas plants, Gröden and Großmühlingen
DEU	2003	Operator	Feasibility study: landfill gas plant, Hennickendorf
DEU	2002	Operator	Feasibility study: development of biomass power plants in Allgäu, southern Germany
DEU	1996	Financing bank	Independent Engineer, heating plant Kaiserslautern



Country	Year	Description
DEU	2018	Lecture: Geothermal energy in Bavaria, Swiss ORC symposium
DEU	2018	Part of a seminar: Planning and project development, BWE-seminar "basics about planning of wind farms"
DEU	2018	Basic seminar Wind, multiple annual training events
DEU	2017	Lecture: Optimized grid connection - possibilities for cost reduction, BWE-practice day for wind energy and grids
DEU	2017	Lecture: Network connection optimization, Spreewind days 2017
DEU	2017	Lecture: Fields of application of LiDAR wind measurements, Spreewind days 2017
DEU	2017	Lecture: Expansion options for existing wind farms with PV systems, Spreewind days 2017
DEU	2017	Lecture: Operating experiences in dealing with scaling in the thermal water cycle, practice forum geothermal
DEU	2017	Basic seminar PV, multiple annual training events
DEU	2016	Lecture: The meaning and nonsense of thermography thermal imaging testing of solar modules and electrical systems
DEU	2016	Multiple annual training event
DEU	2016	Lecture: Importance of quality for PV systems from the German solar boom, Renewable Energy India Expo
DEU	2016	Lecture: Operating PV plants Potential for operators and investors
DEU	2016	Lecture: Aspectos ambientales en la explotación geotérmica el paradigma de geotermia, Geotermia Costa Rica
DEU	2016	Lecture: Geotermia de media y bajo entalpía aprovechamiento de uso directo e indirecto, Geotermia Costa Rica
DEU	2016	Workshop: Practical experience Molasse basin
DEU	2016	Optimization in the Geothermal Power Plant: Practical Approaches, DGK Essen
DEU	2015	Damage to bearings of thermal water pumps, VDI annual meeting
DEU	2015	Lecture: What matters today: Planning and implementation of a wind farm project in Bavaria, training seminar for the federation of cooperatives
DEU	2015	Lecture: Filter candle test geothermal power plant Dürrnhaar, practice forum geothermal
DEU	2015	Financing Renewable Energies, Frankfurt School Verlag 2015, chapter "Projecting Geothermal Projects", article in a reference book
DEU	2015	Training Electrical Planning
DEU	2015	Derating recognize, pv magazine March 2015, article for a reference magazine
DEU	2012-2015	Lecture: Technical basics and project planning of geothermal projects, Frankfurt School of Finance, study programme Renewable Energy Finance
DEU	2012-2015	Lecture: Technical basics and project planning of PV projects, Frankfurt School of Finance, study programme Renewable Energy Finance
DEU	2014	Lecture: Can one forecast wind, possibilities and limits of yield reports, at Mitteldeutsche Branchentage Windenergie

Lectures/Seminars/Publications



Country	Year	Description
DEU	2014	Talk about wind energy: technology, energy yield and implementation, federation of cooperatives
DEU	2013-2014	Lecture: Wind Energy - Technical Background, Yield Expectations and Implementation, academy for bavarian cooperatives
DEU	2013	Lecture on Market Development PV and Wind
DEU	2013	Basic Seminar Wind Energy, cooperative bank
DEU	2013	Lecture: Techniques of wind power plants, type considerations, harvest expectations, technologies, wind supply in southern Bavaria, VDE Südbayern e.V.
DEU	2013	Geothermal project, Oldenbourg-Verlag 2013, chapter "Management of central completion risks", article in a reference book
DEU	2013	Lecture: Project Development Geothermal Energy, Hochschule Biberach, study programme energy economy
DEU	2013	Seminar renewable energy production; Lecture "Technology of wind turbines", VDE Bayern
DEU	2012	Lecture: Wind energy in Germany and Europe, Deloitte & Touche
DEU	2012	Lecture: Technology of wind turbines, VDE Bayern