
References (extract february 2010)

TÜV NORD in Wind Energy



TÜV®

TÜV NORD

References

Certifications & Type Approvals

Client	Type of Turbine	Rotor Blade	Hub Height	Guideline	Date
aerodyn	aeromaster1.5	ae1.5	70/80 m	GL	in progress
	aeromaster2.5	ae2.5	80/90 m	GL	in progress
Airwerk	MD77 lattice tower		112 m	DIBt II	2004
Auromira	Auro 700.54	EU54	73m	IEC	in progress
	Auro 1650/1782			IEC	in progress
DeWind	D4-48 600 kW	RL 48	70.0 m	GL	2000/2001
	D4-48 600 kW	LM 48			
	D4-48 600 kW	ARA 48			
	D4-48 600 kW	LM 21.0	60.0m	DIBt II	2003
	D4-48 600 kW	NOI 23.3	70.0 m	DIBt II	2003
	D6-64 1250 kW	DW 62	65/91.5 m	DIBt II/IEC III/GL III	2001/2004
	D6-62 1000 kW	DW 60	68.5 m	DIBt II/GL III	2002
	D6-62 1000 kW	APX 60/LM 29.1P	68.5/91.5 m	DIBt II/GL III	2002/2004
	D6-62 1250 kW		65.0 m	GL II	2003
	D8-80 2000 kW		100.0 m	DIBt II	2003
ECOTÉCNIA	ECOTÉCNIA 62	LM 29.1	45 m	IEC IA	2006
	ECOTÉCNIA 1670	LM 37.3	70 m	IEC IIA	2003
	ECOTÉCNIA 74	LM 37.3	56/60/70/80 m	IEC IIA	2006-2008
	ECOTÉCNIA 80	LM 37.3	70 m	IEC IIIA	2009
	ECOTÉCNIA 80	LM 37.3	80 m	IEC IIA/IEC IIIA	2006/2008
	ECOTÉCNIA 80	LM 37.3	60 m	IEC III A	2008
ECOTÉCNIA 80 (Badaia)	LM 37.3	60 m	site specific/IEC III A	2009	
ENERCON	E-30	E30-4	44 m	GL I	2003
	E-30	E30-5		IEC II/NVN II	2004
	E-33	E30-5	49/50 m	IEC II/NVN II/DIBt	2004/2008
	E-40	E40-6	45/50/65 m	NVN II/IEC II	2003/2007
	E-40	E40-41	40-68/74 m	GL I/GL II	2003/2004
	E-40		63 m	DIBt	2004
	E-44		56 m	IEC IA	2006
	E-48		50/57/74 m	IEC II/NVN II/DIBt	2004-2008
	E-58		56 m	IEC/NVN	2004
	E-66			GL I	1998
	E-66		58/63/65 m	IEC II/NVN II/DIBt	2002/2003
	E-66		65-112 m	DIBt	2004
	E-66 18.70/20.70			NVN II/IEC II	2003
	E-70	E70-4	64/78 m	IEC I/NVN I	2004/2006
	E-70		56.6 m	IEC/DIBt	2005
	E-82		83/97/107/137 m	IEC/DIBt / NVN / EN	2006/2007
E-112		95/140 m	Site specific	2003/2005	
E-126	E126-4	116 + 136 m	Site specific/DIBt	2009	
Fuhrländer	FL2500		85/100 m	GL	in progress
Gamesa	G-52	Gamesa 25.3	44/49/55/65 m	IEC IA	2007
	G-58	Gamesa 28.3	44/55/65 m	IEC IIIB	2007
GE Wind	GE 1.5xle			IEC IIIB	2009
	GE2.5xl	LM/GE48.8	140 m hybrid	GL/DIBt	in progress
Goldwind	3MW		80 m	IEC	in progress
Guascor	GT85	EU86	80 m	GL	in progress
IMPISA	IWP 70			IEC IA	in progress
	IWP83		38.9/72.5m	IEC	in progress
Kenersys	K82.0		80 m	DIBt	2010
	K82.0		98 m	IEC	2009
	K100	LM48.8	100 m	DIBt	in progress
LM Glasfiber		LM40.3P2		IEC 61400-1 (2nd ed., 1999) with Design Loads	2009
MADE	AE-61	LM 29.1	60 m	GL II	2008
	AE-61	LM 29.1	55/60 m	GL I/GL II	2008
NORDEX Energy	S46		60/74 m	DIBt	2004
	N50p/S50		74 m	DIBt III/IEC II/GL II	2001
	N60 R46	LM29	46/60 m	DS 1	2002
	N60 R60	LM29	60 m	DS 1/DIBt III	2002
	N60 R65	LM29	65 m	DIBt III	2002
	N60 R69	LM29	69 m	DIBt III	2002
	N60 R60	LM29.1	60 m	IEC I	2004
	N62 R69	LM29.1	69 m	DIBt II	2002

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NORDEX Energy	S70/77	NOI 34/37.5	65/85/100 m	DIBt II	2003/2005
	S77 R80	LM 37.3	80/85/90 m	DIBt II	2004/2005
	N80 R60	LM 38.8	60 m	IEC I/DIBt III	2002/2003
	N80 R80	LM 38.8	80 m	Site specific	2003
	N80 R80	LM 38.8	80 m	DIBt III/IEC I/NVN I	2003-2005
	N80 R90	LM 38.8	90 m	DIBt	2004
	N80 G105/N90 G105	LM 38.8/LM 43.8	105 m	DIBt II	2003/2005
	N90 R80	LM 43.8	80 m	DIBt III	2004
	N90 R100	LM 43.8	100 m	DIBt II	2004
	N90 R120	LM 43.8	120 m	DIBt	2006
	N90/2300	LM 43.8/NR 45	70/100 m	IEC IIA/IEC III A	2008
	N90/2500	NR 45	80/100 m	IEC IB + IIA/DIBt/NVN/DS	2006-2008
	N90/2500 (50/60 Hz)	LM 43.8	75/80/100 m	IEC IB + IIA + IIIA/DIBt/NVN/DS	2006-2008
	N100	LM 48.8	100 m	DIBt II/IEC IIIA	2009/2010
	N90 2500 HS	LM 43.8P R80MT	80 m	IEC I B	2009
	N90/2500	LSR100		IEC IIIA	2008
	N90/2500	LS LM 43.8P R75MT		IEC WT 01, TC IEC III A	2008
	N100	LM48.8P/NR50	80/100 m	DIBt/IEC	in progress
	N100	LM48.8P/NR50	140 m hybrid	DIBt/IEC	in progress
	PowerWind	6 AC			DIBt
PW 56			59/71 m	DIBt III/IEC IIA	in progress
REpower	MM 70		55/80 m	IEC I/IEC II	2005
	MD 70/77		90/100 m	DIBt	2004
	MM 82		80 m	DIBt/IEC II	2004
	MM 92	LM 45.3	68.5/80/100 m	DIBt III/II/IEC II/IIIA	2005-2007
	MM 92	RE 45.2	68.5/80/100 m	DIBt/IEC/IEC IIA	2007
	MM 92 Goodnoe Hills (USA)	LM 45.3	80 m	site specific/IEC II A	2007
	MM 92 (2050KW)	RE45.2		IEC S-Class	2009
	3.XM	RE 50.8	80 m	IEC IIA/DIBt IV	2009
3.XM	RE 50.8	125-128m hybrid	DIBt/IEC	2010	
SeeBA	6M		100m	DIBt	2009
	F56 lattice tower		71 m	DIBt	2005
	MD 77 lattice tower		96.5/115 m	DIBt	2004
	V 60 lattice tower		117 m	DIBt	2008
SEWIND (Shanghai Electric Windp.)					
	SE93	AE 92	80/90 m	GL IIIA	2009/2010
Siemens Windpower	600 kW	LM 19	58 m	DIBt	2004
	1.3 MW	LM 29	68/80/90 m	DIBt	2004
	2.0 MW		60/90 m	DIBt	2005
	2.3 MW		80/98/100 m	DIBt	2004
	2.3 MW		58.5/88/90/93/103 m	DIBt	2005/2006
	3.6 MW		80/107 m	DIBt	2005/2006
Suzlon	S64LTV		75 m	GL	in progress
	S88LTV		88 m	GL	in progress
	S88		100 m	GL	in progress
TimberTower	Wooden tower		100 m	DIBt/IEC	2010
Turbowinds	T600		50 m	IEC	in progress
VENSYS Energy	Vensys 64	ARA 64	85 m	DIBt II	2005
	Vensys 77	APX70 LM34/37.3	61.5/80/100 m	DIBt II + III/IEC II + III/	
	Vensys 77			IEC IIA + IIIA	2009
	Vensys 90	LM 43.8	80/100 m	GL III A	2009
	Vensys 100	LM 48.8	80/100 m	DIBt II/III + IEC II/III	in progress
WinWind	WWD1	EU 30	66/70 m	DIBt II/III + IEC II/III	in progress
	WWD3		90 m	IEC III	2002/2006
	WWD3		88/90/100 m	Site specific	2005
W2E Wind to Energy	W8x/W93-2.0 MW	WN 453/LM 45.3	85 m	IEC IIIA	2007/2008
	FL2500-100/			GL IIA/IEC IIA/DIBt III A	2008/2009
	W2E-W100 2.5MW	LM 48.8 P	85/100 m		
	W9x	LM 48.8	117/141/160 m	GL IIIA/EN IIIA	2008
WTN	W9X	LM 48.8	85/100 m	IEC/GL III A/DIBt II A	in progress
	WTN646			GL	in progress
	ZheJiang HeWind	HW82	80 m	GL	in progress
	HW77		61.4 m	GL III B	in progress
				GL	in progress

References (extract)

Site Assessments, Inspection & Consultancy

Client	Country	Service	Date
Enertrag Energiebau	France	Site Specific Statement	2001
Nordex	China	Site Specific Statement	2001
DeWind	Japan	Turbulence Report	2002
Nordex	Netherland	Impact of a tank farm on wind profile/CFD	2002
Nordex	Norway	Wind inclination at a cliff/CFD	2002
Nordex	Australia	Site Specific Statement	2003
Nordex	Ireland	Turbulence Report	2003
Nordex	Norway	Turbulence Report for a site with 80 wind turbines	2003
Enairgy	Austria	Risc due to ice-shedding for a site located in the Alps	2003
Municipal Emden	Germany	Risc due to blade-failure for a dike, street and an adjacent industrial area	2003
Ökostrom Consulting Freiburg	Germany	Risc due to blade-failure and ice-shedding for a cable car	2003
DeWind	Ireland	Turbulence Report	2004
REpower	Germany	Risc due to blade-failure for an adjacent nuclear power plant	2004
Essent Wind Deutschland	Germany	Blade failure due to overspeed of a ENERCON E-112 wind turbine	2004
DeWind	United Kingdom	Turbulence Report	2004
Nordex	Estonia	Site Specific Statement	2004
EBV Management Holding	Germany	Impact of wind turbine wake on a power line/CFD	2004
e.n.o. Energiegesellschaft Nordost	Germany	Turbulence Report	2005
WSB Planung	Germany	Turbulence Report	2005
Energie-Projekt-Nord	Bulgaria	Turbulence Report	2006
BOREAS Project	Germany	Turbulence Report	2006
Denker & Wulf	Germany	Turbulence Report	2006
REpower	United Kingdom	Wind inclination/CFD	2006
Fuhrländer	Polen	Site Class Study	2007
DeWind	Germany	Comparison reinforced concrete	2007
REpower	Italy	Wind Condition Evaluation Report	2007
Plambeck Neue Energien	Germany	Turbulence Report	2007
REpower	United Kingdom	Wind Condition Evaluation Report	2007
I'REE	South Korea	Annual Energy Production Study	2007
REpower	Australia	Wind Condition Evaluation Report	2007
WPD	Germany	Turbulence Report	2007
AREVA Renewables	France	Technical Due Diligence	2007
Babcock & Brown	Germany	Final Inspection	2007
REpower	Poland	Wind Condition Evaluation Report	2007
Eole	France	Windpotential Study	2007
REpower	USA	Site Specific Statement	2007
REpower	USA	Wind Condition Evaluation Report	2008
REpower	Australia	Wind Condition Evaluation Report	2008
ABO Wind	Ireland	Turbulence Report	2008
ABO Wind	France	Turbulence Report	2008
ABO Wind	Spain	Turbulence Report	2008
ENERTRAG	Germany	Due Diligence	2008
BSU / Vattenfall	Germany	Wind farm configuration optimisation	2008
Agro	Germany	Shadow Flicker Analysis	2008
Wallenborn Projektentwicklung	Croatia	Turbulence Report	2008
REpower/EdF	Canada	Wind Condition Evaluation Report	2009
Energiekontor	Germany	Turbulence Report	2008
Essent	Germany	Turbulence Report	2008
I'REE	South Korea	Annual Energy Production Study	2008
Tomis Team/Cube Engineering	Poland	Construction inspections on foundations	2009
E.ON Climate Renewables	France	Soil Assessment	2008
E.ON Climate Renewables	Poland	Soil Assessment	2008

References (extract)

Site Assessments, Inspection & Consultancy

Client	Country	Service	Date
IMS	Germany	Turbulence Report	2009
Windwärts	Germany	Turbulence Report	2009
hessenEnergie	Germany	Turbulence Report	2009
WKN NORD	Germany	Turbulence Report	2009
Landkreis Emsland	Germany	Shadow Flicker Analysis	2009
Nordex	Ireland	Wind Condition Evaluation Report	2009
REpower	Australia	Wind Condition Evaluation Report	2009
REpower	USA	Wind Condition Evaluation Report	2009
CTC	South Korea	Annual Energy Production Study	2009
REpower	Spain	Wind Condition Evaluation Report	2009
Volkswind France	France	Soil Assessment	2009
Vestas Central Europe	Germany	Soil Assessment	2010
EVIAG	France	Soil Assessment	2010

Offshore Wind Energy Projects

Customer	Scope of works	Date
transpower	For offsh. transformer station BorWin alpha: – Assessment of the environmental compliance concerning leaking hazardous substances	2010
CTC, Korea	Analysis of wind data of offshore wind farm Taeon	2008
ISC Rådgivende Ingeniører as contractor for DONG ENERGY	For offsh. transformer station Borkum Riffgrund I: – Consultancy „Schutz- und Sicherheitskonzept“ and Personal safety issues – Overview over requirements from BSH, Berufsgenossenschaften and other authorities – Consultancy HAZID / HAZOP process and reporting – Consultancy Reduction of noise during pile driving – Consultancy regarding HSE subjects – Support during approval process	Expected 2010
WeserWind	Offshore Product Certification for Horns Rev acc. to DIN 18800 and DIN EN 13155	2007
Nordex	N90 Offshore Frederikshavn Denmark Type Certification acc. to DNV	2004
Nordex	Certification of Nearshore wind turbine, site: Breitling acc. to DIBt	2005
ENERCON	Component Assessment for Nearshore wind turbine Wilhelmshaven	2003
Multibrid	alpha ventus project: inspection of lifting equipment	2009
FH Kiel	Inspections on FINO3 research platform	2009
renergys	Due Diligence of Multibrid M5000 certification documentation	2007
ENERCON	Summarizing Certificate acc. to DIBt for Nearshore wind turbine Emden	

Numerous projects in the tender phase for Offshore Type Certifications acc. to IEC or GL and Project Certifications acc. to BSH

References (extract february 2010)

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