

Wind Farm	Debstedt	
Country	DE	
Turbine (WTG)	7	
Altitude of Site [m]	500	
Period before/after installation	01Jan06 - 31Dec08	01Jan13 - 11Nov15
Reference Density [kg/m ³]	1,225	

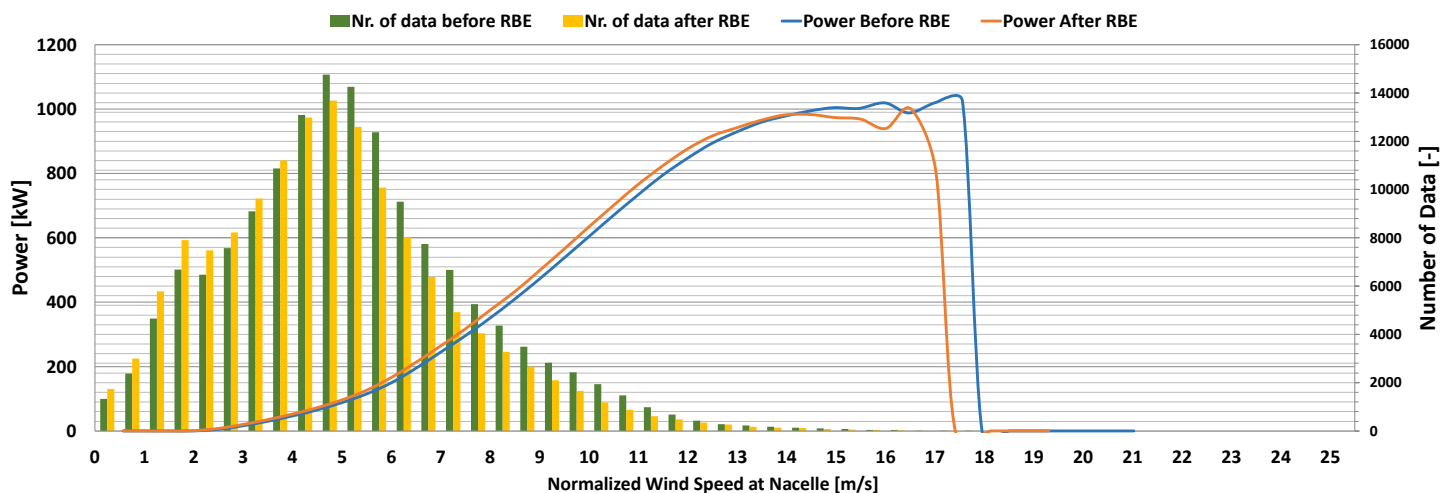
Turbine Type	Bonus 1.0
Blade Type	LM 26.1

The following information pertains to the prediction of the Annual Energy Production increase obtained due to the installation of the RBE element on the turbine. The following information takes into account the IEC 61400-12-2 standard, and all calculations were performed under the process indicated in this standard. All information was obtained from the SCADA system in which the nacelle anemometer readings were retrieved.

	Wind Distribution	Before RBE installation		After RBE installation		AEP - Measured - Difference [%]	AEP - Extrapolated - Difference [%]
		AEP Measured without RBE [MWh]	AEP Extrapolated without RBE [MWh]	AEP - Measured with RBE [MWh]	AEP - Extrapolated with RBE [MWh]		
Rayleigh Distribution	V = 4 m/s	748	748	821	821	9,85%	9,85%
	V = 5 m/s	1.359	1.359	1.465	1.465	7,79%	7,78%
	V = 6 m/s	2.077	2.084	2.207	2.212	6,28%	6,16%
	V = 7 m/s	2.795	2.839	2.941	2.976	5,23%	4,81%
	V = 8 m/s	3.411	3.558	3.567	3.693	4,60%	3,79%
	V = 9 m/s	3.866	4.195	4.031	4.327	-	3,15%
	V = 10 m/s	4.149	4.723	4.321	4.857	-	2,84%
	V = 11 m/s	4.280	5.128	4.455	5.270	-	2,77%
Technical Availability		98,17%		95,76%			
AEP [MWh] Average Local Distribution		1.596	1.596	1.719	1.719	7,69%	7,69%

The following graphics indicate the power curve obtained from the aforementioned data, as well as the power coefficient curve related to both before and after the installation timeframe of the RBE.

Power Curve - Measured



Power Coefficient

