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## References

June 2024

# Wind energy



Country	Year	MW	No. of turbines	Turbine type	Description	
DEU	2001-curr.	30.0	20	GE	1.5sl	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
ESP	2002-curr.	99.0	132	NEG Micon	NM 750	Due diligence/contract negotiations, structuring of the project, technical controlling during construction phase, acceptance and operational phase
DEU	2002-curr.	13.5	9	Nordex	S-70	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2002-curr.	14.0	7	Vestas	V80	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2003-curr.	12.0	8	GE	1.5sl	Due diligence/contract negotiations, technical controlling during construction, acceptance and operational phase
DEU	2004-curr.	14.4	8	Enercon	E-66/18.70-3	Due diligence/contract negotiations, technical controlling during construction, acceptance and operational phase
DEU	2019-curr.	4.0	1	Nordex	N149	Planning Design / Permissioin
DEU	2024					preliminary planning
DEU	2024	13.6	2	Nordex	N178; 6,8 MW; 179 NH	preliminary planning / design planning
DEU	2024	4.8	1	Nordex	N133 / 4.8 MW	preliminary planning
DEU	2024					Preliminary planing
DEU	2024	14.0	4	Vestas	div.	TDD
DEU	2024	11.4	2	Nordex	N149-5.7	TDD
DEU	2023	21.6	3	Vestas	V172	Noise Assessment
DEU	2023	21.6	3	Vestas	V172	Shadow Flicker Assessment
DEU	2023	6.9	2	Vestas	V136	Energy Yield Assessment
DEU	2023	30.0	5	Vestas	V162-6.0 MW	Technical due diligence
DEU	2023	11.4	2	Nordex	N149/5.X	Construction Monitoring
POL	2023	42.6	11	Nordex	div.	Technical due diligence
DEU	2023	50.4	7	Vestas	V172-7.2 MW	Feasibility study
DEU	2023	5.6	1	Vestas	V150	Energy Yield Assessment
DEU	2023	48.0	8	Vestas	V162	LiDAR measuring
DEU	2023	6.8	1	Nordex	N163	Energy yield estimation
DEU	2023	6.9	2	Vestas	V126	Energy yield estimation
FIN	2023	30.0	5	Vestas	V162	Energy yield review

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
FIN	2023	29.7	9	Vestas	V126	Energy Yield Review
DEU	2023	27.0	9	Enercon	E-101	Energy yield estimation
DEU	2023					LiDAR measuring / monitoring
DEU	2023					LiDAR measuring
DEU	2023	1.5	2	EWT	DW61	Feasibility Study
DEU	2023	0.8	1	EWT	DW61	Feasibility Study
DEU	2023					LiDAR measuring
DEU	2023	57.6	8	Vestas	V172	Noise Assessment
DEU	2023	57.6	8	Vestas	V172	Schadow Flicker Assessment
DEU	2023	24.0	5	Nordex	N133	Energy Yield Review
DEU	2023	5.7	1	Nordex	N149	Energy Yield Review
DEU	2023	39.6	6	Siemens Gamesa	SG 6.6-170	Noise Assessment
DEU	2023	39.6	6	Siemens Gamesa	SG 6.6-170	Shadow Flicker Assessment
DEU	2023	7.2	1	Vestas	V162	Feasibility Study
DEU	2023	14.0	2	Nordex	N163/6.X	Energy Yield Assessment
DEU	2023	4.3	1	Enercon	E-138 EP3 E3	Energy Yield estimation
DEU	2023	96.0	16	Simens Gamesa	SG 6.6-155	Technical Due Diligence
DEU	2023	25.0	5	Enercon	E-147	Technical Due Diligence
DEU	2023	56.4	14	GE, Vestas, Enercon	div.	Technical Due Diligence Portfolio
DEU	2023	17.1	3	Nordex	N149	Technical Due Diligence
DEU	2023	21.7	3	Nordex	N149	Technical Due Diligence
DEU	2023	36.0	5	Vestas, Nordex	N175, V172, 6.8	Noise Assessment
DEU	2023	36.0	5	Vestas, Nordex	N175, V172, 6.8	Shadow Flicker Assessment
DEU	2023	36.0	6	Enercon	E175 EP5	Noise Assessment
DEU	2023	36.0	6	Enercon	E175 EP5	Shadow Flicker Assessment

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2023	5.6	1	eno	eno152	Noise Assessment
DEU	2023	5.6	1	eno	eno152	Shadow Flicker Assessment
DEU	2023	7.2	1	Vestas, Nordex	N175, V172, 6.8	Noise estimation
DEU	2023	43.2	6	Vestas	V172	Energy Yield estimation
DEU	2023	15.4	3	Vestas	5.6, V162, V150	Energy Yield estimation
DEU	2023					LiDAR Wind Measurement
SAU	2023	516.0	67	Windey	WD200/7.7	Energy yiel estimation
SAU	2023	616.0	80	Windey	WD200/7.7	Energy yield estimation
SAU	2023	670.0	87	Windey	WD200/7.7	Energy yield estimation
DEU	2023	28.8	4	Vestas	V172	Noise Assessment
DEU	2023	28.8	4	Vestas	V172	Shadow Flicker Assessment
DEU	2023	24.0	4	Nordex	N163	Noise Assessment
DEU	2023	24.0	4	Nordex	N163	Shadow Flicker Assessment
DEU	2023	16.7	3	Enercon	E-160	Energy yield estimation
DEU	2023	27.5	9	Enercon	E-101	Analysis of extension
DEU	2023	5.7	1	Nordex	N149	Noise Assessment
DEU	2023	5.7	1	Nordex	N149	Shadow Flicker Assessment
DEU	2023	47.6	7	Nordex, Enercon	N175, E-175, 6	Feasibility Study
DEU	2023					Energy Yield Review
DEU	2023	18.6	3	Vestas	V162	Site Quality calculation before commissioning
DEU	2023					Energy Yield Review
FRA	2023					Energy Yield Review
FRA	2023					Energy Yield Review
DEU	2023	16.8	3	Vestas	V162	preliminary planning
DEU	2023	163.2				preliminary planning / tendering
DEU	2023	17.1	3	Nordex	N163-5,7 MW	Preliminary planning / design planning

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2023					Preliminary cable route planning
DEU	2023	6.8	7	Nordex	N175	Preliminary planning
DEU	2023	24.0	4	Nordex	, 6, N163	preliminary planning / design planning / approval planning
DEU	2023	7.2	5	Vestas	V172	Preliminary planning / design planning
DEU	2023					construction supervision
DEU	2023	6.2	9	Nordex	N175	Preliminary planning / Design planning
DEU	2023	60.0	10	Enercon	E-175EP5-HAT-162	preliminary planning / design planning
DEU	2023	36.0	5	Vestas	V172,7.2MW, 175m NH	Preliminary planning/ design planning
DEU	2023	64.8	9	Vestas	V172,7.2 MW 175 m NH	preliminary planning / design planning
DEU	2023					preliminary planning / design planning / approval planning
DEU	2023					preliminary planning / design planning
DEU	2023	40.8	6	Nordex	N175 6.8 MW; 179 NH	preliminary planning / design planing
DEU	2023					preliminary planning / design planning
DEU	2023	72.0	10	VESTAS	V172 7.2 MW ...m NH	preliminary planning
DEU	2023	11.4	2	Nordex	N149/5.7	Construction Monitoring
DEU	2023	56.4	14	GE, Vestas, Enercon	div.	TDD
DEU	2023	25.0	5	Enercon	E-147 5.0	TDD
DEU	2023	96.0	16	Siemens-Gamesa	SG6.6-155	TDD
DEU	2023	5.5	1	Enercon	E160 5,5 MW	TDD
DEU	2023	24.0	5	Nordex	N133/4.8	TDD
DEU	2023	12.0	2	eno energy	eno 160-6.0 MW	TDD
BEL	2022	28.5	5	Nordex	N149/5.X	Energy yield estimation
DEU	2022	100.0	14	Vestas	V162	Preliminary Planning
DEU	2022	28.0	5	Vestas	V150	Energy yield review

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2022	19.8	3	Siemens Gamesa	SG 6.6-170	Energy yield review
DEU	2022	57.0	10	div.	div.	Feasibility study
DEU	2022	184.0	27	Nordex	N163	Technical due diligence of a green field portfolio
DEU	2022	37.8	7	Vestas	4.2, V162, V136	Feasibility study for a wind farm in Baden-Württemberg
DEU	2022	18.6	3	Vestas	V162-6.2MW	Energy yield review
NLD	2022	24.8	4	Vestas	V162	Energy yield estimation
DEU	2022	50.0	9	Enercon	E160	Energy yield estimation
DEU	2022	22.4	5	Vestas	4.2, 5.6, V150, V136	Technical due diligence of a cluster of three wind farms in Saxony-Anhalt and Brandenburg
DEU	2022	17.2	5	Vestas	V126	Technical due diligence of a cluster of three wind farms in Saxony-Anhalt and Brandenburg
DEU	2022	11.0	4	GE	GE-2.75	Asset audit of four WTG of the Nonnenholz wind farm in Baden-Württemberg, Germany
DEU	2022	21.0	5	Vestas	V150	Technical due diligence of the Junge Donau Wind Farm in Baden-Württemberg, Germany
FRA	2022	15.0	5	SG	SG3.4-132	Yield review of Le Vigeant wind farm in France
DEU	2022	9.1	7	AN Bonus (Siemens)	AN Bonus-1.3	Technical due diligence of Peheim-Karlshof Wind Farm in Lower Saxony
DEU	2022	285.6	51	Vestas, Nordex	div.	Technical due diligence of the project pipeline of the project developer Green City AG
DEU	2022	5.9	9	Vestas	V47 660 kW/200 kW	Site visit Report of the Wind Farm Wittighausen
FIN	2022	345.6	48	Vestas	V172-7.2MW	Energy yield estimation, noise and shadow flicker calculations
GRC	2022	36.0	8	Nordex	N149	Energy yield estimation
FRA	2022	12.0	4	Nordex	N131, 3, N117	Energy yield review
NLD	2022	18.6	3	Vestas	V162-6.2	Energy yield estimation
DEU	2022	11.0	2	GE	5.5-158	Grid connection optimisation
DEU	2022					Grid connection service
DEU	2022	14.4	2	Vestas, Nordex	V162 , N163/6.X, 7	Feasibility study
DEU	2022	13.2	2	Siemens Gamesa	SG 6.6-170	Energy yield estimation
DEU	2022	681.0	194	Vestas, Enercon	V117-3.45, E82, 2.35	Technical due diligence of a German/French Project Developer
LTU	2022	69.0	13	GE Wind	GE 158-5.3	Technische Due Diligence and Site visit of a wind farm in Lithuania

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2022	13.8	4	Vestas	V112-3,45	Technical due diligence of a wind farm in Nordrhine-Westphalia
DEU	2022	6.8	8	Vestas	V52	Technical due diligence of a wind farm in Sachsen-Anhalt
FRA	2022	18.2	8	Vestas, Nordex	V110, 2.2, N117-2,4	Pre-TDD of two wind farms in France
DEU	2022	2.0	2	AN Bonus	1000/54	Site visit of a wind farm in Niedersachsen
DEU	2022	3.4	5	Enercon	0.8, E48, E40	Site visit of a wind farm in Niedersachsen
DEU	2022	19.2	8	Nordex	N117	Design, approval planning, tendering, execution
FRA	2022	7.2	3	Nordex	N117	Shadowing report
DEU	2022	5.6	1	Vestas	V150 5,6MW	Energy yield estimation
DEU	2022	5.6	1	Vestas	V150 5,6 MW	Energy yield review
DEU	2022	8.4				Energy yield review
ITALIEN	2022	20.0	5	Vestas, Vestas	4, V126, V136	Energy yield estimation
DEU	2022	2.3	1	Enercon	E-70 E4	Feasibility study
DEU	2022	46.2	7	div.	5.7, N163, SG6.6-170	Feasibility study
DEU	2022					Pre-Feasibility Site Check
DEU	2022	208.8	29	Vestas	V172-7,2	Feasibility Study
DEU	2022					Pre-Feasibility Site Check
DEU	2022					Pre-Feasibility Site Check
DEU	2022	10.8	3	Vestas	V136-3,6	Site visit
DEU	2022					Pre-Feasibility Site Check
DEU	2022					Pre-Feasibility Site Check
DEU	2022	13.5	3	Nordex	N149-4.0/4.5	Site Visit
DEU	2022	11.1	2	Enercon	E-160 EP5 E3	LiDAR measuring
DEU	2022					LiDAR measuring
DEU	2022	2.3	1	Enercon	E-82 E2	Feasibility study
DEU	2022	12.4	2	Vestas, Enercon	div.	Energy yield assessment
DEU	2022	31.0	5	Vestas	V162	Energy yield estimation

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2022	3.4	1	Vestas	V126	operating data analysis
DEU	2022	10.4	3	Vestas	V136-3.45 MW	Site visit
DEU	2022					Pre-Feasibility Site Check
DEU	2022	13.5	3	Nordex	N149-4.0/4.5	Site visit
DEU	2022	93.6	13	Vestas	V172-7,2 MW	Pre-Feasibility site check
DEU	2022	208.8	29	Vestas	V172-7.2 MW	Feasibility study
DEU	2022	16.8	3	Vestas	V162-5.6 MW	Repowering analysis
DEU	2022	21.6	3	Vestas	V172	Energy yield estimation
DEU	2022	72.0	10	Vestas	V172	Energy yield estimation
DEU	2022	72.0	10	Vestas	V172	Energy yield estimation
DEU	2022	20.4	3	Nordex	N163/6.X	Noise Assessment
DEU	2022	20.4	3	Nordex	N163/6.X	Shadow Flicker Assessment
DEU	2022	39.6	6	Siemens Gamesa	SG6.6-170	Grid connection service
DEU	2022					Preliminary planning
DEU	2022	100.0				Preliminary planning
DEU	2022	28.5	5	Nordex	N149/5.7	TDD
DEU	2021	5.6	1	Vestas	V150 5.6MW	Energy yield estimation
DEU	2021	12.6	3	Nordex	N131, 4.5, N149	Pre-Due diligence
DEU	2021	6.0	2	Enercon	E-115 EP3 E3	Energy yield estimation
DEU	2021	8.4	2	Enercon	E-115 EP3 E3	Energy yield estimation
DEU	2021	3.0	1	Enercon	E-115	As-built document assessment
DEU	2021	9.0	3	Nordex	N117	As-built document assessment
DEU	2021		3			Site Check
FRA	2021	70.0	29	Vestas, Nordex	div.	Energy yield review
DEU	2021	36.0	8	Nordex	N149/4.5	Energy yield review
SWE	2021	229.0	68	Enercon	div.	Technical due diligence



# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2021	27.3	6	ENO	div.	Technical due diligence
DEU	2021	12.6	3	Enercon	E-138 EP3 E2	Energy yield review
DEU	2021	12.6	3	Enercon	E-138 EP3 E2	Noise Assessment
DEU	2021	12.6	3	Enercon	E-138 EP3 E2	Shadow Flicker Assessment
DEU	2021	10.7	3	Enercon	div.	Energy yield review
DEU	2021	10.7	3	Enercon	div.	Noise Assessment
DEU	2021	10.7	3	Enercon	div.	Shadow Flicker Assessment
DEU	2021	5.7	1	Nordex	N163/5.X	Noise Assessment
DEU	2021	5.7	1	Nordex	N163/5.X	Shadow Flicker Assessment
DEU	2021	13.2	2	Siemens Gamesa	SG-155-6.0	Energy yield review
DEU	2021	16.8	3	Vestas, Vestas	5.6, V162, V150	Noise Assessment
DEU	2021	16.8	3	Vestas	5.6, V162, V150	Shadow Flicker Assessment
DEU	2021	36.0	8	Nordex	N149	Energy yield review
DEU	2021	16.5	3	General Electrics	GE 5.X-158	Energy yield estimation
DEU	2021	11.2	2	Vestas	V150-5.6	Energy yield review
DEU	2021					Energy yield estimation
DEU	2021	36.8	6	Nordex	N163/6.X	CFD energy Yield assessment
DEU	2021	8.8	7	DeWind	D6/64	Energy yield estimation
DEU	2021	10.8	3	Vestas	V136	Technical due diligence
DEU	2021	8.2	3	GE Wind GmbH	GE 2.75-120	Technical due diligence
SWE	2021	71.4	17	Vestas	V150-4.2	Energy yield review
DEU	2021	10.4	3	Vestas	V126	Energy yield review
SWE	2021	31.5	7	Vestas	V150	Energy yield review
DEU	2021	8.5	2	Enercon	div.	Energy yield estimation
DEU	2021	30.0	5	Vestas	V150	Preliminary and Design Planning

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2021	54.0	9	GE 6.0-164 6,0 MW		Internal and external cable route
DEU	2021	205.0	33	Vestas	V162	Preliminary Design
DEU	2021	13.8	5	GE	2,75 120	Change of approval
DEU	2021					LiDAR Wind Measurement
DEU	2021	10.0	2	Nordex	N163	Design planning, Approval
DEU	2021	17.2	5	Vestas	V126-3,45	Cable sizing
DEU	2021	31.0	6	Vestas	V162, V150, 6.2	Preliminary draft, final draft, approval
DEU	2021	341.0				feasibility study
DEU	2020	16.8	7	Nordex	N117	Study on bat effect hysteresis
DEU	2020	17.0	5	Nordex	N131/3400	Energy yield review
DEU	2020	22.8	4	Nordex	N149	Energy yield estimation
DEU	2020	17.1	3	Nordex	N149	Energy yield estimation
DEU	2020	17.1	3	Nordex	N149	Energy yield estimation
AUS	2020	22.4	4	Vestas	V162	Energy yield estimation and micrositing
DEU	2020	13.8	5	GE	GE2 75-120	production data analysis
DEU	2020	13.8	5	GE	GE2 75-120	Energy yield review
DEU	2020	12.6	3	Vestas	V150	Grid Connection Optimisation
DEU	2020	32.4	9	Vestas	V136-3.6	Technical due diligence
DEU	2020	8.4	2	Siemens Gamesa	SWT-DD-130	Determination of the site quality
DEU	2020	13.2	4	Vestas	V112	energy yield review
DEU	2020	27.5	7	Enercon	div.	Energy yield estimation
NLD	2020	100.6	14	Nordex	N131	Yield assessment hybrid power plant
GRL	2020	29.4	7	Enercon	E141	Energy yield estimation
SWE	2020	0.0				wind speed estimation
DEU	2020	16.8	3	Vestas	V162	site visit before measurement

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2020	13.8	5	General Electrics	GE-2,75-120	calculation losses due to bat protection
DEU	2020	11.2	2	Vestas	V162	Energy yield estimation
DEU	2020	16.8	3	Vestas	5.6, V162, V150	Energy yield estimation
DEU	2020	10.8	3	Nordex	N131	CFD-Yield assessment
DEU	2020	1.7	2	Vestas	V52	Site visit and lifetime extension assessment consulting
SWE	2020	62.0	10	SGRE	SGRE 6.0-170	Technical Procurement support during PSA/SMA negotiations
ITA	2020	12.5	5	Nordex	div.	Technical due diligence
DEU	2020	8.4	2	Vestas	V150-4.2	Technical due diligence
DEU	2020	15.9	3	GE	Cypress 5.3-158	Technical due diligence
DEU	2020	13.5	3	Nordex	N149-4.0/4.5	Technical due diligence
DEU	2020	346.0	203	div.	div.	Pre-Due-Diligence
SWE	2020	94.6	22	Vestas	V150	Construction supervision, Reporting
DEU	2020	16.8	3	Vestas, Vestas	5.6, V162, V150	Energy yield estimation and micrositing
DEU	2020	5.6	3			Feasibility study
DEU	2020	16.8	4	Enercon	E-126 EP4	LiDAR Wind Measurement
DEU	2020	33.0	6	GE Wind GmbH	GE 5.5-158	LiDAR Wind Measurement
DEU	2020	54.0	9	Siemens Gamesa	SG 6.0-170	LiDAR Wind Measurement
SWE	2020	62.0	10			Reporting
DEU	2020					Site Assesment
DEU	2019	16.5	6	GE	2.75-120	Production data analysis
DEU	2019	13.8	4	Vestas	V136 3,45 MW	Energy yield review
FRA	2019	74.2	32	div.	div.	Energy yield review
DEU	2019	10.4	3	Vestas	V136	Repowering Study
DEU	2019	8.4	2	Siemens	SWT-DD-130	Energy yield review
DEU	2019					Lidar measurement
AUS	2019	9.0	2	Nordex	N149	Energy yield review

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2019	14.4	4	Vestas	V136	Energy yield review
GRC	2019	26.4	11	Nordex	N117	Energy yield review
TUR	2019					Met Mast Measurement Turkey
DEU	2019	13.8	4	Vestas	V136-3.45	Due Dilligence
DEU	2019	66.6	27	Enercon	div.	Technical due diligence Portfolio
DEU	2019	3.0	2	GE	1.5s	Noise Assessment
ESP	2019	108.0	18	Siemens Gamesa	SG6.0-155	Feasibility study
DEU	2019	23.0	14	Nordex, Enercon	2, E-70, S-77	Performance Analysis
DEU	2019	27.4	9	Enercon	E-101	Energy yield review
FRA	2019	31.5	9	Vestas	div.	Technical due diligence
DEU	2019	27.4	9	Enercon	E-101	Technical Consulting
DEU	2019	14.4	4	Vestas	V136	Preliminary planning
DEU	2019	28.8	8	Nordex	N117	Approval planning, Execution planning
DEU	2019	16.8	7	Nordex	N117	Technical Consulting
DEU	2019		2			LiDAR Wind Measurement
GBR	2019	102.2	58	div.	div.	Document review for technical management contract
DEU	2019	25.2	8	Siemens	SWT-3.15-142	Contract review power curve warranty, noise warranty
DEU	2019	10.4	3	Vestas	V136	Energy yield review
DEU	2019					Lidar measurement
DEU	2019	61.2	20	div.	div.	Technical due diligence
FRA	2019	118.0	50	Vestas, Enercon	div.	Technical due diligence
FRA	2019	10.0	5	Vestas	V90	Technical due diligence
DEU	2019	28.5	8	Vestas	div.	Energy yield review
DEU	2019	3.6	2	Vestas	V 126	Shadow flicker report
DEU	2019	5.6	2	Vestas	V 162	Noise Assessment
DEU	2019	9.9	3	Vestas	V117-3.3	Due diligence

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2019	7.5	5	GE	1.5sl	life time calculation
NOR	2019	42.0	9	Siemens	SWT13-4.3	Energy yield review
DEU	2019	13.8	5	GE	GE2.75-120	LiDAR Wind Measurement
DEU	2019	13.8	5	GE	GE2 75-120	scada data analysis
DEU	2019	31.0	8	Vensys	115-4.100	Energy yield review
GBR	2019	93.5	45	Vestas, Senvion	div.	Technical Controlling monthly reports
SWE	2018	90.0		div.		Yield estimation
DEU	2018	76.1	22	Vestas , Enercon	V112	Pre-due-diligence
DEU	2018			div.		Preliminary technical examination
DEU	2018	7.2	2	Senvion	3.6M114	Energy yield estimation
DEU	2018	13.2	6	e.n.o.	92 2,2 MW	SCADA Analysis End of Warranty
DEU	2018	16.5	5	Vestas	V126 3,3 MW	Condition detection
AUS	2018	42.0	10	Vestas	V136 4,2 MW	Yield estimation
DEU	2018	16.8		Nordex	N117 2,4 MW	Evaluation of operating data, yield study
AUS	2018	7.2	2	Vestas	V136 3,6 MW	Yield estimation
DEU	2018	49.5		div.		Yield estimation
FRA	2018	10.0	5	Vestas	V90 2,0 MW	SCADA Analysis End of Warranty
DEU	2018	10.4	3	Vestas	V126 3,45 MW	Technical due diligence
DEU	2018	136.0	42	div.		Technical due diligence
DEU	2018	11.8	5	Enercon	E-92	Yield estimation
DEU	2018					LiDAR wind measurement
DEU	2018					LiDAR wind measurement
SWE	2018	90.0				Yield estimation
DEU	2018	16.5	6	GE	2.75-120	Energy yield review
DEU	2018	15.0	5	Enercon	E-115	Energy yield review
SWE	2018	99.0	22	Nordex	N149 4,5 MW	Calculation Electrical Losses

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2018	36.0	12	Enercon	E101	Yield assessment
SWE	2018	42.0	10	Vestas	V150	Yield estimation
SWE	2018	25.2	6	Vestas	V150	Yield estimation
DEU	2018	12.0	4	Enercon	E115	LiDAR measurement
DEU	2018	11.8	5	Enercon	E92	Energy yield review
KOR	2018	39.6	11	Vestas	V136 3,6 MW	Energy yield review
FRA	2018	31.0	9	Nordex	N117	Energy yield review
DEU	2018	3.7	1	Senvion	3.7M144	Energy yield review
DEU	2018	9.0	2	Nordex	N149	Energy yield review
DEU	2018	16.8	4	Vestas	V150	Energy yield review CFD
DEU	2018	14.4	4	Vestas	V136 3,6 MW	Energy yield review
DEU	2018	7.2	3	Nordex	N-117 2,4MW	Production data analysis
DEU	2018	13.8	5	GE	GE2.75-120	Production data analysis
DEU	2018	4.2	1			Feasibility study
DEU	2018	18.0	6	Enercon	E-115 3,0 MW TES	Noise and shadow flicker assessment
MEX	2018	200.0	91	Vestas	V120 2,2MW	Preliminary examination site assessment
KOR	2018	39.6	11	Vestas	V126 3,6 MW	Preliminary examination site assessment
DEU	2018	6.1	2	Enercon	E-101 3,05 MW	Noise Assessment
DEU	2018	12.2	4	Enercon	E-101 3,05 MW	Noise Assessment
DEU	2018	12.2	5	GE	GE2.75-120	Technical inspection
AUT	2018	27.6	8	Vestas	V112	Grid Connection Planning
DEU	2018	13.5	3	Nordex	N149	Grid Connection Optimisation
DEU	2018	12.8		Siemens	SWT-3.2-113	Technical due diligence, Energy yield review
DEU	2018	13.6	4	Senvion	3.4M104	SCADA data analysis
DEU	2018	10.2	3	Senvion	3.4M104	Energy yield review
DEU	2018	6.4	7	Enercon	E92	Energy yield review

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2018	12.0	6	Vestas	V90 2.0MW	SCADA data analysis
DEU	2018	12.0	6	Vestas	V90 2.0MW	SCADA data analysis
DEU	2018	4.0	2	Vestas	V90 2.0MW	SCADA data analysis
SWE	2018	42.0	10	Vestas	V150	LiDAR measurement
DEU	2018					Energy yield review
DEU	2018	12.2	4	Enercon	E-101	Noise Assessment
DEU	2018	26.4	11	Nordex	N117	Digital Twin
DEU	2018	47.0	16	Enercon	E-101	Asset Audit
FRA	2018	18.0	6	Nordex	N117	Technical due diligence Portfolio
DEU	2018	63.5	22	GE, Nordex, Vestas	div.	Technical due diligence Portfolio
DEU	2018	4.5	1	Nordex	N149	Design planning, Approval
DEU	2017	6.9	2	Vestas	V117	Technical due diligence, yield review
GBR	2017	26.0	13	Enercon	E-70 E4 2.0MW	Energy yield review
DEU	2017	9.4	4	Enercon	E-92, 2,35MW	Energy yield review
DEU	2017	38.0	11	Vestas	V136	Analysis grid optimization
DEU	2017	30.0	20	GE	1.5 s	Expansion analysis
DEU	2017	16.5	5	Vestas	V126	Technical due diligence
DEU	2017	9.0	3	Nordex	N131 3,0 MW	Energy yield review
DEU	2017	6.0	2	Nordex	N131 3,0 MW	Energy yield review
DEU	2017	21.0	5	Vestas	V150	Energy yield review / sound analysis
FRA	2017	14.0	7	Vestas	V100	Energy yield review / Technical due diligence
FRA	2017	12.3	6	Repower	MM92	Energy yield review / Technical due diligence
FRA	2017	113.0		div.		Technical advisory project contracts
SWE	2017	16.0	5	Siemens	SWT-3.2-113 3,2 MW	Energy yield review
DEU	2017	5.0	2	GE	2.5-120	Technical due diligence

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2017	6.9	2	Vestas	V117	Technical acceptance
DEU	2017	94.2	31	div.		Technical device management services
DEU	2017	6.0	2	Enercon	E-115	Energy yield review / Technical due diligence
DEU	2017					LIDAR measuring
DEU	2017	21.0	7	Nordex	N117	Analysis of bat shutdowns
DEU	2017	12.6	3	Vestas	V150	Energy yield estimation
POL	2017	30.0	12	Nordex	N100	Assessment of total life expectancy
FRA	2017	10.0	5	Gamesa	G90	Coordination End of Warranty testing
DEU	2017	15.0	5	Enercon	E-115	Technical due diligence
DEU	2017	27.2	8	Südwind, Senvion	S70, 1.7, 3.4M122NES	Preliminary planning, approval planning, execution planning, tendering
DEU	2017	16.5	5	Nordex	N131	Planning Permission (partly)/ Execution
DEU	2017	4.5	1	Nordex	N149	Feasibility study
POL	2016	30.0	12	Nordex	N100	Production data analysis, bat losses assessment
DEU	2016	6.9	2	Vestas	V136	Yield analysis, sound analysis and shadow analysis, approval planning
DEU	2016	10.4	3	Vestas	V136	Noise Assessment
FIN	2016	29.7	9	Vestas	V126	Energy yield assessment (based on meteorological mast data)
FRA	2016	22.0	11	Senvion	MM100	Energy yield assessment (based on meteorological mast data)
FRA	2016	21.0	7	Vestas	V117	Energy yield assessment (based on meteorological mast data)
DEU	2016	5.5	2	GE	2.75-120	Determination of yield losses due to shading, bats and ret kite, execution planning
DEU	2016					LiDAR measurements
DEU	2016	2.4	1	Nordex	N117	Construction supervision, project management and health and safety coordination
GBR	2016	18.4	8	Enercon	E-70	Technical consulting
DEU	2016	40.4	17	div.	2.5-120	Technical due diligence incl. energy Yield assessment
DEU	2016	33.3	11	Vestas	V112, V126	Technical consulting sound emissions and measurement
DEU	2016	42.0	14	Vestas , Enercon	V112	Technical consulting sound emissions and measurement
DEU	2016	9.9	3	Vestas	V126	Technical consulting take over procedure and warranties



# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2016	9.9	3	Nordex	N131	Approval and execution planning, shadow analysis, project supervision
DEU	2016	25.6	8	Senvion	3.2M	Technical due diligence incl. energy Yield assessment
DEU	2016	158.0	50	div.	2.75-120	Technical consulting grid connection
DEU	2016	13.8	5	GE	2.75-120	Technical due diligence incl. energy Yield assessment
DEU	2016	10.0	4	GE	2.5-120	Technical due diligence incl. energy Yield assessment
DEU	2016	4.8	2	Nordex	N117	Project management construction, technical consulting take over procedure
DEU	2016	21.6	9	Nordex	N117	Project management construction, planning of cable route
DEU	2016	6.9	2	Vestas	V126	Approval and execution planning, project management construction, construction supervision
DEU	2016	39.6	12	Vestas	V126	Approval planning, energy Yield assessment, sound and shadow analysis
DEU	2016	25.6	8	Senvion	3.2M	Approval and execution planning, energy Yield assessment incl. LiDAR measurement, sound and shadow analysis
DEU	2016	6.6	2	Nordex	N131	Approval planning
DEU	2016	12.5	3	GE	2.5-120	Technical consulting take over procedure
DEU	2016	2.4	1	Nordex	N117	Approval planning
DEU	2016	25.6	8	Senvion	3.2M122 NES	Approval procedure
DEU	2016	25.6	8	Senvion	3.2M122 NES	LIDAR measuring
DEU	2016					LIDAR measuring
DEU	2016	12.5	5	GE	2,5-120	Construction supervision, acceptance
DEU	2016	9.0	3	Enercon	E-10	Energy yield review
DEU	2016	19.8	6	Vestas	V126	Technical due diligence, yield review
DEU	2016	26.4	11	Nordex	N117	Project Management
DEU	2016	9.9	3	Nordex	N131	Planning
DEU	2016	9.9	3	Nordex	N131	Project Management
DEU	2015	4.6	3	Nordex	N117	Technical due diligence
DEU	2015	9.0	3	Enercon	E-115	Noise emission and shadow impact report, amendment BlmSch-approval
DEU	2015	10.0	4	Enercon	E-101	Sound analysis, shadow analysis, adaptation of permit application
DEU	2015	9.6	4	Nordex	N117	Technical due diligence

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2015	5.0	2	GE	GE 120	Technical pre-Due diligence
DEU	2015	27.5	10	GE	GE 120	Energy yield assessment
DEU	2015	42.0	15	div.	, GE 120, 3.3	Energy yield assessment
DEU	2015	79.8	29	GE	GE 120	Energy yield assessment
DEU	2015					LiDAR measuring
DEU	2015	9.6	4	Nordex	N117	Technical pre-Due diligence
DEU	2015	11.5	5	Nordex	N117	Approval planning cable route
DEU	2015	9.6	4	Nordex	N117	Technical due diligence
DEU	2015	40.0	10	GE, Vestas , Nordex	V126	Energy yield assessment
FRA	2015	10.0	5	Gamesa	G90	Technical due diligence, technical consulting
DEU	2015	8.0	4	Vestas	V80	Technical due diligence
DEU	2015	4.8	2	Nordex	N 117	Construction supervision, project management, health and safety coordination
DEU	2015	12.0	4	Enercon	E-101	Construction supervision, project management
DEU	2015	22.3	11	Enercon, Enercon	E-70	Technical due diligence
DEU	2015	17.5	7	GE	2.5-120	Technical consulting on construction progress
DEU	2015	161.0	54	Vestas	V112, V90	Technical due diligence
DEU	2015	17.5	11	Vestas, NEG Micon	NM 82/1500	Pre-Due diligence
DEU, FRA	2015	206.0	17	div.	E-70, E-82	Pre-Due diligence
DEU	2015	13.8	5	GE	2.75-120	Technical due diligence incl. energy Yield assessment and take over inspection BOP
DEU	2015	6.0	3	Vestas	V90	Technical due diligence
DEU	2007-2015	4.0	2	Gamesa	G80	Due diligence, contract negotiations, technical consulting in operation phase
ITA	2009/2015	18.0	12	Nordex	S-77	Production data analysis
ITA	2010/2015	10.5	7	Nordex	, 1.5, S-77	Production data analysis
GBR	2014-2015	29.0	9	Vestas , Siemens	V112	Determining yield reduction due to sectoral and shadow shutdown

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2014	8.0	4	Vestas	V80	Repowering analysis, technical Due diligence
DEU	2014	4.8	2	Nordex	N117	Calculation of cable losses
DEU	2014	2.0	1	Vestas	V90 Gridstreamer	Technical due diligence
DEU	2014	12.0	4	Enercon	E-115	Noise emission and shadow impact report
DEU	2014	6.0	2	Vestas	V112	Evaluation of yield analysis
DEU	2014	9.6	4	Nordex	N117	Photo visualisation
DEU	2014	6.0	2	Vestas	V112	Evaluation of yield analysis
DEU	2014	4.7	2	Enercon	E-92	Technical due diligence
DEU	2014	9.6	4	Nordex	N117	Yield assessment
DEU	2014	8.0	4	Gamesa	G90	Technical due diligence, yield report review
DEU	2014	24.0	10	Nordex	N117	Review yield report
DEU	2014	12.0	4	Enercon	E-115	Review yield report, loss verification bat protection shutdown
DEU	2014	4.8	2	Nordex	N117	Yield review, loss estimate bat requirements
DEU	2014	9.6	4	Nordex	N117	Photo visualisation
DEU	2014			div.		Technical due diligence of project pipeline
SWE	2014	242.0	117	2 Anlagentypen		Yield analysis, sound analysis and shadow analysis for 9 wind parks
DEU	2013-2014	35.0	14	GE	2.5-120	Technical due diligence, construction monitoring
DEU	2013-2014	12.0	5	Nordex	N117	Yield report based on LIDAR
DEU	2013	4.0	2	Vestas	V90	Technical due diligence
DEU	2013	18.0	7	2 Anlagentypen		Yield assessment
GBR	2013	10.3	5	Repower	MM92	Yield assessment
DEU	2013	7.2	3	Nordex	N117	Yield assessment
DEU	2013	12.0	8	GE	1.5sl	Repowering Analysis
DEU	2013	7.2	3	Nordex	N117	Yield assessment
DEU	2013	7.2	3	2 Anlagentypen		Yield analysis, sound analysis and shadow analysis
DEU	2013	9.2	4	Enercon	E-82	Determination of yield losses due to shading

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2013	14.0	7	Vestas	V80	Repowering Analysis
DEU	2013	4.6	2	Enercon	E-82 E2	Implementation planning access roads and crane sites, drainage concept
GBR	2013	16.4	8	Repower	MM92	Sound analysis, shading loss analysis
GBR	2013	27.6	12	Enercon	E-70	Micrositing, yield analysis
DEU	2013	33.0	11	Siemens	SWT-3.0-113	Preliminary planning
DEU	2013	16.1	7	Enercon, Enercon	E-82	Due diligence and yield analysis
DEU	2013	4.6	2	Enercon	E-82	Yield analysis
DEU	2013	4.6	2	Enercon	E-82	Yield analysis
DEU	2013	4.8	2	Nordex	N 117	Micrositing
DEU	2013	12.0	4	Enercon	E-101	Micrositing
DEU	2013	60.0	18	4 Anlagentypen		Yield analysis, sound analysis and shadow analysis
DEU	2013	21.0	7	Nordex , Siemens	, 3, N117	Yield analysis
DEU	2013	2.4	1	Nordex	N117	Approval planning
DEU	2013	12.5	5	GE	2.5-120	Approval planning
DEU	2013	2.4	2	Nordex	N117	Feasibility study
DEU	2013	12.5	5	GE	2.5-120	Feasibility study
DEU	2013	28.8	12	2 Anlagentypen		Evaluation of yield analysis
DEU	2013	7.2	3	Nordex	N117	Energy yield review
DEU	2013	6.4	2	Repower	3.2M	Yield assessment
DEU	2013	60.0	20	Enercon	E-101	Implementation planning drainage, incl. application for water rights permit
DEU	2013	41.4	18	Siemens	SWT-2.3-113	Implementation external power path, incl. application forestry permit
DEU	2013	91.8	39	div.	E-82	Due diligence, assessment of project pipeline
DEU	2012-2013	9.0	3	div.	, 3.05, N117-2400	Yield analysis, sound analysis and shadow analysis
DEU	2012-2013	9.6	4	Nordex	N117-2400	Preliminary planning
DEU	2012	16.0	8	Gamesa	G90	Technical due diligence
DEU	2012	9.6	4	Nordex	N117-2400	Sound analysis, shadow analysis

# Wind energy



Country	Year	MW	No. of turbines	Turbine type	Description	
DEU	2012	16.8	7	Nordex	N117-2400	Yield analysis
DEU	2012	14.4	6	Nordex	N117-2400	Yield analysis
DEU	2012	18.0	9	Vestas	V90	Yield analysis
DEU	2012	48.8	16	Repower, Enercon	3.2M	Yield analysis
DEU	2012	15.0	5	4 Anlagentypen		Yield analysis, sound analysis and shadow analysis
DEU	2012	19.2	6	Nordex , Repower	N117-2400	Yield analysis
DEU	2012	13.3	9	Vestas, GE , DeWind	1,5sl	Technical due diligence
POL	2012	112.0	47	Vestas , Siemens	, 3, 2.3, V90	Preliminary examination
DEU	2012	8.3	5	Vestas	V66	Repowering Analysis
DEU	1998-2012	48.0	32	NEG Micon	NM 1500	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	1999-2012	12.0	12	NEG Micon	NM 1000	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	1999-2012	8.2	5	Vestas	V66	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2000-2012	31.5	21	GE	1.5s	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2002-2012	31.5	21	Nordex	S-70	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2011	12.5	5	Nordex	, N90, 2.5	Technical due diligence
DEU	2011	6.9	3	Enercon	, E-82, 2.3	Technical due diligence
FRA	2011	12.0	6	Enercon	E-82	Yield analysis
DEU	2011	2.0	1	Enercon	E-82	Technical due diligence
DEU	2011	30.0	12	Nordex	N100	Technical due diligence
DEU	2011	9.2	4	Nordex	N90	Technical due diligence
DEU	2010	6.0	3	Vestas	V90	Yield analysis
DEU	2010	16.0	8	Enercon	E-82	Technical due diligence
FRA	2010	12.0	6	Enercon	E-82	Yield analysis
DEU	2010	2.0	1	Enercon	E-82	Yield analysis

# Wind energy



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2010	7.5	10	Südwind	S46	Value expertise for sale
DEU	2007-2010	3.0	2	Nordex	S-70	Technical controlling during construction, acceptance and operational phase
DEU	2007-2010	12.0	6	Vestas	V80	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	8.0	4	Vestas	V90	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	20.0	10	Vestas	V90	Technical controlling during construction, acceptance and operational phase
DEU	2008-2010	10.0	5	Vestas	V90	Technical controlling during construction, acceptance and operational phase
DEU	2009	6.0	4	Fuhrländer	FL-MD77	Yield analysis
DEU	2009	16.0	8	Enercon	E-70/4	Consulting for the implementation to conform to grid code requirements
DEU	2009	14.0	7	Enercon	E-82/4	Yield analysis
DEU	2008	22.0	11	Vestas	V90	Technical controlling during construction and acceptance
DEU	2003-2008	16.0	8	Vestas	V80	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2007	6.0	7	Gamesa	G58	Due diligence/contract negotiations
DEU	2007	8.8	7	DEWind	D6	Technical consulting at the end of warranty
DEU	2007	1.5	1	Nordex	S-77	Technical due diligence
DEU	2007	8.0	4	Gamesa	G80	Due diligence/contract negotiations
DEU	2007	1.7	2	Gamesa, Gamesa	, 0.85, G52	Due diligence/contract negotiations
DEU	2007	10.0	5	Repower	MM82	Yield analysis
DEU	2007	4.0	2	Enercon	E-70/4	Yield analysis
DEU	2006	8.0	4	Enercon	E-70/4	Technical due diligence
DEU	2005/2006	27.0	18	Nordex , Nordex	, 1.5, S-70	Technical due diligence
DEU	2005	19.5	13	Nordex , Nordex	, 1.5, S-77	Technical due diligence
DEU	2002-2005	30.6	17	Enercon	E-66	Technical controlling during construction, acceptance and operational phase
DEU	2003-2005	28.8	20	NEG Micon	div.	Due diligence/contract negotiations, technical controlling during construction phase, acceptance and operational phase
DEU	2002	5.2	7	Frisia	F 48	Conceptual consulting of the bank to restructure the project
DEU	2000	0.6	1			Feasibility study of wind powered seawater desalination stations

# Wind energy



Country	Year	MW	No. of turbines	Turbine type	Description
DEU	1995-2000				Conceptional studies
<b>Total</b>		<b>16,627</b>			

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2024						Cable route approval planning
DEU	2024	0.7	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary planning / design planning
DEU	2024	0.8	Rooftop	Mono crystalline	Other / several	Sungrow	Creation of layout plan
DEU	2024						Planning
DEU	2023	4.3	Ground-mounted	Mono crystalline	LONGi	Sungrow	Abnahmeinspektion
DEU	2023	105.0	Ground-mounted	Mono crystalline	Astronergy	SMA	Technische Due Diligence
DEU	2023	34.3	Ground-mounted	Mono crystalline			Verlustberechnung
DEU	2023	0.8	Ground-mounted	Mono crystalline	JA Solar	SMA	EGA
DEU	2023	10.0	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Conducting an Ex-Post-Simulation
DEU	2023	46.0	Ground-mounted	Mono crystalline	Trina Solar	GoodWe	TDD Phase 1 -Quick assessment of a portfolio
FIN	2023	32.0	Ground-mounted	Mono crystalline	LONGi	Sungrow	Yield assessment and yield review
DEU	2023	18.2	Ground-mounted	Mono crystalline			Hybrid analysis for two hybrid plants
NLD	2023	28.0	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Technical due diligence
DEU	2023	5.9	Ground-mounted	Mono crystalline	Jinko	Huawei	Yield prognosis
DEU	2023	5.4	Ground-mounted	Mono crystalline	Suntech		Technical due diligence, operating analysis, and project management
DEU	2023	38.7	Ground-mounted	Multi crystalline			Analysis of dismantling costs
DEU	2023	14.6	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Yield assessment
NLD	2023	31.4	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-test
DEU	2023	275.4	Ground-mounted	Mono crystalline	Jinko	Sungrow	Technical due diligence, yield assessment review
DEU	2023	7.5	Ground-mounted	Mono crystalline	Jinko	SMA	Yield assessment
AUT	2023	24.5	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-test
POL	2023	5.0	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Technical acceptance
POL	2023	14.1	Ground-mounted	Mono crystalline	LONGi	GoodWe	Technical acceptance
CHE	2023	11.4	Ground-mounted				Review documentation, creation and evaluation of tender documents
DEU	2023	18.6	Ground-mounted				Power curve analysis
DEU	2023	17.3	Ground-mounted				Power curve analysis



# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2023	7.0					Power curve analysis
DEU	2023						Power curve analysis
ROU, (ROM)	2023	10.7	Ground-mounted	Multi crystalline			Technical Due Diligence of four solar parks in Romania
ROU, (ROM)	2023	20.0	Ground-mounted	Multi crystalline	Risen Energy	SMA	Technical Due Diligence of the solar park Greensource Beta in Romania
DEU	2023	48.9	Ground-mounted	Mono crystalline	Jinko	Sungrow	Technical due diligence and yield assessment
NLD	2023	41.1	Ground-mounted	Mono crystalline	LONGi	Huawei	PR-Test
DEU	2023	34.6	Ground-mounted				Technical due diligence
DEU	2023	80.0	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Yield assessment
FRA	2023	7.6	Ground-mounted	Mono crystalline	GCL System	Huawei	PR-Test
DEU	2023	8.0	Ground-mounted	Mono crystalline	Jinko	SMA	Yield assessment
DEU	2023	15.8	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Technical acceptance
POL	2023	5.0	Ground-mounted	Mono crystalline	Trina Solar	Huawei	PR-Test
DEU	2023	18.2	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Technical acceptance
DEU	2023	5.6	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Yield assessment
CEE/EEC	2023	1474.2	Ground-mounted				Technical due diligence
NLD	2023	31.2	Ground-mounted	Mono crystalline	HT-SAAE	Sungrow	PR-Test
NLD	2023	49.0					Determination of PV load profile
DEU	2023	21.1	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-Test
DEU	2023	188.5	Ground-mounted	Mono crystalline	Suntech	Sungrow	Ertragsgutachten
DEU	2023	15.8	Ground-mounted	Mono crystalline	Trina Solar	Huawei	PR-Test
GBR	2023	49.1	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Hybrid analysis
DEU	2023	16.2	Ground-mounted	Mono crystalline	Trina Solar	KACO new energy GmbH	Yield assessment
DEU	2023	18.2	Ground-mounted	Mono crystalline	Trina Solar	Huawei	PR-Test
POL	2023	14.1	Ground-mounted	Mono crystalline	LONGi	GoodWe	PR-Test

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2023	1119.1	Ground-mounted	Mono crystalline	LONGi	Huawei	Technical due diligence
DEU	2023	19.2	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Technical acceptance
DEU	2023	19.2	Rooftop	Mono crystalline	JA Solar	Huawei	Vendor Due Diligence
DEU	2023	28.0	Ground-mounted	Mono crystalline	Canadian Solar	Huawei	Yield assessment
FRA	2023	1.6	Ground-mounted	Multi crystalline	Suntech		Performance analysis after module cleaning
DEU	2023	0.3	Rooftop	Multi crystalline			Thermographic inspection
ESP	2023	20.1	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-Test
DEU	2023	5.1	Ground-mounted	Mono crystalline	LONGi	Huawei	Yield Assessment
DEU	2023	14.2	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Yield Assessment
DEU	2023	119.0	Ground-mounted	Mono crystalline	Suntech	SMA	Yield Assessment
GBR	2023	30.1	Ground-mounted	Mono crystalline	Risen Energy	Huawei	PR-test
DEU	2023	1119.0	Ground-mounted	Mono crystalline			Technical due diligence
DEU	2023	11.6	Ground-mounted	Mono crystalline	Suntech	Huawei	Yield Assessment
DEU	2023	16.4	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-Test
DEU	2023	18.5	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Design planning / tender planning
DEU	2023						feasibility study
DEU	2023	9.6	Ground-mounted	Bifacial	JA Solar	Sungrow	Preliminary planning
DEU	2023	19.9	Ground-mounted	Mono crystalline	JA Solar	Huawei	preliminary planning
DEU	2023	0.4	Rooftop	Mono crystalline	Risen Energy	Huawei	preliminary planning
DEU	2023	0.3	Rooftop	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023	1.4	Ground-mounted	Bifacial	JA Solar	Sungrow	feasibility study / Preliminary planning
DEU	2023	42.0	Ground-mounted				Hybrid analysis
NLD	2023	21.0	Ground-mounted	Mono crystalline	Yingli Silfab	Huawei	PR-Test
DEU	2023	10.0	Ground-mounted				Technical Due Diligence
DEU	2023	4.6	Ground-mounted	Mono crystalline	Astronergy	Sungrow	technical due diligence
DEU	2023	12.0	Ground-mounted	Mono crystalline	Risen Energy	SMA	yield assessment

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2023	7.7	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Yield assessment
DEU	2023	15.5	Ground-mounted	Mono crystalline	LONGi	Huawei	Yield Assessment
DEU	2023	41.3	Ground-mounted				Owner's engineering during project implementation
DEU	2023	1.6	Ground-mounted	Mono crystalline	Canadian Solar	Huawei	Yield assessment
DEU	2023	30.6	Ground-mounted	Mono crystalline			Technical due diligence
DEU	2023	12.0	Ground-mounted				Hybrid analysis
DEU	2023	13.5	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Acceptance report
DEU	2023	44.9	Ground-mounted	Mono crystalline	Jinko	SMA	Yield assessment
DEU	2023	5.0	Ground-mounted	Mono crystalline	LONGi	Huawei	Yield assessment
DEU	2023	6.4	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-Test
DEU	2023	19.5	Ground-mounted				Preliminary review of repowering and yield analysis
NLD	2023	29.8	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR-Test
DEU	2023	22.2	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023	5.5	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary Planning
DEU	2023	3.7	Ground-mounted	Bifacial	HT-SAAE	Sungrow	Preliminary Planning
DEU	2023	18.5	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary Planning
DEU	2023	2.1	Rooftop	Mono crystalline	Astronergy	Sungrow	Implementation planning, AsBuilt Planning
DEU	2023	2.1	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary Planning
DEU	2023	83.5	Ground-mounted				Visualization
DEU	2023	14.8	Ground-mounted	Bifacial	JA Solar	Huawei	Preliminary planning
DEU	2023	144.2	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary Planning/ Feasibility study
DEU	2023	21.1	Ground-mounted	Mono crystalline	JA Solar	Huawei	preliminary planning
DEU	2023	34.3	Ground-mounted	Mono crystalline			Cable route planning
DEU	2023						Cable route planning
DEU	2023	19.6	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023	1.9	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary planning

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2023						Creation of booking plans
DEU	2023	3.4	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023						Visualization
DEU	2023	0.2	Rooftop	Mono crystalline	Risen Energy	Huawei	Creation of booking plans
DEU	2023	0.7	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary planning
DEU	2023	5.5	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023						feasibility study
DEU	2023	0.3	Rooftop	Mono crystalline	Suntech	Huawei	Creation of layout plans
DEU	2023	9.8	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023	0.8	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary planning
DEU	2023	14.6	Ground-mounted	Mono crystalline	Canadian Solar	Huawei	Preliminary planning/ design planning
DEU	2023	10.7	Ground-mounted	Bifacial	JA Solar	Huawei	Preliminary planning
DEU	2023	2.1	Ground-mounted	Mono crystalline	JA Solar	KACO new energy GmbH	preliminary planning/ Design planning
DEU	2023						Cable route preliminary, design and approval planning
DEU	2023	18.5	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Cable route preliminary-, design- and approval planning
DEU	2023	0.5	Ground-mounted	Mono crystalline	HT-SAAE	Sungrow	Preliminary planning
DEU	2023	3.3	Ground-mounted	Mono crystalline	JA Solar	Huawei	preliminary planning/ design planning
DEU	2023	23.6	Ground-mounted	Mono crystalline	JA Solar	Huawei	preliminary planning / design planning
DEU	2023	10.0	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2023	1.5	Ground-mounted	Mono crystalline	JA Solar	Sungrow	preliminary planning / design planning
DEU	2023	6.7	Ground-mounted	Mono crystalline	JA Solar	Huawei	design planning
DEU	2023	9.8	Ground-mounted	Mono crystalline	JA Solar	Huawei	preliminary planning
DEU	2023	3.9	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning / design planning / approval planning / tendering
DEU	2021-2022	1.4	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary design, design planning, tender planning
DEU	2021-2022	29.7	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study, design planning
DEU	2022	14.4	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary planning

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2022	130.0					Technical consulting, owner's engineering
DEU	2022	4.3	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Acceptance Test
DEU	2022	52.0	Ground-mounted	Thin-film	First Solar	SMA	Asset Audit O&M;
DEU	2022	2.0	Ground-mounted	Bifacial	Suntech	KACO	Acceptance inspection
DEU	2022	1.5	Ground-mounted	Bifacial	Suntech	KACO	Acceptance inspection
DEU	2022	4.3	Ground-mounted	Bifacial	Suntech	KACO	Technical due diligence
DEU	2022	24.0	Ground-mounted	Mono crystalline	Canadian Solar	Huawei	Planning
DEU	2022	22.4	Ground-mounted	Multi crystalline	QCELLS	Schneider Electric	Repowering
DEU	2022	10.7	Ground-mounted	Mono crystalline	GLC	Huawei	Energy yield assessment
DEU	2022	7.5	Ground-mounted				Planning
DEU	2022	6.1	Ground-mounted				Planning
DEU	2022	8.0	Ground-mounted				Planning
DEU	2022	300.0	Ground-mounted	Mono crystalline	JinkoSolar	Huawei	Technical due diligence
DEU	2022	18.0	Ground-mounted	Mono crystalline	JA Solar	Huawei	Technical support hybrid power plants
DEU	2022	47.0	Ground-mounted	Mono crystalline	JinkoSolar	Sungrow	Acceptance inspection
DEU	2022	120.0	Ground-mounted	Mono crystalline	Astronergy	SMA	Technical due diligence
DEU	2022	38.0	Ground-mounted, carport	Bifacial	Jollywood	HUAWEI	Technical due diligence
DEU	2022	1.9	Ground-mounted	Bifacial	Risen Energy	SMA	Technical due diligence
DEU	2022	7.2	Ground-mounted	Mono crystalline	Risen Energy	SMA	Technical due diligence
DEU	2022	80.0	Ground-mounted				Technical due diligence
DEU	2022	2.0	Ground-mounted	Mono crystalline	LONGi	Huawei	Acceptance inspection
DEU	2022	22.0	Ground-mounted	Mono crystalline	LONGi	Huawei	PR test
DEU	2022	14.6	Ground-mounted	Mono crystalline	GLC	Huawei	PR test
DEU	2022	10.0	Ground-mounted			Huawei	PR test
DEU	2022	13.7	Floating	Bifacial	LONGi	Huawei	PR test
DEU	2022	33.0	Ground-mounted	Mono crystalline	JA Solar	Huawei	PR test

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2022	3.0	Ground-mounted			Huawei	PR test
DEU	2022	1.9	Ground-mounted	Bifacial	Risen Energy	SMA	Energy yield assessment
DEU	2022	62.0	Ground-mounted	Mono crystalline	Trina Solar	Huawei	PR test
DEU	2022	597.0	Ground-mounted	Mono crystalline			Technical due diligence
DEU	2022	8.0	Ground-mounted	Mono crystalline	GCL		Designplanning
DEU	2022	45.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	6.0	Ground-mounted	Mono crystalline	Astronergy	Huawei	Implementation planning
DEU	2022	7.0	Ground-mounted	Mono crystalline	Astronergy	Huawei	Implementation planning
DEU	2022	8.0	Ground-mounted	Mono crystalline	Astronergy	Huawei	Implementation planning
DEU	2022	5.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	100.0	Ground-mounted	Mono crystalline	GCL		Feasibility study
DEU	2022	1.4	Ground-mounted, tracker system	Bifacial	Trina Solar	Huawei	Preliminary design and yield estimation
DEU	2022	2.9	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	2.2	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	1.8	Ground-mounted	Mono crystalline	GCL	Huawei	Implementation planning
ROU	2022	2.3	Ground-mounted	Multi crystalline	Topray	Schneider	As-Built planning
ROU	2022	2.3	Ground-mounted	Multi crystalline	Topray	ABB	As-Built Planning
DEU	2022	9.9	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	7.6	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary planning
DEU	2022	13.8	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study, design planning
DEU	2022	115.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	51.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2022	5.3	Ground-mounted, tracker system	Bifacial	Trina solar	Huawei	Preliminary planning
DEU	2022	42.8	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary planning
DEU	2022	1.0	Rooftop	Mono crystalline	GCL	Huawei	Feasibility study

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2022	1.5	Carport	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2020-2022	10.6	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary design, design planning, tender planning
DEU	2022	10.6	Ground-mounted	Mono crystalline	GCL System	Huawei	visualization
DEU	2022	100.0	Ground-mounted	Mono crystalline	GCL System		preliminary planning
DEU	2022	4.1	Ground-mounted, rooftop	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2022	9.9	Ground-mounted	Mono crystalline	GCL System	Huawei	Preliminary planning
HUN	2022	157.8	Ground-mounted	Mono crystalline	Jinko	Huawei	Preliminary planning
DEU	2022	53.6	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2022	2.0					Preliminary planning
DEU	2022						feasibility study
DEU	2022	6.3	Rooftop	Mono crystalline	LONGi	Huawei	Preliminary planning
DEU	2022						Feasibility study
AUT	2022	162.0	Ground-mounted	Mono crystalline	Canadian Solar	Sungrow	Visualizations
DEU	2022	5.2	Ground-mounted	Mono crystalline	JA Solar	Sungrow	Preliminary planning
DEU	2022	0.6	Ground-mounted	Mono crystalline	JA Solar	Huawei	Preliminary planning
DEU	2022	0.7	Rooftop	Mono crystalline	Trina Solar	Huawei	Preliminary planning
DEU	2022						Preliminary planning
DEU	2022	5.0	Rooftop	Mono crystalline	LONGi	Huawei	Preliminary planning
DEU	2022	8.9					Preliminary planning
DEU	2022	17.7	Ground-mounted				Preliminary Planning
DEU	2022	14.2	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Preliminary planning, implementation planning, as-built planning
DEU	2020-2021	2.0	Ground-mounted	Mono crystalline	Trina	Huawei	Owner's Engineering, tender planning
GRC	2021	700.0	Ground-mounted, tracker system	Multi crystalline			Technical due diligence
DEU	2021	40.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2021	9.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2021	1.0	Ground-mounted	Mono crystalline	Astronogy	Sungrow	Planning (design until implementation)
AUT	2021	1.6	Ground-mounted	Mono crystalline			Feasibility study
DEU	2021	5.0	Ground-mounted	Mono crystalline	GCL	Huwei	Feasibility study
DEU	2021	93.5	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2021	0.4	Ground-mounted	Mono crystalline	Hanwha Q Cells	SMA Solar Technology	Planning
DEU	2021	0.8	Ground-mounted	Mono crystalline	Hanwha Q CELLS GmbH	SMA Solar Technology	Planning
DEU	2021	47.0	Rooftop	Mono crystalline	Heckert Solar	Huawei	Technical due diligence
NLD	2021	59.0	Ground-mounted	Mono crystalline	Astronergy	Sungrow	Technical due diligence
POL	2021	49.0			Sunfarming	SMA	Technical due diligence
DEU	2021	10.0	Ground-mounted	Mono crystalline	Trina	SUN2000	Design planning, Implementation planning, As-built documentation
DEU	2021	3.0	Ground-mounted	Mono crystalline	Canadian Solar	Sun2000	Design planning, Implementation planning, As-built documentation
MLI	2021	11.4	Ground-mounted	Mono crystalline			Planning
DEU	2021						
NLD	2021	20.0	Ground-mounted				Energy yield assessment
DEU	2021		Ground-mounted				Planning
AUT	2021	8.0	Ground-mounted	Mono crystalline			Preliminary planning
DEU	2021	20.4	Ground-mounted	Mono crystalline	GCL	Huawei	Design Planning
DEU	2021	12.9	Ground-mounted	Mono crystalline	GCL	Huawei	Design Planning
DEU	2021	24.0	Ground-mounted	Mono crystalline	Jinkosolar	Huawei	Cluster analysis
DEU	2021	11.2	Ground-mounted	Mono crystalline	GCL	Huawei	Preliminary planning
DEU	2021	19.8	Ground-mounted	Bifacial	GCL	Huawei	Preliminary design, yield estimation, cost estimation
DEU	2021	3.4	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility study
DEU	2021	66.0	Ground-mounted	Mono crystalline	GCL	Huawei	Feasibility Study and Planning
DEU	2021	0.8	Ground-mounted	Mono crystalline	JA Solar	SMA	Implementation planning
DEU	2021	0.5	Ground-mounted, rooftop	Mono crystalline	JA Solar	SMA	Implementation planning
DEU	2021	0.2	Rooftop	Mono crystalline	Canadian Solar	Huawei	As-Built planning



# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2021	0.6	Rooftop				Implementation planning
DEU	2021		Ground-Mounted System				Visualization
DEU	2021						Electrical planning
DEU	2021	8.0	Ground-mounted				Repowering
DEU	2021	0.1	Ground-mounted	Mono crystalline	TBD	TBD	Preliminary draft, final draft, approval
DEU	2021	8.0	Ground-mounted	Mono crystalline			Implementation planning
DEU	2021	0.8	Rooftop	Mono crystalline	Trina Solar	Huawei	Technical due diligence, supervision of construction
DEU	2021		Ground-mounted				Planning application
DEU	2021	5.0	Rooftop				cable route planning
DEU	2021	9.0	Ground-mounted	Mono crystalline	GCL System	Huawei	Design planning / approval planning
AUT	2021	1.6	Ground-mounted	Mono crystalline			Preliminary planning / design planning / approval planning
DEU	2021	40.0	Ground-mounted	Mono crystalline	GCL System	Huawei	Preliminary planning / design planning / approval planning
DEU	2021	7.5	Ground-mounted				Cable route planning
DEU	2021	0.3	Ground-mounted	Bifacial	Other / several	Huawei	Visualization
DEU	2021						Preliminary Planning, Visualization
ROU	2020	16.0	Ground-mounted	Multi crystalline	ReneSola Ltd.	Power One	Technical due diligence
DEU	2020	0.7	Rooftop	Mono crystalline	Trina Solar / Astronergy	Huawei	Planning
DEU	2020	3.8	Ground-mounted	Mono crystalline	GCL	SMA	Planning
DEU	2020	2.5	Ground-mounted	Mono crystalline	Astronergy	Huawei	Implementation planning
DEU	2020	5.4	Ground-mounted	Mono crystalline	GCL		Preliminary planning
DEU	2020	7.0	Ground-mounted	Mono crystalline	GCL		Feasibility study
DEU	2020	10.0	Ground-mounted	Mono crystalline	Astroenergy	Huawei	Implementation planning
NLD	2020	0.4	Ground-mounted	Mono crystalline	GCL	Huawei	PR test
DEU	2020	4.0	Ground-mounted	Mono crystalline	Longi	Huawei	Acceptance Inspection/Test
NLD	2020	57.0	Ground-mounted	Mono crystalline	JinkoSolar	Sungrow	Technical due diligence
ROU	2020	16.0	Ground-mounted	Multi crystalline	ReneSola Ltd.	Power One	Technical due diligence

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2020	6.0	Ground-mounted	Mono crystalline	URE	Sungrow	Energy yield assessment
PRT	2020	35.0	Ground-mounted	Mono crystalline	Jinkosolar	Power Electronics	Technical due diligence
DEU	2020	3.6	Ground-mounted	Multi crystalline	URE	Sungrow	Energy yield assessment
DEU	2020	10.0	Ground-mounted	Multi crystalline	URE	Sungrow	Energy yield assessment
DEU	2020	0.8	Rooftop		Astronergy	Huawei	Planning
NLD	2020	15.0	Ground-mounted	Mono crystalline	GCL System Integration Technology	Huawei	PR test
NLD	2020	28.0	Ground-mounted	Mono crystalline	GLC System Integration Technology	Huawei	PR test
DEU	2020	5.0	Ground-mounted	Mono crystalline	Longi	Huawei	Acceptance Inspection/Test
DEU	2020	29.0			Ja Solar	SMA	Technical due diligence
DEU	2020	13.3	Ground-mounted	Mono crystalline	Longi	Huawei	Acceptance Inspection/Test
NLD	2020	18.2	Ground-mounted	Mono crystalline	GCL	HUAWEI	PR test
NLD	2020	2.0	Ground-mounted		GCL	Huawei	PR test
DEU	2020	0.8					Thermographic Inspection
DEU	2020		Ground-mounted	Mono crystalline	GCL System		Design planning / Approval
DEU	2020	10.0	Ground-mounted	Mono crystalline	GCL System	Huawei	visualization
DEU	2020	10.0	Ground-mounted	Mono crystalline	GCL System	Huawei	Area screening / design planning / approval
DEU	2020	10.0	Ground-mounted			Huawei	Area screening / design planning / approval planning / implementation planning
DEU	2020	4.6	Ground-mounted	Mono crystalline	Trina Solar	Huawei	Design planning / approval planning / implementation planning
NLD	2019	145.0		Mono crystalline	Astroenergy	SMA	Technical due diligence
DEU	2019	0.7	Rooftop	Multicrystalline	Risen Energy	Huawei	Energy yield assessment
DEU	2019	42.0	Ground-mounted		First Solar	SMA, Xantrex	Power curve analysis
GRC	2019	50.0	Ground-mounted	Multicrystalline			Site evaluation for potential PV plants
NLD	2019	10.0	Ground-mounted	Bifacial monocrystalline	Jollywood	Huawei	Technical due diligence

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2019	76.2	Ground-mounted, rooftop	Multicrystalline	Chaoji, Suntech, Talesun, Tianwei	ABB, AEG, Eltek, Emerson, Huawei, Siemens u.a.	Technical Review
DEU	2019	0.8	Ground-mounted	Multicrystalline	Astronergy	SMA	Feasibility Study and Planning
NLD	2019	6.7	Ground-mounted	Multicrystalline	QCELLS	Goodwe	Energy yield assessment
NLD	2019	2.2	Ground-mounted	Multicrystalline	REC	Goodwe	Energy yield assessment
NLD	2019	6.2	Ground-mounted	Multicrystalline	Q.CELLS	Huawei	PR test
NLD	2019	30.7	Ground-mounted	Multicrystalline	Q.CELLS	Huawei	PR test
NLD	2019	12.6	Ground-mounted	Multicrystalline	REC	Goodwe	Energy yield assessment
DEU	2019	8.5	Ground-mounted	Multicrystalline	Astronergy	SMA	Energy yield assessment
DEU	2019	0.5	Rooftop	Multicrystalline	GCL	Delta	Planning
DEU	2019	0.8	Ground-mounted, rooftop	Multicrystalline	IBC PolySol	SMA	Ausschreibung und Vergabe Bauleistungen
DEU	2019	0.8	Ground-mounted	Multicrystalline	Viessmann	SMA	Planning
DEU	2019	21.9	Ground-mounted	Monocrystalline	t.b.d.	t.b.d.	Technical due diligence
DEU	2019	20.0	Ground-mounted	Monocrystalline	GCL	SMA	Planning
DEU	2019	0.8	Ground-mounted	Monocrystalline	E.ON	Huawei	Planning
AUT	2019	0.2	Ground-mounted	Multicrystalline	GCL	Huawei	Planning
DEU	2019	3.2	Ground-mounted	Multicrystalline	Sunrise, URE	Goodwe	Energy yield assessment
DEU	2019	1.0	Rooftop	Multicrystalline	Winaico	Delta	Thermographic Inspection
DEU	2019	5.3	Ground-mounted	Multicrystalline	URE	Sungrow	Energy yield assessment
DEU	2019	19.7	Ground-mounted	Multicrystalline	Talesun	Kaco Powador	Thermographic Inspection
DEU	2019	0.8	Ground-mounted	Multicrystalline	Eging	Huawei	Technical inspection
DEU	2019	24.1	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
DEU	2019	8.0	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
DEU	2019	8.0	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
GRC	2019	5.0	Ground-mounted	Multicrystalline	Phono Solar	Huawei	Technical due diligence

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2019	3.3	Ground-mounted	Thin-film	Solar Frontier	Sputnik, Solar Max	Technical due diligence
DEU	2019	1.0	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
DEU	2019	3.8	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
DEU	2019	2.2	Ground-mounted	Thin-film	First Solar	SMA	Power curve analysis
DEU	2019	0.8	Rooftop		Q.CELLS	Huawei	Thermographic Inspection
MLI	2019						Planning
NLD	2019	144.0	Ground-mounted	Monocrystalline	Astronergy	SMA, SMA	Technical due diligence
ESP	2019	174.0	Ground-mounted	Polycrystalline	Astronergy, GCL, LONGi Solar	Huawei	PR test
MLI	2019	36.0	Ground-mounted	Mono cristaline	Canadian Solar	Huawei	Planning
DEU	2019						Planning
DEU	2019						Energy yield assessment
NLD	2019	60.0	Ground-mounted	Multi crystalline	Canadian Solar	Sungrow	Energy yield assessment
DEU	2019	18.7	Ground-mounted	Mono crystalline	Risen Energy	Huawei	PR test
AUT	2019	0.2	Ground-mounted	Multi crystalline	GCL System	Huawei	Design planning / approval planning / visualization
DEU	2018	0.6	Ground-mounted		Q.CELLS	Huawei	Planning application
IRN	2018	14.0	Ground-mounted		Candian Solar	Huawei	Energy yield assessment
DEU	2018	0.8	Ground-mounted				Feasibility study
DEU	2018	15.0	Ground-mounted		First Solar	Huawei	End of Warranty Inspections
DEU	2018	10.0	Ground-mounted		Solar Frontier	Huawei	Performance examination
AFG	2018	15.0	Ground-mounted				Feasibility study
ZMB	2018	1.0	Ground-mounted		Q.CELLS	Huawei	PR test
GBR	2018	23.1	Ground-mounted	Polycrystalline	Astronergy	ABB	End of Warranty Inspections
DEU	2018	1.9	Ground-mounted	Thin-film	First Solar	Schneider Electric / Xantrex	Technical consulting regarding O&M; concept
DEU	2018	0.1	Rooftop	Polycrystalline	Tianwei	SMA	Drone thermography
DEU	2018	0.3	Rooftop	Polycrystalline	BP	SMA	Drone thermography

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2018	0.5	Rooftop	Polycrystalline / Thin-film	Suntech, Inventux	SMA	Drone thermography
DEU	2018	7.6	Ground-mounted	Polycrystalline	Canadian Solar	Huawei	Drone thermography
DEU	2018	0.8	Ground-mounted	Thin-film	First Solar	SMA	Technical inspection
DEU	2018	4.4	Ground-mounted	Thin-film	First Solar	Xantrex	Acceptance Inspection
GBR	2018	30.1	Ground-mounted	Polycrystalline	Astronergy	Huawei	End of Warranty Inspections
GBR	2018	45.9	Ground-mounted	Polycrystalline	Astronergy	Huawei	End of Warranty Inspections
FRA	2018	11.1	Ground-mounted	Polycrystalline	REC	Huawei	PR test
FRA	2018	8.7	Ground-mounted	Polycrystalline	Trina Solar	Huawei	PR test
FRA	2018	12.0	Ground-mounted	Polycrystalline	JA Solar	Huawei	PR test
FRA	2018	9.4	Ground-mounted	Polycrystalline	Talesun, Astronergy	Huawei	PR test
DEU	2018	3.9	Ground-mounted	Thin-film	First Solar	SMA	End of Warranty Inspections
DEU	2018	10.0	Ground-mounted	Thin-film	First Solar	GE	End of Warranty Inspections
DEU	2018	7.1	Ground-mounted	Thin-film	First Solar	SMA	End of Warranty Inspections
DEU	2018	2.4	Ground-mounted	Thin-film	First Solar	GE	End of Warranty Inspections
DEU	2018	3.0	Ground-mounted	Thin-film	First Solar	GE	End of Warranty Inspections
HUN	2018	57.4	Ground-mounted	Polycrystalline	Suntech	SMA	Technical due diligence
HUN	2018	12.0	Ground-mounted	Polycrystalline	Talesun	Huawei	Technical due diligence
ITA	2018	29.5	Ground-mounted	Polycrystalline	Diverse	Diverse	Technical due diligence
DEU	2018	4.0	Ground-mounted	Polycrystalline	Solea, Canadian Solar	Huawei	Technical due diligence
DEU	2018	107.0	Ground-mounted	Polycrystalline	SunFarming, Astronergy, JA Solar	SMA, Danfoss, Huawei	Technical due diligence
DEU	2018	0.8	Ground-mounted	Multicrystalline	Trina Solar	SMA Solar Technology AG	Feasibility study
DEU	2018	6.0	Ground-mounted	Multicrystalline	Hanwha Q.Cells	Huawei	Energy yield assessment
DEU	2018	2.5	Ground-mounted	Multicrystalline	REC	Huawei	Technical Inspection
DEU	2018	3.0	Ground-mounted	Multi crystalline	REC Solar	Huawei	Acceptance Inspection/Test
DEU	2017	5.0	Ground-mounted		Trina Solar	Satcon	Survey Report

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
IRN	2017	7.9	Ground-mounted		Canadian Solar		Energy yield assessment
DEU	2017	20.0	Ground-mounted		Talesun	Kaco	End of Warranty Inspections
DEU	2017	9.6	Ground-mounted		Trina Solar	Sungrow	Energy yield assessment
DEU	2017	2.3	Ground-mounted		First Solar	SMA	Acceptance Inspection
DEU	2017	0.5	Rooftop		Astronergy	Delta	Acceptance Inspection
DEU	2017	10.0	Ground-mounted		REC	Huawei	PR test
DEU	2017	20.0	Ground-mounted		Talesun	Kaco	Thermographic Inspection
ITA	2017	0.0	Rooftop		REC	Huawei	Planning
NLD	2017	0.5	Rooftop		Trina Solar	Delta Energy	Design Planning / Yield Study
DEU	2017	1.0	Rooftop		Trina Solar	Delta Energy	Design Planning
DEU	2017	0.8	Rooftop		Astronergy	Delta Energy	Design Planning
ESP	2017	1.2	Rooftop		Trina Solar	Delta Energy	Design Planning
DEU	2017	0.3	Ground-mounted		Astronergy	Delta Energy	Design Planning / Yield Study
DEU	2017	0.5	Ground-mounted		Astronergy	Delta Energy	Design Planning / Yield Study
AFG	2017	8.0	Ground-mounted		Astronergy	Delta Energy	Design Planning / Tender
DEU	2017	4.4	Ground-mounted		Astronergy	Huawei	Technical due diligence
GBR	2017	75.7	Ground-mounted		Hanwha Q.Cells, REC, Astronergy	Huawei	PR test
NIC	2017	12.8	Ground-mounted		Recom	SMA	Technical acceptance inspection
DEU	2017	52.8	Ground-mounted		First Solar	SMA	Modul inspection
GBR	2017	4.8	Ground-mounted		Jinko Solar	ABB	Thermographic Inspection
DEU	2017	79.0	Ground-mounted, rooftop		Chaoi , Frankfurt Solar, Suntech, Talesun	div.	Technical due diligence
DEU	2017	3.4	Ground-mounted		First Solar	SMA	State determination and examination of documentation
NLD	2017	155.0	Rooftop		div.	div.	Technical due diligence
DEU	2017	4.4	Ground-mounted		First Solar	Xantrex	Supervision of repair works
DEU	2017	3.8	Ground-mounted		SolarWorld	SMA	State determination

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
GBR	2017	26.9	Ground-mounted				Technical inspection of transformer
DEU	2016	9.2	Ground-mounted		Solarworld	Diehl	Technical due diligence
DEU	2016	8.9	Ground-mounted		Solar Frontier	Huawei	Technical due diligence
ITA	2016	7.8	Ground-mounted		Solarwatt	SMA	End of Warranty Inspections
GBR	2016	20.0	Ground-mounted		Atersa	Power Electronics	Energy yield assessment
GBR	2016	82.7	Ground-mounted		Astronergy	Huawei	PR test
DEU	2016	39.6	Ground-mounted		Q-Cells	Schneider Electric	Technical due diligence
GBR	2016	11.2	Ground-mounted		Astronergy	Huawei	Project and construction management
USA	2016	41.7	Ground-mounted, rooftop, tracker		Astronergy, BYD	Huawei	Feasibility study, planning, yield study
DEU	2016	0.8	Rooftop		Astronergy	ABB	Technical acceptance AC components
POL, DEU	2016	2.6	Rooftop		Astronergy	Huawei	Energy yield assessment
PHL	2016	19.9	Ground-mounted		REC, Canadian Solar	SMA	Energy yield assessment
GBR	2016	30.0	Ground-mounted		Astronergy	Huawei	Technical study of grid connection
DEU	2016	19.3	Ground-mounted		First Solar, MiaSolé	SMA	End of Warranty Inspections
IRN	2016	14.0	Ground-mounted		Canadian Solar	Huawei	Energy yield assessment
DEU	2016	51.0	Ground-mounted		Qcells	Schneider	Technical due diligence
DEU	2016	0.7	Rooftop		Astronergy	Delta Energy	Design Planning
POL	2016	1.1	Rooftop		Astronergy	Huawei	PR test
DEU	2016	0.8	Rooftop		Astronergy	Huawei	Design Planning / Yield Study
DEU	2016	0.1	Rooftop		Astronergy	Delta Energy	Planning
DEU	2016	0.1	Rooftop		Astronergy	Delta Energy	Planning
DEU	2016	2.0	Rooftop		Astronergy	Delta Energy	Planning
DEU	2015	1.8	Ground-mounted		Solon	Solarmax	End of Warranty Inspections
GBR	2015	27.0	Ground-mounted		Yingli	ABB	Construction management
DEU	2015	3.4	Ground-mounted		First Solar	SMA	Technical due diligence
ESP	2015	5.8	Ground-mounted		Aleo, Evergreen		Operational consulting, O&M; agreements examination

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
ESP	2015	9.1	Rooftop		Yingli	div.	Energy yield assessment
ESP	2015	35.8	Ground-mounted, rooftop, carport, tracker		JA, Yingli	div.	Operating data analysis
DEU	2015	5.2	Ground-mounted		Moser Baer, Trin, Hanwha	SolarMax	Technical consulting before aquisition
GBR	2015	57.0	Ground-mounted		Astronergy , REC	ABB	Construction support
DEU	2015	1.2	Ground-mounted		Yingli	Power One	Declaration of conformity
DEU, FRA	2015	30.9	Ground-mounted		Solarworld, Talesun, Hanwha	REFUsoI	Evaluation of lifetime, cost of dismantling, residual value
DEU	2015	1.2	Ground-mounted		Yingli	ABB	Declaration of conformity
GBR	2015	5.9	Ground-mounted		Canadian Solar	SMA	Energy yield assessment
DEU	2015	1.2	Ground-mounted		Conergy	Conergy	End of Warranty Inspections
DEU	2007-2015	40.0	Ground-mounted	Thin-film	First Solar	SMA	Technical due diligence/contract negotiations, acceptance, technical controlling during operational phase
DEU	2009-2015	7.2	Ground-mounted		First Solar	Xantrex	Technical due diligence, technical acceptance inspection, technical consulting during plant operation
DEU	2011-2015	24.7	Ground-mounted		Canadian Solar	ABB	Technical due diligence, technical acceptance inspection, module examinations, technical inspection at end of warranty period, technical consulting during plant operation
DEU	2011-2015	17.3	Ground-mounted		First Solar		Technical due diligence, technical acceptance inspection, technical consulting during plant operation
DEU	2011-2015	15.8	Ground-mounted		Canadian Solar		Technical due diligence, technical acceptance inspection, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2011-2015	19.2	Ground-mounted		First Solar		Technical due diligence, technical acceptance inspection, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2012-2015	1.3	Ground-mounted		Canadian Solar		Technical due diligence, technical acceptance inspection, technical inspection by end of warranty period, technical consulting during plant operation



# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2012-2015	2.4	Ground-mounted		BYD	Power One	Technical due diligence, technical acceptance inspection, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2012-2015	4.3	Ground-mounted		Canadian Solar		Technical due diligence, technical acceptance inspection, technical inspection by end of warranty period, technical consulting during plant operation
DEU	2013-2015	20.0	Ground-mounted		Talesun	Kaco	Technical due diligence, technical acceptance inspection, Thermogeographics, technical consulting during plant operation
DEU	2014-2015	52.8	Ground-mounted		First Solar		Technical consulting at the end of warranty, technical controlling during operational phase
FRA	2014-2015	4.5	Ground-mounted		Q-Cells	Schneider Electric	Technical due diligence, technical acceptance inspection
DEU	2014	46.0	Ground-mounted		First Solar	SMA	Power curve analysis
GBR	2014	18.4	Ground-mounted		SolarWorld	Power One	Inspection of fault corrections
DEU	2014	6.1	Ground-mounted		REC	SMA	End of Warranty Inspections
ITA	2014	12.6	Carport		REC	SMA	Technical consulting before aquisition
DEU	2014	0.4	Ground-mounted		First Solar	SMA	End of Warranty Inspections
DEU	2014	39.6	Ground-mounted		Q-Cells		Power curve analysis
GBR	2014	4.8	Ground-mounted		Jinko Solar	Power One	Technical acceptance, trial operation
DEU	2014	17.3	Ground-mounted		First Solar		End of Warranty Inspections
DEU	2014	2.0	Ground-mounted		SchÄ¼co, Yingli	KACO	End of Warranty Inspections
DEU	2014	0.7	Rooftop		Solarfabrik	Power One	Technical acceptance AC components
DEU	2014	2.2	Ground-mounted		First Solar	SMA	Technical due diligence
GBR	2014	4.9	Ground-mounted		REC	ABB	PR test
DEU	2014	26.4	Ground-mounted		First Solar	SMA	Technical due diligence, technical acceptance inspection
DEU	2014	10.5	Ground-mounted		Risen, Megasol, ET Solar	Huawei	Technical consulting before aquisition
DEU	2014	1.0	Rooftop		Heckert	Sungrow	Technical consulting before start of project
DEU	2014	3.5	Ground-mounted		First Solar	SMA	Technical consulting before aquisition
DEU	2014	8.7	Ground-mounted		ReneSola		End of Warranty Inspections

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2014	7.2	Ground-mounted		First Solar	Xantrex	Module examinations
DEU	2014	0.1	Rooftop		Refusol		Technical acceptance AC components
DEU	2014	5.1	Ground-mounted		Trina Solar	Kaco	Technical consulting before aquisition
GBR	2014	50.0	Ground-mounted		Yingli	Power One	Energy yield assessment
DEU	2014	0.4	Rooftop		REC	SMA	Technical acceptance inspection
GBR	2014	17.9	Ground-mounted		REC	Power One	Technical acceptance, trial operation
DEU	2013-2014	8.8	Ground-mounted		Yingli	Power One	Approval mechanical assembly, technical support system certification and declaration of conformity
DEU	2013-2014	34.4	Ground-mounted		Yingli	SMA	Evaluations of feed-in managment measures and review O&M; contracts
FRA	2013	1.7	Ground-mounted		Suntech		End of Warranty Inspections
DEU	2013		Ground-mounted				Analysis of inverter maintenance costs and technical operations management
DEU	2013	0.4	Rooftop		REC	Refusol	Acceptance Inspection
DEU	2013	2.8	Ground-mounted		Canadian Solar		Technichal inspection after commissioning
SVZ, CZE	2013	30.0	Ground-mounted		Diverse	div.	Technical due diligenze
ITA	2013	10.0	Ground-mounted		Tianwei	Kaco	Technical consulting before aquisition
DEU	2013	24.1	Ground-mounted	Thin-film	First Solar	SMA	Performance analysis
DEU	2013	8.0	Ground-mounted	Thin-film	First Solar	SMA	Performance analysis
DEU	2013	0.1	Rooftop		Suntech	Kaco	Technical consulting before aquisition
DEU	2009/2013	6.0	Ground-mounted		First Solar	Xantrex	Technical due diligence/contract negotiations, acceptance, technical controlling during operational phase
DEU	2012-2013	40.0	Ground-mounted	Thin-film	First Solar	SMA	End of Warranty Inspections
DEU	2012	8.5	Ground-mounted		Jinko Solar	RefuSol	Technical due diligenze
DEU	2012	3.3	Ground-mounted		First Solar	Voltwerk	End of Warranty Inspections
DEU	2012	20.0	Ground-mounted		Sunowe	SolarMax	Monitoring module tests
DEU	2012	40.0	Ground-mounted		Trina Solar	Siemens	Technical due diligenze

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2012	81.8	Ground-mounted		Trina Solar, Jinko Solar, Talesun, C-Sun		Technical due diligence
DEU	2012	2.6	Ground-mounted		First Solar	Voltwerk	End of Warranty Inspections
DEU	2012	34.4	Ground-mounted		Yingli	SMA	Monitoring module tests
DEU	2012	8.1	Ground-mounted, tracker system		Trina Solar	div.	Technical due diligence
FRA	2012	32.4	Ground-mounted		Yingli	div.	Feasibility study, grid connection, EPC contracts, O&M; concept
DEU	2012	6.0	Ground-mounted		First Solar	Xantrex	End of Warranty Inspections
DEU	2012	7.2	Ground-mounted		First Solar	Xantrex	End of Warranty Inspections
DEU	2009/2012	52.8	Ground-mounted		First Solar	SMA	Technical due diligence/contract negotiations, acceptance, technical controlling during operational phase
FRA	2011	0.7	Rooftop		Solarfun		Technical due diligence
FRA	2011	0.4	Rooftop		Solarfun		Technical due diligence
FRA	2011	1.7	Ground-mounted		Suntech		Technical due diligence, technical acceptance inspection
ITA	2011	25.5	Ground-mounted		Helios	div.	Technical due diligence
FRA	2011	2.3	Rooftop		Solarfun		Technical due diligence
FRA	2011	1.5	Rooftop		Solarfun		Technical due diligence
DEU	2010	39.6	Ground-mounted		Q-Cells		Technical project management
DEU	2010	1.6	Ground-mounted		GS-Solar		Technical due diligence
DEU	2010	2.0	Ground-mounted		GS-Solar		Technical due diligence
CZE	2010	4.8	Ground-mounted		First Solar		Technical due diligence, technical acceptance inspection
DEU	2010	0.3	Rooftop		Total Energie		End of Warranty Inspections
CZE	2010	13.6	Ground-mounted		Yingli		Technical due diligence
CZE	2010	1.0	Ground-mounted		First Solar		Technical due diligence, technical acceptance inspection
DEU	2009	3.3	Ground-mounted		First Solar	Conergy	Technical due diligence
DEU	2009	2.6	Ground-mounted		First Solar	Conergy	Technical due diligence
DEU	2008	5.8	Ground-mounted		First Solar	Conergy	Technical controlling during construction and acceptance inspection

# Photovoltaics



Country	Year	MWp	Design	Module technology	Module	Inverter	Description
DEU	2008	3.3	Ground-mounted		First Solar	Conergy	Technical controlling during construction and acceptance inspection
<b>Total</b>		<b>14,186</b>					

# Grid connection Wind



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2023	14.4	4			Electrical loss study
DEU	2023	14.4	2	Vestas	V162	Grid connection service
DEU	2023	11.4	2	Nordex	N149	Electrical loss study
DEU	2023	17.1				Support
DEU	2023	43.2	6	Vestas	V172	reactive power study
DEU	2023					support increase of feed-in power of turbine
DEU	2023					technical due diligence
DEU	2023	64.0				Grid connection service
DEU	2022	17.1	3	Vestas	V150	Cable route planning
DEU	2022					Cable route planning
DEU	2022					Cable route planning
DEU	2022					Cable route planning
DEU	2022					Cable route planning
DEU	2022					Cable route planning
DEU	2022					Preplanning Cableroute
DEU	2022	31.0	5	Vestas	V162, V150, 6.2	Preplanning Cable route
DEU	2022					Construction supervision, condition assessment
DEU	2022	17.1	3	Nordex	N149	Grid connection planning
DEU	2022	11.2	2	Vestas	V162	Grid connection planning
DEU	2022	16.8	3	Vestas	V150	Grid connection service
DEU	2022	38.9	7	Enercon	E-160	Grid connection service
DEU	2022	9.6	2	Nordex	N133	Grid connection optimisation
DEU	2022	18.0	5	Vestas	V136	planning
DEU	2022	11.4				grid connection wind

# Grid connection Wind



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2021	33.6				Planning of grid connection
DEU	2021	4.2	1	Vests	V150	Executin Planiing, Tender
DEU	2021	32.0	8	Enercon		Grid connection coordination
DEU	2021	32.0	8	Enercon		Grid connection planning
DEU	2021	17.1	3	Nordex	N149	Grid connection coordination
DEU	2021	8.0	2	Enercon	E126	Grid connection service
DEU	2021	8.0	2	Enercon	E126	Grid connection service
DEU	2021	11.4	2	Nordex	N149	Grid connection coordination
DEU	2021	17.1	3	Nordex	N163-5,7 MW	GCO
DEU	2021					Cable route planning
DEU	2020	5.6				Planning of grid connection, Cable route planning
DEU	2020	33.0				Planning of grid connection
SWE	2020	62.0				Planning of grid connection
DEU	2020	5.6	1	Enercon	E-160 EP5 E3	GCC
DEU	2019	9.0	2	Nordex	N149	Optimization of grid connection
DEU	2019	31.8	6	GE	5.3-158	Preliminary Design Grid Connection
DEU	2019	59.6				Planning/Project Management
SWE	2019	14.4				Planning of grid connection
DEU	2019	4.8				Optimization of grid connection
DEU	2018	7.2	2	Senvion	3.6M	Optimization of grid connection
DEU	2018	27.6	8	Vestas	V126	Preplanning of grind connection
DEU	2018	18.0	4	Nordex	N149 4,5 MW	Optimization of grid connection
DEU	2018	6.9	2	Vestas	V126 3,45 MW	Optimization of grid connection
DEU	2018	16.0	4	Vestas	V126	Optimization of grid connection

# Grid connection Wind



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2018	36.0				Planning of grid connection
DEU	2018	18.8				Optimization of grid connection
DEU	2018	2.8				Optimization of grid connection
DEU	2018	2.4				Optimization of grid connection
DEU	2018					Grid connection optimization
DEU	2017	6.9	3	Enercon	E-82	Calculation electrical losses
DEU	2017	16.8	4	Enercon	E-126	Calculation electrical losses
DEU	2017	5.5	2	GE	2.75-120	Calculation electrical losses
DEU	2017	6.9	2	Vestas	V136	Calculation electrical losses
DEU	2017	4.2	1	Enercon	E-141	Identification of supply capacity to existing cables
DEU	2017	18.0	5	Vestas	V136	Optimization of cable cross section/calculation of electrical losses
DEU	2017	9.9	3	Nordex	N131	Optimization of grid connection
DEU	2017	16.5	5	Vestas	V126	Optimization of grid connection
DEU	2017	2.8	1	GE	2.75-120	Optimization of grid connection
DEU	2017	18.0	5	Senvion	3.6M140	Optimization of grid connection
DEU	2017	10.4	3	Vestas	V126	Optimization of grid connection
DEU	2017	7.2	2	Senvion	3.6M140	Optimization of grid connection
DEU	2017	6.9	2	Vestas	V126	Optimization of grid connection
DEU	2017	9.9	3	Vestas	V117	Optimization of grid connection
DEU	2017	6.0	2	Nordex	N131	Optimization of grid connection
DEU	2017	3.3	1	Vestas	V126	Examination situation grid connection
DEU	2017	31.5	21	GE	1.5 SL	Validation of reactive power
AUT	2017	16.8	5	Vestas	V112 / V126	Optimization of grid connection

## Grid connection Wind



Country	Year	MW	No. of turbines	Turbine type		Description
DEU	2017	37.8	9	Vestas	V150	Optimization of grid connection
DEU	2017	9.9				Optimization of grid connection
DEU	2017	24.2				Optimization of grid connection
DEU	2016	6.6	2	Vestas	V126	Calculation electrical losses
DEU	2016	6.9	2	Vestas	V126	Calculation electrical losses
DEU	2016	19.8	6	Vestas	V126	Calculation electrical losses
DEU	2016	6.6	2	Vestas	V126	Optimization of grid connection
<b>Total</b>		<b>1,169</b>				



# Grid connection Photovoltaics



Country	Year	MWp	Description
DEU	2023	12.0	Grid connection optimisation
DEU	2023	140.0	Grid connection coordination
DEU	2023		Support for E9
DEU	2023	6.0	GCO
DEU	2023	0.8	Support E9
DEUTSCH LAND	2023	10.6	Grid Connection Optimisation
DEU	2022		Cable route planning
DEU	2022	38.5	Grid connection optimisation
DEU	2022	50.0	Grid connection coordination
DEU	2022	145.0	Grid connection services
DEU	2022	80.0	Grid connection service
DEU	2022	66.0	Grid connection service
DEU	2022	60.0	Grid connection coordination
DEU	2022	7.5	Grid connection coordination
DEU	2022	12.0	Grid connection optimisation
DEU	2022	110.0	Grid connection service
DEU	2022	44.0	Grid connection service
DEU	2022	10.7	Grid connection coordination
DEU	2022	5.0	Grid connection coordination
DEU	2022	2.9	Grid connection coordination
DEU	2022	8.0	Grid connection coordination
DEU	2022	12.6	Grid connection optimisation
DEU	2022	60.0	Grid connection coordination
DEU	2022	4.3	Grid connection optimisation
DEU	2022	42.0	Grid connection service
DEU	2022	25.0	Grid connection service

# Grid connection Photovoltaics



Country	Year	MWp	Description
DEU	2022	35.0	Grid connection service
DEU	2022	19.0	Grid connection service
DEU	2022	22.0	Grid connection service
DEU	2022	20.0	GCO
DEU	2022	10.0	GCO
DEU	2022	7.5	GCO
DEU	2022		GCO
DEU	2022	11.0	GCO
DEU	2022	9.0	net connection planning
DEU	2022	95.5	route planning
DEU	2022	60.7	grid connection planning
DEU	2021	7.7	Planning of grid connection
DEU	2021	7.5	Planning of grid connection
DEU	2021	134.0	Planning of grid connection
DEU	2021	9.0	Planning of grid connection
DEU	2021	3.0	Planning of grid connection
DEU	2021	5.5	Planning of grid connection
DEU	2021		Planning of grid connection
DEU	2021	20.0	Planning of grid connection
DEU	2021	8.0	Cable route planning
DEU	2021	10.0	Cable route planning
DEU	2021	5.0	Cable route planning
DEU	2021	4.0	Cable route planning
DEU	2021	1.5	Planning of grid connection
DEU	2021		Cable route planning
DEU	2021	30.0	Grid connection planning

## Grid connection Photovoltaics



Country	Year	MWp	Description
DEU	2021	12.0	Grid connection planning
DEU	2021	57.0	Grid connection coordination
DEU	2021	65.0	Grid connection planning
DEU	2021	84.0	Grid connection coordination
DEU	2021	61.4	Grid connection coordination
DEU	2021	51.0	Grid connection coordination
DEU	2021	28.6	Grid connection planning
DEU	2021	2.2	Grid connection optimisation
DEU	2021	10.0	Grid connection optimisation
DEU	2021		Grid connection coordination
DEU	2021	38.0	Grid connection coordination
DEU	2021	13.0	Grid connection coordination
DEU	2021	25.0	Grid connection coordination
DEU	2021	28.0	Grid connection coordination
DEU	2021	1.5	Grid connection coordination
DEU	2021	1.5	Grid connection optimisation
DEU	2021	14.0	Grid connection optimisation
DEU	2021	5.5	Grid connection coordination
DEU	2021	70.0	Grid connection coordination
DEU	2021	29.0	Grid connection coordination
DEU	2021	6.0	Grid connection optimisation
DEU	2021	3.0	Grid connection optimisation
DEU	2021	5.3	Grid connection planning
DEU	2021	60.0	Grid connection coordination
DEU	2021	5.0	Grid Connection Coordination
DEU	2021	5.3	Grid connection optimisation

## Grid connection Photovoltaics



Country	Year	MWp	Description
DEU	2021	0.4	Grid connection optimisation
DEU	2021	10.0	Grid connection coordination
DEU	2021	5.5	Grid connection coordination
DEU	2021	3.0	Grid connection coordination
DEU	2021	48.0	GCO
DEU	2020	10.0	Optimization of grid connection
DEU	2020	5.0	Optimization of grid connection
DEU	2020	0.8	Optimization of grid connection
DEU	2020	0.4	Planning of grid connection
DEU	2020	9.0	Optimization of grid connection
DEU	2020	0.8	Planning of grid connection
DEU	2020	3.6	Planning of grid connection
DEU	2020	10.0	Grid connection optimisation
DEU	2020	10.0	Grid connection optimisation
DEU	2019	10.0	Grid connection optimisation
DEU	2019	9.0	Planning of grid connection
DEU	2019	5.2	Planning of grid connection
DEU	2019	1.6	Optimization of grid connection
DEU	2018	0.8	Optimization of grid connection
DEU	2018	10.0	Optimization of grid connection
DEU	2018	10.0	Optimization of grid connection
DEU	2018	5.0	Optimization of grid connection
DEU	2018	5.0	Optimization of grid connection
DEU	2018	4.8	Grid connection optimisation
DEU	2018	6.0	Grid connection optimisation
DEU	2018	5.0	Optimization of grid connection, Cable route planning

# Grid connection Photovoltaics



Country	Year	MWp	Description
DEU	2017	7.0	Identification of input capacity via existing wind farm grid
DEU	2017	10.0	Optimization of grid connection
DEU	2017	1.5	Pre-planning of grid connection
DEU	2017	10.0	Optimization of grid connection
DEU	2017	0.8	Optimization of grid connection
<b>Total</b>		<b>2,386</b>	

# Geothermal



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



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

# Bio energy



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



# Lectures/Seminars/Publications



Country	Year	Description
DEU	2022	Training
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 geotermía, Geotermia Costa Rica
DEU	2016	Lecture: Geotermía de media y baja 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 Dürnhhaar, 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

# Lectures/Seminars/Publications



Country	Year	Description
DEU	2014	Lecture: Can one forecast wind, possibilities and limits of yield reports, at Mitteldeutsche Branchentage Windenergie
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