

SHADOW - Hauptergebnis

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Annahmen für Schattenwurfberechnung

Beschattungsbereich der WEA

Schatten nur relevant, wo Rotorblatt mind. 20% der Sonne verdeckt

Siehe WEA-Tabelle

Minimale relevante Sonnenhöhe über Horizont	3 °
Tage zwischen Berechnungen	1 Tag(e)
Berechnungszeitsprung	1 Minuten

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsstunden ermittelt aus WEA in Berechnung und Windverteilung:

Terraindaten: Terrain; Wind Statistics (1)

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Monatliche Aggregation der met. wahrsch. Reduzierung

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Eine WEA wird nicht berücksichtigt, wenn sie von keinem Teil der Rezeptorfläche aus sichtbar ist. Die Sichtbarkeitsberechnung basiert auf den folgenden Annahmen:

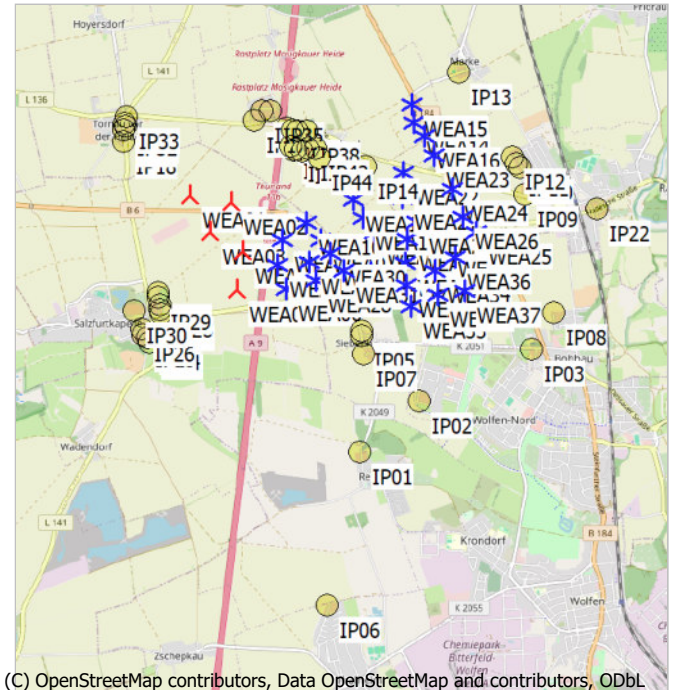
DHM: Höhenlinien: CONTOURLINE_ONLINEDATA_0.wpo (1)

Rasterauflösung: 1,0 m

Topographischer Schatten berücksichtigt

Alle Koordinatenangaben in:

UTM (north)-ETRS89 Zone: 32



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Neue WEA

Maßstab 1:100.000

Existierende WEA

Schattenrezeptor

WEA

	Ost	Nord	Z	Beschreibung	WEA-Typ		Typ	Nennleistung	Rotor-durchmesser	NH	Schattendaten	
					Aktuell	Hersteller					Beschatt.-Bereich	U/min
			[m]					[kW]	[m]	[m]	[m]	[U/min]
WEA01	720.837	5.733.559	90,0	ENERCON E-1...	Ja	ENERCON	E-175 EP5 E2-7.000	7.000	175,0	174,5	1.736	-
WEA02	721.400	5.733.506	90,0	ENERCON E-1...	Ja	ENERCON	E-175 EP5 E2-7.000	7.000	175,0	174,5	1.736	-
WEA03	721.134	5.733.094	87,8	ENERCON E-1...	Ja	ENERCON	E-175 EP5 E2-7.000	7.000	175,0	174,5	1.736	-
WEA04	721.562	5.732.855	87,1	ENERCON E-1...	Ja	ENERCON	E-175 EP5 E2-7.000	7.000	175,0	174,5	1.736	-
WEA05	721.520	5.732.347	83,5	ENERCON E-1...	Ja	ENERCON	E-175 EP5 E2-7.000	7.000	175,0	174,5	1.736	-
WEA06	722.169	5.732.387	85,2	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA07	722.080	5.733.039	89,5	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA08	722.590	5.733.065	90,0	ENERCON E-6...	Nein	ENERCON	E-66/20.70-2.000	2.000	70,0	93,8	1.486	22,0
WEA09	722.036	5.732.699	87,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA10	722.393	5.733.179	90,0	ENERCON E-8...	Ja	ENERCON	E-82 E2-2.300	2.300	82,0	85,0	1.602	18,0
WEA11	723.314	5.733.295	90,0	ENERCON E-6...	Nein	ENERCON	E-66/20.70-2.000	2.000	70,0	114,1	1.484	22,0
WEA12	723.145	5.733.385	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	114,1	1.642	20,0
WEA13	723.008	5.733.608	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	85,0	1.643	20,0
WEA14	723.769	5.734.666	89,5	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	98,8	1.643	20,0
WEA15	723.718	5.734.900	88,8	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	98,2	1.643	20,0
WEA16	723.921	5.734.491	89,6	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA17	723.745	5.733.125	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	100,0	1.642	20,0
WEA18	723.737	5.732.804	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	98,0	1.643	20,0
WEA19	724.254	5.733.072	90,0	ENERCON E-6...	Nein	ENERCON	E-66/20.70-2.000	2.000	70,0	114,1	1.484	22,0
WEA20	723.860	5.733.356	90,0	ENERCON E-6...	Nein	ENERCON	E-66/20.70-2.000	2.000	70,0	114,1	1.484	22,0
WEA21	723.661	5.733.669	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA22	723.656	5.733.991	85,2	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA23	724.052	5.734.238	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA24	724.314	5.733.811	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA25	724.657	5.733.249	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA26	724.472	5.733.451	90,0	ENERCON E-7...	Nein	ENERCON	E-70 E4-2.000	2.000	71,0	113,5	1.642	20,0
WEA27	723.275	5.732.648	89,3	GE WIND ENE...	Nein	GE WIND ENERGY	GE 1.5sl-1.500	1.500	77,0	96,0	1.414	18,0
WEA28	722.550	5.732.527	86,9	GE WIND ENE...	Nein	GE WIND ENERGY	GE 1.5sl-1.500	1.500	77,0	96,0	1.414	18,0
WEA29	722.462	5.732.761	88,3	GE WIND ENE...	Nein	GE WIND ENERGY	GE 1.5sl-1.500	1.500	77,0	96,0	1.414	18,0

(Fortsetzung nächste Seite)...

SHADOW - Hauptergebnis

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

...(Fortsetzung von vorheriger Seite)

	Ost	Nord	Z	Beschreibung	WEA-Typ		Typ	Nennleistung	Rotor-durchmesser	NH	Schattendaten	
					Aktuell	Hersteller					Beschatt.-Bereich	U/min
			[m]					[kW]	[m]	[m]	[m]	[U/min]
WEA30	722.730	5.732.890	89,8	GE WIND ENE...	Nein	GE WIND ENERGY	GE 1.5sl-1.500	1.500	77,0	96,0	1.414	18,0
WEA31	722.917	5.732.670	88,7	GE WIND ENE...	Nein	GE WIND ENERGY	GE 1.5sl-1.500	1.500	77,0	96,0	1.414	18,0
WEA32	723.762	5.732.511	90,0	ENERCON E-7...	Ja	ENERCON	E-70 E4 2,3 MW-2.300	2.300	71,0	114,0	1.642	21,0
WEA33	723.824	5.732.233	88,0	DEWIND D8/8...	Ja	DEWIND	D8/80-2MW-2.000	2.000	80,0	100,0	1.581	18,0
WEA34	724.132	5.732.725	90,0	DEWIND D8/8...	Ja	DEWIND	D8/80-2MW-2.000	2.000	80,0	100,0	1.581	18,0
WEA35	724.178	5.732.403	90,0	DEWIND D8/8...	Ja	DEWIND	D8/80-2MW-2.000	2.000	80,0	100,0	1.581	18,0
WEA36	724.397	5.732.919	90,0	DEWIND D8/8...	Ja	DEWIND	D8/80-2MW-2.000	2.000	80,0	100,0	1.581	18,0
WEA37	724.541	5.732.471	90,0	DEWIND D8/8...	Ja	DEWIND	D8/80-2MW-2.000	2.000	80,0	100,0	1.581	18,0

Schattenrezeptor-Eingabe

Nr.	Name	Ost	Nord	Z	Breite	Höhe	Höhe ü.Gr.	Neigung des Fensters	Ausrichtungsmodus	Augenhöhe (ZVI) ü.Gr.
				[m]	[m]	[m]	[m]	[°]		[m]
IP01	Dorfstraße 59, 06766 Bitterfeld-Wolfen	723.239	5.730.263	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP02	Auenstraße 24, 06766 Bitterfeld-Wolfen	724.004	5.730.992	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP03	Siebenhausener Str. 8, 06766 Bitterfeld-Wolfen	725.468	5.731.744	88,1	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP04	Siebenhausen 14, 06766 Bitterfeld-Wolfen	723.203	5.731.873	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP05	Siebenhausen 15, 06766 Bitterfeld-Wolfen	723.208	5.731.813	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP06	Reudener Weg 10, 06766 Bitterfeld-Wolfen	722.906	5.728.222	89,5	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP07	Siebenhausen 43, 06766 Bitterfeld-Wolfen	723.237	5.731.568	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP08	Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)	725.735	5.732.227	86,9	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP09	Thurländer Str. 1, 06779 Raguhn-Jeßnitz	725.279	5.733.775	88,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP10	Thurländer Str. 24, 06779 Raguhn-Jeßnitz	725.200	5.734.134	86,2	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP11	Thurländer Str. 28, 06779 Raguhn-Jeßnitz	725.159	5.734.185	86,1	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP12	Zerbster Str. 17, 06779 Raguhn-Jeßnitz	725.098	5.734.257	86,1	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP13	Dorfstraße 30, 06779 Raguhn-Jeßnitz	724.329	5.735.353	84,7	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP14	Holländer Mühle 1, 06779 Raguhn-Jeßnitz	723.149	5.734.061	85,4	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP15	Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz	722.183	5.734.226	88,1	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP16	Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz	722.089	5.734.506	89,2	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP17	Kleinleipziger Str. 12A, 06779 Raguhn-Jeßnitz	721.647	5.734.592	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP18	Am Sportplatz 8, 06779 Raguhn-Jeßnitz	719.923	5.734.238	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP19	Vor d. Heide 10, 06779 Raguhn-Jeßnitz	719.920	5.734.387	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP20	Am Sandberg 11, 06780 Zörbig	720.521	5.731.990	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP21	Am Sandberg 24, 06780 Zörbig	720.479	5.732.269	80,7	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP22	Hallesche Str. 9, 06779 Raguhn-Jeßnitz	726.254	5.733.631	72,4	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP23	Hallesche Straße 10, 06780 Zörbig	720.380	5.731.604	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP24	Hallesche Straße 13, 06780 Zörbig	720.356	5.731.658	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP25	Hallesche Straße 15, 06780 Zörbig	720.293	5.731.698	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP26	Hallesche Straße 18, 06780 Zörbig	720.287	5.731.779	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP27	Am Sandberg 14, 06780 Zörbig	720.512	5.732.046	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP28	Am Sandberg 18, 06780 Zörbig	720.501	5.732.106	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP29	Am Sandberg 20, 06780 Zörbig	720.484	5.732.195	80,3	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP30	Am Sportpl. 15, 06780 Zörbig	720.165	5.732.005	80,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP31	Vor d. Heide 6, 06779 Raguhn-Jeßnitz	719.941	5.734.450	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP32	Vor d. Heide 4, 06779 Raguhn-Jeßnitz	719.929	5.734.487	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP33	Am Trappenberg 2, 06779 Raguhn-Jeßnitz	719.965	5.734.569	90,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP34	Kleinleipziger Str. 7, 06779 Raguhn-Jeßnitz	721.748	5.734.730	89,2	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP35	Kleinleipziger Str. 3, 06779 Raguhn-Jeßnitz	721.859	5.734.732	84,1	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP36	Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz	722.164	5.734.490	86,9	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP37	Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz	722.237	5.734.475	84,8	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP38	Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz	722.347	5.734.479	82,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP39	Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz	722.145	5.734.268	87,4	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP40	Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz	722.224	5.734.235	87,6	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP41	Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz	722.306	5.734.220	87,4	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP42	Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz	722.375	5.734.262	85,9	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP43	Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz	722.483	5.734.269	85,0	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0
IP44	Am Dorfe 1, 06779 Raguhn-Jeßnitz	722.531	5.734.135	87,9	0,1	0,1	2,0	0,0	"Gewächshaus-Modus"	2,0

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Berechnungsergebnisse

Schattenrezeptor

Nr.	Name	astron. max. mögl. Beschattungsdauer			met. wahrsch. Beschattungsda
		Stunden/Jahr	Schattentage/Jahr	Max.Schattendauer/Tag	Stunden/Jahr
		[h/a]	[d/a]	[h/d]	[h/a]
IP01	Dorfstraße 59, 06766 Bitterfeld-Wolfen	0:00	0	0:00	0:00
IP02	Auenstraße 24, 06766 Bitterfeld-Wolfen	0:00	0	0:00	0:00
IP03	Siebenhausener Str. 8, 06766 Bitterfeld-Wolfen	5:49	38	0:14	1:32
IP04	Siebenhausen 14, 06766 Bitterfeld-Wolfen	45:40	102	0:42	13:04
IP05	Siebenhausen 15, 06766 Bitterfeld-Wolfen	31:00	90	0:33	8:53
IP06	Reudener Weg 10, 06766 Bitterfeld-Wolfen	0:00	0	0:00	0:00
IP07	Siebenhausen 43, 06766 Bitterfeld-Wolfen	0:00	0	0:00	0:00
IP08	Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)	11:38	72	0:16	3:02
IP09	Thurländer Str. 1, 06779 Raguhn-Jeßnitz	45:52	194	0:34	9:08
IP10	Thurländer Str. 24, 06779 Raguhn-Jeßnitz	35:12	171	0:28	6:21
IP11	Thurländer Str. 28, 06779 Raguhn-Jeßnitz	35:53	191	0:28	6:49
IP12	Zerbster Str. 17, 06779 Raguhn-Jeßnitz	35:56	175	0:26	6:45
IP13	Dorfstraße 30, 06779 Raguhn-Jeßnitz	26:28	99	0:22	3:38
IP14	Holländer Mühle 1, 06779 Raguhn-Jeßnitz	109:11	258	1:02	19:06
IP15	Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz	81:16	163	0:57	11:58
IP16	Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz	63:33	114	0:56	7:53
IP17	Kleinleipziger Str. 12A, 06779 Raguhn-Jeßnitz	37:38	80	0:33	4:25
IP18	Am Sportplatz 8, 06779 Raguhn-Jeßnitz	65:09	130	0:55	8:07
IP19	Vor d. Heide 10, 06779 Raguhn-Jeßnitz	42:43	88	0:49	5:00
IP20	Am Sandberg 11, 06780 Zörbig	40:34	82	0:39	11:38
IP21	Am Sandberg 24, 06780 Zörbig	68:34	131	0:43	19:17
IP22	Hallesche Str. 9, 06779 Raguhn-Jeßnitz	0:00	0	0:00	0:00
IP23	Hallesche Straße 10, 06780 Zörbig	24:10	56	0:31	7:07
IP24	Hallesche Straße 13, 06780 Zörbig	33:07	70	0:32	9:45
IP25	Hallesche Straße 15, 06780 Zörbig	36:56	84	0:31	10:50
IP26	Hallesche Straße 18, 06780 Zörbig	29:56	78	0:31	8:48
IP27	Am Sandberg 14, 06780 Zörbig	34:42	69	0:39	9:58
IP28	Am Sandberg 18, 06780 Zörbig	43:19	99	0:39	12:28
IP29	Am Sandberg 20, 06780 Zörbig	59:45	119	0:46	17:00
IP30	Am Sportpl. 15, 06780 Zörbig	43:56	113	0:29	12:44
IP31	Vor d. Heide 6, 06779 Raguhn-Jeßnitz	39:13	88	0:34	4:01
IP32	Vor d. Heide 4, 06779 Raguhn-Jeßnitz	38:18	84	0:33	3:53
IP33	Am Trappenberg 2, 06779 Raguhn-Jeßnitz	33:47	70	0:33	3:24
IP34	Kleinleipziger Str. 7, 06779 Raguhn-Jeßnitz	30:11	70	0:29	3:30
IP35	Kleinleipziger Str. 3, 06779 Raguhn-Jeßnitz	31:56	78	0:28	3:40
IP36	Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz	63:53	160	0:44	8:40
IP37	Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz	57:56	165	0:33	8:18
IP38	Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz	35:48	122	0:39	5:35
IP39	Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz	84:01	156	0:59	11:50
IP40	Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz	81:34	174	0:54	12:28
IP41	Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz	88:39	213	0:49	13:35
IP42	Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz	84:04	210	0:45	12:57
IP43	Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz	55:04	175	0:44	9:21
IP44	Am Dorfe 1, 06779 Raguhn-Jeßnitz	92:55	212	1:01	14:20

Gesamtdauer Beschattung an Rezeptoren pro WEA

Nr.	Name	Maximal	Erwartet
		[h/a]	[h/a]
WEA01	ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (1)	185:40	24:07
WEA02	ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (2)	163:40	23:58
WEA03	ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (3)	94:44	10:46
WEA04	ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (4)	93:59	20:58
WEA05	ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (5)	158:20	44:54
WEA06	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (206)	19:14	4:58
WEA07	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (207)	3:59	0:30
WEA08	ENERCON E-66/20.70 2000 70.0 !-! NH: 93,8 m (Ges:128,8 m) (208)	0:00	0:00
WEA09	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (209)	3:55	1:05
WEA10	ENERCON E-82 E2 2300 82.0 !O! NH: 85,0 m (Ges:126,0 m) (210)	11:07	1:21
WEA11	ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (211)	10:22	0:57
WEA12	ENERCON E-70 E4 2000 71.0 !O! NH: 114,1 m (Ges:149,6 m) (212)	37:15	3:39
WEA13	ENERCON E-70 E4 2000 71.0 !O! NH: 85,0 m (Ges:120,5 m) (213)	78:42	8:05

(Fortsetzung nächste Seite)...

SHADOW - Hauptergebnis

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

...(Fortsetzung von vorheriger Seite)

Nr.	Name	Maximal [h/a]	Erwartet [h/a]
WEA14	ENERCON E-70 E4 2000 71.0 !O! NH: 98,8 m (Ges:134,3 m) (214)	33:13	6:25
WEA15	ENERCON E-70 E4 2000 71.0 !O! NH: 98,2 m (Ges:133,7 m) (215)	29:40	7:31
WEA16	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (216)	40:40	11:11
WEA17	ENERCON E-70 E4 2000 71.0 !O! NH: 100,0 m (Ges:135,5 m) (217)	3:22	0:20
WEA18	ENERCON E-70 E4 2000 71.0 !O! NH: 98,0 m (Ges:133,5 m) (218)	0:00	0:00
WEA19	ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (219)	23:49	2:45
WEA20	ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (220)	12:47	1:31
WEA21	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (221)	34:25	5:32
WEA22	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (222)	34:51	7:24
WEA23	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (223)	24:44	6:24
WEA24	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (224)	23:20	4:55
WEA25	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (225)	10:55	1:36
WEA26	ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (226)	37:13	5:09
WEA27	GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (227)	0:00	0:00
WEA28	GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (228)	0:00	0:00
WEA29	GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (229)	0:00	0:00
WEA30	GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (230)	0:00	0:00
WEA31	GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (231)	0:00	0:00
WEA32	ENERCON E-70 E4 2,3 MW 2300 71.0 !O! NH: 114,0 m (Ges:149,5 m) (232)	0:00	0:00
WEA33	DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (233)	28:51	8:30
WEA34	DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (234)	3:19	0:25
WEA35	DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (235)	30:36	8:50
WEA36	DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (236)	12:35	2:19
WEA37	DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (237)	11:01	3:08

Summen in Rezeptortabelle und WEA-Tabelle können sich unterscheiden, da eine WEA gleichzeitig an zwei oder mehr Rezeptoren Beschattung verursachen kann und/oder ein Rezeptor gleichzeitig von zwei oder mehr WEA beschattet werden kann.

Die Berechnung der Gesamtsumme für einen Rezeptor arbeitet mit einer gemittelten Richtungskorrektur für alle WEA, die an einem gegebenen Tag zur Beschattung beitragen. Wenn der Schattenwurf durch mehrere WEA an einem Tag nicht gleichzeitig stattfindet, kann die so ermittelte Summe geringfügig von der Summe der Beschattungszeiten abweichen, die für die individuellen WEA berechnet werden.

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP01 - Dorfstraße 59, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:54 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:21	04:58 21:33	05:36 20:58	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:05	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:22	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:23	04:57 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:02 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:45	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:44	07:22 18:35	07:16 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:04 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:29 20:49	04:54 21:28	05:05 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:06 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:23 16:27	08:08 16:02
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
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17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:32	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:03
20	08:07 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:22 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 18:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:13	07:03 19:03	06:53 18:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:09	06:14 20:11	07:04 19:01	06:55 18:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 18:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 18:51	07:52 16:07	08:18 16:09
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:33	05:30 21:05	06:19 20:05	07:09 18:54	07:00 18:50	07:53 16:07	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	415	484	497	501	453	381	332	267	245
astr.max.mögl.Beschattung												
Red.Sonnenscheinwahrsch.												
Reduktion Betriebsdauer												
Reduktion Windrichtung												
Gesamte Reduktion												
Met.wahrsch.Beschattung												

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP02 - Auenstraße 24, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:54 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:21	04:58 21:33	05:36 20:58	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:22	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:23	04:57 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
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8	08:17 16:20	07:40 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:03 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
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14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:05	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:32 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:09 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:32	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:18	08:14 16:02
20	08:07 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 18:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:13	07:03 19:03	06:53 18:57	07:47 16:10	08:17 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:09	06:14 20:11	07:04 19:01	06:55 18:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 18:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:38	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:06	06:17 20:07	07:07 18:56	06:59 18:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:33	05:30 21:05	06:19 20:05	07:09 18:54	07:00 18:49	07:53 16:07	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	497	501	453	381	332	267	245
astr.max.mögl.Beschattung												
Red.Sonnenscheinwahrsch.												
Reduktion Betriebsdauer												
Reduktion Windrichtung												
Gesamte Reduktion												
Met.wahrsch.Beschattung												

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

SW25034 Salzfurtkapelle

windtest grevenbroich gmbh
Frimmersdorfer Straße 73a
DE-41517 Grevenbroich
+49 2181 2278 0
Florian Schmidt
Berechnet:
14.10.2025 14:42/4.1.273



Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP03 - Siebenhausener Str. 8, 06766 Bitterfeld-Wolfen

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1.56	2.60	3.92	5.75	7.42	7.51	7.59	7.27	5.27	3.77	1.84	1.30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Schattenrezeptor: IP04 - Siebenhausen 14, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:18	07:52	06:59	06:49	05:45	06:09 (WEA37)	05:00
	16:12	16:59	17:50	19:44	20:34	06:11 (WEA37)	21:19
2	08:18	07:50	06:57	06:47	05:43	06:07 (WEA37)	04:59
	16:13	17:01	17:52	19:45	20:36	06:13 (WEA37)	21:20
3	08:18	07:49	06:55	06:44	05:41	06:05 (WEA37)	04:58
	16:14	17:03	17:54	19:47	20:37	06:14 (WEA37)	21:22
4	08:18	07:47	06:53	06:42	05:39	06:04 (WEA37)	04:58
	16:15	17:04	17:55	19:49	20:39	06:15 (WEA37)	21:23
5	08:18	07:46	06:50	06:40	05:37	06:02 (WEA37)	04:57
	16:16	17:06	17:57	19:50	20:41	06:15 (WEA37)	21:24
6	08:17	07:44	06:48	06:38	05:35	06:02 (WEA37)	04:56
	16:17	17:08	17:59	19:52	20:42	06:15 (WEA37)	21:25
7	08:17	07:42	06:46	06:35	05:34	06:03 (WEA37)	04:56
	16:19	17:10	18:01	19:54	20:44	06:15 (WEA37)	21:25
8	08:17	07:41	06:44	06:33	05:32	06:02 (WEA37)	04:55
	16:20	17:12	18:03	19:55	20:45	06:15 (WEA37)	21:26
9	08:16	07:39	06:41	06:31	05:30	06:03 (WEA37)	04:55
	16:21	17:14	18:04	19:57	20:47	06:14 (WEA37)	21:27
10	08:16	07:37	06:39	06:29	05:28	06:04 (WEA37)	04:54
	16:23	17:16	18:06	19:59	20:49	06:13 (WEA37)	21:28
11	08:15	07:35	06:37	06:26	05:27	06:05 (WEA37)	04:54
	16:24	17:17	18:08	20:00	20:50	06:11 (WEA37)	21:29
12	08:14	07:33	06:35	06:24	05:25		04:54
	16:25	17:19	18:10	20:02	20:52		21:29
13	08:14	07:32	06:32	06:22	05:24	05:53 (WEA35)	04:53
	16:27	17:21	18:11	20:04	20:53	7	06:00 (WEA35)
14	08:13	07:30	06:30	06:20	05:22		21:30
	16:28	17:23	18:13	20:06	20:55	10	05:52 (WEA35)
15	08:12	07:28	06:28	06:18	05:20		04:53
	16:30	17:25	18:15	20:07	20:56	13	06:02 (WEA35)
16	08:11	07:26	06:26	06:15	05:19		21:31
	16:31	17:27	18:16	20:09	20:58	15	05:49 (WEA35)
17	08:10	07:24	06:23	06:13	05:17		04:53
	16:33	17:28	18:18	20:11	20:59	16	06:04 (WEA35)
18	08:10	07:22	06:21	06:11	05:16		21:32
	16:35	17:30	18:20	20:12	21:01	17	05:48 (WEA35)
19	08:09	07:20	06:19	06:09	05:15		04:53
	16:36	17:32	18:22	20:14	21:02	17	06:05 (WEA35)
20	08:08	07:18	06:17	06:07	05:13		21:33
	16:38	17:34	18:23	20:16	21:04	18	05:48 (WEA35)
21	08:06	07:16	06:14	06:05	05:12		04:53
	16:40	17:36	18:25	20:17	21:05	18	06:06 (WEA35)
22	08:05	07:14	06:12	06:03	05:11		21:33
	16:41	17:38	18:27	20:19	21:07	17	05:49 (WEA35)
23	08:04	07:12	06:10	06:01	05:09		04:53
	16:43	17:39	18:28	20:21	21:08	23	06:06 (WEA35)
24	08:03	07:10	06:07	05:59	05:08		21:34
	16:45	17:41	18:30	20:22	21:09	27	05:48 (WEA35)
25	08:02	07:08	06:05	05:57	05:07		04:54
	16:46	17:43	18:32	20:24	21:11	29	05:49 (WEA35)
26	08:00	07:05	06:03	05:55	05:06		21:34
	16:48	17:45	18:33	20:26	21:12	31	05:49 (WEA35)
27	07:59	07:03	06:00	05:53	05:05		04:54
	16:50	17:47	18:35	20:27	21:13	33	05:51 (WEA33)
28	07:58	07:01	05:58	05:51	05:04		21:34
	16:52	17:48	18:37	20:29	21:15	35	05:51 (WEA33)
29	07:56		06:56	05:49	05:03		04:55
	16:54		19:39	20:31	21:16	36	05:52 (WEA33)
30	07:55		06:54	05:47	05:02		21:34
	16:55		19:40	20:32	21:17	38	05:51 (WEA33)
31	07:53		06:51		05:01		04:56
	16:57		19:42		21:18	39	05:52 (WEA33)
Sonnenscheinstunden	260	278	367	416	484		497
astr.max.mögl.Beschattung					544		1184
Red.Sonnenscheinwahrsch.					0,48		0,45
Reduktion Betriebsdauer					0,95		0,95
Reduktion Windrichtung					0,65		0,64
Gesamte Reduktion					0,30		0,28
Met.wahrsch.Beschattung					161		329

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP04 - Siebenhausen 14, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57	05:52 (WEA33)	05:33	06:17 (WEA37)	06:22	07:11	07:04	07:55			
	21:33	20:40 (WEA06)	21:02	06:21 (WEA37)	20:00	18:51	16:46	16:06			
2	04:58	05:52 (WEA33)	05:35	06:15 (WEA37)	06:24	07:12	07:06	07:56			
	21:33	20:41 (WEA06)	21:00	06:22 (WEA37)	19:58	18:49	16:44	16:05			
3	04:58	05:53 (WEA33)	05:36	06:14 (WEA37)	06:25	07:14	07:08	07:57			
	21:33	20:41 (WEA06)	20:59	06:24 (WEA37)	19:56	18:47	16:42	16:05			
4	04:59	05:53 (WEA33)	05:38	06:13 (WEA37)	06:27	07:16	07:09	07:59			
	21:32	20:42 (WEA06)	20:57	06:24 (WEA37)	19:54	18:45	16:40	16:04			
5	05:00	05:53 (WEA33)	05:39	06:12 (WEA37)	06:29	07:17	07:11	08:00			
	21:32	20:41 (WEA06)	20:55	06:24 (WEA37)	19:51	18:42	16:39	16:04			
6	05:01	05:53 (WEA33)	05:41	06:12 (WEA37)	06:30	07:19	07:13	08:01			
	21:31	20:42 (WEA06)	20:53	06:25 (WEA37)	19:49	18:40	16:37	16:03			
7	05:02	05:54 (WEA33)	05:42	06:11 (WEA37)	06:32	07:21	07:15	08:03			
	21:31	20:42 (WEA06)	20:52	06:24 (WEA37)	19:47	18:38	16:35	16:03			
8	05:03	05:54 (WEA33)	05:44	06:12 (WEA37)	06:34	07:22	07:16	08:04			
	21:30	20:43 (WEA06)	20:50	06:25 (WEA37)	19:45	18:35	16:34	16:02			
9	05:03	05:55 (WEA33)	05:45	06:13 (WEA37)	06:35	07:24	07:18	08:05			
	21:29	20:43 (WEA06)	20:48	06:24 (WEA37)	19:42	18:33	16:32	16:02			
10	05:04	05:55 (WEA33)	05:47	06:15 (WEA37)	06:37	07:26	07:20	08:06			
	21:29	20:43 (WEA06)	20:46	06:23 (WEA37)	19:40	18:31	16:30	16:02			
11	05:05	05:56 (WEA33)	05:49	06:16 (WEA37)	06:38	07:27	07:22	08:07			
	21:28	20:43 (WEA06)	20:44	06:21 (WEA37)	19:38	18:29	16:29	16:02			
12	05:07	05:56 (WEA33)	05:50		06:40	07:29	07:24	08:08			
	21:27	20:44 (WEA06)	20:42		19:35	18:27	16:27	16:02			
13	05:08	05:57 (WEA33)	05:52		06:42	07:31	07:25	08:09			
	21:26	20:44 (WEA06)	20:40		19:33	18:24	16:26	16:02			
14	05:09	05:57 (WEA33)	05:53		06:43	07:33	07:27	08:10			
	21:25	20:43 (WEA06)	20:38		19:31	18:22	16:24	16:02			
15	05:10	05:58 (WEA33)	05:55		06:45	07:34	07:29	08:11			
	21:24	20:43 (WEA06)	20:36		19:28	18:20	16:23	16:02			
16	05:11	05:58 (WEA33)	05:57		06:46	07:36	07:30	08:12			
	21:23	20:43 (WEA06)	20:34		19:26	18:18	16:21	16:02			
17	05:12	05:59 (WEA33)	05:58		06:48	07:38	07:32	08:13			
	21:22	20:42 (WEA06)	20:32		19:24	18:16	16:20	16:02			
18	05:14	05:58 (WEA35)	06:00		06:50	07:39	07:34	08:13			
	21:21	20:42 (WEA06)	20:30		19:21	18:14	16:19	16:02			
19	05:15	05:58 (WEA35)	06:01		06:51	07:41	07:36	08:14			
	21:20	20:41 (WEA06)	20:28		19:19	18:12	16:18	16:02			
20	05:16	05:59 (WEA35)	06:03		06:53	07:43	07:37	08:15			
	21:19	20:41 (WEA06)	20:26		19:17	18:09	16:16	16:03			
21	05:17	05:58 (WEA35)	06:05		06:54	07:45	07:39	08:15			
	21:18	20:38 (WEA06)	20:24		19:14	18:07	16:15	16:03			
22	05:19	05:58 (WEA35)	06:06		06:56	07:46	07:41	08:16			
	21:16	06:16 (WEA35)	20:22		19:12	18:05	16:14	16:04			
23	05:20	05:58 (WEA35)	06:08		06:58	07:48	07:42	08:16			
	21:15	06:15 (WEA35)	20:20		19:10	18:03	16:13	16:04			
24	05:21	05:59 (WEA35)	06:09		06:59	07:50	07:44	08:17			
	21:14	06:16 (WEA35)	20:18		19:08	18:01	16:12	16:05			
25	05:23	05:59 (WEA35)	06:11		07:01	06:52	07:45	08:17			
	21:12	06:15 (WEA35)	20:16		19:05	16:59	16:11	16:05			
26	05:24	05:59 (WEA35)	06:13		07:03	06:53	07:47	08:18			
	21:11	06:15 (WEA35)	20:14		19:03	16:57	16:10	16:06			
27	05:26	06:00 (WEA35)	06:14		07:04	06:55	07:49	08:18			
	21:10	06:15 (WEA35)	20:11		19:01	16:55	16:09	16:07			
28	05:27	06:00 (WEA35)	06:16		07:06	06:57	07:50	08:18			
	21:08	06:14 (WEA35)	20:09		18:58	16:53	16:08	16:08			
29	05:29	06:01 (WEA35)	06:17		07:07	06:59	07:52	08:18			
	21:07	06:13 (WEA35)	20:07		18:56	16:51	16:07	16:08			
30	05:30	06:03 (WEA35)	06:19		07:09	07:00	07:53	08:18			
	21:05	06:12 (WEA35)	20:05		18:54	16:49	16:07	16:09			
31	05:32	06:05 (WEA35)	06:21			07:02		08:18			
	21:03	06:09 (WEA35)	20:03			16:48		16:10			
Sonnenscheinstunden	501		453		381	332	267	245			
astr.max.mögl.Beschattung	905		107								
Red.Sonnenscheinwahrsch.	0,47		0,50								
Reduktion Betriebsdauer	0,95		0,95								
Reduktion Windrichtung	0,65		0,65								
Gesamte Reduktion	0,29		0,31								
Met.wahrsch.Beschattung	262		33								

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Schattenrezeptor: IP05 - Siebenhausen 15, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:18	07:52	06:59	06:49	05:45	05:00	05:39 (WEA35)
	16:12	16:59	17:50	19:44	20:34	21:19	25 20:41 (WEA06)
2	08:18	07:50	06:57	06:47	05:43	04:59	05:40 (WEA35)
	16:13	17:01	17:52	19:45	20:36	21:20	26 20:42 (WEA06)
3	08:18	07:49	06:55	06:44	05:41	04:58	05:40 (WEA35)
	16:14	17:03	17:54	19:47	20:37	21:22	28 20:43 (WEA06)
4	08:18	07:47	06:53	06:42	05:39	04:58	05:40 (WEA35)
	16:15	17:04	17:55	19:49	20:39	21:23	28 20:43 (WEA06)
5	08:18	07:46	06:50	06:40	05:37	04:57	05:41 (WEA35)
	16:16	17:06	17:57	19:50	20:41	21:24	28 20:44 (WEA06)
6	08:17	07:44	06:48	06:38	05:35	06:00 (WEA37)	04:56 05:41 (WEA35)
	16:17	17:08	17:59	19:52	20:42	5 06:05 (WEA37)	28 20:44 (WEA06)
7	08:17	07:42	06:46	06:35	05:34	05:59 (WEA37)	04:56 05:42 (WEA33)
	16:19	17:10	18:01	19:54	20:44	7 06:06 (WEA37)	29 20:45 (WEA06)
8	08:17	07:41	06:44	06:33	05:32	05:57 (WEA37)	04:55 05:41 (WEA33)
	16:20	17:12	18:03	19:55	20:45	10 06:07 (WEA37)	29 20:45 (WEA06)
9	08:16	07:39	06:41	06:31	05:30	05:55 (WEA37)	04:55 05:40 (WEA33)
	16:21	17:14	18:04	19:57	20:47	12 06:07 (WEA37)	31 20:45 (WEA06)
10	08:16	07:37	06:39	06:29	05:28	05:55 (WEA37)	04:54 05:40 (WEA33)
	16:23	17:16	18:06	19:59	20:49	13 06:08 (WEA37)	31 20:46 (WEA06)
11	08:15	07:35	06:37	06:26	05:27	05:54 (WEA37)	04:54 05:39 (WEA33)
	16:24	17:17	18:08	20:00	20:50	13 06:07 (WEA37)	32 20:46 (WEA06)
12	08:14	07:33	06:35	06:24	05:25	05:55 (WEA37)	04:54 05:39 (WEA33)
	16:25	17:19	18:10	20:02	20:52	12 06:07 (WEA37)	32 20:46 (WEA06)
13	08:14	07:32	06:32	06:22	05:24	05:55 (WEA37)	04:53 05:39 (WEA33)
	16:27	17:21	18:11	20:04	20:53	12 06:07 (WEA37)	31 20:46 (WEA06)
14	08:13	07:30	06:30	06:20	05:22	05:55 (WEA37)	04:53 05:39 (WEA33)
	16:28	17:23	18:13	20:06	20:55	11 06:06 (WEA37)	33 20:47 (WEA06)
15	08:12	07:28	06:28	06:18	05:20	05:56 (WEA37)	04:53 05:39 (WEA33)
	16:30	17:25	18:15	20:07	20:56	9 06:05 (WEA37)	33 20:47 (WEA06)
16	08:11	07:26	06:26	06:15	05:19	05:57 (WEA37)	04:53 05:39 (WEA33)
	16:31	17:27	18:16	20:09	20:58	7 06:04 (WEA37)	32 20:47 (WEA06)
17	08:10	07:24	06:23	06:13	05:17	06:00 (WEA37)	04:53 05:39 (WEA33)
	16:33	17:28	18:18	20:11	20:59	2 06:02 (WEA37)	33 20:48 (WEA06)
18	08:10	07:22	06:21	06:11	05:16		04:53 05:39 (WEA33)
	16:35	17:30	18:20	20:12	21:01		33 20:48 (WEA06)
19	08:09	07:20	06:19	06:09	05:15		04:53 05:39 (WEA33)
	16:36	17:32	18:22	20:14	21:02		33 20:48 (WEA06)
20	08:08	07:18	06:17	06:07	05:13		04:53 05:39 (WEA33)
	16:38	17:34	18:23	20:16	21:04	8 05:51 (WEA35)	33 20:48 (WEA06)
21	08:06	07:16	06:14	06:05	05:12	05:42 (WEA35)	04:53 05:39 (WEA33)
	16:40	17:36	18:25	20:17	21:05	10 05:52 (WEA35)	33 20:48 (WEA06)
22	08:05	07:14	06:12	06:03	05:11	05:41 (WEA35)	04:53 05:39 (WEA33)
	16:41	17:38	18:27	20:19	21:07	13 05:54 (WEA35)	33 20:48 (WEA06)
23	08:04	07:12	06:10	06:01	05:09	05:40 (WEA35)	04:53 05:40 (WEA33)
	16:43	17:39	18:28	20:21	21:08	14 05:54 (WEA35)	33 20:49 (WEA06)
24	08:03	07:10	06:07	05:59	05:08	05:39 (WEA35)	04:54 05:40 (WEA33)
	16:45	17:41	18:30	20:22	21:09	15 05:54 (WEA35)	33 20:49 (WEA06)
25	08:02	07:08	06:05	05:57	05:07	05:39 (WEA35)	04:54 05:40 (WEA33)
	16:46	17:43	18:32	20:24	21:11	16 05:55 (WEA35)	33 20:49 (WEA06)
26	08:00	07:05	06:03	05:55	05:06	05:39 (WEA35)	04:54 05:41 (WEA33)
	16:48	17:45	18:33	20:26	21:12	16 05:55 (WEA35)	33 20:50 (WEA06)
27	07:59	07:03	06:00	05:53	05:05	05:39 (WEA35)	04:55 05:41 (WEA33)
	16:50	17:47	18:35	20:27	21:13	16 05:55 (WEA35)	33 20:49 (WEA06)
28	07:58	07:01	05:58	05:51	05:04	05:39 (WEA35)	04:55 05:42 (WEA33)
	16:52	17:48	18:37	20:29	21:15	17 05:56 (WEA35)	33 20:50 (WEA06)
29	07:56		06:56	05:49	05:03	05:39 (WEA35)	04:56 05:42 (WEA33)
	16:54		19:39	20:31	21:16	18 05:57 (WEA35)	32 20:50 (WEA06)
30	07:55		06:54	05:47	05:02	05:39 (WEA35)	04:56 05:43 (WEA33)
	16:55		19:40	20:32	21:17	18 05:57 (WEA35)	31 20:50 (WEA06)
31	07:53		06:51		05:01	05:39 (WEA35)	
	16:57		19:42		21:18	23 20:39 (WEA06)	
Sonnenscheinstunden	260	278	367	416	484		497
astr.max.mögl.Beschattung					297		935
Red.Sonnenscheinwahrsch.					0,48		0,45
Reduktion Betriebsdauer					0,95		0,95
Reduktion Windrichtung					0,66		0,64
Gesamte Reduktion					0,30		0,28
Met.wahrsch.Beschattung					89		259

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP05 - Siebenhausen 15, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57 21:33	05:43 (WEA33) 20:50 (WEA06)	05:33 21:02	13	06:05 (WEA37) 06:18 (WEA37)	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06		
2	04:58 21:33	05:44 (WEA33) 20:50 (WEA06)	05:35 21:00	13	06:05 (WEA37) 06:18 (WEA37)	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05		
3	04:58 21:33	05:45 (WEA33) 20:51 (WEA06)	05:36 20:59	13	06:05 (WEA37) 06:18 (WEA37)	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:05		
4	04:59 21:32	05:46 (WEA33) 20:51 (WEA06)	05:38 20:57	11	06:06 (WEA37) 06:17 (WEA37)	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04		
5	05:00 21:32	05:47 (WEA33) 20:50 (WEA06)	05:39 20:55	9	06:07 (WEA37) 06:16 (WEA37)	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04		
6	05:01 21:31	05:47 (WEA35) 20:50 (WEA06)	05:41 20:53	7	06:09 (WEA37) 06:16 (WEA37)	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03		
7	05:02 21:31	05:47 (WEA35) 20:50 (WEA06)	05:42 20:52	3	06:10 (WEA37) 06:13 (WEA37)	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03		
8	05:03 21:30	05:47 (WEA35) 20:50 (WEA06)	05:44 20:50			06:34 19:45	07:22 18:35	07:16 16:34	08:04 16:02		
9	05:03 21:29	05:48 (WEA35) 20:50 (WEA06)	05:45 20:48			06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02		
10	05:04 21:29	05:48 (WEA35) 20:50 (WEA06)	05:47 20:46			06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02		
11	05:05 21:28	05:48 (WEA35) 20:49 (WEA06)	05:49 20:44			06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02		
12	05:07 21:27	05:48 (WEA35) 20:49 (WEA06)	05:50 20:42			06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02		
13	05:08 21:26	05:48 (WEA35) 20:47 (WEA06)	05:52 20:40			06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02		
14	05:09 21:25	05:48 (WEA35) 06:05 (WEA35)	05:53 20:38			06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02		
15	05:10 21:24	05:48 (WEA35) 06:05 (WEA35)	05:55 20:36			06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02		
16	05:11 21:23	05:48 (WEA35) 06:05 (WEA35)	05:57 20:34			06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02		
17	05:12 21:22	05:48 (WEA35) 06:05 (WEA35)	05:58 20:32			06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02		
18	05:14 21:21	05:48 (WEA35) 06:04 (WEA35)	06:00 20:30			06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02		
19	05:15 21:20	05:49 (WEA35) 06:04 (WEA35)	06:01 20:28			06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02		
20	05:16 21:19	05:50 (WEA35) 06:04 (WEA35)	06:03 20:26			06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03		
21	05:17 21:18	05:51 (WEA35) 06:04 (WEA35)	06:05 20:24			06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03		
22	05:19 21:16	05:51 (WEA35) 06:03 (WEA35)	06:06 20:22			06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04		
23	05:20 21:15	05:52 (WEA35) 06:01 (WEA35)	06:08 20:20			06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04		
24	05:21 21:14	05:55 (WEA35) 06:00 (WEA35)	06:09 20:18			06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05		
25	05:23 21:12		06:11 20:16			07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05		
26	05:24 21:11		06:13 20:14			07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06		
27	05:26 21:10	06:09 (WEA37) 06:14 (WEA37)	06:14 20:11			07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07		
28	05:27 21:08	06:07 (WEA37) 06:15 (WEA37)	06:16 20:09			07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08		
29	05:29 21:07	06:06 (WEA37) 06:16 (WEA37)	06:17 20:07			07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08		
30	05:30 21:05	06:06 (WEA37) 06:17 (WEA37)	06:19 20:05			07:09 18:54	07:00 16:49	07:53 16:07	08:18 16:09		
31	05:32 21:03	06:05 (WEA37) 06:17 (WEA37)	06:21 20:03				07:02 16:48		08:18 16:10		
Sonnenscheinstunden		501	453			381	332	267	245		
astr.max.mögl.Beschattung		559	69								
Red.Sonnenscheinwahrsch.		0,47	0,50								
Reduktion Betriebsdauer		0,95	0,95								
Reduktion Windrichtung		0,65	0,66								
Gesamte Reduktion		0,29	0,31								
Met.wahrsch.Beschattung		163	21								

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP06 - Reudener Weg 10, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 17:50	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:54 16:06
2	08:18 16:13	07:50 17:52	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:21	04:59 21:32	05:36 20:58	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49	05:39 20:39	04:58 21:22	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:23	04:57 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:36 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:30	05:42 20:51	06:32 19:47	07:21 18:38	07:15 16:35	08:02 16:03
8	08:17 16:20	07:40 17:12	06:44 18:03	06:33 19:55	05:32 20:45	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:44	07:22 18:36	07:16 16:34	08:04 16:03
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:04 21:29	05:46 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:29 20:49	04:54 21:28	05:05 21:28	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:27 20:00	05:27 20:50	04:54 21:29	05:06 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:26	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:23 16:27	08:08 16:02
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02
14	08:13 16:29	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:30	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:21 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:32	07:26 17:27	06:26 18:16	06:16 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:30 16:22	08:12 16:02
17	08:10 16:33	07:24 17:29	06:23 18:18	06:13 20:11	05:18 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:09 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:32	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:08 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:03
20	08:07 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:18 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:54 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:22 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:06
26	08:00 16:48	07:05 17:45	06:03 18:33	05:55 20:26	05:06 21:12	04:55 21:34	05:24 21:11	06:13 20:13	07:03 19:03	06:53 16:57	07:47 16:10	08:17 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:09	06:14 20:11	07:04 19:01	06:55 16:55	07:48 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:14	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:06	06:18 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:09
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:57 21:33	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:50	07:53 16:07	08:18 16:10
31	07:53 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	415	484	497	501	453	381	332	267	245
astr.max.mögl.Beschattung												
Red.Sonnenscheinwahrsch.												
Reduktion Betriebsdauer												
Reduktion Windrichtung												
Gesamte Reduktion												
Met.wahrsch.Beschattung												

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Schattenrezeptor: IP07 - Siebenhausen 43, 06766 Bitterfeld-Wolfen

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	04:57 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:45	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:45	07:22 18:35	07:16 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:32 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:07	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	497	501	453	381	332	267	245
astr.max.mögl.Beschattung												
Red.Sonnenscheinwahrsch.												
Reduktion Betriebsdauer												
Reduktion Windrichtung												
Gesamte Reduktion												
Met.wahrsch.Beschattung												

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP08 - Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:43	05:45 20:34	05:00 21:19
2	08:18 16:12	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	11 20:41 (WEA36) 20:31 (WEA36)
3	08:18 16:14	07:49 17:02	06:55 17:54	06:44 19:47	05:41 20:37	9 20:40 (WEA36) 20:32 (WEA36)
4	08:18 16:15	07:47 17:04	06:52 17:55	06:42 19:49	05:39 20:39	9 20:41 (WEA36) 20:33 (WEA36)
5	08:18 16:16	07:45 17:06	06:50 17:57	06:40 19:50	05:37 20:40	7 20:40 (WEA36) 20:34 (WEA36)
6	08:17 16:17	07:44 17:08	06:48 17:59	06:37 19:52	05:35 20:42	6 20:40 (WEA36) 20:35 (WEA36)
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:33 20:44	3 20:38 (WEA36) 21:25
8	08:16 16:20	07:40 17:12	06:44 18:02	06:33 19:55	05:32 20:45	21:26
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	19:27 (WEA35) 19:31 (WEA35)	05:30 20:47
10	08:15 16:22	07:37 17:15	06:39 18:06	06:29 19:59	19:26 (WEA35) 19:32 (WEA35)	05:28 20:49
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	19:25 (WEA35) 19:34 (WEA35)	05:27 20:50
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	19:25 (WEA35) 19:36 (WEA35)	05:25 20:52
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	19:25 (WEA35) 19:36 (WEA35)	05:23 20:53
14	08:13 16:28	07:29 17:23	06:30 18:13	06:20 20:05	19:25 (WEA35) 19:34 (WEA35)	05:22 20:55
15	08:12 16:30	07:28 17:25	06:28 18:15	06:17 20:07	19:27 (WEA35) 19:32 (WEA35)	05:20 20:56
16	08:11 16:31	07:26 17:26	06:26 18:16	06:15 20:09	05:19 20:58	21:31 21:32
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:10	05:17 20:59	04:52 21:32
18	08:09 16:34	07:22 17:30	06:21 18:20	06:11 20:12	19:39 (WEA37) 19:45 (WEA37)	05:16 21:01
19	08:08 16:36	07:20 17:32	06:19 18:21	06:09 20:14	19:37 (WEA37) 19:47 (WEA37)	05:14 21:02
20	08:07 16:38	07:18 17:34	06:16 18:23	06:07 20:15	19:36 (WEA37) 19:49 (WEA37)	05:13 21:04
21	08:06 16:39	07:16 17:36	06:14 18:25	06:05 20:17	19:35 (WEA37) 19:49 (WEA37)	05:12 21:05
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	19:34 (WEA37) 19:50 (WEA37)	05:10 21:07
23	08:04 16:43	07:12 17:39	06:09 18:28	06:00 20:21	19:34 (WEA37) 19:49 (WEA37)	05:09 21:08
24	08:03 16:45	07:10 17:41	06:07 18:30	05:58 20:22	19:34 (WEA37) 19:49 (WEA37)	05:08 21:09
25	08:02 16:46	07:07 17:43	06:05 18:32	05:56 20:24	19:34 (WEA37) 19:48 (WEA37)	05:07 21:11
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	19:35 (WEA37) 19:47 (WEA37)	05:06 21:12
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	19:36 (WEA37) 19:46 (WEA37)	05:05 21:13
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	19:37 (WEA37) 19:44 (WEA37)	05:03 21:14
29	07:56 16:53		05:56 19:38	05:48 20:31	05:02 21:16	12 20:41 (WEA36) 20:29 (WEA36)
30	07:55 16:55		05:53 19:40	05:46 20:32	05:02 21:17	12 20:41 (WEA36) 20:30 (WEA36)
31	07:53 16:57		05:51 19:42		05:01 21:18	12 20:42 (WEA36) 20:30 (WEA36)
Sonnenscheinstunden	260	278	367	416	484	497
astr.max.mögl.Beschattung				187	115	45
Red.Sonnenscheinwahrsch.				0,42	0,48	0,45
Reduktion Betriebsdauer				0,95	0,95	0,95
Reduktion Windrichtung				0,60	0,59	0,59
Gesamte Reduktion				0,24	0,27	0,26
Met.wahrsch.Beschattung				44	31	12

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenende
			(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP08 - Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57 21:33		05:33 21:02		06:22 20:00		19:24 (WEA35) 19:33 (WEA35)	07:11 18:51	07:04 16:46	07:54 16:06	
2	04:57 21:33		05:34 21:00		06:24 19:58	6	19:25 (WEA35) 19:31 (WEA35)	07:12 18:49	07:06 16:44	07:56 16:05	
3	04:58 21:32		05:36 20:58		06:25 19:56	4	19:25 (WEA35) 19:29 (WEA35)	07:14 18:47	07:07 16:42	07:57 16:04	
4	04:59 21:32		05:37 20:57		06:27 19:53			07:16 18:44	07:09 16:40	07:59 16:04	
5	05:00 21:32		05:39 20:55		06:29 19:51			07:17 18:42	07:11 16:38	08:00 16:03	
6	05:01 21:31		05:41 20:53		06:30 19:49			07:19 18:40	07:13 16:37	08:01 16:03	
7	05:01 21:30	4	20:41 (WEA36) 20:45 (WEA36)	05:42 20:51	06:32 19:47			07:21 18:38	07:15 16:35	08:02 16:03	
8	05:02 21:30	7	20:40 (WEA36) 20:47 (WEA36)	05:44 20:50	06:33 19:44			07:22 18:35	07:16 16:33	08:04 16:02	
9	05:03 21:29	8	20:40 (WEA36) 20:48 (WEA36)	05:45 20:48	06:35 19:42			07:24 18:33	07:18 16:32	08:05 16:02	
10	05:04 21:28	10	20:39 (WEA36) 20:49 (WEA36)	05:47 20:46	06:37 19:40			07:26 18:31	07:20 16:30	08:06 16:02	
11	05:05 21:28	10	20:38 (WEA36) 20:48 (WEA36)	05:48 20:44	06:38 19:37			07:27 18:29	07:22 16:29	08:07 16:02	
12	05:06 21:27	11	20:39 (WEA36) 20:50 (WEA36)	05:50 20:42	06:40 19:35			07:29 18:26	07:23 16:27	08:08 16:01	
13	05:07 21:26	12	20:38 (WEA36) 20:50 (WEA36)	05:52 20:40	06:41 19:33			07:31 18:24	07:25 16:26	08:09 16:01	
14	05:09 21:25	13	20:38 (WEA36) 20:51 (WEA36)	05:53 20:38	06:43 19:31			07:32 18:22	07:27 16:24	08:10 16:01	
15	05:10 21:24	13	20:38 (WEA36) 20:51 (WEA36)	05:55 20:36	19:44 (WEA37) 19:52 (WEA37)	8	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:01	
16	05:11 21:23	13	20:38 (WEA36) 20:51 (WEA36)	05:56 20:34	19:43 (WEA37) 19:54 (WEA37)	11	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02	
17	05:12 21:22	12	20:38 (WEA36) 20:50 (WEA36)	05:58 20:32	19:41 (WEA37) 19:54 (WEA37)	13	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02	
18	05:13 21:21	11	20:38 (WEA36) 20:49 (WEA36)	06:00 20:30	19:41 (WEA37) 19:55 (WEA37)	14	06:49 19:21	07:39 18:13	07:34 16:19	08:13 16:02	
19	05:15 21:20	10	20:38 (WEA36) 20:48 (WEA36)	06:01 20:28	19:40 (WEA37) 19:55 (WEA37)	15	06:51 19:19	07:41 18:11	07:35 16:17	08:14 16:02	
20	05:16 21:19	9	20:39 (WEA36) 20:48 (WEA36)	06:03 20:26	19:40 (WEA37) 19:55 (WEA37)	15	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03	
21	05:17 21:18	8	20:39 (WEA36) 20:47 (WEA36)	06:04 20:24	19:39 (WEA37) 19:54 (WEA37)	15	06:54 19:14	07:44 18:07	07:39 16:15	08:15 16:03	
22	05:19 21:16	6	20:39 (WEA36) 20:45 (WEA36)	06:06 20:22	19:40 (WEA37) 19:54 (WEA37)	14	06:56 19:12	07:46 18:05	07:40 16:14	08:16 16:04	
23	05:20 21:15	4	20:40 (WEA36) 20:44 (WEA36)	06:08 20:20	19:40 (WEA37) 19:52 (WEA37)	12	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04	
24	05:21 21:14	1	20:42 (WEA36) 20:43 (WEA36)	06:09 20:18	19:41 (WEA37) 19:50 (WEA37)	9	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05	
25	05:23 21:12		06:11 20:16	19:42 (WEA37) 19:48 (WEA37)	07:01 19:05	6	07:01 19:05	06:51 16:59	07:45 16:11	08:17 16:05	
26	05:24 21:11		06:12 20:13		07:02 19:03			06:53 16:57	07:47 16:10	08:17 16:06	
27	05:26 21:09		06:14 20:11		07:04 19:00			06:55 16:55	07:48 16:09	08:18 16:07	
28	05:27 21:08		06:16 20:09	19:28 (WEA35) 19:35 (WEA35)	07:06 18:58	7	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:07	
29	05:28 21:06		06:17 20:07	19:26 (WEA35) 19:35 (WEA35)	07:07 18:56	9	07:07 18:56	06:59 16:51	07:51 16:07	08:18 16:08	
30	05:30 21:05		06:19 20:05	19:25 (WEA35) 19:36 (WEA35)	07:09 18:54	11	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09	
31	05:31 21:03		06:21 20:02	19:25 (WEA35) 19:36 (WEA35)	07:02 16:47	11	07:02 16:47	07:02 16:47		08:18 16:10	
Sonnenscheinstunden		501	453	381	332	267	245				
astr.max.mögl.Beschattung		162	170	19							
Red.Sonnenscheinwahrsch.		0,47	0,50	0,42							
Reduktion Betriebsdauer		0,95	0,95	0,95							
Reduktion Windrichtung		0,59	0,60	0,61							
Gesamte Reduktion		0,27	0,28	0,24							
Met.wahrsch.Beschattung		43	48	5							

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
--------------	-----------------------	-------------------------	----------------------	--	---

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP09 - Thurländer Str. 1, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:18	07:52	15:54 (WEA25)	06:59	16:58 (WEA26)	06:49	05:45	05:00	20:31 (WEA16)		
	16:11	16:59	15:54 (WEA25)	17:50	17:10 (WEA26)	19:43	20:34	21:19	20:42 (WEA16)	11	
2	08:18	07:50	15:53 (WEA25)	06:57	16:56 (WEA26)	06:47	05:43	04:59	20:31 (WEA16)		
	16:12	17:01	16:10 (WEA25)	17:52	17:11 (WEA26)	19:45	20:36	21:20	20:42 (WEA16)	11	
3	08:18	07:49	15:53 (WEA25)	06:55	16:55 (WEA26)	06:44	05:41	04:58	20:32 (WEA16)		
	16:14	17:02	16:11 (WEA25)	17:54	17:12 (WEA26)	19:47	20:37	21:21	20:42 (WEA16)	10	
4	08:18	07:47	15:52 (WEA25)	06:52	16:55 (WEA26)	06:42	05:39	04:57	20:32 (WEA16)		
	16:15	17:04	16:30 (WEA19)	17:55	17:13 (WEA26)	19:49	20:39	21:23	20:42 (WEA16)	10	
5	08:18	07:46	15:52 (WEA25)	06:50	16:54 (WEA26)	06:40	05:37	04:57	20:33 (WEA16)		
	16:16	17:06	16:32 (WEA19)	17:57	17:31 (WEA20)	19:50	20:41	21:24	20:42 (WEA16)	9	
6	08:17	07:44	15:52 (WEA25)	06:48	16:54 (WEA26)	06:37	05:35	04:56	20:33 (WEA16)		
	16:17	17:08	16:33 (WEA19)	17:59	17:32 (WEA20)	19:52	20:42	21:24	20:41 (WEA16)	8	
7	08:17	07:42	15:52 (WEA25)	06:46	16:54 (WEA26)	06:35	05:33	04:55	20:34 (WEA16)		
	16:18	17:10	16:34 (WEA19)	18:01	17:33 (WEA20)	19:54	20:44	21:25	20:41 (WEA16)	7	
8	08:17	07:40	15:53 (WEA25)	06:44	16:55 (WEA26)	06:33	05:32	04:55	20:35 (WEA16)		
	16:20	17:12	16:35 (WEA19)	18:02	17:33 (WEA20)	19:55	20:45	21:26	20:41 (WEA16)	6	
9	08:16	07:39	15:53 (WEA25)	06:41	16:55 (WEA26)	06:31	05:30	04:54	20:36 (WEA16)		
	16:21	17:14	16:35 (WEA19)	18:04	17:32 (WEA20)	19:57	20:47	21:27	20:40 (WEA16)	4	
10	08:16	07:37	15:54 (WEA25)	06:39	16:56 (WEA26)	06:29	05:28	04:54	20:36 (WEA16)		
	16:22	17:15	16:35 (WEA19)	18:06	17:31 (WEA20)	19:59	20:49	21:28	20:36 (WEA16)	3	
11	08:15	07:35	15:54 (WEA25)	06:37	16:59 (WEA26)	06:26	05:27	04:54	20:37 (WEA16)		
	16:24	17:17	16:35 (WEA19)	18:08	17:28 (WEA20)	20:00	20:50	21:29	20:37 (WEA16)		
12	08:14	07:33	15:56 (WEA25)	06:35		06:24	05:25	04:53	20:38 (WEA16)		
	16:25	17:19	16:34 (WEA19)	18:09		20:02	20:52	21:29	20:38 (WEA16)		
13	08:14	07:31	15:57 (WEA25)	06:32		06:22	05:23	04:53	20:39 (WEA16)		
	16:27	17:21	16:32 (WEA19)	18:11		20:04	20:53	21:30	20:39 (WEA16)		
14	08:13	07:30	16:01 (WEA25)	06:30		06:20	05:22	04:53	20:40 (WEA16)		
	16:28	17:23	16:04 (WEA25)	18:13		20:05	20:55	21:31	20:40 (WEA16)		
15	08:12	07:28		06:28		06:17	05:20	04:53	20:41 (WEA16)		
	16:30	17:25		18:15		20:07	20:56	21:31	20:41 (WEA16)		
16	08:11	07:26		06:26		06:15	05:19	04:52	20:42 (WEA16)		
	16:31	17:26		18:16		20:09	20:58	21:32	20:42 (WEA16)		
17	08:10	07:24		06:23		06:13	05:17	04:52	20:43 (WEA16)		
	16:33	17:28		18:18		20:11	20:59	21:32	20:43 (WEA16)		
18	08:10	07:22		06:21		06:11	05:16	04:52	20:44 (WEA16)		
	16:34	17:30		18:20		20:12	21:01	21:33	20:44 (WEA16)		
19	08:09	07:20		06:19		06:09	05:14	04:52	20:45 (WEA16)		
	16:36	17:32		18:21		20:14	21:02	21:33	20:45 (WEA16)		
20	08:07	07:18		06:16		06:07	05:13	04:53	20:46 (WEA16)		
	16:38	17:34		18:23		20:16	21:04	21:33	20:46 (WEA16)		
21	08:06	07:16		06:14		06:05	05:12	04:53	20:47 (WEA16)		
	16:39	17:36		18:25		20:17	21:05	21:33	20:47 (WEA16)		
22	08:05	07:14		06:12		06:03	05:10	04:53	20:48 (WEA16)		
	16:41	17:37		18:27		20:19	21:07	21:34	20:48 (WEA16)		
23	08:04	07:12		06:09		06:00	05:09	04:53	20:49 (WEA16)		
	16:43	17:39		18:28		20:21	21:08	21:34	20:49 (WEA16)		
24	08:03	07:10		06:07		05:58	05:08	04:53	20:50 (WEA16)		
	16:45	17:41		18:30		20:22	21:09	21:34	20:50 (WEA16)		
25	08:02	07:07		06:05		05:56	05:07	04:54	20:51 (WEA16)		
	16:46	17:43		18:32		20:24	21:11	21:34	20:51 (WEA16)		
26	08:00	07:05		06:03		05:54	05:06	04:54	20:52 (WEA16)		
	16:48	17:45		18:33		20:26	21:12	21:34	20:52 (WEA16)		
27	07:59	07:03		06:00		05:52	05:04	04:55	20:53 (WEA16)		
	16:50	17:46		18:35		20:27	21:13	21:34	20:53 (WEA16)		
28	07:58	07:01	17:00 (WEA26)	05:58		05:50	05:03	04:55	20:54 (WEA16)		
	16:52	17:48	17:07 (WEA26)	05:56		05:48	05:02	04:56	20:54 (WEA16)		
29	07:56			06:56		05:48	05:02	04:56	20:55 (WEA16)		
	16:53			19:38		20:31	21:16	21:34	20:55 (WEA16)		
30	07:55	15:56 (WEA25)		06:53		05:46	05:01	04:56	20:56 (WEA16)		
	16:55	16:05 (WEA25)		19:40		20:32	21:17	21:35	20:56 (WEA16)		
31	07:53	15:55 (WEA25)		06:51			05:01	04:56	20:57 (WEA16)		
	16:57	16:08 (WEA25)		19:42			21:18	21:36	20:57 (WEA16)		
Sonnenscheinstunden	260	278		367		416	484	498			
astr.max.mögl.Beschattung				271		178	209	79			
Red.Sonnenscheinwahrsch.	0,19	0,26		0,33		0,42	0,48	0,45			
Reduktion Betriebsdauer	0,95	0,95		0,95		0,95	0,95	0,95			
Reduktion Windrichtung	0,68	0,68		0,64		0,62	0,60	0,59			
Gesamte Reduktion	0,12	0,17		0,20		0,24	0,27	0,26			
Met.wahrsch.Beschattung	34	58		55		43	56	20			

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP10 - Thurländer Str. 24, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember						
1	04:57		05:33		20:17 (WEA14)	06:22	19:15 (WEA23)	07:11	17:45 (WEA24)	07:04	07:55	15:08 (WEA19)					
	21:33		21:02	7	20:24 (WEA14)	20:00	12	19:27 (WEA23)	18:51	7	17:52 (WEA24)	16:46	16:06	12	15:20 (WEA19)		
2	04:57		05:34		20:17 (WEA14)	06:24		19:16 (WEA23)	07:12		17:41 (WEA24)	07:06		07:56	15:09 (WEA19)		
	21:33		21:00	9	20:26 (WEA14)	19:58	10	19:26 (WEA23)	18:49	12	17:53 (WEA24)	16:44		16:05	12	15:21 (WEA19)	
3	04:58		05:36		20:16 (WEA14)	06:25		19:19 (WEA23)	07:14		17:40 (WEA24)	07:08		07:57	15:09 (WEA19)		
	21:33		20:58	10	20:26 (WEA14)	19:56	3	19:22 (WEA23)	18:47	14	17:54 (WEA24)	16:42		16:04	12	15:21 (WEA19)	
4	04:59		05:37		20:16 (WEA14)	06:27			07:16		17:39 (WEA24)	07:09		07:59	15:10 (WEA19)		
	21:32		20:57	11	20:27 (WEA14)	19:54			18:44	20	18:06 (WEA21)	16:40		16:04	12	15:22 (WEA19)	
5	05:00		05:39		20:15 (WEA14)	06:29			07:17		17:38 (WEA24)	07:11		08:00	15:10 (WEA19)		
	21:32		20:55	10	20:25 (WEA14)	19:51			18:42	24	18:07 (WEA21)	16:38		16:03	12	15:22 (WEA19)	
6	05:01		05:41		20:16 (WEA14)	06:30			07:19		17:37 (WEA24)	07:13		08:01	15:11 (WEA19)		
	21:31		20:53	8	20:24 (WEA14)	19:49			18:40	28	18:08 (WEA21)	16:37		16:03	12	15:23 (WEA19)	
7	05:01		05:42		19:59 (WEA16)	06:32			07:21		17:38 (WEA24)	07:15		08:03	15:11 (WEA19)		
	21:31		20:52	12	20:22 (WEA14)	19:47			18:38	26	18:08 (WEA21)	16:35	7	15:28 (WEA26)	16:02	12	15:23 (WEA19)
8	05:02		05:44		19:58 (WEA16)	06:33			07:22		17:38 (WEA24)	07:16		08:04	15:11 (WEA19)		
	21:30		20:50	13	20:21 (WEA14)	19:44			18:35	26	18:08 (WEA21)	16:33	11	15:30 (WEA26)	16:02	12	15:23 (WEA19)
9	05:03		05:45		19:56 (WEA16)	06:35			07:24		17:38 (WEA24)	07:18		08:05	15:12 (WEA19)		
	21:29		20:48	12	20:19 (WEA14)	19:42			18:33	21	18:05 (WEA21)	16:32	13	15:31 (WEA26)	16:02	11	15:23 (WEA19)
10	05:04		05:47		19:56 (WEA16)	06:37			07:26		17:39 (WEA24)	07:20	13	15:17 (WEA26)	08:06	15:13 (WEA19)	
	21:29		20:46	12	20:08 (WEA16)	19:40			18:31	15	18:03 (WEA21)	16:30	15	15:32 (WEA26)	16:02	11	15:24 (WEA19)
11	05:05		05:48		19:55 (WEA16)	06:38			07:27		17:41 (WEA24)	07:22		15:17 (WEA26)	08:07	15:14 (WEA19)	
	21:28		20:44	13	20:08 (WEA16)	19:38			18:29	8	17:49 (WEA24)	16:29	16	15:33 (WEA26)	16:01	10	15:24 (WEA19)
12	05:06		05:50		19:55 (WEA16)	06:40			07:29		07:23		16	15:17 (WEA26)	08:08	15:14 (WEA19)	
	21:27		20:42	13	20:08 (WEA16)	19:35			18:26		16:27	16	15:33 (WEA26)	16:01	10	15:24 (WEA19)	
13	05:07		05:52		19:55 (WEA16)	06:41			07:31		07:25		17	15:17 (WEA26)	08:09	14:35 (WEA25)	
	21:26		20:40	12	20:07 (WEA16)	19:33			18:24		16:26	17	15:34 (WEA26)	16:01	12	15:24 (WEA19)	
14	05:09		05:53		19:56 (WEA16)	06:43			07:32		07:27		18	15:17 (WEA26)	08:10	14:34 (WEA25)	
	21:25		20:38	11	20:07 (WEA16)	19:31			18:22		16:24	17	15:34 (WEA26)	16:01	15	15:25 (WEA19)	
15	05:10		05:55		19:56 (WEA16)	06:45			07:34		07:29		19	15:17 (WEA26)	08:11	14:34 (WEA25)	
	21:24		20:36	9	20:05 (WEA16)	19:28			18:20		16:23	17	15:34 (WEA26)	16:01	15	15:25 (WEA19)	
16	05:11		05:56		19:58 (WEA16)	06:46		18:44 (WEA22)	07:36		07:30		20	15:17 (WEA26)	08:12	14:33 (WEA25)	
	21:23		20:34	6	20:04 (WEA16)	19:26	5	18:49 (WEA22)	18:18		16:21	16	15:33 (WEA26)	16:01	16	15:24 (WEA19)	
17	05:12		05:58			06:48		18:42 (WEA22)	07:38		07:32		17	15:18 (WEA26)	08:13	14:34 (WEA25)	
	21:22		20:32			19:24	9	18:51 (WEA22)	18:16		16:20	15	15:33 (WEA26)	16:02	16	15:25 (WEA19)	
18	05:13		06:00			06:49		18:42 (WEA22)	07:39		07:34		16	15:19 (WEA26)	08:13	14:34 (WEA25)	
	21:21		20:30			19:21	10	18:52 (WEA22)	18:13		16:19	14	15:33 (WEA26)	16:02	16	15:25 (WEA19)	
19	05:15		06:01			06:51		18:40 (WEA22)	07:41		07:36		15	15:20 (WEA26)	08:14	14:35 (WEA25)	
	21:20		20:28			19:19	11	18:51 (WEA22)	18:11		16:17	12	15:32 (WEA26)	16:02	16	15:26 (WEA19)	
20	05:16		06:03			06:53		18:41 (WEA22)	07:43		07:37		13	15:21 (WEA26)	08:15	14:35 (WEA25)	
	21:19		20:26			19:17	9	18:50 (WEA22)	18:09		16:16	11	15:32 (WEA26)	16:03	16	15:26 (WEA19)	
21	05:17		06:04			06:54		18:40 (WEA22)	07:45		07:39		12	15:23 (WEA26)	08:15	14:36 (WEA25)	
	21:18		20:24			19:14	7	18:47 (WEA22)	18:07		16:15	8	15:31 (WEA26)	16:03	16	15:27 (WEA19)	
22	05:19		06:06			06:56		18:42 (WEA22)	07:46		07:41		9		08:16	14:36 (WEA25)	
	21:16		20:22			19:12	3	18:45 (WEA22)	18:05		16:14		10	15:26 (WEA19)	16:03	15	15:26 (WEA19)
23	05:20		06:08			06:58			07:48		07:42		11		08:16	14:37 (WEA25)	
	21:15		20:20			19:10			18:03		16:13		12	15:28 (WEA19)	16:04	16	15:28 (WEA19)
24	05:21		06:09			06:59			07:50		07:44		13		08:17	14:37 (WEA25)	
	21:14		20:18			19:07			18:01		16:12		14	15:28 (WEA19)	16:05	16	15:28 (WEA19)
25	05:23		06:11		19:19 (WEA23)	07:01			06:52		07:45		15		08:17	14:37 (WEA25)	
	21:12		20:16	8	19:27 (WEA23)	19:05			16:59		16:11		16	15:10 (WEA19)	16:05	16	15:28 (WEA19)
26	05:24		06:12		19:18 (WEA23)	07:02			06:53		07:47		17	15:15 (WEA19)	16:06	16	15:29 (WEA19)
	21:11		20:13	10	19:28 (WEA23)	19:03			16:57		16:10	5	15:15 (WEA19)	16:06	16	15:29 (WEA19)	
27	05:25		06:14		19:16 (WEA23)	07:04			06:55		07:49		18	15:10 (WEA19)	16:08	14	14:39 (WEA25)
	21:10		20:11	13	19:29 (WEA23)	19:00			16:55		16:09	7	15:17 (WEA19)	16:07	16	15:30 (WEA19)	
28	05:27		06:16		19:15 (WEA23)	07:06			06:57		07:50		19	15:09 (WEA19)	16:08	14	14:40 (WEA25)
	21:08		20:09	14	19:29 (WEA23)	18:58			16:53		16:08	9	15:18 (WEA19)	16:07	16	15:31 (WEA19)	
29	05:28		06:17		19:14 (WEA23)	07:07			06:59		07:52		20	15:08 (WEA19)	16:08	14	14:41 (WEA25)
	21:07		20:07	15	19:29 (WEA23)	18:56			16:51		16:07	11	15:19 (WEA19)	16:08	14	15:31 (WEA19)	
30	05:30		06:19		19:15 (WEA23)	07:09			07:00		07:53		21	15:09 (WEA19)	16:09	14	14:42 (WEA25)
	21:05		20:05	14	19:29 (WEA23)	18:54			16:49		16:06	11	15:20 (WEA19)	16:09	14	15:32 (WEA19)	
31	05:31	20:20 (WEA14)	06:21		19:15 (WEA23)				07:02		16:06		22	15:20 (WEA19)	16:10	15	15:32 (WEA19)
	21:03	3 20:23 (WEA14)	20:02	13	19:28 (WEA23)				16:47				23	15:20 (WEA19)	16:10	10	15:33 (WEA19)
Sonnenscheinstunden	501		453				381		332		267		248		245		425
astr.max.mögl.Beschattung	3		255				79		201		248		248				425
Red.Sonnenscheinwahrsch.	0,47		0,50				0,42		0,35		0,21		0,21				0,16
Reduktion Betriebsdauer	0,95		0,95				0,95		0,95		0,95		0,95				0,95
Reduktion Windrichtung	0,60		0,60				0,63		0,63		0,68		0,68				0,68
Gesamte Reduktion	0,27		0,29				0,25		0,21		0,13		0,13				0,11
Met.wahrsch.Beschattung	1		73				20		43		33		33				45

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP12 - Zerbster Str. 17, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:18	15:01 (WEA26)	07:52	06:59	17:07 (WEA21)	06:49	18:58 (WEA23)	05:45	19:54 (WEA14)	05:00	
	16:11	15:18 (WEA26)	16:59	17:50	6	17:13 (WEA21)	19:44	11	19:09 (WEA23)	20:34	12
2	08:18	15:02 (WEA26)	07:50	06:57		06:47	18:57 (WEA23)	05:43	19:54 (WEA14)	04:59	
	16:12	15:18 (WEA26)	17:01	17:52		19:45	13	19:10 (WEA23)	20:36	12	20:06 (WEA14)
3	08:18	15:03 (WEA26)	07:49	06:55		06:44		18:56 (WEA23)	05:41		19:54 (WEA14)
	16:14	15:19 (WEA26)	17:02	17:54		19:47	15	19:11 (WEA23)	20:37	11	20:05 (WEA14)
4	08:18	15:03 (WEA26)	07:47	06:52		06:42		18:55 (WEA23)	05:39		19:54 (WEA14)
	16:15	15:20 (WEA26)	17:04	17:55		19:49	15	19:10 (WEA23)	20:39	11	20:05 (WEA14)
5	08:18	15:03 (WEA26)	07:46	06:50		06:40		18:55 (WEA23)	05:37		19:55 (WEA14)
	16:16	15:20 (WEA26)	17:06	17:57		19:50	15	19:10 (WEA23)	20:41	10	20:05 (WEA14)
6	08:17	15:04 (WEA26)	07:44	06:48		06:37		18:55 (WEA23)	05:35		19:56 (WEA14)
	16:17	15:21 (WEA26)	17:08	17:59		19:52	15	19:10 (WEA23)	20:42	7	20:03 (WEA14)
7	08:17	15:04 (WEA26)	07:42	06:46		06:35		18:56 (WEA23)	05:33		04:55
	16:18	15:21 (WEA26)	17:10	18:01		19:54	13	19:09 (WEA23)	20:44		21:25
8	08:17	15:05 (WEA26)	07:40	06:44		06:33		18:57 (WEA23)	05:32		04:55
	16:20	15:22 (WEA26)	17:12	18:02		19:55	11	19:08 (WEA23)	20:45		21:26
9	08:16	15:05 (WEA26)	07:39	06:41		06:31		18:57 (WEA23)	05:30		04:54
	16:21	15:22 (WEA26)	17:14	18:04		19:57	8	19:05 (WEA23)	20:47		21:27
10	08:16	15:05 (WEA26)	07:37	06:39		06:29		05:28			04:54
	16:22	15:22 (WEA26)	17:15	18:06		19:59		20:49			21:28
11	08:15	15:06 (WEA26)	07:35	06:37		06:26		05:27			04:54
	16:24	15:22 (WEA26)	17:17	18:08		20:00		20:50			21:29
12	08:14	15:07 (WEA26)	07:33	06:35		06:24		05:25			04:53
	16:25	15:23 (WEA26)	17:19	18:09		20:02		20:52			21:29
13	08:14	15:08 (WEA26)	07:31	06:32		06:22		05:23			04:53
	16:27	15:23 (WEA26)	17:21	18:11		20:04		20:53			21:30
14	08:13	15:08 (WEA26)	07:30	06:30		06:20		05:22		20:24 (WEA15)	04:53
	16:28	15:23 (WEA26)	17:23	18:13	3	17:47 (WEA22)	20:05	20:55	1	20:25 (WEA15)	21:31
15	08:12	15:09 (WEA26)	07:28	06:28		17:39 (WEA22)	06:17	05:20		20:22 (WEA15)	04:53
	16:30	15:22 (WEA26)	17:25	18:15	5	17:46 (WEA22)	20:07	20:56	4	20:26 (WEA15)	21:31
16	08:11	15:10 (WEA26)	07:26	06:26		17:42 (WEA22)	06:15	05:19		20:22 (WEA15)	04:52
	16:31	15:22 (WEA26)	17:26	18:16	1	17:43 (WEA22)	20:09	20:58	6	20:28 (WEA15)	21:32
17	08:10	15:12 (WEA26)	07:24	06:23		17:41 (WEA22)	06:13	05:17		20:21 (WEA15)	04:52
	16:33	9	15:21 (WEA26)	17:28	13	16:47 (WEA24)	18:18	20:59	8	20:29 (WEA15)	21:32
18	08:10	15:14 (WEA26)	07:22	06:21		17:39 (WEA22)	06:11	05:16		20:21 (WEA15)	04:52
	16:34	6	15:20 (WEA26)	17:30	15	16:48 (WEA24)	18:20	21:01	9	20:30 (WEA15)	21:33
19	08:09		07:20	06:19		17:39 (WEA22)	06:09	19:39 (WEA16)	05:14	20:21 (WEA15)	04:52
	16:36		07:20	18:21	1	17:40 (WEA22)	20:14	2	19:41 (WEA16)	21:02	11
20	08:08		07:18	06:16		06:07		19:35 (WEA16)	05:13	20:21 (WEA15)	04:53
	16:38		07:18	18:23		20:16	9	19:44 (WEA16)	21:04	12	20:33 (WEA15)
21	08:06		07:16	06:14		06:05		19:34 (WEA16)	05:12	20:21 (WEA15)	04:53
	16:39		07:16	18:25		20:17	11	19:45 (WEA16)	21:05	11	20:32 (WEA15)
22	08:05		07:14	06:12		06:03		19:33 (WEA16)	05:10	20:22 (WEA15)	04:53
	16:41		07:14	18:27		20:19	13	19:46 (WEA16)	21:07	9	20:31 (WEA15)
23	08:04		07:12	06:10		06:00		19:32 (WEA16)	05:09	20:22 (WEA15)	04:53
	16:43		07:12	18:28		20:21	14	19:46 (WEA16)	21:08	9	20:31 (WEA15)
24	08:03		07:10	06:07		05:58		19:32 (WEA16)	05:08		20:23 (WEA15)
	16:45		07:10	18:30		20:22	14	19:46 (WEA16)	21:09	7	20:30 (WEA15)
25	08:02		07:08	06:05		05:56		19:32 (WEA16)	05:07		20:25 (WEA15)
	16:46		07:08	18:32		20:24	13	19:45 (WEA16)	21:11	4	20:29 (WEA15)
26	08:00		07:05	06:03		05:54		19:32 (WEA16)	05:06		04:54
	16:48		07:05	18:33		20:26	13	19:45 (WEA16)	21:12		21:34
27	07:59		07:03	06:00		05:52		19:32 (WEA16)	05:04		04:55
	16:50		07:03	18:35		20:27	12	19:44 (WEA16)	21:13		21:34
28	07:58		07:01	05:58		05:50		19:33 (WEA16)	05:03		04:55
	16:52		07:01	18:37		20:29	13	20:01 (WEA14)	21:15		21:34
29	07:56		07:48	06:56		05:48		19:36 (WEA16)	05:02		04:56
	16:53			19:38		20:31	10	20:02 (WEA14)	21:16		21:34
30	07:55			06:53		05:46		19:55 (WEA14)	05:01		04:56
	16:55			19:40		20:32	10	20:05 (WEA14)	21:17		21:34
31	07:53			06:51		19:01 (WEA23)		05:01			
	16:57			19:42	7	19:08 (WEA23)		21:18			
Sonneneinstrahlung		260	278	367		416		484			498
astr.max.mögl.Beschattung		270	226	26		250		154			
Red.Sonneneinstrahlung		0,19	0,26	0,33		0,42		0,48			
Reduktion Betriebsdauer		0,95	0,95	0,95		0,95		0,95			
Reduktion Windrichtung		0,68	0,66	0,64		0,61		0,60			
Gesamte Reduktion		0,12	0,17	0,20		0,24		0,27			
Met.wahrsch.Beschattung		33	37	5		60		42			

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP12 - Zerbster Str. 17, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57	05:33		06:22		07:11		07:04		07:55	14:48 (WEA26)
	21:33	21:02		20:00		18:51		16:46		16:06	16:04 (WEA26)
2	04:57	05:34		06:24		07:12		07:06		07:56	14:48 (WEA26)
	21:33	21:00		19:58		18:49		16:44		16:05	17:05 (WEA26)
3	04:58	05:36		06:25	18:56 (WEA23)	07:14		07:08		07:57	14:48 (WEA26)
	21:33	20:58		19:56	7	19:03 (WEA23)	18:47	16:42		16:04	17:05 (WEA26)
4	04:59	05:37		06:27	18:54 (WEA23)	07:16		07:09		07:59	14:49 (WEA26)
	21:32	20:57		19:54	11	19:05 (WEA23)	18:44	16:40		16:04	17:06 (WEA26)
5	05:00	05:39		06:29	18:52 (WEA23)	07:17		07:11		08:00	14:49 (WEA26)
	21:32	20:55		19:51	13	19:05 (WEA23)	18:42	16:38		16:03	17:06 (WEA26)
6	05:01	05:41	20:07 (WEA14)	06:30	18:51 (WEA23)	07:19		07:13		08:01	14:50 (WEA26)
	21:31	20:53	4	20:11 (WEA14)	19:49	19:06 (WEA23)	18:40	16:37		16:03	17:07 (WEA26)
7	05:01	05:42	20:05 (WEA14)	06:32	18:50 (WEA23)	07:21		07:15		08:03	14:50 (WEA26)
	21:31	20:52	8	20:13 (WEA14)	19:47	19:05 (WEA23)	18:38	16:35		16:02	17:07 (WEA26)
8	05:02	05:44	20:04 (WEA14)	06:33	18:50 (WEA23)	07:22		07:16		08:04	14:50 (WEA26)
	21:30	20:50	10	20:14 (WEA14)	19:44	19:05 (WEA23)	18:35	16:33		16:02	17:07 (WEA26)
9	05:03	05:45	20:03 (WEA14)	06:35	18:49 (WEA23)	07:24		07:18		08:05	14:51 (WEA26)
	21:29	20:48	11	20:14 (WEA14)	19:42	19:04 (WEA23)	18:33	16:32		16:02	16:15 (WEA26)
10	05:04	05:47	20:03 (WEA14)	06:37	18:50 (WEA23)	07:26		07:20		08:06	14:52 (WEA26)
	21:29	20:46	12	20:15 (WEA14)	19:40	19:04 (WEA23)	18:31	16:30		16:02	16:15 (WEA26)
11	05:05	05:48	20:02 (WEA14)	06:38	18:51 (WEA23)	07:27		07:22		08:07	14:52 (WEA26)
	21:28	20:44	12	20:14 (WEA14)	19:38	19:03 (WEA23)	18:29	16:29		16:01	17:09 (WEA26)
12	05:06	05:50	20:03 (WEA14)	06:40	18:52 (WEA23)	07:29		07:23		08:08	14:53 (WEA26)
	21:27	20:42	11	20:14 (WEA14)	19:35	8	19:00 (WEA23)	18:26	3	17:46 (WEA21)	16:27
13	05:07	05:52	20:03 (WEA14)	06:41		07:31		17:39 (WEA21)		08:09	14:53 (WEA26)
	21:26	20:40	9	20:12 (WEA14)	19:33	18:24	8	17:47 (WEA21)		16:01	16:15 (WEA26)
14	05:09	05:53	19:43 (WEA16)	06:43		07:32		17:38 (WEA21)		08:10	14:54 (WEA26)
	21:25	20:38	12	20:10 (WEA14)	19:31	18:22	10	17:48 (WEA21)		16:01	16:15 (WEA26)
15	05:10	05:55	19:41 (WEA16)	06:45		07:34		17:07 (WEA24)		08:11	14:55 (WEA26)
	21:24	20:36	12	20:08 (WEA14)	19:28	18:20	20	17:48 (WEA21)		16:01	15:10 (WEA26)
16	05:11	05:56	19:40 (WEA16)	06:46		07:36		17:05 (WEA24)		08:12	14:54 (WEA26)
	21:23	20:34	11	19:51 (WEA16)	19:26	18:18	23	17:48 (WEA21)		16:01	16:15 (WEA26)
17	05:12	05:58	19:38 (WEA16)	06:48		07:38		17:03 (WEA24)		08:13	14:55 (WEA26)
	21:22	20:32	13	19:51 (WEA16)	19:24	18:16	26	17:47 (WEA21)		16:02	15:10 (WEA26)
18	05:13	06:00	19:38 (WEA16)	06:49		07:39		17:02 (WEA24)		08:13	14:56 (WEA26)
	21:21	20:30	14	19:52 (WEA16)	19:21	18:13	23	17:45 (WEA21)		16:02	15:11 (WEA26)
19	05:15	20:34 (WEA15)	06:01	19:37 (WEA16)	06:51	07:41		17:02 (WEA24)		08:14	14:57 (WEA26)
	21:20	5	20:39 (WEA15)	20:28	14	19:51 (WEA16)	19:19	18:11	18	17:20 (WEA24)	16:17
20	05:16	20:32 (WEA15)	06:03	19:38 (WEA16)	06:53	07:43		17:02 (WEA24)		08:15	14:57 (WEA26)
	21:19	8	20:40 (WEA15)	20:26	13	19:51 (WEA16)	19:17	18:09	18	17:20 (WEA24)	16:16
21	05:17	20:33 (WEA15)	06:04	19:38 (WEA16)	06:54	07:45		17:02 (WEA24)		08:15	14:58 (WEA26)
	21:18	9	20:42 (WEA15)	20:24	12	19:50 (WEA16)	19:14	18:07	18	17:20 (WEA24)	16:15
22	05:19	20:32 (WEA15)	06:06	19:39 (WEA16)	06:56	07:46		17:02 (WEA24)		08:16	14:58 (WEA26)
	21:16	10	20:42 (WEA15)	20:22	11	19:50 (WEA16)	19:12	18:05	17	17:19 (WEA24)	16:14
23	05:20	20:31 (WEA15)	06:08	19:39 (WEA16)	06:58	07:48		17:03 (WEA24)		08:16	14:59 (WEA26)
	21:15	11	20:42 (WEA15)	20:20	8	19:47 (WEA16)	19:10	18:03	16	17:19 (WEA24)	16:13
24	05:21	20:32 (WEA15)	06:09		06:59	07:50		17:02 (WEA24)		08:17	14:59 (WEA26)
	21:14	11	20:43 (WEA15)	20:18		19:07		18:01	15	17:17 (WEA24)	16:12
25	05:23	20:31 (WEA15)	06:11		07:01	18:22 (WEA22)	06:52	16:04 (WEA24)		08:17	14:59 (WEA26)
	21:12	11	20:42 (WEA15)	20:16		19:05	1	18:23 (WEA22)		16:16 (WEA24)	16:11
26	05:24	20:31 (WEA15)	06:12		07:02	18:22 (WEA22)	06:53	16:06 (WEA24)		08:18	15:00 (WEA26)
	21:11	9	20:40 (WEA15)	20:13		19:03	2	18:24 (WEA22)		16:13 (WEA24)	16:10
27	05:25	20:32 (WEA15)	06:14		07:04	18:20 (WEA22)	06:55	16:08 (WEA24)		08:19	15:00 (WEA26)
	21:10	8	20:40 (WEA15)	20:11		19:00	4	18:26 (WEA22)		16:09	15:15 (WEA26)
28	05:27	20:32 (WEA15)	06:16		07:06	18:21 (WEA22)	06:57	16:10 (WEA24)		08:20	15:01 (WEA26)
	21:08	6	20:38 (WEA15)	20:09		18:58	3	18:26 (WEA22)		16:08	15:16 (WEA26)
29	05:28	20:33 (WEA15)	06:17		07:07	18:21 (WEA22)	06:59	16:11 (WEA24)		08:21	15:01 (WEA26)
	21:07	3	20:36 (WEA15)	20:07		18:56	2	18:26 (WEA22)		16:07	15:16 (WEA26)
30	05:30		06:19		07:09		07:00	16:06	16	15:04 (WEA26)	16:09
	21:05		20:05		18:54		16:49			08:18	15:02 (WEA26)
31	05:31		06:21				07:02			16:10	16:15 (WEA26)
	21:03		20:02				16:47				
Sonnenscheinstunden		501	453		381		332		267		245
astr.max.mögl.Beschattung		91	197		137		234		86		485
Red.Sonnenscheinwahrsch.		0,47	0,50		0,42		0,35		0,21		0,16
Reduktion Betriebsdauer		0,95	0,95		0,95		0,95		0,95		0,95
Reduktion Windrichtung		0,60	0,60		0,63		0,66		0,68		0,68
Gesamte Reduktion		0,27	0,28		0,25		0,22		0,13		0,11
Met.wahrsch.Beschattung		24	56		34		52		12		52

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP13 - Dorfstraße 30, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11 16	15:07 (WEA14) 07:52 15:23 (WEA14) 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19
2	08:18 16:12 16	15:07 (WEA14) 07:50 15:23 (WEA14) 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 16:14 17	15:07 (WEA14) 07:49 15:24 (WEA14) 17:02	16:14 (WEA15) 06:55 16:18 (WEA15) 17:54	06:44 19:47	05:41 20:37	04:58 21:22
4	08:18 16:15 17	15:08 (WEA14) 07:47 15:25 (WEA14) 17:04	16:10 (WEA15) 06:53 16:21 (WEA15) 17:55	06:42 19:49	05:39 20:39	04:57 21:23
5	08:18 16:16 18	15:07 (WEA14) 07:46 15:25 (WEA14) 17:06	16:08 (WEA15) 06:50 16:23 (WEA15) 17:57	06:40 19:50	05:37 20:41	04:57 21:24
6	08:17 16:17 19	15:08 (WEA14) 07:44 15:27 (WEA14) 17:08	16:07 (WEA15) 06:48 16:24 (WEA15) 17:59	06:38 19:52	05:35 20:42	04:56 21:25
7	08:17 16:18 19	15:08 (WEA14) 07:42 15:27 (WEA14) 17:10	16:07 (WEA15) 06:46 16:26 (WEA15) 18:01	06:35 19:54	05:33 20:44	04:55 21:26
8	08:17 16:20 19	15:09 (WEA14) 07:41 15:28 (WEA14) 17:12	16:06 (WEA15) 06:44 16:26 (WEA15) 18:02	06:33 19:55	05:32 20:46	04:55 21:26
9	08:16 16:21 19	15:09 (WEA14) 07:39 15:28 (WEA14) 17:14	16:06 (WEA15) 06:41 16:27 (WEA15) 18:04	06:31 19:57	05:30 20:47	04:54 21:27
10	08:16 16:22 19	15:09 (WEA14) 07:37 15:28 (WEA14) 17:15	16:05 (WEA15) 06:39 16:27 (WEA15) 18:06	06:29 19:59	05:28 20:49	04:54 21:28
11	08:15 16:24 19	15:10 (WEA14) 07:35 15:29 (WEA14) 17:17	16:05 (WEA15) 06:37 16:27 (WEA15) 18:08	06:26 20:00	05:27 20:50	04:54 21:29
12	08:14 16:25 20	15:10 (WEA14) 07:33 15:30 (WEA14) 17:19	16:05 (WEA15) 06:35 16:27 (WEA15) 18:09	06:24 20:02	05:25 20:52	04:53 21:29
13	08:14 16:27 20	15:10 (WEA14) 07:32 15:30 (WEA14) 17:21	16:06 (WEA15) 06:32 16:27 (WEA15) 18:11	06:22 20:04	05:23 20:53	04:53 21:30
14	08:13 16:28 19	15:11 (WEA14) 07:30 15:30 (WEA14) 17:23	16:06 (WEA15) 06:30 16:26 (WEA15) 18:13	06:20 20:06	05:22 20:55	04:53 21:31
15	08:12 16:30 19	15:11 (WEA14) 07:28 15:30 (WEA14) 17:25	16:07 (WEA15) 06:28 16:26 (WEA15) 18:15	06:18 20:07	05:20 20:57	04:53 21:31
16	08:11 16:31 18	15:12 (WEA14) 07:26 15:30 (WEA14) 17:26	16:08 (WEA15) 06:26 16:25 (WEA15) 18:16	06:15 20:09	05:19 20:58	04:52 21:32
17	08:11 16:33 17	15:13 (WEA14) 07:24 15:30 (WEA14) 17:28	16:09 (WEA15) 06:23 16:24 (WEA15) 18:18	06:13 20:11	05:17 21:00	04:52 21:32
18	08:10 16:34 16	15:14 (WEA14) 07:22 15:30 (WEA14) 17:30	16:11 (WEA15) 06:21 16:22 (WEA15) 18:20	06:11 20:12	05:16 21:01	04:52 21:33
19	08:09 16:36 15	15:15 (WEA14) 07:20 15:30 (WEA14) 17:32	16:19 18:21	06:09 20:14	05:14 21:02	04:52 21:33
20	08:08 16:38 14	15:15 (WEA14) 07:18 15:29 (WEA14) 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:52 21:33
21	08:07 16:39 11	15:17 (WEA14) 07:16 15:28 (WEA14) 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:05 16:41 8	15:19 (WEA14) 07:14 15:27 (WEA14) 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34
23	08:04 16:43 2	15:23 (WEA14) 07:12 15:25 (WEA14) 17:39	06:10 18:28	06:00 20:21	05:09 21:08	04:53 21:34
24	08:03 16:45 0	07:10 17:41	06:07 18:30	05:58 20:22	05:08 21:10	04:53 21:34
25	08:02 16:46 0	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34
26	08:01 16:48 0	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 16:50 0	07:03 17:46	06:00 18:35	05:52 20:27	05:04 21:13	04:54 21:34
28	07:58 16:52 0	07:01 17:48	05:58 18:37	05:50 20:29	05:03 21:15	04:55 21:34
29	07:56 16:53 0		06:56 19:38	05:48 20:31	05:02 21:16	04:56 21:34
30	07:55 16:55 0		06:53 19:40	05:46 20:32	05:01 21:17	04:56 21:34
31	07:54 16:57 0		06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
astr.max.mögl.Beschattung	377	276				
Red.Sonnenscheinwahrsch.	0,19	0,26				
Reduktion Betriebsdauer	0,95	0,95				
Reduktion Windrichtung	0,68	0,68				
Gesamte Reduktion	0,12	0,17				
Met.wahrsch.Beschattung	45	47				

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP13 - Dorfstraße 30, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober		November		Dezember			
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51		07:04 16:46	22	15:35 (WEA15) 15:57 (WEA15)	07:55 16:06	20	14:52 (WEA14) 15:12 (WEA14)
2	04:57 21:33	05:34 21:00	06:24 19:58	07:12 18:49		07:06 16:44	20	15:36 (WEA15) 15:56 (WEA15)	07:56 16:05	19	14:52 (WEA14) 15:11 (WEA14)
3	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47		07:08 16:42	20	15:36 (WEA15) 15:56 (WEA15)	07:57 16:04	19	14:53 (WEA14) 15:12 (WEA14)
4	04:59 21:32	05:37 20:57	06:27 19:54	07:16 18:44		07:09 16:40	18	15:36 (WEA15) 15:54 (WEA15)	07:59 16:04	19	14:53 (WEA14) 15:12 (WEA14)
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42		07:11 16:38	17	15:37 (WEA15) 15:54 (WEA15)	08:00 16:03	19	14:53 (WEA14) 15:12 (WEA14)
6	05:00 21:31	05:41 20:53	06:30 19:49	07:19 18:40		07:13 16:37	14	15:38 (WEA15) 15:52 (WEA15)	08:01 16:03	19	14:54 (WEA14) 15:13 (WEA14)
7	05:01 21:31	05:42 20:52	06:32 19:47	07:21 18:38		07:15 16:35	11	15:40 (WEA15) 15:51 (WEA15)	08:03 16:02	19	14:54 (WEA14) 15:13 (WEA14)
8	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35		07:16 16:33	3	15:44 (WEA15) 15:47 (WEA15)	08:04 16:02	17	14:55 (WEA14) 15:12 (WEA14)
9	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33		07:18 16:32			08:05 16:02	17	14:56 (WEA14) 15:13 (WEA14)
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31		07:20 16:30			08:06 16:02	16	14:57 (WEA14) 15:13 (WEA14)
11	05:05 21:28	05:48 20:44	06:38 19:38	07:27 18:29		07:22 16:29			08:07 16:01	17	14:57 (WEA14) 15:14 (WEA14)
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:26		07:24 16:27			08:08 16:01	16	14:58 (WEA14) 15:14 (WEA14)
13	05:07 21:26	05:52 20:40	06:41 19:33	07:31 18:24		07:25 16:26			08:09 16:01	15	14:59 (WEA14) 15:14 (WEA14)
14	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22		07:27 16:24			08:10 16:01	15	14:59 (WEA14) 15:14 (WEA14)
15	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20		07:29 16:23			08:11 16:01	14	15:00 (WEA14) 15:14 (WEA14)
16	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18		07:31 16:21			08:12 16:01	14	15:01 (WEA14) 15:15 (WEA14)
17	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16		07:32 16:20			08:13 16:02	13	15:01 (WEA14) 15:14 (WEA14)
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:13		07:34 16:19			08:14 16:02	13	15:02 (WEA14) 15:15 (WEA14)
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11		07:36 16:17	2	14:57 (WEA14) 14:59 (WEA14)	08:14 16:02	13	15:03 (WEA14) 15:16 (WEA14)
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09		07:37 16:16	8	14:54 (WEA14) 15:02 (WEA14)	08:15 16:03	12	15:03 (WEA14) 15:15 (WEA14)
21	05:17 21:18	06:04 20:24	06:54 19:14	07:45 18:07		07:39 16:15	11	14:53 (WEA14) 15:04 (WEA14)	08:15 16:03	12	15:04 (WEA14) 15:16 (WEA14)
22	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05		07:41 16:14	14	14:52 (WEA14) 15:06 (WEA14)	08:16 16:03	12	15:04 (WEA14) 15:16 (WEA14)
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	16:44 (WEA15)	07:42 16:13	15	14:51 (WEA14) 15:06 (WEA14)	08:17 16:04	12	15:05 (WEA14) 15:17 (WEA14)
24	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	16:50 (WEA15)	07:44 16:12	16	14:51 (WEA14) 15:07 (WEA14)	08:17 16:05	13	15:05 (WEA14) 15:18 (WEA14)
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	15:38 (WEA15)	07:46 16:11	17	14:51 (WEA14) 15:08 (WEA14)	08:17 16:05	13	15:05 (WEA14) 15:18 (WEA14)
26	05:24 21:11	06:12 20:14	07:02 19:03	06:53 16:57	15:53 (WEA15)	07:47 16:10	18	14:50 (WEA14) 15:08 (WEA14)	08:18 16:06	13	15:06 (WEA14) 15:19 (WEA14)
27	05:25 21:10	06:14 20:11	07:04 19:00	06:55 16:55	15:36 (WEA15)	07:49 16:09	19	14:50 (WEA14) 15:09 (WEA14)	08:18 16:07	14	15:06 (WEA14) 15:20 (WEA14)
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	15:56 (WEA15)	07:50 16:08	19	14:51 (WEA14) 15:10 (WEA14)	08:18 16:07	14	15:06 (WEA14) 15:20 (WEA14)
29	05:28 21:07	06:17 20:07	07:07 18:56	06:59 16:51	15:35 (WEA15)	07:52 16:07	20	14:50 (WEA14) 15:10 (WEA14)	08:18 16:08	15	15:06 (WEA14) 15:21 (WEA14)
30	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	15:56 (WEA15)	07:53 16:06	20	14:51 (WEA14) 15:11 (WEA14)	08:18 16:09	15	15:07 (WEA14) 15:22 (WEA14)
31	05:31 21:03	06:21 20:03		07:02 16:47	15:35 (WEA15)				08:18 16:10	15	15:07 (WEA14) 15:22 (WEA14)
Sonnenscheinstunden	501	453	381	332		267			245		
astr.max.mögl.Beschattung				157		304			474		
Red.Sonnenscheinwahrsch.				0,35		0,21			0,16		
Reduktion Betriebsdauer				0,95		0,95			0,95		
Reduktion Windrichtung				0,68		0,68			0,68		
Gesamte Reduktion				0,23		0,13			0,11		
Met.wahrsch.Beschattung				36		41			50		

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Schattenrezeptor: IP15 - Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19	15:22 (WEA03)	07:52	15:32 (WEA02)	06:59	16:39 (WEA01)	06:49	05:45	05:00		
	16:12	14	15:36 (WEA03)	16:59	36	16:08 (WEA02)	17:50	24	17:03 (WEA01)	19:44	20:34
2	08:18	15:22 (WEA03)	07:51	15:31 (WEA02)	06:57	16:40 (WEA01)	06:47	05:43	04:59		
	16:13	15	15:37 (WEA03)	17:01	37	16:08 (WEA02)	17:52	22	17:02 (WEA01)	19:45	20:36
3	08:18	15:22 (WEA03)	07:49	15:32 (WEA02)	06:55	16:41 (WEA01)	06:44	05:41	04:58		
	16:14	16	15:38 (WEA03)	17:03	38	16:10 (WEA02)	17:54	20	17:01 (WEA01)	19:47	20:37
4	08:18	15:22 (WEA03)	07:47	15:32 (WEA02)	06:53	16:43 (WEA01)	06:42	05:39	04:57		
	16:15	17	15:39 (WEA03)	17:04	38	16:10 (WEA02)	17:56	16	16:59 (WEA01)	19:49	20:39
5	08:18	15:21 (WEA03)	07:46	15:31 (WEA02)	06:50	16:46 (WEA01)	06:40	05:37	04:57		
	16:16	19	15:40 (WEA03)	17:06	39	16:10 (WEA02)	17:57	10	16:56 (WEA01)	19:50	20:41
6	08:18	15:22 (WEA03)	07:44	15:31 (WEA02)	06:48		06:38	05:35	04:56		
	16:17	19	15:41 (WEA03)	17:08	39	16:10 (WEA02)	17:59		19:52	20:42	21:25
7	08:17	08:52 (WEA12)	07:42	15:32 (WEA02)	06:46		06:35	05:34	04:56		
	16:18	25	15:42 (WEA03)	17:10	39	16:11 (WEA02)	18:01		19:54	20:44	21:26
8	08:17	08:52 (WEA12)	07:41	15:32 (WEA02)	06:44		07:07 (WEA22)	06:33	05:32	04:55	
	16:20	28	15:43 (WEA03)	17:12	38	16:10 (WEA02)	18:03	6	07:13 (WEA22)	19:56	20:46
9	08:16	08:51 (WEA12)	07:39	15:32 (WEA02)	06:42		07:04 (WEA22)	06:31	05:30	04:55	
	16:21	32	15:44 (WEA03)	17:14	38	16:10 (WEA02)	18:04	9	07:13 (WEA22)	19:57	20:47
10	08:16	08:50 (WEA12)	07:37	15:33 (WEA02)	06:39		07:03 (WEA22)	06:29	05:28	04:54	
	16:23	33	15:44 (WEA03)	17:16	37	16:10 (WEA02)	18:06	11	07:14 (WEA22)	19:59	20:49
11	08:15	08:51 (WEA12)	07:35	15:33 (WEA02)	06:37		07:03 (WEA22)	06:26	05:27	04:54	
	16:24	35	15:46 (WEA03)	17:17	36	16:09 (WEA02)	18:08	11	07:14 (WEA22)	20:01	20:50
12	08:15	08:51 (WEA12)	07:33	15:34 (WEA02)	06:35		07:03 (WEA22)	06:24	05:25	04:53	
	16:25	37	15:46 (WEA03)	17:19	35	16:09 (WEA02)	18:10	10	07:13 (WEA22)	20:02	20:52
13	08:14	08:51 (WEA12)	07:32	15:34 (WEA02)	06:33		07:03 (WEA22)	06:22	05:24	04:53	
	16:27	38	15:47 (WEA03)	17:21	34	16:08 (WEA02)	18:11	8	07:11 (WEA22)	20:04	20:54
14	08:13	08:51 (WEA12)	07:30	15:35 (WEA02)	06:30		07:06 (WEA22)	06:20	05:22	04:53	
	16:28	39	15:47 (WEA03)	17:23	32	16:07 (WEA02)	18:13	3	07:09 (WEA22)	20:06	20:55
15	08:12	08:51 (WEA12)	07:28	15:36 (WEA02)	06:28			06:18	05:20	04:53	
	16:30	40	15:48 (WEA03)	17:25	30	16:06 (WEA02)	18:15		20:07	20:57	21:31
16	08:12	08:40 (WEA13)	07:26	15:37 (WEA02)	06:26			06:15	05:19	04:53	
	16:31	45	15:49 (WEA03)	17:27	33	16:55 (WEA01)	18:16		20:09	20:58	21:32
17	08:11	08:39 (WEA13)	07:24	07:48 (WEA21)	06:23			06:13	05:17	04:53	
	16:33	48	15:49 (WEA03)	17:28	41	16:59 (WEA01)	18:18		20:11	21:00	21:32
18	08:10	08:38 (WEA13)	07:22	07:46 (WEA21)	06:21			06:11	05:16	04:53	
	16:35	51	15:50 (WEA03)	17:30	45	17:01 (WEA01)	18:20		20:12	21:01	21:33
19	08:09	08:37 (WEA13)	07:20	07:44 (WEA21)	06:19			06:09	05:15	04:53	
	16:36	51	15:50 (WEA03)	17:32	46	17:03 (WEA01)	18:22		20:14	21:03	21:33
20	08:08	08:36 (WEA13)	07:18	07:44 (WEA21)	06:17			06:07	05:13	04:53	
	16:38	54	15:51 (WEA03)	17:34	38	17:04 (WEA01)	18:23		20:16	21:04	21:33
21	08:07	08:35 (WEA13)	07:16	07:44 (WEA21)	06:14			06:05	05:12	04:53	
	16:40	55	15:53 (WEA02)	17:36	34	17:05 (WEA01)	18:25		20:17	21:05	21:34
22	08:06	08:35 (WEA13)	07:14	07:44 (WEA21)	06:12			06:03	05:11	04:53	
	16:41	57	15:56 (WEA02)	17:38	35	17:05 (WEA01)	18:27		20:19	21:07	21:34
23	08:04	08:35 (WEA13)	07:12	07:45 (WEA21)	06:10			06:01	05:09	04:53	
	16:43	56	15:58 (WEA02)	17:39	34	17:06 (WEA01)	18:28		20:21	21:08	21:34
24	08:03	08:35 (WEA13)	07:10	16:38 (WEA01)	06:07			05:59	05:08	04:54	
	16:45	53	16:00 (WEA02)	17:41	27	17:05 (WEA01)	18:30		20:22	21:10	21:34
25	08:02	08:36 (WEA13)	07:08	16:38 (WEA01)	06:05			05:57	05:07	04:54	
	16:46	52	16:01 (WEA02)	17:43	27	17:05 (WEA01)	18:32		20:24	21:11	21:34
26	08:01	08:36 (WEA13)	07:06	16:39 (WEA01)	06:03			05:55	05:06	04:54	
	16:48	53	16:03 (WEA02)	17:45	26	17:05 (WEA01)	18:34		20:26	21:12	21:34
27	07:59	08:36 (WEA13)	07:03	16:39 (WEA01)	06:00			05:53	05:05	04:55	
	16:50	53	16:04 (WEA02)	17:47	26	17:05 (WEA01)	18:35		20:27	21:14	21:34
28	07:58	08:38 (WEA13)	07:01	16:39 (WEA01)	05:58			05:51	05:04	04:55	
	16:52	51	16:06 (WEA02)	17:48	26	17:05 (WEA01)	18:37		20:29	21:15	21:34
29	07:57	08:38 (WEA13)			06:56			05:49	05:03	04:56	
	16:54	50	16:06 (WEA02)		19:39			20:31	21:16	21:34	
30	07:55	08:39 (WEA13)			06:54			05:47	05:02	04:56	
	16:55	46	16:06 (WEA02)		19:40			20:32	21:17	21:34	
31	07:54	08:41 (WEA13)			06:51				05:01		
	16:57	43	16:08 (WEA02)		19:42				21:18		
Sonnenscheinstunden	260		278		367		416		484		498
astr.max.mögl.Beschattung	1225		984		150						
Red.Sonnenscheinwahrsch.	0,19		0,26		0,33						
Reduktion Betriebsdauer	0,95		0,95		0,95						
Reduktion Windrichtung	0,65		0,67		0,63						
Gesamte Reduktion	0,11		0,17		0,20						
Met.wahrsch.Beschattung	140		164		30						

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP15 - Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September		Oktober		November		Dezember			
1	04:57 21:33	05:33 21:02	06:22 20:00		07:11 18:51	10	07:42 (WEA22) 16:46	38	15:02 (WEA02) 15:40 (WEA02)	07:55 16:06	35	08:33 (WEA12) 15:28 (WEA03)
2	04:58 21:33	05:35 21:00	06:24 19:58		07:12 18:49	10	07:42 (WEA22) 16:44	38	15:02 (WEA02) 15:40 (WEA02)	07:56 16:05	33	08:33 (WEA12) 15:27 (WEA03)
3	04:58 21:33	05:36 20:59	06:26 19:56		07:14 18:47	11	07:41 (WEA22) 16:42	38	15:02 (WEA02) 15:40 (WEA02)	07:58 16:05	32	08:35 (WEA12) 15:28 (WEA03)
4	04:59 21:32	05:38 20:57	06:27 19:54		07:16 18:45	10	07:41 (WEA22) 16:40	38	15:02 (WEA02) 15:40 (WEA02)	07:59 16:04	28	08:36 (WEA12) 15:27 (WEA03)
5	05:00 21:32	05:39 20:55	06:29 19:51		07:17 18:42	7	07:43 (WEA22) 16:39	38	15:02 (WEA02) 15:40 (WEA02)	08:00 16:03	26	08:37 (WEA12) 15:27 (WEA03)
6	05:01 21:31	05:41 20:53	06:30 19:49		07:19 18:40	3	07:44 (WEA22) 16:37	38	15:01 (WEA02) 15:39 (WEA02)	08:01 16:03	19	15:08 (WEA03) 15:27 (WEA03)
7	05:02 21:31	05:42 20:52	06:32 19:47		07:21 18:38				07:15 16:35	08:03 16:03	19	15:08 (WEA03) 15:27 (WEA03)
8	05:02 21:30	05:44 20:50	06:34 19:45		07:22 18:36	5	17:24 (WEA01) 16:34	37	15:02 (WEA02) 15:39 (WEA02)	08:04 16:02	18	15:09 (WEA03) 15:27 (WEA03)
9	05:03 21:30	05:45 20:48	06:35 19:42		07:24 18:33	13	17:19 (WEA01) 17:32 (WEA01)		07:18 16:32	08:05 16:02	16	15:11 (WEA03) 15:27 (WEA03)
10	05:04 21:29	05:47 20:46	06:37 19:40		07:26 18:31	18	17:16 (WEA01) 17:34 (WEA01)	37	15:03 (WEA02) 15:39 (WEA02)	08:06 16:02	15	15:12 (WEA03) 15:27 (WEA03)
11	05:05 21:28	05:49 20:44	06:38 19:38		07:28 18:29	21	17:15 (WEA01) 17:36 (WEA01)		07:22 16:29	08:07 16:02	15	15:12 (WEA03) 15:27 (WEA03)
12	05:06 21:27	05:50 20:42	06:40 19:35		07:29 18:27	23	17:14 (WEA01) 17:37 (WEA01)	47	07:24 16:27	08:08 16:02	13	15:13 (WEA03) 15:26 (WEA03)
13	05:08 21:26	05:52 20:40	06:42 19:33		07:31 18:24	24	17:12 (WEA01) 17:36 (WEA01)	50	07:25 16:26	08:09 16:01	12	15:14 (WEA03) 15:26 (WEA03)
14	05:09 21:25	05:53 20:38	06:43 19:31		07:33 18:22	26	17:11 (WEA01) 17:37 (WEA01)	51	07:27 16:24	08:10 16:01	10	15:16 (WEA03) 15:26 (WEA03)
15	05:10 21:24	05:55 20:37	06:45 19:28		07:34 18:20	26	17:11 (WEA01) 17:37 (WEA01)	53	07:29 16:23	08:11 16:02	9	15:17 (WEA03) 15:26 (WEA03)
16	05:11 21:23	05:57 20:35	06:46 19:26		07:36 18:18	26	17:11 (WEA01) 17:37 (WEA01)	53	07:31 16:21	08:12 16:02	8	15:18 (WEA03) 15:26 (WEA03)
17	05:12 21:22	05:58 20:33	06:48 19:24		07:38 18:16	26	17:11 (WEA01) 17:37 (WEA01)	52	07:32 16:20	08:13 16:02	7	15:18 (WEA03) 15:25 (WEA03)
18	05:13 21:21	06:00 20:30	06:50 19:21		07:39 18:14	30	08:17 (WEA21) 17:36 (WEA01)	52	07:34 16:19	08:14 16:02	5	15:20 (WEA03) 15:25 (WEA03)
19	05:15 21:20	06:01 20:28	06:51 19:19		07:41 18:12	34	08:15 (WEA21) 17:36 (WEA01)	56	07:36 16:17	08:14 16:02	4	15:21 (WEA03) 15:25 (WEA03)
20	05:16 21:19	06:03 20:26	06:53 19:17		07:43 18:09	35	08:14 (WEA21) 17:35 (WEA01)	57	07:37 16:16	08:15 16:03	3	15:22 (WEA03) 15:25 (WEA03)
21	05:17 21:18	06:05 20:24	06:54 19:15		07:45 18:07	35	08:14 (WEA21) 17:35 (WEA01)	55	07:39 16:15	08:16 16:03	2	15:23 (WEA03) 15:25 (WEA03)
22	05:19 21:17	06:06 20:22	06:56 19:12		07:46 18:05	42	08:14 (WEA21) 17:34 (WEA01)	54	07:41 16:14	08:16 16:04	2	15:23 (WEA03) 15:25 (WEA03)
23	05:20 21:15	06:08 20:20	06:58 19:10		07:48 18:03	47	08:15 (WEA21) 17:33 (WEA01)	51	07:42 16:13	08:17 16:04	2	15:24 (WEA03) 15:26 (WEA03)
24	05:21 21:14	06:09 20:18	06:59 19:08		07:50 18:01	44	08:17 (WEA21) 17:31 (WEA01)	51	07:44 16:12	08:15 16:05	4	15:23 (WEA03) 15:27 (WEA03)
25	05:23 21:13	06:11 20:16	07:01 19:05		06:52 16:59	38	15:08 (WEA02) 16:28 (WEA01)	48	07:46 16:11	08:17 16:05	5	15:23 (WEA03) 15:28 (WEA03)
26	05:24 21:11	06:13 20:14	07:03 19:03		06:53 16:57	28	15:07 (WEA02) 15:35 (WEA02)	45	07:47 16:10	08:18 16:06	7	15:23 (WEA03) 15:30 (WEA03)
27	05:26 21:10	06:14 20:11	07:04 19:01		06:55 16:55	31	15:05 (WEA02) 15:36 (WEA02)	39	07:49 16:09	08:18 16:07	8	15:23 (WEA03) 15:31 (WEA03)
28	05:27 21:08	06:16 20:09	07:06 18:58		06:57 16:53	33	15:04 (WEA02) 15:37 (WEA02)	40	07:50 16:08	08:18 16:08	9	15:23 (WEA03) 15:32 (WEA03)
29	05:29 21:07	06:17 20:07	07:08 18:56		06:59 16:51	34	15:04 (WEA02) 15:38 (WEA02)	38	07:52 16:07	08:18 16:08	10	15:23 (WEA03) 15:33 (WEA03)
30	05:30 21:05	06:19 20:05	07:09 18:54	07:44 (WEA22)	07:01 16:49	36	15:03 (WEA02) 15:39 (WEA02)	36	07:53 16:06	08:18 16:09	12	15:22 (WEA03) 15:34 (WEA03)
31	05:32 21:04	06:21 20:03		07:50 (WEA22)	07:02 16:48	36	15:03 (WEA02) 15:39 (WEA02)			08:19 16:10	13	15:22 (WEA03) 15:35 (WEA03)
Sonnenscheinstunden	501	453	381		332		267		245			
astr.max.mögl.Beschattung			6		762		1348				401	
Red.Sonnenscheinwahrsch.			0,42		0,35		0,21				0,16	
Reduktion Betriebsdauer			0,95		0,95		0,95				0,95	
Reduktion Windrichtung			0,60		0,66		0,65				0,66	
Gesamte Reduktion			0,24		0,22		0,13				0,10	
Met.wahrsch.Beschattung			1		168		173				42	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP16 - Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April	Mai	Juni
1	08:19	08:55 (WEA13)	07:52	16:05 (WEA01)	06:59	06:49	05:45	05:00
	16:12	52 15:12 (WEA02)	16:59	22 16:27 (WEA01)	17:50	19:44	20:34	21:20
2	08:18	08:55 (WEA13)	07:51	16:04 (WEA01)	06:57	06:47	05:43	04:59
	16:13	47 15:12 (WEA02)	17:01	23 16:27 (WEA01)	17:52	19:45	20:36	21:21
3	08:18	08:56 (WEA13)	07:49	16:04 (WEA01)	06:55	06:44	05:41	04:58
	16:14	47 15:12 (WEA02)	17:03	25 16:29 (WEA01)	17:54	19:47	20:37	21:22
4	08:18	08:57 (WEA13)	07:47	16:04 (WEA01)	06:53	06:42	05:39	04:57
	16:15	46 15:13 (WEA02)	17:04	25 16:29 (WEA01)	17:56	19:49	20:39	21:23
5	08:18	08:57 (WEA13)	07:46	16:03 (WEA01)	06:50	06:40	05:37	04:57
	16:16	46 15:13 (WEA02)	17:06	26 16:29 (WEA01)	17:57	19:50	20:41	21:24
6	08:18	08:58 (WEA13)	07:44	16:03 (WEA01)	06:48	06:38	05:35	04:56
	16:17	45 15:14 (WEA02)	17:08	26 16:29 (WEA01)	17:59	19:52	20:42	21:25
7	08:17	08:59 (WEA13)	07:42	16:04 (WEA01)	06:46	06:35	05:34	04:56
	16:18	44 15:14 (WEA02)	17:10	26 16:30 (WEA01)	18:01	19:54	20:44	21:26
8	08:17	09:01 (WEA13)	07:41	16:04 (WEA01)	06:44	06:33	05:32	04:55
	16:20	42 15:15 (WEA02)	17:12	26 16:30 (WEA01)	18:03	19:56	20:46	21:26
9	08:16	09:02 (WEA13)	07:39	16:04 (WEA01)	06:42	06:31	05:30	04:55
	16:21	40 15:15 (WEA02)	17:14	26 16:30 (WEA01)	18:04	19:57	20:47	21:27
10	08:16	14:40 (WEA02)	07:37	16:04 (WEA01)	06:39	06:29	05:28	04:54
	16:22	35 15:15 (WEA02)	17:16	26 16:30 (WEA01)	18:06	19:59	20:49	21:28
11	08:15	14:41 (WEA02)	07:35	16:05 (WEA01)	06:37	06:26	05:27	04:54
	16:24	35 15:16 (WEA02)	17:17	24 16:29 (WEA01)	18:08	20:01	20:50	21:29
12	08:15	14:42 (WEA02)	07:33	16:06 (WEA01)	06:35	06:24	05:25	04:53
	16:25	34 15:16 (WEA02)	17:19	22 16:28 (WEA01)	18:10	20:02	20:52	21:30
13	08:14	14:42 (WEA02)	07:32	16:07 (WEA01)	06:33	06:22	05:24	04:53
	16:27	35 15:17 (WEA02)	17:21	20 16:27 (WEA01)	18:11	20:04	20:54	21:30
14	08:13	14:42 (WEA02)	07:30	16:08 (WEA01)	06:30	06:20	05:22	04:53
	16:28	35 15:17 (WEA02)	17:23	18 16:26 (WEA01)	18:13	20:06	20:55	21:31
15	08:12	14:43 (WEA02)	07:28	16:09 (WEA01)	06:28	06:18	05:20	04:53
	16:30	34 15:17 (WEA02)	17:25	15 16:24 (WEA01)	18:15	20:07	20:57	21:31
16	08:12	14:44 (WEA02)	07:26	16:12 (WEA01)	06:26	06:15	05:19	04:53
	16:31	33 15:17 (WEA02)	17:27	10 16:22 (WEA01)	18:16	20:09	20:58	21:32
17	08:11	14:44 (WEA02)	07:24		06:23	06:13	05:17	04:53
	16:33	33 15:17 (WEA02)	17:28		18:18	20:11	21:00	21:32
18	08:10	14:45 (WEA02)	07:22		06:21	06:11	05:16	04:53
	16:35	32 15:17 (WEA02)	17:30		18:20	20:12	21:01	21:33
19	08:09	14:46 (WEA02)	07:20		06:19	06:09	05:15	04:53
	16:36	31 15:17 (WEA02)	17:32		18:22	20:14	21:03	21:33
20	08:08	14:47 (WEA02)	07:18		06:17	06:07	05:13	04:53
	16:38	30 15:17 (WEA02)	17:34		18:23	20:16	21:04	21:33
21	08:07	14:47 (WEA02)	07:16		06:14	06:05	05:12	04:53
	16:40	29 15:16 (WEA02)	17:36		18:25	20:17	21:05	21:34
22	08:06	14:49 (WEA02)	07:14		06:12	06:03	05:11	04:53
	16:41	27 15:16 (WEA02)	17:38		18:27	20:19	21:07	21:34
23	08:04	14:50 (WEA02)	07:12		06:10	06:01	05:09	04:53
	16:43	26 15:16 (WEA02)	17:39		18:28	20:21	21:08	21:34
24	08:03	14:51 (WEA02)	07:10		06:07	05:59	05:08	04:54
	16:45	23 15:14 (WEA02)	17:41		18:30	20:22	21:10	21:34
25	08:02	14:53 (WEA02)	07:08		06:05	05:57	05:07	04:54
	16:46	21 15:14 (WEA02)	17:43		18:32	20:24	21:11	21:34
26	08:01	14:56 (WEA02)	07:06		06:03	05:55	05:06	04:54
	16:48	17 15:13 (WEA02)	17:45		18:34	20:26	21:12	21:34
27	07:59	14:58 (WEA02)	07:03		06:00	05:53	05:05	04:55
	16:50	12 15:10 (WEA02)	17:47		18:35	20:27	21:14	21:34
28	07:58	16:11 (WEA01)	07:01		05:58	05:51	05:04	04:55
	16:52	10 16:21 (WEA01)	17:48		18:37	20:29	21:15	21:34
29	07:57	16:08 (WEA01)			06:56	05:49	05:03	04:56
	16:54	15 16:23 (WEA01)			19:39	20:31	21:16	21:34
30	07:55	16:07 (WEA01)			06:54	05:47	05:02	04:56
	16:55	17 16:24 (WEA01)			19:40	20:32	21:17	21:34
31	07:54	16:06 (WEA01)			06:51		05:01	
	16:57	20 16:26 (WEA01)			19:42		21:18	
Sonnenscheinstunden	260		278		367	416	484	498
astr.max.mögl.Beschattung	993		360					
Red.Sonnenscheinwahrsch.	0,19		0,26					
Reduktion Betriebsdauer	0,95		0,95					
Reduktion Windrichtung	0,68		0,68					
Gesamte Reduktion	0,12		0,17					
Met.wahrsch.Beschattung	119		61					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenende
			(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierte Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP16 - Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57	05:33	06:22	07:11	07:04	15:34 (WEA01) 07:55 14:23 (WEA02)
	21:33	21:02	20:00	18:51	16:46 25	15:59 (WEA01) 16:06 35 14:58 (WEA02)
2	04:58	05:35	06:24	07:12	07:06	15:34 (WEA01) 07:56 14:23 (WEA02)
	21:33	21:00	19:58	18:49	16:44 26	16:00 (WEA01) 16:05 35 14:58 (WEA02)
3	04:58	05:36	06:26	07:14	07:08	15:34 (WEA01) 07:58 08:46 (WEA13)
	21:33	20:59	19:56	18:47	16:42 26	16:00 (WEA01) 16:05 40 14:59 (WEA02)
4	04:59	05:38	06:27	07:16	07:09	15:34 (WEA01) 07:59 08:45 (WEA13)
	21:32	20:57	19:54	18:45	16:40 26	16:00 (WEA01) 16:04 42 14:59 (WEA02)
5	05:00	05:39	06:29	07:17	07:11	15:34 (WEA01) 08:00 08:44 (WEA13)
	21:32	20:55	19:51	18:42	16:39 26	16:00 (WEA01) 16:03 44 14:59 (WEA02)
6	05:01	05:41	06:30	07:19	07:13	15:33 (WEA01) 08:01 08:45 (WEA13)
	21:31	20:53	19:49	18:40	16:37 26	15:59 (WEA01) 16:03 44 15:00 (WEA02)
7	05:02	05:42	06:32	07:21	07:15	15:34 (WEA01) 08:03 08:44 (WEA13)
	21:31	20:52	19:47	18:38	16:35 25	15:59 (WEA01) 16:03 46 15:00 (WEA02)
8	05:02	05:44	06:34	07:22	07:17	15:34 (WEA01) 08:04 08:44 (WEA13)
	21:30	20:50	19:45	18:36	16:34 24	15:58 (WEA01) 16:02 46 15:00 (WEA02)
9	05:03	05:45	06:35	07:24	07:18	15:35 (WEA01) 08:05 08:45 (WEA13)
	21:30	20:48	19:42	18:33	16:32 23	15:58 (WEA01) 16:02 47 15:02 (WEA02)
10	05:04	05:47	06:37	07:26	07:20	15:36 (WEA01) 08:06 08:45 (WEA13)
	21:29	20:46	19:40	18:31	16:30 21	15:57 (WEA01) 16:02 47 15:02 (WEA02)
11	05:05	05:49	06:38	07:28	07:22	15:37 (WEA01) 08:07 08:45 (WEA13)
	21:28	20:44	19:38	18:29	16:29 20	15:57 (WEA01) 16:02 51 15:02 (WEA02)
12	05:06	05:50	06:40	07:29	07:24	15:38 (WEA01) 08:08 08:45 (WEA13)
	21:27	20:42	19:35	18:27	16:27 18	15:56 (WEA01) 16:02 53 15:02 (WEA02)
13	05:08	05:52	06:42	07:31	07:25	15:40 (WEA01) 08:09 08:46 (WEA13)
	21:26	20:40	19:33	18:24	16:26 14	15:54 (WEA01) 16:01 55 15:03 (WEA02)
14	05:09	05:53	06:43	07:33	07:27	14:35 (WEA02) 08:10 08:46 (WEA13)
	21:25	20:39	19:31	18:22	16:24 12	15:52 (WEA01) 16:01 55 15:03 (WEA02)
15	05:10	05:55	06:45	07:34	07:29	14:30 (WEA02) 08:11 08:47 (WEA13)
	21:24	20:37	19:28	18:20	16:23 13	14:43 (WEA02) 16:02 55 15:04 (WEA02)
16	05:11	05:57	06:46	07:36	07:31	14:28 (WEA02) 08:12 08:47 (WEA13)
	21:23	20:35	19:26	18:18	16:21 18	14:46 (WEA02) 16:02 55 15:04 (WEA02)
17	05:12	05:58	06:48	07:38	07:32	14:26 (WEA02) 08:13 08:47 (WEA13)
	21:22	20:33	19:24	18:16	16:20 21	14:47 (WEA02) 16:02 55 15:04 (WEA02)
18	05:13	06:00	06:50	07:39	07:34	14:25 (WEA02) 08:14 08:48 (WEA13)
	21:21	20:30	19:21	18:14	16:19 23	14:48 (WEA02) 16:02 55 15:04 (WEA02)
19	05:15	06:01	06:51	07:41	07:36	14:24 (WEA02) 08:14 08:48 (WEA13)
	21:20	20:28	19:19	18:12	16:17 26	14:50 (WEA02) 16:02 56 15:05 (WEA02)
20	05:16	06:03	06:53	07:43	07:37	14:24 (WEA02) 08:15 08:48 (WEA13)
	21:19	20:26	19:17	18:09	16:16 27	14:51 (WEA02) 16:03 56 15:05 (WEA02)
21	05:17	06:05	06:54	07:45	07:39	14:23 (WEA02) 08:16 08:49 (WEA13)
	21:18	20:24	19:15	18:07	16:15 29	14:52 (WEA02) 16:03 56 15:06 (WEA02)
22	05:19	06:06	06:56	07:46	07:41	14:23 (WEA02) 08:16 08:49 (WEA13)
	21:17	20:22	19:12	18:05	16:14 30	14:53 (WEA02) 16:04 56 15:06 (WEA02)
23	05:20	06:08	06:58	07:48	07:42	14:22 (WEA02) 08:17 08:50 (WEA13)
	21:15	20:20	19:10	18:03	16:13 31	14:53 (WEA02) 16:04 56 15:07 (WEA02)
24	05:21	06:09	06:59	07:50	07:44	14:22 (WEA02) 08:17 08:50 (WEA13)
	21:14	20:18	19:08	18:01	16:12 32	14:54 (WEA02) 16:05 56 15:07 (WEA02)
25	05:23	06:11	07:01	06:52	07:46	14:22 (WEA02) 08:17 08:50 (WEA13)
	21:13	20:16	19:05	16:59	16:11 33	14:55 (WEA02) 16:05 56 15:07 (WEA02)
26	05:24	06:13	07:03	06:53	15:41 (WEA01) 07:47	14:23 (WEA02) 08:18 08:52 (WEA13)
	21:11	20:14	19:03	16:57	11 15:52 (WEA01) 16:10	33 14:56 (WEA02) 16:06 55 15:09 (WEA02)
27	05:26	06:14	07:04	06:55	15:39 (WEA01) 07:49	14:22 (WEA02) 08:18 08:52 (WEA13)
	21:10	20:11	19:01	16:55	15 15:54 (WEA01) 16:09	34 14:56 (WEA02) 16:07 55 15:09 (WEA02)
28	05:27	06:16	07:06	06:57	15:37 (WEA01) 07:50	14:23 (WEA02) 08:18 08:52 (WEA13)
	21:08	20:09	18:58	16:53	19 15:56 (WEA01) 16:08	34 14:57 (WEA02) 16:08 55 15:09 (WEA02)
29	05:29	06:17	07:08	06:59	15:36 (WEA01) 07:52	14:23 (WEA02) 08:18 08:53 (WEA13)
	21:07	20:07	18:56	16:51	21 15:57 (WEA01) 16:07	35 14:58 (WEA02) 16:08 54 15:10 (WEA02)
30	05:30	06:19	07:09	07:01	15:35 (WEA01) 07:53	14:23 (WEA02) 08:19 08:53 (WEA13)
	21:05	20:05	18:54	16:49	23 15:58 (WEA01) 16:06	35 14:58 (WEA02) 16:09 55 15:10 (WEA02)
31	05:32	06:21	07:12	07:02	15:34 (WEA01) 08:19	08:54 (WEA13)
	21:04	20:03	16:48	25 15:59 (WEA01)	16:10	54 15:11 (WEA02)
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung				114	766	1580
Red.Sonnenscheinwahrsch.				0,35	0,21	0,16
Reduktion Betriebsdauer				0,95	0,95	0,95
Reduktion Windrichtung				0,68	0,68	0,66
Gesamte Reduktion				0,23	0,13	0,10
Met.wahrsch.Beschattung				26	103	164

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP18 - Am Sportplatz 8, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar		Februar			März	April	Mai	Juni
1	08:19	08:51 (WEA03)	07:52		08:36 (WEA01)	06:59	06:49	05:45	05:00
	16:12	21 09:12 (WEA03)	16:59	34	09:10 (WEA01)	17:50	19:44	20:34	21:20
2	08:19	08:52 (WEA03)	07:51		08:36 (WEA01)	06:57	06:47	05:43	04:59
	16:13	21 09:13 (WEA03)	17:01	35	09:11 (WEA01)	17:52	19:46	20:36	21:21
3	08:18	08:51 (WEA03)	07:49		08:36 (WEA01)	06:55	06:45	05:41	04:58
	16:14	22 09:13 (WEA03)	17:03	35	09:11 (WEA01)	17:54	19:47	20:38	21:22
4	08:18	08:52 (WEA03)	07:48		08:35 (WEA01)	06:53	06:42	05:39	04:58
	16:15	22 09:14 (WEA03)	17:05	36	09:11 (WEA01)	17:56	19:49	20:39	21:23
5	08:18	08:51 (WEA03)	07:46		08:35 (WEA01)	06:51	06:40	05:37	04:57
	16:16	23 09:14 (WEA03)	17:06	36	09:11 (WEA01)	17:57	19:51	20:41	21:24
6	08:18	08:52 (WEA03)	07:44		08:36 (WEA01)	06:48	06:38	05:36	04:56
	16:17	24 09:16 (WEA03)	17:08	36	09:12 (WEA01)	17:59	19:52	20:42	21:25
7	08:17	08:52 (WEA03)	07:43		08:08 (WEA02)	06:46	06:36	05:34	04:56
	16:19	24 09:16 (WEA03)	17:10	45	09:12 (WEA01)	18:01	19:54	20:44	21:26
8	08:17	08:53 (WEA03)	07:41		08:06 (WEA02)	06:44	06:33	05:32	04:55
	16:20	24 09:17 (WEA03)	17:12	49	09:12 (WEA01)	18:03	19:56	20:46	21:27
9	08:16	08:52 (WEA03)	07:39		08:04 (WEA02)	06:42	06:31	05:30	04:55
	16:21	25 09:17 (WEA03)	17:14	52	09:11 (WEA01)	18:04	19:57	20:47	21:27
10	08:16	08:53 (WEA03)	07:37		08:03 (WEA02)	06:39	06:29	05:29	04:54
	16:23	25 09:18 (WEA03)	17:16	54	09:11 (WEA01)	18:06	19:59	20:49	21:28
11	08:15	08:53 (WEA03)	07:35		08:02 (WEA02)	06:37	06:27	05:27	04:54
	16:24	26 09:19 (WEA03)	17:18	54	09:10 (WEA01)	18:08	20:01	20:51	21:29
12	08:15	08:54 (WEA03)	07:34		08:01 (WEA02)	06:35	06:24	05:25	04:54
	16:25	25 09:19 (WEA03)	17:19	55	09:09 (WEA01)	18:10	20:02	20:52	21:30
13	08:14	08:54 (WEA03)	07:32		08:00 (WEA02)	06:33	06:22	05:24	04:53
	16:27	25 09:19 (WEA03)	17:21	55	09:09 (WEA01)	18:11	20:04	20:54	21:30
14	08:13	08:54 (WEA03)	07:30		08:00 (WEA02)	06:30	06:20	05:22	04:53
	16:28	26 09:20 (WEA03)	17:23	53	09:08 (WEA01)	18:13	20:06	20:55	21:31
15	08:12	08:54 (WEA03)	07:28		08:00 (WEA02)	06:28	06:18	05:21	04:53
	16:30	26 09:20 (WEA03)	17:25	51	09:06 (WEA01)	18:15	20:07	20:57	21:31
16	08:12	08:55 (WEA03)	07:26		08:00 (WEA02)	06:26	06:16	05:19	04:53
	16:32	25 09:20 (WEA03)	17:27	48	09:05 (WEA01)	18:17	20:09	20:58	21:32
17	08:11	08:55 (WEA03)	07:24		08:00 (WEA02)	06:24	06:13	05:18	04:53
	16:33	26 09:21 (WEA03)	17:29	43	09:03 (WEA01)	18:18	20:11	21:00	21:32
18	08:10	08:56 (WEA03)	07:22		08:00 (WEA02)	06:21	06:11	05:16	04:53
	16:35	25 09:21 (WEA03)	17:30	38	09:00 (WEA01)	18:20	20:13	21:01	21:33
19	08:09	08:57 (WEA03)	07:20		08:01 (WEA02)	06:19	06:09	05:15	04:53
	16:36	24 09:21 (WEA03)	17:32	23	08:24 (WEA02)	18:22	20:14	21:03	21:33
20	08:08	08:57 (WEA03)	07:18		08:02 (WEA02)	06:17	06:07	05:13	04:53
	16:38	24 09:21 (WEA03)	17:34	21	08:23 (WEA02)	18:23	20:16	21:04	21:34
21	08:07	08:47 (WEA01)	07:16		08:03 (WEA02)	06:14	06:05	05:12	04:53
	16:40	28 09:20 (WEA03)	17:36	19	08:22 (WEA02)	18:25	20:18	21:06	21:34
22	08:06	08:44 (WEA01)	07:14		08:04 (WEA02)	06:12	06:03	05:11	04:53
	16:41	34 09:20 (WEA03)	17:38	16	08:20 (WEA02)	18:27	20:19	21:07	21:34
23	08:04	08:42 (WEA01)	07:12		08:06 (WEA02)	06:10	06:01	05:09	04:53
	16:43	37 09:20 (WEA03)	17:39	12	08:18 (WEA02)	18:29	20:21	21:08	21:34
24	08:03	08:40 (WEA01)	07:10		08:11 (WEA02)	06:07	05:59	05:08	04:54
	16:45	39 09:19 (WEA03)	17:41	2	08:13 (WEA02)	18:30	20:23	21:10	21:34
25	08:02	08:40 (WEA01)	07:08			06:05	05:57	05:07	04:54
	16:47	38 09:18 (WEA03)	17:43			18:32	20:24	21:11	21:34
26	08:01	08:39 (WEA01)	07:06			06:03	05:55	05:06	04:54
	16:48	39 09:18 (WEA03)	17:45			18:34	20:26	21:12	21:34
27	07:59	08:38 (WEA01)	07:04			06:01	05:53	05:05	04:55
	16:50	36 09:15 (WEA03)	17:47			18:35	20:28	21:14	21:34
28	07:58	08:38 (WEA01)	07:01			05:58	05:51	05:04	04:55
	16:52	29 09:07 (WEA01)	17:49			18:37	20:29	21:15	21:34
29	07:57	08:37 (WEA01)				06:56	05:49	05:03	04:56
	16:54	30 09:07 (WEA01)				19:39	20:31	21:16	21:34
30	07:55	08:37 (WEA01)				06:54	05:47	05:02	04:56
	16:55	32 09:09 (WEA01)				19:40	20:33	21:17	21:34
31	07:54	08:36 (WEA01)				06:51		05:01	
	16:57	33 09:09 (WEA01)				19:42		21:19	
Sonnenscheinstunden	260		278			367	416	484	498
astr.max.mögl.Beschattung	858		902						
Red.Sonnenscheinwahrsch.	0,19		0,26						
Reduktion Betriebsdauer	0,95		0,95						
Reduktion Windrichtung	0,57		0,58						
Gesamte Reduktion	0,10		0,14						
Met.wahrsch.Beschattung	87		130						

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP18 - Am Sportplatz 8, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Jul	August	September	Oktober		November	Dezember
1	04:57 21:34	05:33 21:02	06:22 20:01	07:11 18:52		07:04 16:46	07:32 (WEA02) 16:06 (WEA01)
2	04:58 21:33	05:35 21:00	06:24 19:58	07:13 18:49		07:06 16:44	07:34 (WEA02) 16:05 (WEA01)
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47		07:08 16:42	07:36 (WEA02) 16:05 (WEA01)
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45		07:10 16:40	07:39 (WEA02) 16:04 (WEA01)
5	05:00 21:32	05:39 20:55	06:29 19:52	07:18 18:42		07:11 16:39	08:06 (WEA01) 16:04 (WEA01)
6	05:01 21:31	05:41 20:54	06:30 19:49	07:19 18:40		07:13 16:37	08:06 (WEA01) 16:03 (WEA01)
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38		07:15 16:35	08:06 (WEA01) 16:03 (WEA01)
8	05:03 21:30	05:44 20:50	06:34 19:45	07:23 18:36		07:17 16:34	08:05 (WEA01) 16:02 (WEA01)
9	05:04 21:30	05:46 20:48	06:35 19:42	07:24 18:33		07:19 16:32	08:06 (WEA01) 16:02 (WEA01)
10	05:05 21:29	05:47 20:46	06:37 19:40	07:26 18:31		07:20 16:30	08:06 (WEA01) 16:02 (WEA01)
11	05:06 21:28	05:49 20:44	06:39 19:38	07:28 18:29		07:22 16:29	08:07 (WEA01) 16:02 (WEA01)
12	05:07 21:27	05:50 20:43	06:40 19:36	07:29 18:27		07:24 16:27	08:08 (WEA01) 16:02 (WEA01)
13	05:08 21:26	05:52 20:41	06:42 19:33	07:31 18:25		07:26 16:26	08:09 (WEA01) 16:02 (WEA01)
14	05:09 21:26	05:53 20:39	06:43 19:31	07:33 18:22		07:27 16:24	08:10 (WEA01) 16:02 (WEA01)
15	05:10 21:25	05:55 20:37	06:45 19:29	07:34 18:20		07:29 16:23	08:11 (WEA01) 16:02 (WEA01)
16	05:11 21:24	05:57 20:35	06:47 19:26	07:36 18:18		07:31 16:22	08:12 (WEA01) 16:02 (WEA01)
17	05:12 21:23	05:58 20:33	06:48 19:24	07:38 18:16		07:32 16:20	08:14 (WEA01) 16:02 (WEA01)
18	05:14 21:21	06:00 20:31	06:50 19:22	07:40 18:14	08:40 (WEA02)	07:34 16:19	08:14 (WEA01) 16:02 (WEA01)
19	05:15 21:20	06:01 20:29	06:51 19:19	07:41 18:12	08:47 (WEA02)	07:36 16:18	08:16 (WEA01) 16:03 (WEA01)
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:10	08:49 (WEA02)	07:38 16:16	08:19 (WEA01) 16:03 (WEA01)
21	05:17 21:18	06:05 20:24	06:55 19:15	07:45 18:07	08:51 (WEA02)	07:39 16:15	08:23 (WEA01) 16:03 (WEA01)
22	05:19 21:17	06:06 20:22	06:56 19:12	07:47 18:05	08:33 (WEA02)	07:41 16:14	08:26 (WEA01) 16:04 (WEA01)
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	08:31 (WEA02)	07:43 16:13	08:34 (WEA01) 16:04 (WEA01)
24	05:22 21:14	06:10 20:18	06:59 19:08	07:50 18:01	09:27 (WEA01)	07:44 16:12	08:33 (WEA01) 16:05 (WEA01)
25	05:23 21:13	06:11 20:16	07:01 19:05	06:52 16:59	09:31 (WEA01)	07:46 16:11	08:35 (WEA01) 16:05 (WEA01)
26	05:24 21:11	06:13 20:14	07:03 19:03	06:54 16:57	08:34 (WEA01)	07:47 16:10	08:34 (WEA01) 16:06 (WEA01)
27	05:26 21:10	06:14 20:12	07:04 19:01	06:55 16:55	07:29 (WEA02)	07:49 16:09	08:33 (WEA01) 16:07 (WEA01)
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	08:36 (WEA01)	07:50 16:08	08:34 (WEA01) 16:08 (WEA01)
29	05:29 21:07	06:18 20:07	07:08 18:56	06:59 16:51	08:37 (WEA01)	07:52 16:07	08:35 (WEA01) 16:09 (WEA01)
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:50	07:30 (WEA02)	07:53 16:07	08:36 (WEA01) 16:09 (WEA01)
31	05:32 21:04	06:21 20:03	07:02 18:48	07:02 16:48	08:39 (WEA01)	07:54 16:08	08:37 (WEA01) 16:10 (WEA01)
Sonnenscheinstunden	501	453	381	332		267	245
astr.max.mögl.Beschattung				510		1009	630
Red.Sonnenscheinwahrsch.				0,35		0,21	0,16
Reduktion Betriebsdauer				0,95		0,95	0,95
Reduktion Windrichtung				0,58		0,57	0,57
Gesamte Reduktion				0,20		0,11	0,09
Met.wahrsch.Beschattung				100		114	56

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP19 - Vor d. Heide 10, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März	April	Mai	Juni
1	08:19	07:52		08:18 (WEA02)	06:59	06:49	05:45
	16:12	16:59	46	09:26 (WEA01)	17:50	19:44	20:34
2	08:19	07:51		08:17 (WEA02)	06:57	06:47	05:43
	16:13	17:01	48	09:26 (WEA01)	17:52	19:46	20:36
3	08:18	07:49		08:16 (WEA02)	06:55	06:45	05:41
	16:14	17:03	48	09:25 (WEA01)	17:54	19:47	20:38
4	08:18	08:59 (WEA01)	07:48	08:15 (WEA02)	06:53	06:42	05:39
	16:15	7 09:06 (WEA01)	17:05	09:24 (WEA01)	17:56	19:49	20:39
5	08:18	08:57 (WEA01)	07:46	08:15 (WEA02)	06:51	06:40	05:37
	16:16	11 09:08 (WEA01)	17:06	09:23 (WEA01)	17:57	19:51	20:41
6	08:18	08:57 (WEA01)	07:44	08:15 (WEA02)	06:48	06:38	05:36
	16:17	13 09:10 (WEA01)	17:08	09:22 (WEA01)	17:59	19:52	20:42
7	08:17	08:55 (WEA01)	07:43	08:15 (WEA02)	06:46	06:36	05:34
	16:19	16 09:11 (WEA01)	17:10	09:20 (WEA01)	18:01	19:54	20:44
8	08:17	08:55 (WEA01)	07:41	08:15 (WEA02)	06:44	06:33	05:32
	16:20	18 09:13 (WEA01)	17:12	09:17 (WEA01)	18:03	19:56	20:46
9	08:16	08:55 (WEA01)	07:39	08:15 (WEA02)	06:42	06:31	05:30
	16:21	19 09:14 (WEA01)	17:14	08:39 (WEA02)	18:04	19:57	20:47
10	08:16	08:55 (WEA01)	07:37	08:15 (WEA02)	06:39	06:29	05:29
	16:23	21 09:16 (WEA01)	17:16	08:38 (WEA02)	18:06	19:59	20:49
11	08:15	08:54 (WEA01)	07:35	08:16 (WEA02)	06:37	06:27	05:27
	16:24	23 09:17 (WEA01)	17:18	08:38 (WEA02)	18:08	20:01	20:51
12	08:15	08:54 (WEA01)	07:34	08:16 (WEA02)	06:35	06:24	05:25
	16:25	24 09:18 (WEA01)	17:19	08:37 (WEA02)	18:10	20:02	20:52
13	08:14	08:53 (WEA01)	07:32	08:17 (WEA02)	06:33	06:22	05:24
	16:27	26 09:19 (WEA01)	17:21	08:36 (WEA02)	18:11	20:04	20:54
14	08:13	08:53 (WEA01)	07:30	08:18 (WEA02)	06:30	06:20	05:22
	16:28	27 09:20 (WEA01)	17:23	08:35 (WEA02)	18:13	20:06	20:55
15	08:13	08:53 (WEA01)	07:28	08:20 (WEA02)	06:28	06:18	05:21
	16:30	27 09:20 (WEA01)	17:25	08:33 (WEA02)	18:15	20:07	20:57
16	08:12	08:52 (WEA01)	07:26	08:23 (WEA02)	06:26	06:16	05:19
	16:32	29 09:21 (WEA01)	17:27	08:30 (WEA02)	18:17	20:09	20:58
17	08:11	08:52 (WEA01)	07:24		06:24	06:13	05:18
	16:33	30 09:22 (WEA01)	17:29		18:18	20:11	21:00
18	08:10	08:52 (WEA01)	07:22		06:21	06:11	05:16
	16:35	31 09:23 (WEA01)	17:30		18:20	20:13	21:01
19	08:09	08:52 (WEA01)	07:20		06:19	06:09	05:15
	16:36	32 09:24 (WEA01)	17:32		18:22	20:14	21:03
20	08:08	08:53 (WEA01)	07:18		06:17	06:07	05:13
	16:38	32 09:25 (WEA01)	17:34		18:23	20:16	21:04
21	08:07	08:52 (WEA01)	07:16		06:14	06:05	05:12
	16:40	33 09:25 (WEA01)	17:36		18:25	20:18	21:06
22	08:06	08:52 (WEA01)	07:14		06:12	06:03	05:11
	16:41	33 09:25 (WEA01)	17:38		18:27	20:19	21:07
23	08:04	08:53 (WEA01)	07:12		06:10	06:01	05:09
	16:43	33 09:26 (WEA01)	17:39		18:29	20:21	21:08
24	08:03	08:52 (WEA01)	07:10		06:07	05:59	05:08
	16:45	34 09:26 (WEA01)	17:41		18:30	20:23	21:10
25	08:02	08:53 (WEA01)	07:08		06:05	05:57	05:07
	16:47	34 09:27 (WEA01)	17:43		18:32	20:24	21:11
26	08:01	08:53 (WEA01)	07:06		06:03	05:55	05:06
	16:48	34 09:27 (WEA01)	17:45		18:34	20:26	21:12
27	07:59	08:53 (WEA01)	07:04		06:01	05:53	05:05
	16:50	34 09:27 (WEA01)	17:47		18:35	20:28	21:14
28	07:58	08:54 (WEA01)	07:01		05:58	05:51	05:04
	16:52	34 09:28 (WEA01)	17:49		18:37	20:29	21:15
29	07:57	08:24 (WEA02)			06:56	05:49	05:03
	16:54	36 09:27 (WEA01)			19:39	20:31	21:16
30	07:55	08:22 (WEA02)			06:54	05:47	05:02
	16:55	42 09:28 (WEA01)			19:40	20:33	21:17
31	07:54	08:20 (WEA02)			06:51		05:01
	16:57	45 09:27 (WEA01)			19:42		21:19
Sonnenscheinstunden		260	278	367	416	484	498
astr.max.mögl.Beschattung		778	499				
Red.Sonnenscheinwahrsch.		0,19	0,26				
Reduktion Betriebsdauer		0,95	0,95				
Reduktion Windrichtung		0,57	0,58				
Gesamte Reduktion		0,10	0,14				
Met.wahrsch.Beschattung		78	72				

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
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SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP19 - Vor d. Heide 10, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57	05:33	06:22	07:11	07:04	07:45 (WEA02)
	21:34	21:02	20:01	18:52	16:46	23 08:08 (WEA02)
2	04:58	05:35	06:24	07:13	07:06	07:45 (WEA02)
	21:33	21:00	19:58	18:49	16:44	23 08:08 (WEA02)
3	04:58	05:36	06:26	07:14	07:08	07:45 (WEA02)
	21:33	20:59	19:56	18:47	16:42	35 08:47 (WEA01)
4	04:59	05:38	06:27	07:16	07:10	07:45 (WEA02)
	21:32	20:57	19:54	18:45	16:40	41 08:50 (WEA01)
5	05:00	05:39	06:29	07:18	07:11	07:45 (WEA02)
	21:32	20:55	19:52	18:42	16:39	44 08:52 (WEA01)
6	05:01	05:41	06:30	07:19	07:13	07:46 (WEA02)
	21:32	20:54	19:49	18:40	16:37	46 08:54 (WEA01)
7	05:02	05:42	06:32	07:21	07:15	07:46 (WEA02)
	21:31	20:52	19:47	18:38	16:35	48 08:55 (WEA01)
8	05:03	05:44	06:34	07:23	07:17	07:46 (WEA02)
	21:30	20:50	19:45	18:36	16:34	49 08:55 (WEA01)
9	05:04	05:46	06:35	07:24	07:19	07:47 (WEA02)
	21:30	20:48	19:42	18:33	16:32	48 08:56 (WEA01)
10	05:05	05:47	06:37	07:26	07:20	07:49 (WEA02)
	21:29	20:46	19:40	18:31	16:30	47 08:57 (WEA01)
11	05:06	05:49	06:39	07:28	07:22	07:51 (WEA02)
	21:28	20:44	19:38	18:29	16:29	45 08:58 (WEA01)
12	05:07	05:50	06:40	07:29	07:24	07:53 (WEA02)
	21:27	20:43	19:36	18:27	16:27	41 08:58 (WEA01)
13	05:08	05:52	06:42	07:31	07:26	07:56 (WEA02)
	21:26	20:41	19:33	18:25	16:26	35 08:59 (WEA01)
14	05:09	05:53	06:43	07:33	07:27	08:26 (WEA01)
	21:26	20:39	19:31	18:22	16:24	33 08:59 (WEA01)
15	05:10	05:55	06:45	07:34	07:29	08:26 (WEA01)
	21:25	20:37	19:29	18:20	16:23	34 09:00 (WEA01)
16	05:11	05:57	06:47	07:36	07:31	08:26 (WEA01)
	21:24	20:35	19:26	18:18	16:22	34 09:00 (WEA01)
17	05:12	05:58	06:48	07:38	07:32	08:27 (WEA01)
	21:23	20:33	19:24	18:16	16:20	34 09:01 (WEA01)
18	05:14	06:00	06:50	07:40	07:34	08:26 (WEA01)
	21:21	20:31	19:22	18:14	16:19	34 09:00 (WEA01)
19	05:15	06:01	06:51	07:41	07:36	08:27 (WEA01)
	21:20	20:29	19:19	18:12	16:18	33 09:00 (WEA01)
20	05:16	06:03	06:53	07:43	07:38	08:27 (WEA01)
	21:19	20:26	19:17	18:10	16:16	33 09:00 (WEA01)
21	05:17	06:05	06:55	07:45	07:39	08:28 (WEA01)
	21:18	20:24	19:15	18:07	16:15	33 09:01 (WEA01)
22	05:19	06:06	06:56	07:47	07:41	08:29 (WEA01)
	21:17	20:22	19:12	18:05	16:14	32 09:01 (WEA01)
23	05:20	06:08	06:58	07:48	07:43	08:29 (WEA01)
	21:15	20:20	19:10	18:03	16:13	32 09:01 (WEA01)
24	05:22	06:10	06:59	07:50	07:44	08:29 (WEA01)
	21:14	20:18	19:08	18:01	16:12	31 09:00 (WEA01)
25	05:23	06:11	07:01	06:52	07:46	08:30 (WEA01)
	21:13	20:16	19:05	16:59	16:11	30 09:00 (WEA01)
26	05:24	06:13	07:03	06:54	07:47	08:31 (WEA01)
	21:11	20:14	19:03	16:57	10 08:01 (WEA02)	29 09:00 (WEA01)
27	05:26	06:14	07:04	06:55	07:49 (WEA02)	07:49 08:32 (WEA01)
	21:10	20:12	19:01	16:55	14 08:03 (WEA02)	28 09:00 (WEA01)
28	05:27	06:16	07:06	06:57	07:47 (WEA02)	07:50 08:33 (WEA01)
	21:08	20:09	18:58	16:53	18 08:05 (WEA02)	27 09:00 (WEA01)
29	05:29	06:18	07:08	06:59	07:46 (WEA02)	07:52 08:34 (WEA01)
	21:07	20:07	18:56	16:51	20 08:06 (WEA02)	26 09:00 (WEA01)
30	05:30	06:19	07:09	07:01	07:46 (WEA02)	07:53 08:35 (WEA01)
	21:05	20:05	18:54	16:50	21 08:07 (WEA02)	24 08:59 (WEA01)
31	05:32	06:21		07:02	07:45 (WEA02)	
	21:04	20:03		16:48	23 08:08 (WEA02)	
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung				106	1052	128
Red.Sonnenscheinwahrsch.				0,35	0,21	0,16
Reduktion Betriebsdauer				0,95	0,95	0,95
Reduktion Windrichtung				0,59	0,57	0,57
Gesamte Reduktion				0,20	0,11	0,09
Met.wahrsch.Beschattung				21	118	11

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP20 - Am Sandberg 11, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April		Mai	Juni
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44		05:45 20:34	06:22 (WEA05) 21:20
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45		05:43 20:36	06:21 (WEA05) 21:21
3	08:18 16:14	07:49 17:03	06:55 17:54	06:45 19:47		05:41 20:37	06:20 (WEA05) 21:22
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49		05:39 20:39	06:19 (WEA05) 21:23
5	08:18 16:16	07:46 17:06	06:51 17:57	06:40 19:51		05:37 20:41	06:19 (WEA05) 21:24
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52		05:36 20:42	06:18 (WEA05) 21:25
7	08:17 16:19	07:42 17:10	06:46 18:01	06:36 19:54		05:34 20:44	06:18 (WEA05) 21:26
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56		05:32 20:46	06:17 (WEA05) 21:26
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57		05:30 20:47	06:17 (WEA05) 21:27
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59		05:29 20:49	06:17 (WEA05) 21:28
11	08:15 16:24	07:35 17:18	06:37 18:08	06:27 20:01		05:27 20:50	06:16 (WEA05) 21:29
12	08:15 16:26	07:34 17:19	06:35 18:10	06:24 20:02		05:25 20:52	06:17 (WEA05) 21:30
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04		05:24 20:54	06:16 (WEA05) 21:30
14	08:13 16:29	07:30 17:23	06:30 18:13	06:20 20:06		05:22 20:55	06:17 (WEA05) 21:31
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07		05:21 20:57	06:17 (WEA05) 21:31
16	08:12 16:32	07:26 17:27	06:26 18:17	06:16 20:09		05:19 20:58	06:17 (WEA05) 21:32
17	08:11 16:33	07:24 17:29	06:24 18:18	06:13 20:11		05:18 21:00	06:18 (WEA05) 21:32
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12		05:16 21:01	06:17 (WEA05) 21:33
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14		05:15 21:03	06:18 (WEA05) 21:33
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16		05:13 21:04	06:18 (WEA05) 21:33
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17		05:12 21:05	06:19 (WEA05) 21:34
22	08:06 16:41	07:14 17:38	06:12 18:27	06:03 20:19		05:11 21:07	06:20 (WEA05) 21:34
23	08:04 16:43	07:12 17:40	06:10 18:29	06:01 20:21		05:09 21:08	06:20 (WEA05) 21:34
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:23		05:08 21:10	06:20 (WEA05) 21:34
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24		05:07 21:11	06:21 (WEA05) 21:34
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	06:32 (WEA05)	05:06 21:12	06:22 (WEA05) 21:34
27	07:59 16:50	07:04 17:47	06:01 18:35	05:53 20:28	06:43 (WEA05)	05:05 21:14	06:22 (WEA05) 21:34
28	07:58 16:52	07:01 17:49	05:58 18:37	05:51 20:29	06:46 (WEA05)	05:04 21:15	06:24 (WEA05) 21:34
29	07:57 16:54		05:56 19:39	05:49 20:31	06:49 (WEA05)	05:03 21:16	06:25 (WEA05) 21:34
30	07:55 16:56		05:54 19:40	05:47 20:33	06:25 (WEA05)	05:02 21:17	06:49 (WEA05) 21:34
31	07:54 16:57		05:51 19:42		06:23 (WEA05)	05:01 21:18	06:26 (WEA05) 21:34
Sonnenscheinstunden	260	278	367	416		484	497
astr.max.mögl.Beschattung				103		1044	64
Red.Sonnenscheinwahrsch.				0,42		0,48	0,45
Reduktion Betriebsdauer				0,95		0,95	0,95
Reduktion Windrichtung				0,63		0,63	0,63
Gesamte Reduktion				0,25		0,29	0,27
Met.wahrsch.Beschattung				26		299	17

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP20 - Am Sandberg 11, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57		05:33		06:27 (WEA05)	06:22	07:11	07:04	07:55		
	21:33		21:02	39	07:06 (WEA05)	20:00	18:52	16:46	16:06		
2	04:58		05:35		06:27 (WEA05)	06:24	07:13	07:06	07:56		
	21:33		21:00	39	07:06 (WEA05)	19:58	18:49	16:44	16:05		
3	04:58		05:36		06:27 (WEA05)	06:26	07:14	07:08	07:58		
	21:33		20:59	39	07:06 (WEA05)	19:56	18:47	16:42	16:05		
4	04:59		05:38		06:27 (WEA05)	06:27	07:16	07:10	07:59		
	21:32		20:57	39	07:06 (WEA05)	19:54	18:45	16:40	16:04		
5	05:00		05:39		06:28 (WEA05)	06:29	07:18	07:11	08:00		
	21:32		20:55	38	07:06 (WEA05)	19:51	18:42	16:39	16:04		
6	05:01		05:41		06:27 (WEA05)	06:30	07:19	07:13	08:01		
	21:31		20:54	38	07:05 (WEA05)	19:49	18:40	16:37	16:03		
7	05:02		05:42		06:27 (WEA05)	06:32	07:21	07:15	08:03		
	21:31		20:52	37	07:04 (WEA05)	19:47	18:38	16:35	16:03		
8	05:03	06:40 (WEA05)	05:44		06:28 (WEA05)	06:34	07:23	07:17	08:04		
	21:30	8	06:48 (WEA05)	20:50	36	07:04 (WEA05)	19:45	18:36	16:34	16:02	
9	05:04	06:39 (WEA05)	05:46		06:28 (WEA05)	06:35	07:24	07:18	08:05		
	21:30	12	06:51 (WEA05)	20:48	35	07:03 (WEA05)	19:42	18:33	16:32	16:02	
10	05:05	06:37 (WEA05)	05:47		06:29 (WEA05)	06:37	07:26	07:20	08:06		
	21:29	15	06:52 (WEA05)	20:46	34	07:03 (WEA05)	19:40	18:31	16:30	16:02	
11	05:06	06:36 (WEA05)	05:49		06:29 (WEA05)	06:39	07:28	07:22	08:07		
	21:28	18	06:54 (WEA05)	20:44	32	07:01 (WEA05)	19:38	18:29	16:29	16:02	
12	05:07	06:35 (WEA05)	05:50		06:31 (WEA05)	06:40	07:29	07:24	08:08		
	21:27	20	06:55 (WEA05)	20:42	30	07:01 (WEA05)	19:35	18:27	16:27	16:02	
13	05:08	06:35 (WEA05)	05:52		06:31 (WEA05)	06:42	07:31	07:25	08:09		
	21:26	21	06:56 (WEA05)	20:40	28	06:59 (WEA05)	19:33	18:25	16:26	16:02	
14	05:09	06:34 (WEA05)	05:53		06:33 (WEA05)	06:43	07:33	07:27	08:10		
	21:25	23	06:57 (WEA05)	20:39	25	06:58 (WEA05)	19:31	18:22	16:24	16:02	
15	05:10	06:33 (WEA05)	05:55		06:34 (WEA05)	06:45	07:34	07:29	08:11		
	21:24	25	06:58 (WEA05)	20:37	21	06:55 (WEA05)	19:29	18:20	16:23	16:02	
16	05:11	06:32 (WEA05)	05:57		06:37 (WEA05)	06:47	07:36	07:31	08:12		
	21:23	27	06:59 (WEA05)	20:35	16	06:53 (WEA05)	19:26	18:18	16:22	16:02	
17	05:12	06:31 (WEA05)	05:58		06:40 (WEA05)	06:48	07:38	07:32	08:13		
	21:22	28	06:59 (WEA05)	20:33	8	06:48 (WEA05)	19:24	18:16	16:20	16:02	
18	05:14	06:31 (WEA05)	06:00			06:50	07:40	07:34	08:14		
	21:21	29	07:00 (WEA05)	20:31		19:22	18:14	16:19	16:02		
19	05:15	06:31 (WEA05)	06:01			06:51	07:41	07:36	08:14		
	21:20	31	07:02 (WEA05)	20:28		19:19	18:12	16:18	16:03		
20	05:16	06:30 (WEA05)	06:03			06:53	07:43	07:37	08:15		
	21:19	32	07:02 (WEA05)	20:26		19:17	18:10	16:16	16:03		
21	05:18	06:30 (WEA05)	06:05			06:55	07:45	07:39	08:16		
	21:18	32	07:02 (WEA05)	20:24		19:15	18:07	16:15	16:03		
22	05:19	06:29 (WEA05)	06:06			06:56	07:47	07:41	08:16		
	21:17	34	07:03 (WEA05)	20:22		19:12	18:05	16:14	16:04		
23	05:20	06:29 (WEA05)	06:08			06:58	07:48	07:42	08:17		
	21:15	35	07:04 (WEA05)	20:20		19:10	18:03	16:13	16:04		
24	05:22	06:29 (WEA05)	06:10			06:59	07:50	07:44	08:17		
	21:14	35	07:04 (WEA05)	20:18		19:08	18:01	16:12	16:05		
25	05:23	06:28 (WEA05)	06:11			07:01	06:52	07:46	08:17		
	21:13	36	07:04 (WEA05)	20:16		19:05	16:59	16:11	16:06		
26	05:24	06:28 (WEA05)	06:13			07:03	06:54	07:47	08:18		
	21:11	37	07:05 (WEA05)	20:14		19:03	16:57	16:10	16:06		
27	05:26	06:28 (WEA05)	06:14			07:04	06:55	07:49	08:18		
	21:10	37	07:05 (WEA05)	20:12		19:01	16:55	16:09	16:07		
28	05:27	06:27 (WEA05)	06:16			07:06	06:57	07:50	08:18		
	21:08	38	07:05 (WEA05)	20:09		18:58	16:53	16:08	16:08		
29	05:29	06:28 (WEA05)	06:18			07:08	06:59	07:52	08:18		
	21:07	38	07:06 (WEA05)	20:07		18:56	16:52	16:07	16:09		
30	05:30	06:27 (WEA05)	06:19			07:09	07:01	07:53	08:18		
	21:05	39	07:06 (WEA05)	20:05		18:54	16:50	16:07	16:09		
31	05:32	06:27 (WEA05)	06:21				07:02		08:19		
	21:04	39	07:06 (WEA05)	20:03			16:48		16:10		
Sonnenscheinstunden	501		453			381	332	267	245		
astr.max.mögl.Beschattung	689		534								
Red.Sonnenscheinwahrsch.	0,47		0,50								
Reduktion Betriebsdauer	0,95		0,95								
Reduktion Windrichtung	0,63		0,63								
Gesamte Reduktion	0,28		0,30								
Met.wahrsch.Beschattung	195		160								

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP21 - Am Sandberg 24, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44	07:24 (WEA05) 07:44 (WEA05)	05:00 21:20	05:48 (WEA04) 06:22 (WEA04)
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45	07:21 (WEA05) 07:45 (WEA05)	04:59 21:21	05:48 (WEA04) 06:23 (WEA04)
3	08:18 16:14	07:49 17:03	06:55 17:54	06:45 19:47	07:19 (WEA05) 07:47 (WEA05)	04:58 21:22	05:48 (WEA04) 06:23 (WEA04)
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49	07:18 (WEA05) 07:48 (WEA05)	04:58 21:23	05:48 (WEA04) 06:23 (WEA04)
5	08:18 16:16	07:46 17:06	06:51 17:57	06:40 19:51	07:16 (WEA05) 07:49 (WEA05)	04:57 21:24	05:49 (WEA04) 06:23 (WEA04)
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52	07:14 (WEA05) 07:49 (WEA05)	04:56 21:25	05:48 (WEA04) 06:23 (WEA04)
7	08:17 16:19	07:42 17:10	06:46 18:01	06:36 19:54	07:14 (WEA05) 07:49 (WEA05)	04:56 21:26	05:49 (WEA04) 06:24 (WEA04)
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56	07:13 (WEA05) 07:50 (WEA05)	04:55 21:26	05:49 (WEA04) 06:23 (WEA04)
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	07:13 (WEA05) 07:50 (WEA05)	04:55 21:27	05:49 (WEA04) 06:24 (WEA04)
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	07:11 (WEA05) 07:49 (WEA05)	04:54 21:28	05:50 (WEA04) 06:24 (WEA04)
11	08:15 16:24	07:35 17:18	06:37 18:08	06:27 20:01	07:11 (WEA05) 07:49 (WEA05)	04:54 21:29	05:49 (WEA04) 06:24 (WEA04)
12	08:15 16:26	07:34 17:19	06:35 18:10	06:24 20:02	07:11 (WEA05) 07:49 (WEA05)	04:54 21:30	05:50 (WEA04) 06:24 (WEA04)
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04	07:11 (WEA05) 07:49 (WEA05)	04:53 21:30	05:50 (WEA04) 06:24 (WEA04)
14	08:13 16:29	07:30 17:23	06:30 18:13	06:20 20:06	07:11 (WEA05) 07:48 (WEA05)	04:53 21:31	05:51 (WEA04) 06:25 (WEA04)
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	07:11 (WEA05) 07:48 (WEA05)	04:53 21:31	05:51 (WEA04) 06:25 (WEA04)
16	08:12 16:32	07:26 17:27	06:26 18:17	06:16 20:09	07:11 (WEA05) 07:47 (WEA05)	04:53 21:32	05:51 (WEA04) 06:25 (WEA04)
17	08:11 16:33	07:24 17:29	06:24 18:18	06:13 20:11	07:11 (WEA05) 07:45 (WEA05)	04:53 21:32	05:52 (WEA04) 06:25 (WEA04)
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	07:11 (WEA05) 07:45 (WEA05)	04:53 21:33	05:52 (WEA04) 06:25 (WEA04)
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	07:11 (WEA05) 07:43 (WEA05)	04:53 21:33	05:52 (WEA04) 06:26 (WEA04)
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	07:11 (WEA05) 07:42 (WEA05)	04:53 21:33	05:52 (WEA04) 06:26 (WEA04)
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	07:11 (WEA05) 07:41 (WEA05)	04:53 21:34	05:52 (WEA04) 06:26 (WEA04)
22	08:06 16:41	07:14 17:38	06:12 18:27	06:03 20:19	07:11 (WEA05) 07:39 (WEA05)	04:53 21:34	05:53 (WEA04) 06:27 (WEA04)
23	08:04 16:43	07:12 17:40	06:10 18:29	06:01 20:21	07:11 (WEA05) 07:37 (WEA05)	04:53 21:34	05:53 (WEA04) 06:27 (WEA04)
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:23	07:11 (WEA05) 07:34 (WEA05)	04:54 21:34	05:53 (WEA04) 06:26 (WEA04)
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	07:11 (WEA05) 07:23 (WEA05)	04:54 21:34	05:53 (WEA04) 06:26 (WEA04)
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	07:11 (WEA05) 21:12	04:54 21:34	05:53 (WEA04) 06:27 (WEA04)
27	07:59 16:50	07:04 17:47	06:01 18:35	05:53 20:28	05:05 21:14	04:55 21:34	05:53 (WEA04) 06:27 (WEA04)
28	07:58 16:52	07:01 17:49	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:54 (WEA04) 06:28 (WEA04)
29	07:57 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:54 (WEA04) 06:28 (WEA04)
30	07:55 16:55		06:54 19:40	05:47 20:33	05:02 21:17	04:56 21:34	05:54 (WEA04) 06:28 (WEA04)
31	07:54 16:57		06:51 19:42	07:27 (WEA05) 07:41 (WEA05)	05:01 21:18	04:58 (WEA04) 06:22 (WEA04)	
Sonnenscheinstunden	260	278	367	416	484	498	
astr.max.mögl.Beschattung			14	818	509	1023	
Red.Sonnenscheinwahrsch.			0,33	0,42	0,48	0,45	
Reduktion Betriebsdauer			0,95	0,95	0,95	0,95	
Reduktion Windrichtung			0,63	0,63	0,66	0,66	
Gesamte Reduktion			0,20	0,25	0,30	0,29	
Met.wahrsch.Beschattung			3	205	153	293	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP21 - Am Sandberg 24, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember	
1	04:57	05:55 (WEA04)	05:33		06:22	07:10 (WEA05)	07:11	07:04	07:55			
	21:33	06:29 (WEA04)	21:02		20:00	07:48 (WEA05)	18:52	16:46	16:06			
2	04:58	05:54 (WEA04)	05:35		06:24	07:10 (WEA05)	07:13	07:06	07:56			
	21:33	06:28 (WEA04)	21:00		19:58	07:48 (WEA05)	18:49	16:44	16:05			
3	04:58	05:55 (WEA04)	05:36		06:26	07:10 (WEA05)	07:14	07:08	07:58			
	21:33	06:29 (WEA04)	20:59		19:56	07:47 (WEA05)	18:47	16:42	16:05			
4	04:59	05:55 (WEA04)	05:38		06:27	07:10 (WEA05)	07:16	07:10	07:59			
	21:32	06:29 (WEA04)	20:57		19:54	07:47 (WEA05)	18:45	16:40	16:04			
5	05:00	05:54 (WEA04)	05:39		06:29	07:11 (WEA05)	07:18	07:11	08:00			
	21:32	06:29 (WEA04)	20:55		19:51	07:46 (WEA05)	18:42	16:39	16:04			
6	05:01	05:55 (WEA04)	05:41		06:30	07:11 (WEA05)	07:19	07:13	08:01			
	21:31	06:29 (WEA04)	20:54		19:49	07:45 (WEA05)	18:40	16:37	16:03			
7	05:02	05:55 (WEA04)	05:42		06:32	07:11 (WEA05)	07:21	07:15	08:03			
	21:31	06:30 (WEA04)	20:52		19:47	07:44 (WEA05)	18:38	16:35	16:03			
8	05:03	05:55 (WEA04)	05:44		06:34	07:12 (WEA05)	07:23	07:17	08:04			
	21:30	06:30 (WEA04)	20:50		19:45	07:42 (WEA05)	18:36	16:34	16:02			
9	05:04	05:56 (WEA04)	05:46		06:35	07:13 (WEA05)	07:24	07:18	08:05			
	21:30	06:30 (WEA04)	20:48		19:42	07:41 (WEA05)	18:33	16:32	16:02			
10	05:05	05:56 (WEA04)	05:47		06:37	07:14 (WEA05)	07:26	07:20	08:06			
	21:29	06:31 (WEA04)	20:46		19:40	07:38 (WEA05)	18:31	16:30	16:02			
11	05:06	05:56 (WEA04)	05:49		06:39	07:16 (WEA05)	07:28	07:22	08:07			
	21:28	06:31 (WEA04)	20:44		19:38	07:36 (WEA05)	18:29	16:29	16:02			
12	05:07	05:56 (WEA04)	05:50		06:40	07:18 (WEA05)	07:29	07:24	08:08			
	21:27	06:31 (WEA04)	20:42		19:35	07:32 (WEA05)	18:27	16:27	16:02			
13	05:08	05:56 (WEA04)	05:52		06:42		07:31	07:25	08:09			
	21:26	06:31 (WEA04)	20:40		19:33		18:25	16:26	16:02			
14	05:09	05:57 (WEA04)	05:53		06:43		07:33	07:27	08:10			
	21:25	06:31 (WEA04)	20:39		19:31		18:22	16:24	16:02			
15	05:10	05:57 (WEA04)	05:55		06:45		07:34	07:29	08:11			
	21:24	06:31 (WEA04)	20:37		19:29		18:20	16:23	16:02			
16	05:11	05:57 (WEA04)	05:57		06:47		07:36	07:31	08:12			
	21:23	06:31 (WEA04)	20:35		19:26		18:18	16:22	16:02			
17	05:12	05:57 (WEA04)	05:58		06:48		07:38	07:32	08:13			
	21:22	06:30 (WEA04)	20:33		19:24		18:16	16:20	16:02			
18	05:14	05:57 (WEA04)	06:00	07:28 (WEA05)	06:50		07:40	07:34	08:14			
	21:21	06:30 (WEA04)	20:31	9	07:37 (WEA05)	19:22	18:14	16:19	16:02			
19	05:15	05:59 (WEA04)	06:01	07:24 (WEA05)	06:51		07:41	07:36	08:14			
	21:20	06:31 (WEA04)	20:28	16	07:40 (WEA05)	19:19	18:12	16:18	16:03			
20	05:16	05:59 (WEA04)	06:03	06:43 (WEA09)	06:53		07:43	07:37	08:15			
	21:19	06:30 (WEA04)	20:26	24	07:43 (WEA05)	19:17	18:10	16:16	16:03			
21	05:18	05:59 (WEA04)	06:05	06:41 (WEA09)	06:55		07:45	07:39	08:16			
	21:18	06:30 (WEA04)	20:24	32	07:45 (WEA05)	19:15	18:07	16:15	16:03			
22	05:19	05:59 (WEA04)	06:06	06:39 (WEA09)	06:56		07:47	07:41	08:16			
	21:17	06:29 (WEA04)	20:22	37	07:46 (WEA05)	19:12	18:05	16:14	16:04			
23	05:20	06:01 (WEA04)	06:08	06:39 (WEA09)	06:58		07:48	07:42	08:17			
	21:15	06:29 (WEA04)	20:20	40	07:47 (WEA05)	19:10	18:03	16:13	16:04			
24	05:22	06:01 (WEA04)	06:10	06:38 (WEA09)	06:59		07:50	07:44	08:17			
	21:14	06:28 (WEA04)	20:18	41	07:47 (WEA05)	19:08	18:01	16:12	16:05			
25	05:23	06:02 (WEA04)	06:11	06:38 (WEA09)	07:01		06:52	07:46	08:17			
	21:13	06:27 (WEA04)	20:16	43	07:48 (WEA05)	19:05	16:59	16:11	16:06			
26	05:24	06:03 (WEA04)	06:13	06:39 (WEA09)	07:03		06:54	07:47	08:18			
	21:11	06:27 (WEA04)	20:14	42	07:48 (WEA05)	19:03	16:57	16:10	16:06			
27	05:26	06:04 (WEA04)	06:14	06:41 (WEA09)	07:04		06:55	07:49	08:18			
	21:10	06:25 (WEA04)	20:12	39	07:49 (WEA05)	19:01	16:55	16:09	16:07			
28	05:27	06:05 (WEA04)	06:16	07:12 (WEA05)	07:06		06:57	07:50	08:18			
	21:08	06:24 (WEA04)	20:09	37	07:49 (WEA05)	18:58	16:53	16:08	16:08			
29	05:29	06:07 (WEA04)	06:18	07:12 (WEA05)	07:08		06:59	07:52	08:18			
	21:07	06:22 (WEA04)	20:07	37	07:49 (WEA05)	18:56	16:52	16:07	16:09			
30	05:30	06:10 (WEA04)	06:19	07:11 (WEA05)	07:09		07:01	07:53	08:19			
	21:05	06:19 (WEA04)	20:05	38	07:49 (WEA05)	18:54	16:50	16:07	16:09			
31	05:32		06:21		07:11 (WEA05)		07:02		08:19			
	21:04		20:03	38	07:49 (WEA05)		16:48		16:10			
Sonnenscheinstunden	501		453		381		332	267	245			
astr.max.mögl.Beschattung		909		473		368						
Red.Sonnenscheinwahrsch.		0,47		0,50		0,42						
Reduktion Betriebsdauer		0,95		0,95		0,95						
Reduktion Windrichtung		0,66		0,63		0,63						
Gesamte Reduktion		0,30		0,30		0,25						
Met.wahrsch.Beschattung		270		142		92						

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP22 - Hallesche Str. 9, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:43	05:44 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:54 16:06
2	08:18 16:12	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:57 21:33	05:34 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:13	07:49 17:02	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:21	04:58 21:32	05:36 20:58	06:25 19:56	07:14 18:47	07:07 16:42	07:57 16:04
4	08:18 16:15	07:47 17:04	06:52 17:55	06:42 19:49	05:39 20:39	04:57 21:22	04:59 21:32	05:37 20:57	06:27 19:53	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:45 17:06	06:50 17:57	06:40 19:50	05:37 20:40	04:57 21:23	04:57 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:38	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:37 19:52	05:35 20:42	04:56 21:24	05:00 21:31	05:40 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:33 20:44	04:55 21:25	05:01 21:31	05:42 20:51	06:32 19:47	07:21 18:38	07:15 16:35	08:02 16:02
8	08:17 16:20	07:40 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:13	06:41 18:04	06:31 19:57	05:30 20:47	04:54 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	07:37 17:15	06:39 18:06	06:28 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:48 20:44	06:38 19:37	07:27 18:29	07:22 16:28	08:07 16:01
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:26	07:23 16:27	08:08 16:01
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:07 21:26	05:52 20:40	06:41 19:33	07:31 18:24	07:25 16:25	08:09 16:01
14	08:13 16:28	07:29 17:23	06:30 18:13	06:20 20:05	05:22 20:55	04:53 21:31	05:08 21:25	05:53 20:38	06:43 19:31	07:32 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:17 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:01
16	08:11 16:31	07:26 17:26	06:25 18:16	06:15 20:09	05:19 20:58	04:52 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:01
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:10	05:17 20:59	04:52 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:09 16:34	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:52 21:32	05:13 21:21	06:00 20:30	06:49 19:21	07:39 18:13	07:34 16:19	08:13 16:02
19	08:08 16:36	07:20 17:32	06:19 18:21	06:09 20:14	05:14 21:02	04:52 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:35 16:17	08:14 16:02
20	08:07 16:38	07:18 17:34	06:16 18:23	06:07 20:15	05:13 21:04	04:52 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:39	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:04 20:24	06:54 19:14	07:44 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:37	06:12 18:26	06:02 20:19	05:10 21:07	04:53 21:34	05:18 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:40 16:14	08:16 16:03
23	08:04 16:43	07:12 17:39	06:09 18:28	06:00 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:57 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:44	07:10 17:41	06:07 18:30	05:58 20:22	05:08 21:09	04:53 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:07 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:51 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:12 20:13	07:02 19:03	06:53 16:57	07:47 16:10	08:17 16:06
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:04 21:13	04:54 21:34	05:25 21:09	06:14 20:11	07:04 19:00	06:55 16:55	07:48 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:03 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:07
29	07:56 16:53		06:56 19:38	05:48 20:31	05:02 21:16	04:55 21:34	05:28 21:06	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:53 19:40	05:46 20:32	05:01 21:17	04:56 21:33	05:30 21:05	06:19 20:05	07:09 18:53	07:00 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57		06:51 19:42		05:00 21:18		05:31 21:03	06:20 20:02		07:02 16:47		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
astr.max.mögl.Beschattung												
Red.Sonnenscheinwahrsch.												
Reduktion Betriebsdauer												
Reduktion Windrichtung												
Gesamte Reduktion												
Met.wahrsch.Beschattung												

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

SW25034 Salzfurtkapelle

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



Berechnung: SW25034 Salzfurtkapelle Gesamtbelastung **Schattenrezeptor:** IP23 - Hallesche Straße 10, 06780 Zörbig

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
---	-----	-----	---	-----	-----	---	-----	-----	---	-----	-----	-------

380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

		Januar	Februar	März	April	Mai		Jun		Juli		August	September	Oktober	November	Dezember
1	08:19	07:52	06:59	06:49	05:45			05:00								
	16:12	16:59	17:50	19:44	20:34			21:20	25	05:34 (WEA05)	04:57	05:38 (WEA05)	05:33	06:22	07:11	07:04
2	08:18	07:51	06:57	06:47	05:43			04:59		05:35 (WEA05)	04:58	05:38 (WEA05)	05:35	06:24	07:13	07:06
	16:13	17:01	17:52	19:45	20:36			21:21	25	06:00 (WEA05)	04:58	06:08 (WEA05)	05:35	06:24	07:13	07:06
3	08:18	07:49	06:55	06:45	05:41			04:58		05:34 (WEA05)	04:59	05:39 (WEA05)	05:36	06:26	07:14	07:08
	16:14	17:03	17:54	19:47	20:37			21:22	26	06:00 (WEA05)	04:59	06:08 (WEA05)	05:36	06:26	07:14	07:08
4	08:18	07:47	06:53	06:42	05:39			04:58		05:33 (WEA05)	04:59	05:39 (WEA05)	05:38	06:27	07:16	07:10
	16:15	17:05	17:56	19:49	20:39			21:23	27	06:00 (WEA05)	04:59	06:08 (WEA05)	05:38	06:27	07:16	07:10
5	08:18	07:46	06:51	06:40	05:37			04:57		05:34 (WEA05)	05:00	05:39 (WEA05)	05:39	06:29	07:18	07:11
	16:16	17:06	17:57	19:51	20:41			21:24	27	06:01 (WEA05)	05:00	06:07 (WEA05)	05:40	06:30	07:19	07:12
6	08:18	07:44	06:48	06:38	05:36			04:56		05:33 (WEA05)	05:01	05:39 (WEA05)	05:41	06:30	07:19	07:13
	16:17	17:08	17:59	19:52	20:42			21:25	28	06:01 (WEA05)	05:01	06:08 (WEA05)	05:41	06:30	07:19	07:13
7	08:17	07:42	06:46	06:36	05:34			04:56		05:34 (WEA05)	05:02	05:40 (WEA05)	05:42	06:32	07:21	07:15
	16:19	17:10	18:01	19:54	20:44			21:26	28	06:02 (WEA05)	05:02	06:08 (WEA05)	05:42	06:32	07:21	07:15
8	08:17	07:41	06:44	06:33	05:32			04:55		05:34 (WEA05)	05:03	05:41 (WEA05)	05:44	06:34	07:23	07:17
	16:20	17:12	18:03	19:56	20:46			21:26	29	06:03 (WEA05)	05:03	06:08 (WEA05)	05:44	06:34	07:23	07:17
9	08:16	07:39	06:42	06:31	05:30			04:55		05:33 (WEA05)	05:04	05:41 (WEA05)	05:46	06:35	07:24	07:18
	16:21	17:14	18:04	19:57	20:47			21:27	30	06:03 (WEA05)	05:04	06:08 (WEA05)	05:46	06:35	07:24	07:18
10	08:16	07:37	06:39	06:29	05:29			04:54		05:34 (WEA05)	05:05	05:42 (WEA05)	05:47	06:37	07:26	07:20
	16:23	17:16	18:06	19:59	20:49			21:28	29	06:03 (WEA05)	05:05	06:07 (WEA05)	05:47	06:37	07:26	07:20
11	08:15	07:35	06:37	06:27	05:27			04:54		05:34 (WEA05)	05:06	05:42 (WEA05)	05:49	06:39	07:28	07:22
	16:24	17:18	18:08	20:01	20:50			21:29	30	06:04 (WEA05)	05:06	06:07 (WEA05)	05:49	06:39	07:28	07:22
12	08:15	07:34	06:35	06:24	05:25			04:54		05:34 (WEA05)	05:07	05:43 (WEA05)	05:50	06:40	07:29	07:24
	16:26	17:19	18:10	20:02	20:52			21:30	24	06:07 (WEA05)	05:07	06:07 (WEA05)	05:50	06:40	07:29	07:24
13	08:14	07:32	06:33	06:22	05:24			04:53		05:34 (WEA05)	05:07	05:44 (WEA05)	05:52	06:42	07:31	07:25
	16:27	17:21	18:11	20:04	20:54			21:30	30	06:04 (WEA05)	05:08	06:07 (WEA05)	05:52	06:42	07:31	07:25
14	08:13	07:30	06:30	06:20	05:22			04:53		05:34 (WEA05)	05:09	05:45 (WEA05)	05:54	06:43	07:33	07:27
	16:29	17:23	18:13	20:06	20:55			21:31	30	06:04 (WEA05)	05:09	06:06 (WEA05)	05:54	06:43	07:33	07:27
15	08:12	07:28	06:28	06:18	05:21			04:53		05:34 (WEA05)	05:10	05:45 (WEA05)	05:55	06:45	07:34	07:29
	16:30	17:25	18:15	20:07	20:57			21:31	31	06:05 (WEA05)	05:10	06:05 (WEA05)	05:55	06:45	07:34	07:29
16	08:12	07:26	06:26	06:16	05:19			04:53		05:35 (WEA05)	05:11	05:46 (WEA05)	05:57	06:47	07:36	07:31
	16:32	17:27	18:17	20:09	20:58			21:32	30	06:05 (WEA05)	05:11	06:04 (WEA05)	05:57	06:47	07:36	07:31
17	08:11	07:24	06:24	06:13	05:18			04:53		05:35 (WEA05)	05:12	05:48 (WEA05)	05:58	06:48	07:38	07:32
	16:33	17:29	18:18	20:11	21:00			21:32	30	06:05 (WEA05)	05:12	06:03 (WEA05)	05:58	06:48	07:38	07:32
18	08:10	07:22	06:21	06:11	05:16			04:53		05:35 (WEA05)	05:14	05:49 (WEA05)	05:59	06:50	07:40	07:34
	16:35	17:30	18:20	20:12	21:01			21:33	31	06:06 (WEA05)	05:14	06:01 (WEA05)	06:00	06:50	07:40	07:34
19	08:09	07:20	06:19	06:09	05:03			04:53		05:35 (WEA05)	05:15	05:53 (WEA05)	06:02	06:51	07:41	07:36
	16:36	18:22	18:24	21:03	21:03			21:33	31	06:06 (WEA05)	05:15	05:53 (WEA05)	06:02	06:51	07:41	07:36
20	08:08	07:18	06:17	06:07	05:13			04:53		05:35 (WEA05)	05:16	6	05:59 (WEA05)	06:03	06:53	07:43
	16:38	17:34	18:23	20:16	21:04			21:33	31	06:06 (WEA05)	05:16	06:03 (WEA05)	06:03	06:53	07:43	07:37
21	08:07	07:16	06:14	06:05	05:12			04:53		05:35 (WEA05)	05:18	06:05 (WEA05)	06:05	06:55	07:45	07:39
	16:40	17:36	18:25	20:17	21:05			21:34	31	06:06 (WEA05)	05:18	06:06 (WEA05)	06:06	06:56	07:46	07:40
22	08:06	07:14	06:12	06:03	05:11			04:53		05:36 (WEA05)	05:19	06:06 (WEA05)	06:06	06:56	07:47	07:41
	16:41	17:38	18:27	20:19	21:07			21:34	31	06:07 (WEA05)	05:19	06:07 (WEA05)	06:07	06:57	07:47	07:41
23	08:04	07:12	06:10	06:01	05:09			04:53		05:36 (WEA05)	05:20	06:08 (WEA05)	06:08	06:58	07:48	07:42
	16:43	17:40	18:29	20:21	21:08			21:34	31	06:07 (WEA05)	05:20	06:08 (WEA05)	06:08	06:58	07:48	07:42
24	08:03	07:10	06:07	05:59	05:08			04:54		05:36 (WEA05)	05:22	06:10 (WEA05)	06:09	06:59	07:50	07:44
	16:45	17:41	18:30	20:23	21:10			21:34	31	06:07 (WEA05)	05:22	06:10 (WEA05)	06:09	06:59	07:50	07:44
25	08:02	07:08	06:05	05:57	05:07			04:54		05:37 (WEA05)	05:24	06:11 (WEA05)	06:10	07:01	06:52	07:46
	16:47	17:43	18:32	20:24	21:11			21:34	30	06:07 (WEA05)	05:24	06:11 (WEA05)	06:10	07:01	06:52	07:46
26	08:01	07:06	06:03	05:55	05:06		9	05:50 (WEA05)		05:39 (WEA05)	05:24	06:13 (WEA05)	06:13	07:05	06:54	07:48
	16:48	17:45	18:34	20:26	21:12		13	05:52 (WEA05)		05:37 (WEA05)	05:24	06:14 (WEA05)	06:14	07:06	06:55	07:49
27	07:59	07:04	06:01	05:53	05:05			04:55		05:36 (WEA05)	05:26	06:14 (WEA05)	06:14	07:04	06:55	07:49
	16:50	17:47	18:35	20:28	21:14		16	05:55 (WEA05)		05:37 (WEA05)	05:26	06:15 (WEA05)	06:15	07:05	06:55	07:49
28	07:58	07:01	05:58	05:51	05:04			04:55		05:37 (WEA05)	05:27	06:16 (WEA05)	06:16	07:06	06:57	07:50
	16:52	17:49	18:37	20:29	21:15		19	05:56 (WEA05)		05:37 (WEA05)	05:27	06:16 (WEA05)	06:16	07:06	06:57	07:50
29	07:57	06:56	05:49	05:03				04:56		05:37 (WEA05)	05:29	06:18 (WEA05)	06:18	07:08	06:59	07:52
	16:54	19:39	20:31	21:16	20		20	05:57 (WEA05)		05:37 (WEA05)	05:29	06:18 (WEA05)	06:18	07:08	06:59	07:52
30	07:55	06:54	05:47	05:02				04:57		05:38 (WEA05)	05:30	06:19 (WEA05)	06:19	07:09	07:01	07:53
	16:56	19:40	20:33	21:17	22		22	05:58 (WEA05)		06:08 (WEA05)	05:31	06:20 (WEA05)	06:20	07:10	07:02	07:54
31	07:54	06:51	05:41	05:01			23	05:58 (WEA05)		06:08 (WEA05)	05:32	06:21 (WEA05)	06:21	07:11	07:03	07:55
	16:57	19:42	20:35	21:18	23		23	05:58 (WEA05)		06:08 (WEA05)	05:33	06:22 (WEA05)	06:22	07:12	07:04	07:56
Sonnenscheinstunden	260	278	367	416	484			497		501		453	381	332	267	245
astr.max.mögl.Beschattung							122	883				445				
Red.Sonnenscheinwahrsch.							0,48	0,47								
Reduktion Betriebsdauer							0,95	0,95								
Reduktion Windrichtung							0,67	0,67								
Gesamte Reduktion							0,30	0,29								
Met.wahrsch.Beschattung							37	257		134						

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Schattenanfang (WEA mit erstem Schatten)	Schattenende (WEA mit letztem Schatten)
1							
2							
3							
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24							
25							
26							
27							
28							
29							
30							
31							

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP25 - Hallesche Straße 15, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:19	07:52	06:59	06:49	05:45	05:00	05:49 (WEA05)
	16:12	16:59	17:50	19:44	20:34	21:20	06:19 (WEA05)
2	08:18	07:51	06:57	06:47	05:43	04:59	05:50 (WEA05)
	16:13	17:01	17:52	19:45	20:36	21:21	06:20 (WEA05)
3	08:18	07:49	06:55	06:45	05:41	04:58	05:50 (WEA05)
	16:14	17:03	17:54	19:47	20:37	21:22	06:19 (WEA05)
4	08:18	07:47	06:53	06:42	05:39	04:58	05:50 (WEA05)
	16:15	17:05	17:56	19:49	20:39	21:23	06:19 (WEA05)
5	08:18	07:46	06:51	06:40	05:37	04:57	05:51 (WEA05)
	16:16	17:06	17:57	19:51	20:41	21:24	06:19 (WEA05)
6	08:18	07:44	06:48	06:38	05:36	04:56	05:51 (WEA05)
	16:17	17:08	17:59	19:52	20:42	21:25	06:19 (WEA05)
7	08:17	07:42	06:46	06:36	05:34	04:56	05:52 (WEA05)
	16:19	17:10	18:01	19:54	20:44	21:26	06:19 (WEA05)
8	08:17	07:41	06:44	06:33	05:32	04:55	05:52 (WEA05)
	16:20	17:12	18:03	19:56	20:46	21:26	06:20 (WEA05)
9	08:16	07:39	06:42	06:31	05:30	04:55	05:52 (WEA05)
	16:21	17:14	18:04	19:57	20:47	21:27	06:19 (WEA05)
10	08:16	07:37	06:39	06:29	05:29	04:54	05:53 (WEA05)
	16:23	17:16	18:06	19:59	20:49	21:28	06:19 (WEA05)
11	08:15	07:35	06:37	06:27	05:27	05:58 (WEA05)	04:54
	16:24	17:18	18:08	20:01	20:50	06:08 (WEA05)	21:29
12	08:15	07:34	06:35	06:24	05:25	05:56 (WEA05)	04:54
	16:26	17:19	18:10	20:02	20:52	06:11 (WEA05)	21:30
13	08:14	07:32	06:33	06:22	05:24	05:54 (WEA05)	04:53
	16:27	17:21	18:11	20:04	20:54	06:12 (WEA05)	21:30
14	08:13	07:30	06:30	06:20	05:22	05:53 (WEA05)	04:53
	16:29	17:23	18:13	20:06	20:55	06:14 (WEA05)	21:31
15	08:12	07:28	06:28	06:18	05:21	05:52 (WEA05)	04:53
	16:30	17:25	18:15	20:07	20:57	06:15 (WEA05)	21:31
16	08:12	07:26	06:26	06:16	05:19	05:51 (WEA05)	04:53
	16:32	17:27	18:17	20:09	20:58	06:15 (WEA05)	21:32
17	08:11	07:24	06:24	06:13	05:18	05:50 (WEA05)	04:53
	16:33	17:29	18:18	20:11	21:00	06:16 (WEA05)	21:32
18	08:10	07:22	06:21	06:11	05:16	05:50 (WEA05)	04:53
	16:35	17:30	18:20	20:12	21:01	06:17 (WEA05)	21:33
19	08:09	07:20	06:19	06:09	05:15	05:49 (WEA05)	04:53
	16:36	17:32	18:22	20:14	21:03	06:17 (WEA05)	21:33
20	08:08	07:18	06:17	06:07	05:13	05:49 (WEA05)	04:53
	16:38	17:34	18:23	20:16	21:04	06:18 (WEA05)	21:33
21	08:07	07:16	06:14	06:05	05:12	05:49 (WEA05)	04:53
	16:40	17:36	18:25	20:17	21:05	06:18 (WEA05)	21:34
22	08:06	07:14	06:12	06:03	05:11	05:49 (WEA05)	04:53
	16:41	17:38	18:27	20:19	21:07	06:19 (WEA05)	21:34
23	08:04	07:12	06:10	06:01	05:09	05:49 (WEA05)	04:53
	16:43	17:40	18:29	20:21	21:08	06:19 (WEA05)	21:34
24	08:03	07:10	06:07	05:59	05:08	05:48 (WEA05)	04:54
	16:45	17:41	18:30	20:23	21:10	06:18 (WEA05)	21:34
25	08:02	07:08	06:05	05:57	05:07	05:48 (WEA05)	04:54
	16:47	17:43	18:32	20:24	21:11	06:18 (WEA05)	21:34
26	08:01	07:06	06:03	05:55	05:06	05:48 (WEA05)	04:54
	16:48	17:45	18:34	20:26	21:12	06:19 (WEA05)	21:34
27	07:59	07:04	06:01	05:53	05:05	05:49 (WEA05)	04:55
	16:50	17:47	18:35	20:28	21:14	06:20 (WEA05)	21:34
28	07:58	07:01	05:58	05:51	05:04	05:49 (WEA05)	04:55
	16:52	17:49	18:37	20:29	21:15	06:20 (WEA05)	21:34
29	07:57		06:56	05:49	05:03	05:49 (WEA05)	04:56
	16:54		19:39	20:31	21:16	06:20 (WEA05)	21:34
30	07:55		06:54	05:47	05:02	05:49 (WEA05)	04:57
	16:56		19:40	20:33	21:17	06:19 (WEA05)	21:34
31	07:54		06:51		05:01	05:49 (WEA05)	
	16:57		19:42		21:18	06:19 (WEA05)	
Sonnenscheinstunden	260	278	367	416	484	497	
astr.max.mögl.Beschattung					554		779
Red.Sonnenscheinwahrsch.					0,48		0,45
Reduktion Betriebsdauer					0,95		0,95
Reduktion Windrichtung					0,66		0,66
Gesamte Reduktion					0,30		0,29
Met.wahrsch.Beschattung					166		223

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP26 - Hallesche Straße 18, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:19	07:52	06:59	06:49	05:45	05:00	06:04 (WEA05)
	16:12	16:59	17:50	19:44	20:34	21:20	06:26 (WEA05)
2	08:18	07:51	06:57	06:47	05:43	04:59	06:05 (WEA05)
	16:13	17:01	17:52	19:45	20:36	21:21	06:26 (WEA05)
3	08:18	07:49	06:55	06:45	05:41	04:58	06:06 (WEA05)
	16:14	17:03	17:54	19:47	20:37	21:22	06:25 (WEA05)
4	08:18	07:47	06:53	06:42	05:39	06:11 (WEA05)	04:58
	16:15	17:05	17:56	19:49	20:39	06:19 (WEA05)	21:23
5	08:18	07:46	06:51	06:40	05:37	06:07 (WEA05)	04:57
	16:16	17:06	17:57	19:51	20:41	06:22 (WEA05)	21:24
6	08:18	07:44	06:48	06:38	05:36	06:05 (WEA05)	04:56
	16:17	17:08	17:59	19:52	20:42	06:23 (WEA05)	21:25
7	08:17	07:42	06:46	06:36	05:34	06:04 (WEA05)	04:56
	16:19	17:10	18:01	19:54	20:44	06:25 (WEA05)	21:26
8	08:17	07:41	06:44	06:33	05:32	06:03 (WEA05)	04:55
	16:20	17:12	18:03	19:56	20:46	06:26 (WEA05)	21:26
9	08:16	07:39	06:42	06:31	05:30	06:01 (WEA05)	04:55
	16:21	17:14	18:04	19:57	20:47	06:26 (WEA05)	21:27
10	08:16	07:37	06:39	06:29	05:29	06:01 (WEA05)	04:54
	16:23	17:16	18:06	19:59	20:49	06:28 (WEA05)	21:28
11	08:15	07:35	06:37	06:27	05:27	06:00 (WEA05)	04:54
	16:24	17:18	18:08	20:01	20:50	06:28 (WEA05)	21:29
12	08:15	07:34	06:35	06:24	05:25	06:00 (WEA05)	04:54
	16:26	17:19	18:10	20:02	20:52	06:29 (WEA05)	21:30
13	08:14	07:32	06:33	06:22	05:24	05:59 (WEA05)	04:53
	16:27	17:21	18:11	20:04	20:54	06:29 (WEA05)	21:30
14	08:13	07:30	06:30	06:20	05:22	05:59 (WEA05)	04:53
	16:29	17:23	18:13	20:06	20:55	06:29 (WEA05)	21:31
15	08:12	07:28	06:28	06:18	05:21	05:59 (WEA05)	04:53
	16:30	17:25	18:15	20:07	20:57	06:30 (WEA05)	21:31
16	08:12	07:26	06:26	06:16	05:19	05:59 (WEA05)	04:53
	16:32	17:27	18:17	20:09	20:58	06:29 (WEA05)	21:32
17	08:11	07:24	06:24	06:13	05:18	05:59 (WEA05)	04:53
	16:33	17:29	18:18	20:11	21:00	06:30 (WEA05)	21:32
18	08:10	07:22	06:21	06:11	05:16	05:59 (WEA05)	04:53
	16:35	17:30	18:20	20:12	21:01	06:30 (WEA05)	21:33
19	08:09	07:20	06:19	06:09	05:15	05:59 (WEA05)	04:53
	16:36	17:32	18:22	20:14	21:03	06:29 (WEA05)	21:33
20	08:08	07:18	06:17	06:07	05:13	05:59 (WEA05)	04:53
	16:38	17:34	18:23	20:16	21:04	06:30 (WEA05)	21:33
21	08:07	07:16	06:14	06:05	05:12	05:59 (WEA05)	04:53
	16:40	17:36	18:25	20:17	21:05	06:30 (WEA05)	21:34
22	08:06	07:14	06:12	06:03	05:11	06:00 (WEA05)	04:53
	16:41	17:38	18:27	20:19	21:07	06:30 (WEA05)	21:34
23	08:04	07:12	06:10	06:01	05:09	06:00 (WEA05)	04:53
	16:43	17:40	18:29	20:21	21:08	06:30 (WEA05)	21:34
24	08:03	07:10	06:07	05:59	05:08	05:59 (WEA05)	04:54
	16:45	17:41	18:30	20:23	21:10	06:29 (WEA05)	21:34
25	08:02	07:08	06:05	05:57	05:07	06:00 (WEA05)	04:54
	16:47	17:43	18:32	20:24	21:11	06:28 (WEA05)	21:34
26	08:01	07:06	06:03	05:55	05:06	06:00 (WEA05)	04:54
	16:48	17:45	18:34	20:26	21:12	06:28 (WEA05)	21:34
27	07:59	07:04	06:01	05:53	05:05	06:02 (WEA05)	04:55
	16:50	17:47	18:35	20:28	21:14	06:29 (WEA05)	21:34
28	07:58	07:01	05:58	05:51	05:04	06:02 (WEA05)	04:55
	16:52	17:49	18:37	20:29	21:15	06:28 (WEA05)	21:34
29	07:57		06:56	05:49	05:03	06:03 (WEA05)	04:56
	16:54		19:39	20:31	21:16	06:28 (WEA05)	21:34
30	07:55		06:54	05:47	05:02	06:03 (WEA05)	04:57
	16:56		19:40	20:33	21:17	06:27 (WEA05)	21:34
31	07:54		06:51		05:01	06:04 (WEA05)	
	16:57		19:42		21:18	06:27 (WEA05)	
Sonnenscheinstunden	260	278	367	416	484	497	
astr.max.mögl.Beschattung					740		156
Red.Sonnenscheinwahrsch.					0,48		0,45
Reduktion Betriebsdauer					0,95		0,95
Reduktion Windrichtung					0,65		0,65
Gesamte Reduktion					0,30		0,28
Met.wahrsch.Beschattung					219		44

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
--------------	-----------------------	-------------------------	----------------------	----------------------------------	--------------------------------	---------------------------	----------------------------

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP26 - Hallesche Straße 18, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57 21:33		05:33 21:02	28	06:11 (WEA05) 06:39 (WEA05)	06:22 20:01	07:11 18:52	07:04 16:46	07:55 16:06		
2	04:58 21:33	6	06:18 (WEA05) 06:24 (WEA05)	27	06:11 (WEA05) 06:38 (WEA05)	06:24 19:58	07:13 18:49	07:06 16:44	07:56 16:05		
3	04:59 21:33	9	06:17 (WEA05) 06:26 (WEA05)	26	06:12 (WEA05) 06:38 (WEA05)	06:26 19:56	07:14 18:47	07:08 16:42	07:58 16:05		
4	04:59 21:32	11	06:17 (WEA05) 06:28 (WEA05)	25	06:12 (WEA05) 06:37 (WEA05)	06:27 19:54	07:16 18:45	07:10 16:41	07:59 16:04		
5	05:00 21:32	13	06:15 (WEA05) 06:28 (WEA05)	22	06:14 (WEA05) 06:36 (WEA05)	06:29 19:52	07:18 18:42	07:11 16:39	08:00 16:04		
6	05:01 21:31	14	06:15 (WEA05) 06:29 (WEA05)	20	06:14 (WEA05) 06:34 (WEA05)	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03		
7	05:02 21:31	16	06:14 (WEA05) 06:30 (WEA05)	17	06:16 (WEA05) 06:33 (WEA05)	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03		
8	05:03 21:30	17	06:14 (WEA05) 06:31 (WEA05)	13	06:18 (WEA05) 06:31 (WEA05)	06:34 19:45	07:23 18:36	07:17 16:34	08:04 16:03		
9	05:04 21:30	19	06:13 (WEA05) 06:32 (WEA05)	5	06:21 (WEA05) 06:26 (WEA05)	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02		
10	05:05 21:29	20	06:13 (WEA05) 06:33 (WEA05)			06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02		
11	05:06 21:28	21	06:13 (WEA05) 06:34 (WEA05)			06:39 19:38	07:28 18:29	07:22 16:29	08:07 16:02		
12	05:07 21:27	23	06:12 (WEA05) 06:35 (WEA05)			06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02		
13	05:08 21:26	23	06:12 (WEA05) 06:35 (WEA05)			06:42 19:33	07:31 18:25	07:25 16:26	08:09 16:02		
14	05:09 21:25	25	06:11 (WEA05) 06:36 (WEA05)			06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02		
15	05:10 21:24	26	06:11 (WEA05) 06:37 (WEA05)			06:45 19:29	07:34 18:20	07:29 16:23	08:11 16:02		
16	05:11 21:23	27	06:10 (WEA05) 06:37 (WEA05)			06:47 19:26	07:36 18:18	07:31 16:22	08:12 16:02		
17	05:12 21:22	27	06:10 (WEA05) 06:37 (WEA05)			06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02		
18	05:14 21:21	28	06:10 (WEA05) 06:38 (WEA05)			06:50 19:22	07:40 18:14	07:34 16:19	08:14 16:02		
19	05:15 21:20	29	06:10 (WEA05) 06:39 (WEA05)			06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:03		
20	05:16 21:19	29	06:10 (WEA05) 06:39 (WEA05)			06:53 19:17	07:43 18:10	07:37 16:16	08:15 16:03		
21	05:18 21:18	30	06:09 (WEA05) 06:39 (WEA05)			06:55 19:15	07:45 18:08	07:39 16:15	08:16 16:03		
22	05:19 21:17	30	06:09 (WEA05) 06:39 (WEA05)			06:56 19:12	07:47 18:05	07:41 16:14	08:16 16:04		
23	05:20 21:15	30	06:10 (WEA05) 06:40 (WEA05)			06:58 19:10	07:48 18:03	07:42 16:13	08:17 16:04		
24	05:22 21:14	31	06:09 (WEA05) 06:40 (WEA05)			06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05		
25	05:23 21:13	31	06:09 (WEA05) 06:40 (WEA05)			07:01 19:05	06:52 16:59	07:46 16:11	08:17 16:06		
26	05:24 21:11	31	06:10 (WEA05) 06:41 (WEA05)			07:03 19:03	06:54 16:57	07:47 16:10	08:18 16:06		
27	05:26 21:10	31	06:09 (WEA05) 06:40 (WEA05)			07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07		
28	05:27 21:08	31	06:09 (WEA05) 06:40 (WEA05)			07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08		
29	05:29 21:07	30	06:10 (WEA05) 06:40 (WEA05)			07:08 18:56	06:59 16:52	07:52 16:07	08:18 16:09		
30	05:30 21:05	30	06:10 (WEA05) 06:40 (WEA05)			07:09 18:54	07:01 16:50	07:53 16:07	08:19 16:10		
31	05:32 21:04	29	06:10 (WEA05) 06:39 (WEA05)				07:02 16:48		08:19 16:10		
Sonnenscheinstunden		501	453			381	332	267	245		
astr.max.mögl.Beschattung		717	183								
Red.Sonnenscheinwahrsch.		0,47	0,50								
Reduktion Betriebsdauer		0,95	0,95								
Reduktion Windrichtung		0,65	0,65								
Gesamte Reduktion		0,29	0,31								
Met.wahrsch.Beschattung		209	57								

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP27 - Am Sandberg 14, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April		Mai	Juni
1	08:19	07:52	06:59	06:49		05:45	06:28 (WEA05) 05:00
	16:12	16:59	17:50	19:44		20:34	38 07:06 (WEA05) 21:20
2	08:18	07:51	06:57	06:47		05:43	06:27 (WEA05) 04:59
	16:13	17:01	17:52	19:45		20:36	39 07:06 (WEA05) 21:21
3	08:18	07:49	06:55	06:45		05:41	06:27 (WEA05) 04:58
	16:14	17:03	17:54	19:47		20:37	39 07:06 (WEA05) 21:22
4	08:18	07:47	06:53	06:42		05:39	06:27 (WEA05) 04:58
	16:15	17:05	17:56	19:49		20:39	39 07:06 (WEA05) 21:23
5	08:18	07:46	06:51	06:40		05:37	06:27 (WEA05) 04:57
	16:16	17:06	17:57	19:51		20:41	39 07:06 (WEA05) 21:24
6	08:18	07:44	06:48	06:38		05:36	06:27 (WEA05) 04:56
	16:17	17:08	17:59	19:52		20:42	39 07:06 (WEA05) 21:25
7	08:17	07:42	06:46	06:36		05:34	06:27 (WEA05) 04:56
	16:19	17:10	18:01	19:54		20:44	39 07:06 (WEA05) 21:26
8	08:17	07:41	06:44	06:33		05:32	06:27 (WEA05) 04:55
	16:20	17:12	18:03	19:56		20:46	38 07:05 (WEA05) 21:26
9	08:16	07:39	06:42	06:31		05:30	06:27 (WEA05) 04:55
	16:21	17:14	18:04	19:57		20:47	38 07:05 (WEA05) 21:27
10	08:16	07:37	06:39	06:29		05:29	06:28 (WEA05) 04:54
	16:23	17:16	18:06	19:59		20:49	37 07:05 (WEA05) 21:28
11	08:15	07:35	06:37	06:27		05:27	06:28 (WEA05) 04:54
	16:24	17:18	18:08	20:01		20:50	36 07:04 (WEA05) 21:29
12	08:15	07:34	06:35	06:24		05:25	06:28 (WEA05) 04:54
	16:26	17:19	18:10	20:02		20:52	36 07:04 (WEA05) 21:30
13	08:14	07:32	06:33	06:22		05:24	06:28 (WEA05) 04:53
	16:27	17:21	18:11	20:04		20:54	35 07:03 (WEA05) 21:30
14	08:13	07:30	06:30	06:20		05:22	06:29 (WEA05) 04:53
	16:29	17:23	18:13	20:06		20:55	33 07:02 (WEA05) 21:31
15	08:12	07:28	06:28	06:18		05:21	06:30 (WEA05) 04:53
	16:30	17:25	18:15	20:07		20:57	32 07:02 (WEA05) 21:31
16	08:12	07:26	06:26	06:16		05:19	06:30 (WEA05) 04:53
	16:32	17:27	18:17	20:09		20:58	31 07:01 (WEA05) 21:32
17	08:11	07:24	06:24	06:13		05:18	06:32 (WEA05) 04:53
	16:33	17:29	18:18	20:11		21:00	28 07:00 (WEA05) 21:32
18	08:10	07:22	06:21	06:11		05:16	06:32 (WEA05) 04:53
	16:35	17:30	18:20	20:12		21:01	27 06:59 (WEA05) 21:33
19	08:09	07:20	06:19	06:09		05:15	06:33 (WEA05) 04:53
	16:36	17:32	18:22	20:14		21:03	25 06:58 (WEA05) 21:33
20	08:08	07:18	06:17	06:07	06:47 (WEA05)	05:13	06:35 (WEA05) 04:53
	16:38	17:34	18:23	20:16	4 06:51 (WEA05)	21:04	22 06:57 (WEA05) 21:33
21	08:07	07:16	06:14	06:05	06:41 (WEA05)	05:12	06:36 (WEA05) 04:53
	16:40	17:36	18:25	20:17	15 06:56 (WEA05)	21:05	20 06:56 (WEA05) 21:34
22	08:06	07:14	06:12	06:03	06:38 (WEA05)	05:11	06:38 (WEA05) 04:53
	16:41	17:38	18:27	20:19	21 06:59 (WEA05)	21:07	16 06:54 (WEA05) 21:34
23	08:04	07:12	06:10	06:01	06:36 (WEA05)	05:09	06:40 (WEA05) 04:53
	16:43	17:40	18:29	20:21	24 07:00 (WEA05)	21:08	13 06:53 (WEA05) 21:34
24	08:03	07:10	06:07	05:59	06:34 (WEA05)	05:08	06:43 (WEA05) 04:54
	16:45	17:41	18:30	20:23	28 07:02 (WEA05)	21:10	5 06:48 (WEA05) 21:34
25	08:02	07:08	06:05	05:57	06:33 (WEA05)	05:07	04:54
	16:47	17:43	18:32	20:24	30 07:03 (WEA05)	21:11	21:34
26	08:01	07:06	06:03	05:55	06:32 (WEA05)	05:06	04:54
	16:48	17:45	18:34	20:26	32 07:04 (WEA05)	21:12	21:34
27	07:59	07:04	06:01	05:53	06:30 (WEA05)	05:05	04:55
	16:50	17:47	18:35	20:28	34 07:04 (WEA05)	21:14	21:34
28	07:58	07:01	05:58	05:51	06:30 (WEA05)	05:04	04:55
	16:52	17:49	18:37	20:29	36 07:06 (WEA05)	21:15	21:34
29	07:57		06:56	05:49	06:30 (WEA05)	05:03	04:56
	16:54		19:39	20:31	36 07:06 (WEA05)	21:16	21:34
30	07:55		06:54	05:47	06:29 (WEA05)	05:02	04:56
	16:56		19:40	20:33	37 07:06 (WEA05)	21:17	21:34
31	07:54		06:51			05:01	
	16:57		19:42			21:18	
Sonnenscheinstunden	260	278	367	416		484	497
astr.max.mögl.Beschattung				297		744	
Red.Sonnenscheinwahrsch.				0,42		0,48	
Reduktion Betriebsdauer				0,95		0,95	
Reduktion Windrichtung				0,64		0,64	
Gesamte Reduktion				0,25		0,29	
Met.wahrsch.Beschattung				75		215	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP27 - Am Sandberg 14, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57	05:33		06:39 (WEA05)	06:22	07:11		07:04		07:55	
	21:33	21:02	35	07:14 (WEA05)	20:00	18:52		16:46		16:06	
2	04:58	05:35		06:38 (WEA05)	06:24	07:13		07:06		07:56	
	21:33	21:00	36	07:14 (WEA05)	19:58	18:49		16:44		16:05	
3	04:58	05:36		06:38 (WEA05)	06:26	07:14		07:08		07:58	
	21:33	20:59	37	07:15 (WEA05)	19:56	18:47		16:42		16:05	
4	04:59	05:38		06:37 (WEA05)	06:27	07:16		07:10		07:59	
	21:32	20:57	38	07:15 (WEA05)	19:54	18:45		16:40		16:04	
5	05:00	05:39		06:37 (WEA05)	06:29	07:18		07:11		08:00	
	21:32	20:55	39	07:16 (WEA05)	19:51	18:42		16:39		16:04	
6	05:01	05:41		06:37 (WEA05)	06:30	07:19		07:13		08:01	
	21:31	20:54	38	07:15 (WEA05)	19:49	18:40		16:37		16:03	
7	05:02	05:42		06:36 (WEA05)	06:32	07:21		07:15		08:03	
	21:31	20:52	39	07:15 (WEA05)	19:47	18:38		16:35		16:03	
8	05:03	05:44		06:37 (WEA05)	06:34	07:23		07:17		08:04	
	21:30	20:50	39	07:16 (WEA05)	19:45	18:36		16:34		16:02	
9	05:04	05:46		06:36 (WEA05)	06:35	07:24		07:18		08:05	
	21:30	20:48	39	07:15 (WEA05)	19:42	18:33		16:32		16:02	
10	05:05	05:47		06:37 (WEA05)	06:37	07:26		07:20		08:06	
	21:29	20:46	38	07:15 (WEA05)	19:40	18:31		16:30		16:02	
11	05:06	05:49		06:36 (WEA05)	06:39	07:28		07:22		08:07	
	21:28	20:44	38	07:14 (WEA05)	19:38	18:29		16:29		16:02	
12	05:07	05:50		06:37 (WEA05)	06:40	07:29		07:24		08:08	
	21:27	20:42	37	07:14 (WEA05)	19:35	18:27		16:27		16:02	
13	05:08	05:52		06:36 (WEA05)	06:42	07:31		07:25		08:09	
	21:26	20:40	37	07:13 (WEA05)	19:33	18:25		16:26		16:02	
14	05:09	05:53		06:37 (WEA05)	06:43	07:33		07:27		08:10	
	21:25	20:39	36	07:13 (WEA05)	19:31	18:22		16:24		16:02	
15	05:10	05:55		06:37 (WEA05)	06:45	07:34		07:29		08:11	
	21:24	20:37	35	07:12 (WEA05)	19:29	18:20		16:23		16:02	
16	05:11	05:57		06:38 (WEA05)	06:47	07:36		07:31		08:12	
	21:23	20:35	34	07:12 (WEA05)	19:26	18:18		16:22		16:02	
17	05:12	05:58		06:38 (WEA05)	06:48	07:38		07:32		08:13	
	21:22	20:33	32	07:10 (WEA05)	19:24	18:16		16:20		16:02	
18	05:14	06:00		06:40 (WEA05)	06:50	07:40		07:34		08:14	
	21:21	20:31	29	07:09 (WEA05)	19:22	18:14		16:19		16:02	
19	05:15	06:01		06:40 (WEA05)	06:51	07:41		07:36		08:14	
	21:20	20:28	27	07:07 (WEA05)	19:19	18:12		16:18		16:03	
20	05:16	06:03		06:42 (WEA05)	06:53	07:43		07:37		08:15	
	21:19	20:26	24	07:06 (WEA05)	19:17	18:10		16:16		16:03	
21	05:18	06:05		06:44 (WEA05)	06:55	07:45		07:39		08:16	
	21:18	20:24	20	07:04 (WEA05)	19:15	18:07		16:15		16:03	
22	05:19	06:06		06:46 (WEA05)	06:56	07:47		07:41		08:16	
	21:17	20:22	14	07:00 (WEA05)	19:12	18:05		16:14		16:04	
23	05:20	06:08			06:58	07:48		07:42		08:17	
	21:15	20:20			19:10	18:03		16:13		16:04	
24	05:22	06:10			06:59	07:50		07:44		08:17	
	21:14	20:18			19:08	18:01		16:12		16:05	
25	05:23	06:11			07:01	06:52		07:46		08:17	
	21:13	20:16			19:05	16:59		16:11		16:06	
26	05:24	06:13			07:03	06:54		07:47		08:18	
	21:11	20:14			19:03	16:57		16:10		16:06	
27	05:26	06:14			07:04	06:55		07:49		08:18	
	21:10	20:12			19:01	16:55		16:09		16:07	
28	05:27	06:16			07:06	06:57		07:50		08:18	
	21:08	20:09			18:58	16:53		16:08		16:08	
29	05:29	06:18			07:08	06:59		07:52		08:18	
	21:07	20:07			18:56	16:52		16:07		16:09	
30	05:30	06:19			07:09	07:01		07:53		08:19	
	21:05	20:05			18:54	16:50		16:07		16:09	
31	05:32	06:21				07:02				08:19	
	21:04	20:03				16:48				16:10	
Sonnenscheinstunden	501	453			381	332		267		245	
astr.max.mögl.Beschattung	300	741									
Red.Sonnenscheinwahrsch.	0,47	0,50									
Reduktion Betriebsdauer	0,95	0,95									
Reduktion Windrichtung	0,64	0,64									
Gesamte Reduktion	0,29	0,30									
Met.wahrsch.Beschattung	86	224									

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
--------------	-----------------------	-------------------------	----------------------	----------------------------------	--------------------------------	---------------------------	----------------------------

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP28 - Am Sandberg 18, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April		Mai		Juni	
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44		05:45 20:34	38	06:39 (WEA05) 07:17 (WEA05)	05:00 21:20
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45		05:43 20:36	37	06:39 (WEA05) 07:16 (WEA05)	04:59 21:21
3	08:18 16:14	07:49 17:03	06:55 17:54	06:45 19:47		05:41 20:37	36	06:39 (WEA05) 07:15 (WEA05)	04:58 21:22
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49		05:39 20:39	35	06:40 (WEA05) 07:15 (WEA05)	04:58 21:23
5	08:18 16:16	07:46 17:06	06:51 17:57	06:40 19:51		05:37 20:41	34	06:40 (WEA05) 07:14 (WEA05)	04:57 21:24
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52		05:36 20:42	33	06:40 (WEA05) 07:13 (WEA05)	04:56 21:25
7	08:17 16:19	07:42 17:10	06:46 18:01	06:36 19:54		05:34 20:44	32	06:41 (WEA05) 07:13 (WEA05)	04:56 21:26
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56		05:32 20:46	30	06:42 (WEA05) 07:12 (WEA05)	04:55 21:26
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57		05:30 20:47	28	06:42 (WEA05) 07:10 (WEA05)	04:55 21:27
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59		05:29 20:49	26	06:44 (WEA05) 07:10 (WEA05)	04:54 21:28
11	08:15 16:24	07:35 17:18	06:37 18:08	06:27 20:01		05:27 20:50	24	06:44 (WEA05) 07:08 (WEA05)	04:54 21:29
12	08:15 16:26	07:34 17:19	06:35 18:10	06:24 20:02		05:25 20:52	21	06:46 (WEA05) 07:07 (WEA05)	04:54 21:30
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04		05:24 20:54	16	06:48 (WEA05) 07:04 (WEA05)	04:53 21:30
14	08:13 16:29	07:30 17:23	06:30 18:13	06:20 20:06		05:22 20:55	11	06:51 (WEA05) 07:02 (WEA05)	04:53 21:31
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	14	06:54 (WEA05) 07:08 (WEA05)	05:21 20:57	04:53 21:31	04:53 21:31
16	08:12 16:32	07:26 17:27	06:26 18:17	06:16 20:09	20	06:51 (WEA05) 07:11 (WEA05)	05:19 20:58	04:53 21:32	04:53 21:32
17	08:11 16:33	07:24 17:29	06:24 18:18	06:13 20:11	24	06:48 (WEA05) 07:12 (WEA05)	05:18 21:00	04:53 21:32	04:53 21:32
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	28	06:46 (WEA05) 07:14 (WEA05)	05:16 21:01	04:53 21:33	04:53 21:33
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	30	06:45 (WEA05) 07:15 (WEA05)	05:15 21:03	04:53 21:33	04:53 21:33
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	32	06:44 (WEA05) 07:16 (WEA05)	05:13 21:04	04:53 21:33	04:53 21:33
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	34	06:42 (WEA05) 07:16 (WEA05)	05:12 21:05	04:53 21:34	04:53 21:34
22	08:06 16:41	07:14 17:38	06:12 18:27	06:03 20:19	35	06:42 (WEA05) 07:17 (WEA05)	05:11 21:07	04:53 21:34	04:53 21:34
23	08:04 16:43	07:12 17:40	06:10 18:29	06:01 20:21	36	06:41 (WEA05) 07:17 (WEA05)	05:09 21:08	04:53 21:34	04:53 21:34
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:23	37	06:40 (WEA05) 07:17 (WEA05)	05:08 21:10	04:54 21:34	04:54 21:34
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	38	06:39 (WEA05) 07:17 (WEA05)	05:07 21:11	04:54 21:34	04:54 21:34
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	38	06:39 (WEA05) 07:17 (WEA05)	05:06 21:12	04:54 21:34	04:54 21:34
27	07:59 16:50	07:04 17:47	06:01 18:35	05:53 20:28	38	06:39 (WEA05) 07:17 (WEA05)	05:05 21:14	04:55 21:34	04:55 21:34
28	07:58 16:52	07:01 17:49	05:58 18:37	05:51 20:29	39	06:39 (WEA05) 07:18 (WEA05)	05:04 21:15	04:55 21:34	04:55 21:34
29	07:57 16:54		05:56 19:39	05:49 20:31	39	06:39 (WEA05) 07:18 (WEA05)	05:03 21:16	04:56 21:34	04:56 21:34
30	07:55 16:56		05:54 19:40	05:47 20:33	38	06:39 (WEA05) 07:17 (WEA05)	05:02 21:17	04:56 21:34	04:56 21:34
31	07:54 16:57		05:51 19:42			05:01 21:18			
Sonnenscheinstunden	260	278	367	416		484		497	
astr.max.mögl.Beschattung				520		401		586	
Red.Sonnenscheinwahrsch.				0,42		0,48		0,45	
Reduktion Betriebsdauer				0,95		0,95		0,95	
Reduktion Windrichtung				0,64		0,64		0,68	
Gesamte Reduktion				0,25		0,29		0,29	
Met.wahrsch.Beschattung				131		116		171	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP28 - Am Sandberg 18, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober	November	Dezember
1	04:57	05:36 (WEA04)	05:33	06:56 (WEA05)	06:22	07:11	07:04	07:55	
	21:33	22 05:58 (WEA04)	21:02	07:18 (WEA05)	06:20	18:52	16:46	16:06	
2	04:58	05:36 (WEA04)	05:35	06:54 (WEA05)	06:24	07:13	07:06	07:56	
	21:33	21 05:57 (WEA04)	21:00	07:19 (WEA05)	19:58	18:49	16:44	16:05	
3	04:58	05:37 (WEA04)	05:36	06:54 (WEA05)	06:26	07:14	07:08	07:58	
	21:33	20 05:57 (WEA04)	20:59	07:20 (WEA05)	19:56	18:47	16:42	16:05	
4	04:59	05:38 (WEA04)	05:38	06:52 (WEA05)	06:27	07:16	07:10	07:59	
	21:32	19 05:57 (WEA04)	20:57	07:21 (WEA05)	19:54	18:45	16:40	16:04	
5	05:00	05:38 (WEA04)	05:39	06:52 (WEA05)	06:29	07:18	07:11	08:00	
	21:32	18 05:56 (WEA04)	20:55	07:23 (WEA05)	19:51	18:42	16:39	16:04	
6	05:01	05:39 (WEA04)	05:41	06:50 (WEA05)	06:30	07:19	07:13	08:01	
	21:31	16 05:55 (WEA04)	20:54	07:23 (WEA05)	19:49	18:40	16:37	16:03	
7	05:02	05:41 (WEA04)	05:42	06:49 (WEA05)	06:32	07:21	07:15	08:03	
	21:31	14 05:55 (WEA04)	20:52	07:23 (WEA05)	19:47	18:38	16:35	16:03	
8	05:03	05:42 (WEA04)	05:44	06:49 (WEA05)	06:34	07:23	07:17	08:04	
	21:30	12 05:54 (WEA04)	20:50	07:24 (WEA05)	19:45	18:36	16:34	16:02	
9	05:04	05:44 (WEA04)	05:46	06:48 (WEA05)	06:35	07:24	07:18	08:05	
	21:30	8 05:52 (WEA04)	20:48	07:24 (WEA05)	19:42	18:33	16:32	16:02	
10	05:05	05:48 (WEA04)	05:47	06:48 (WEA05)	06:37	07:26	07:20	08:06	
	21:29	1 05:49 (WEA04)	20:46	07:25 (WEA05)	19:40	18:31	16:30	16:02	
11	05:06		05:49	06:47 (WEA05)	06:39	07:28	07:22	08:07	
	21:28		20:44	07:25 (WEA05)	19:38	18:29	16:29	16:02	
12	05:07		05:50	06:47 (WEA05)	06:40	07:29	07:24	08:08	
	21:27		20:42	07:25 (WEA05)	19:35	18:27	16:27	16:02	
13	05:08		05:52	06:46 (WEA05)	06:42	07:31	07:25	08:09	
	21:26		20:40	07:25 (WEA05)	19:33	18:25	16:26	16:02	
14	05:09		05:53	06:46 (WEA05)	06:43	07:33	07:27	08:10	
	21:25		20:39	07:25 (WEA05)	19:31	18:22	16:24	16:02	
15	05:10		05:55	06:46 (WEA05)	06:45	07:34	07:29	08:11	
	21:24		20:37	07:25 (WEA05)	19:29	18:20	16:23	16:02	
16	05:11		05:57	06:46 (WEA05)	06:47	07:36	07:31	08:12	
	21:23		20:35	07:25 (WEA05)	19:26	18:18	16:22	16:02	
17	05:12		05:58	06:46 (WEA05)	06:48	07:38	07:32	08:13	
	21:22		20:33	07:24 (WEA05)	19:24	18:16	16:20	16:02	
18	05:14		06:00	06:46 (WEA05)	06:50	07:40	07:34	08:14	
	21:21		20:31	07:24 (WEA05)	19:22	18:14	16:19	16:02	
19	05:15		06:01	06:46 (WEA05)	06:51	07:41	07:36	08:14	
	21:20		20:28	07:23 (WEA05)	19:19	18:12	16:18	16:03	
20	05:16		06:03	06:47 (WEA05)	06:53	07:43	07:37	08:15	
	21:19		20:26	07:23 (WEA05)	19:17	18:10	16:16	16:03	
21	05:18		06:05	06:47 (WEA05)	06:55	07:45	07:39	08:16	
	21:18		20:24	07:22 (WEA05)	19:15	18:07	16:15	16:03	
22	05:19		06:06	06:47 (WEA05)	06:56	07:47	07:41	08:16	
	21:17		20:22	07:21 (WEA05)	19:12	18:05	16:14	16:04	
23	05:20		06:08	06:48 (WEA05)	06:58	07:48	07:42	08:17	
	21:15		20:20	07:20 (WEA05)	19:10	18:03	16:13	16:04	
24	05:22		06:10	06:49 (WEA05)	06:59	07:50	07:44	08:17	
	21:14		20:18	07:18 (WEA05)	19:08	18:01	16:12	16:05	
25	05:23		06:11	06:50 (WEA05)	07:01	06:52	07:46	08:17	
	21:13		20:16	07:17 (WEA05)	19:05	16:59	16:11	16:06	
26	05:24		06:13	06:51 (WEA05)	07:03	06:54	07:47	08:18	
	21:11		20:14	07:15 (WEA05)	19:03	16:57	16:10	16:06	
27	05:26		06:14	06:53 (WEA05)	07:04	06:55	07:49	08:18	
	21:10		20:12	07:13 (WEA05)	19:01	16:55	16:09	16:07	
28	05:27		06:16	06:56 (WEA05)	07:06	06:57	07:50	08:18	
	21:08		20:09	07:09 (WEA05)	18:58	16:53	16:08	16:08	
29	05:29	07:04 (WEA05)	06:18		07:08	06:59	07:52	08:18	
	21:07	6 07:10 (WEA05)	20:07		18:56	16:52	16:07	16:09	
30	05:30	07:00 (WEA05)	06:19		07:09	07:01	07:53	08:19	
	21:05	14 07:14 (WEA05)	20:05		18:54	16:50	16:07	16:09	
31	05:32	06:57 (WEA05)	06:21			07:02		08:19	
	21:04	18 07:15 (WEA05)	20:03			16:48		16:10	
Sonnenscheinstunden	501		453		381	332	267	245	
astr.max.mögl.Beschattung	189		903						
Red.Sonnenscheinwahrsch.	0,47		0,50						
Reduktion Betriebsdauer	0,95		0,95						
Reduktion Windrichtung	0,67		0,64						
Gesamte Reduktion	0,30		0,30						
Met.wahrsch.Beschattung	57		273						

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP29 - Am Sandberg 20, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April		Mai		Juni	
1	08:19	07:52	06:59	06:49		05:45	07:03 (WEA05)	05:00	05:39 (WEA04)
	16:12	16:59	17:50	19:44		20:34	20:23 (WEA05)	21:20	06:09 (WEA04)
2	08:18	07:51	06:57	06:47		05:43	07:05 (WEA05)	04:59	05:40 (WEA04)
	16:13	17:01	17:52	19:45		20:36	07:20 (WEA05)	21:21	06:10 (WEA04)
3	08:18	07:49	06:55	06:45		05:41	07:09 (WEA05)	04:58	05:39 (WEA04)
	16:14	17:03	17:54	19:47		20:37	07:15 (WEA05)	21:22	06:10 (WEA04)
4	08:18	07:47	06:53	06:42		05:39		04:58	05:39 (WEA04)
	16:15	17:05	17:56	19:49		20:39		21:23	06:10 (WEA04)
5	08:18	07:46	06:51	06:40		05:37		04:57	05:39 (WEA04)
	16:16	17:06	17:57	19:51		20:41		21:24	06:11 (WEA04)
6	08:18	07:44	06:48	06:38		07:15 (WEA05)		04:56	05:39 (WEA04)
	16:17	17:08	17:59	19:52	7	07:22 (WEA05)		21:25	06:11 (WEA04)
7	08:17	07:42	06:46	06:36		07:11 (WEA05)		04:56	05:39 (WEA04)
	16:19	17:10	18:01	19:54	16	07:27 (WEA05)		21:26	06:12 (WEA04)
8	08:17	07:41	06:44	06:33		07:08 (WEA05)		04:55	05:39 (WEA04)
	16:20	17:12	18:03	19:56	22	07:30 (WEA05)		21:26	06:11 (WEA04)
9	08:16	07:39	06:42	06:31		07:06 (WEA05)		04:55	05:39 (WEA04)
	16:21	17:14	18:04	19:57	25	07:31 (WEA05)		21:27	06:12 (WEA04)
10	08:16	07:37	06:39	06:29		07:03 (WEA05)		04:54	05:40 (WEA04)
	16:23	17:16	18:06	19:59	29	07:32 (WEA05)		21:28	06:13 (WEA04)
11	08:15	07:35	06:37	06:27		07:02 (WEA05)		04:54	05:39 (WEA04)
	16:24	17:18	18:08	20:01	31	07:33 (WEA05)		21:29	06:12 (WEA04)
12	08:15	07:34	06:35	06:24		07:01 (WEA05)		04:54	05:39 (WEA04)
	16:26	17:19	18:10	20:02	33	07:34 (WEA05)		21:30	06:13 (WEA04)
13	08:14	07:32	06:33	06:22		07:00 (WEA05)		04:53	05:40 (WEA04)
	16:27	17:21	18:11	20:04	35	07:35 (WEA05)		21:30	06:13 (WEA04)
14	08:13	07:30	06:30	06:20		06:59 (WEA05)		04:53	05:40 (WEA04)
	16:29	17:23	18:13	20:06	36	07:35 (WEA05)		21:31	06:14 (WEA04)
15	08:12	07:28	06:28	06:18		06:59 (WEA05)		04:53	05:40 (WEA04)
	16:30	17:25	18:15	20:07	36	07:35 (WEA05)		21:31	06:14 (WEA04)
16	08:12	07:26	06:26	06:16		06:58 (WEA05)		04:53	05:40 (WEA04)
	16:32	17:27	18:17	20:09	38	07:36 (WEA05)		21:32	06:14 (WEA04)
17	08:11	07:24	06:24	06:13		06:57 (WEA05)		04:53	05:41 (WEA04)
	16:33	17:29	18:18	20:11	38	07:35 (WEA05)		21:32	06:14 (WEA04)
18	08:10	07:22	06:21	06:11		06:56 (WEA05)		04:53	05:41 (WEA04)
	16:35	17:30	18:20	20:12	39	07:35 (WEA05)		21:33	06:15 (WEA04)
19	08:09	07:20	06:19	06:09		06:56 (WEA05)		04:53	05:41 (WEA04)
	16:36	17:32	18:22	20:14	38	07:34 (WEA05)		21:33	06:15 (WEA04)
20	08:08	07:18	06:17	06:07		06:56 (WEA05)		04:53	05:41 (WEA04)
	16:38	17:34	18:23	20:16	38	07:34 (WEA05)		21:33	06:15 (WEA04)
21	08:07	07:16	06:14	06:05		06:28 (WEA09)	05:12	04:53	05:41 (WEA04)
	16:40	17:36	18:25	20:17	44	07:34 (WEA05)	21:05	05:56 (WEA04)	06:15 (WEA04)
22	08:06	07:14	06:12	06:03		06:26 (WEA09)	05:11	05:48 (WEA04)	05:42 (WEA04)
	16:41	17:38	18:27	20:19	46	07:33 (WEA05)	21:07	06:00 (WEA04)	06:16 (WEA04)
23	08:04	07:12	06:10	06:01		06:25 (WEA09)	05:09	05:46 (WEA04)	05:42 (WEA04)
	16:43	17:40	18:29	20:21	46	07:32 (WEA05)	21:08	06:02 (WEA04)	06:16 (WEA04)
24	08:03	07:10	06:07	05:59		06:25 (WEA09)	05:08	05:44 (WEA04)	05:42 (WEA04)
	16:45	17:41	18:30	20:23	46	07:32 (WEA05)	21:10	06:02 (WEA04)	06:16 (WEA04)
25	08:02	07:08	06:05	05:57		06:25 (WEA09)	05:07	05:43 (WEA04)	05:42 (WEA04)
	16:47	17:43	18:32	20:24	44	07:31 (WEA05)	21:11	06:03 (WEA04)	06:15 (WEA04)
26	08:01	07:06	06:03	05:55		06:25 (WEA09)	05:06	05:42 (WEA04)	05:43 (WEA04)
	16:48	17:45	18:34	20:26	42	07:30 (WEA05)	21:12	06:04 (WEA04)	06:16 (WEA04)
27	07:59	07:04	06:01	05:53		06:26 (WEA09)	05:05	05:41 (WEA04)	05:42 (WEA04)
	16:50	17:47	18:35	20:28	37	07:29 (WEA05)	21:14	06:05 (WEA04)	06:16 (WEA04)
28	07:58	07:01	05:58	05:51		06:59 (WEA05)	05:04	05:41 (WEA04)	05:43 (WEA04)
	16:52	17:49	18:37	20:29	29	07:28 (WEA05)	21:15	06:07 (WEA04)	06:17 (WEA04)
29	07:57		06:56	05:49		07:00 (WEA05)	05:03	05:41 (WEA04)	05:43 (WEA04)
	16:54		19:39	20:31	27	07:27 (WEA05)	21:16	06:08 (WEA04)	06:16 (WEA04)
30	07:55		06:54	05:47		07:01 (WEA05)	05:02	05:40 (WEA04)	05:43 (WEA04)
	16:55		19:40	20:33	24	07:25 (WEA05)	21:17	06:08 (WEA04)	06:17 (WEA04)
31	07:54		06:51				05:01	05:40 (WEA04)	
	16:57		19:42				21:18	06:08 (WEA04)	
Sonnenscheinstunden	260	278	367	416		484		498	
astr.max.mögl.Beschattung				846		268		991	
Red.Sonnenscheinwahrsch.				0,42		0,48		0,45	
Reduktion Betriebsdauer				0,95		0,95		0,95	
Reduktion Windrichtung				0,64		0,67		0,67	
Gesamte Reduktion				0,25		0,30		0,29	
Met.wahrsch.Beschattung				213		81		287	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP30 - Am Sportpl. 15, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April		Mai		Juni
1	08:19	07:52	06:59	06:49		05:45	06:37 (WEA05)	05:00
	16:12	16:59	17:50	19:44		20:34	23 07:00 (WEA05)	21:20
2	08:18	07:51	06:57	06:47		05:43	06:38 (WEA05)	04:59
	16:13	17:01	17:52	19:45		20:36	21 06:59 (WEA05)	21:21
3	08:18	07:49	06:55	06:45		05:41	06:39 (WEA05)	04:58
	16:14	17:03	17:54	19:47		20:38	18 06:57 (WEA05)	21:22
4	08:18	07:47	06:53	06:42		05:39	06:42 (WEA05)	04:58
	16:15	17:05	17:56	19:49		20:39	14 06:56 (WEA05)	21:23
5	08:18	07:46	06:51	06:40		05:37	06:44 (WEA05)	04:57
	16:16	17:06	17:57	19:51		20:41	8 06:52 (WEA05)	21:24
6	08:18	07:44	06:48	06:38		05:36		04:56
	16:17	17:08	17:59	19:52		20:42		21:25
7	08:17	07:42	06:46	06:36		05:34		04:56
	16:19	17:10	18:01	19:54		20:44		21:26
8	08:17	07:41	06:44	06:33		05:32		04:55
	16:20	17:12	18:03	19:56		20:46		21:26
9	08:16	07:39	06:42	06:31		05:30		04:55
	16:21	17:14	18:04	19:57		20:47		21:27
10	08:16	07:37	06:39	06:29		05:29		04:54
	16:23	17:16	18:06	19:59		20:49		21:28
11	08:15	07:35	06:37	06:27		05:27		04:54
	16:24	17:18	18:08	20:01		20:50		21:29
12	08:15	07:34	06:35	06:24		05:25		04:54
	16:26	17:19	18:10	20:02		20:52		21:30
13	08:14	07:32	06:33	06:22		05:24		04:53
	16:27	17:21	18:11	20:04		20:54		21:30
14	08:13	07:30	06:30	06:20	06:49 (WEA05)	05:22		04:53
	16:29	17:23	18:13	20:06	7 06:56 (WEA05)	20:55		21:31
15	08:12	07:28	06:28	06:18	06:45 (WEA05)	05:21		04:53
	16:30	17:25	18:15	20:07	15 07:00 (WEA05)	20:57		21:31
16	08:12	07:26	06:26	06:16	06:43 (WEA05)	05:19		04:53
	16:32	17:27	18:17	20:09	19 07:02 (WEA05)	20:58		21:32
17	08:11	07:24	06:24	06:13	06:40 (WEA05)	05:18		04:53
	16:33	17:29	18:18	20:11	22 07:02 (WEA05)	21:00		21:32
18	08:10	07:22	06:21	06:11	06:39 (WEA05)	05:16	05:46 (WEA04)	04:53
	16:35	17:30	18:20	20:12	24 07:03 (WEA05)	21:01	7 05:53 (WEA04)	21:33
19	08:09	07:20	06:19	06:09	06:38 (WEA05)	05:15	05:43 (WEA04)	04:53
	16:36	17:32	18:22	20:14	26 07:04 (WEA05)	21:03	11 05:54 (WEA04)	21:33
20	08:08	07:18	06:17	06:07	06:37 (WEA05)	05:13	05:42 (WEA04)	04:53
	16:38	17:34	18:23	20:16	27 07:04 (WEA05)	21:04	14 05:56 (WEA04)	21:33
21	08:07	07:16	06:14	06:05	06:37 (WEA05)	05:12	05:41 (WEA04)	04:53
	16:40	17:36	18:25	20:17	28 07:05 (WEA05)	21:05	17 05:58 (WEA04)	21:34
22	08:06	07:14	06:12	06:03	06:36 (WEA05)	05:11	05:40 (WEA04)	04:53
	16:41	17:38	18:27	20:19	29 07:05 (WEA05)	21:07	19 05:59 (WEA04)	21:34
23	08:04	07:12	06:10	06:01	06:36 (WEA05)	05:09	05:39 (WEA04)	04:53
	16:43	17:40	18:29	20:21	29 07:05 (WEA05)	21:08	21 06:00 (WEA04)	21:34
24	08:03	07:10	06:07	05:59	06:35 (WEA05)	05:08	05:38 (WEA04)	04:54
	16:45	17:41	18:30	20:23	29 07:04 (WEA05)	21:10	22 06:00 (WEA04)	21:34
25	08:02	07:08	06:05	05:57	06:35 (WEA05)	05:07	05:38 (WEA04)	04:54
	16:47	17:43	18:32	20:24	29 07:04 (WEA05)	21:11	22 06:00 (WEA04)	21:34
26	08:01	07:06	06:03	05:55	06:35 (WEA05)	05:06	05:37 (WEA04)	04:54
	16:48	17:45	18:34	20:26	29 07:04 (WEA05)	21:12	24 06:01 (WEA04)	21:34
27	07:59	07:04	06:01	05:53	06:35 (WEA05)	05:05	05:38 (WEA04)	04:55
	16:50	17:47	18:35	20:28	28 07:03 (WEA05)	21:14	24 06:02 (WEA04)	21:34
28	07:58	07:01	05:58	05:51	06:36 (WEA05)	05:04	05:38 (WEA04)	04:55
	16:52	17:49	18:37	20:29	27 07:03 (WEA05)	21:15	24 06:02 (WEA04)	21:34
29	07:57		06:56	05:49	06:36 (WEA05)	05:03	05:37 (WEA04)	04:56
	16:54		19:39	20:31	26 07:02 (WEA05)	21:16	26 06:03 (WEA04)	21:34
30	07:55		06:54	05:47	06:37 (WEA05)	05:02	05:37 (WEA04)	04:57
	16:56		19:40	20:33	24 07:01 (WEA05)	21:17	26 06:03 (WEA04)	21:34
31	07:54		06:51			05:01		05:37 (WEA04)
	16:57		19:42			21:18	26 06:03 (WEA04)	
Sonnenscheinstunden	260	278	367	416		484		497
astr.max.mögl.Beschattung				418		367		769
Red.Sonnenscheinwahrsch.				0,42		0,48		0,45
Reduktion Betriebsdauer				0,95		0,95		0,95
Reduktion Windrichtung				0,64		0,66		0,67
Gesamte Reduktion				0,25		0,30		0,29
Met.wahrsch.Beschattung				106		110		222

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP30 - Am Sportpl. 15, 06780 Zörbig

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober	November	Dezember
1	04:57		05:44 (WEA04)	05:33	06:22	07:11	07:04	07:55	
	21:33	26	06:10 (WEA04)	21:02	20:01	18:52	16:46	16:06	
2	04:58		05:43 (WEA04)	05:35	06:24	07:13	07:06	07:56	
	21:33	26	06:09 (WEA04)	21:00	19:58	18:49	16:44	16:05	
3	04:59		05:44 (WEA04)	05:36	06:26	07:14	07:08	07:58	
	21:33	26	06:10 (WEA04)	20:59	19:56	18:47	16:42	16:05	
4	04:59		05:44 (WEA04)	05:38	06:27	07:16	07:10	07:59	
	21:32	26	06:10 (WEA04)	20:57	19:54	18:45	16:41	16:04	
5	05:00		05:43 (WEA04)	05:39	06:29	07:18	07:11	08:00	
	21:32	27	06:10 (WEA04)	20:55	19:52	18:42	16:39	16:04	
6	05:01		05:44 (WEA04)	05:41	06:30	07:19	07:13	08:02	
	21:31	26	06:10 (WEA04)	20:54	19:49	18:40	16:37	16:03	
7	05:02		05:44 (WEA04)	05:42	06:32	07:21	07:15	08:03	
	21:31	26	06:10 (WEA04)	20:52	19:47	18:38	16:35	16:03	
8	05:03		05:44 (WEA04)	05:44	06:53 (WEA05)	06:34	07:23	07:17	08:04
	21:30	27	06:11 (WEA04)	20:50	10	07:03 (WEA05)	19:45	18:36	16:34
9	05:04		05:45 (WEA04)	05:46	06:50 (WEA05)	06:35	07:24	07:18	08:05
	21:30	26	06:11 (WEA04)	20:48	15	07:05 (WEA05)	19:42	18:33	16:32
10	05:05		05:45 (WEA04)	05:47	06:48 (WEA05)	06:37	07:26	07:20	08:06
	21:29	26	06:11 (WEA04)	20:46	19	07:07 (WEA05)	19:40	18:31	16:30
11	05:06		05:45 (WEA04)	05:49	06:46 (WEA05)	06:39	07:28	07:22	08:07
	21:28	26	06:11 (WEA04)	20:44	21	07:07 (WEA05)	19:38	18:29	16:29
12	05:07		05:45 (WEA04)	05:50	06:46 (WEA05)	06:40	07:29	07:24	08:08
	21:27	26	06:11 (WEA04)	20:42	23	07:09 (WEA05)	19:35	18:27	16:27
13	05:08		05:46 (WEA04)	05:52	06:44 (WEA05)	06:42	07:31	07:25	08:09
	21:26	25	06:11 (WEA04)	20:41	25	07:09 (WEA05)	19:33	18:25	16:26
14	05:09		05:46 (WEA04)	05:54	06:44 (WEA05)	06:43	07:33	07:27	08:10
	21:25	25	06:11 (WEA04)	20:39	26	07:10 (WEA05)	19:31	18:22	16:24
15	05:10		05:46 (WEA04)	05:55	06:43 (WEA05)	06:45	07:34	07:29	08:11
	21:24	25	06:11 (WEA04)	20:37	27	07:10 (WEA05)	19:29	18:20	16:23
16	05:11		05:46 (WEA04)	05:57	06:43 (WEA05)	06:47	07:36	07:31	08:12
	21:23	25	06:11 (WEA04)	20:35	28	07:11 (WEA05)	19:26	18:18	16:22
17	05:12		05:47 (WEA04)	05:58	06:42 (WEA05)	06:48	07:38	07:32	08:13
	21:22	23	06:10 (WEA04)	20:33	28	07:10 (WEA05)	19:24	18:16	16:20
18	05:14		05:47 (WEA04)	06:00	06:42 (WEA05)	06:50	07:40	07:34	08:14
	21:21	23	06:10 (WEA04)	20:31	29	07:11 (WEA05)	19:22	18:14	16:19
19	05:15		05:48 (WEA04)	06:02	06:42 (WEA05)	06:51	07:41	07:36	08:14
	21:20	22	06:10 (WEA04)	20:28	29	07:11 (WEA05)	19:19	18:12	16:18
20	05:16		05:49 (WEA04)	06:03	06:41 (WEA05)	06:53	07:43	07:37	08:15
	21:19	21	06:10 (WEA04)	20:26	29	07:10 (WEA05)	19:17	18:10	16:16
21	05:18		05:49 (WEA04)	06:05	06:42 (WEA05)	06:55	07:45	07:39	08:16
	21:18	20	06:09 (WEA04)	20:24	28	07:10 (WEA05)	19:15	18:08	16:15
22	05:19		05:50 (WEA04)	06:06	06:41 (WEA05)	06:56	07:47	07:41	08:16
	21:17	18	06:08 (WEA04)	20:22	28	07:09 (WEA05)	19:12	18:05	16:14
23	05:20		05:52 (WEA04)	06:08	06:42 (WEA05)	06:58	07:48	07:42	08:17
	21:15	16	06:08 (WEA04)	20:20	27	07:09 (WEA05)	19:10	18:03	16:13
24	05:22		05:53 (WEA04)	06:10	06:42 (WEA05)	06:59	07:50	07:44	08:17
	21:14	13	06:06 (WEA04)	20:18	25	07:07 (WEA05)	19:08	18:01	16:12
25	05:23		05:54 (WEA04)	06:11	06:43 (WEA05)	07:01	06:52	07:46	08:17
	21:13	10	06:04 (WEA04)	20:16	24	07:07 (WEA05)	19:05	16:59	16:11
26	05:24			06:13	06:43 (WEA05)	07:03	06:54	07:47	08:18
	21:11			20:14	22	07:05 (WEA05)	19:03	16:57	16:10
27	05:26			06:14		06:45 (WEA05)	07:04	06:55	07:49
	21:10			20:12	18	07:03 (WEA05)	19:01	16:55	16:09
28	05:27			06:16		06:46 (WEA05)	07:06	06:57	07:50
	21:08			20:09	14	07:00 (WEA05)	18:58	16:53	16:08
29	05:29			06:18		06:50 (WEA05)	07:08	06:59	07:52
	21:07			20:07	7	06:57 (WEA05)	18:56	16:52	16:07
30	05:30			06:19			07:09	07:01	07:53
	21:05			20:05			18:54	16:50	16:07
31	05:32			06:21				07:02	08:19
	21:04			20:03				16:48	16:10
Sonnenscheinstunden	501			453			381	332	267
astr.max.mögl.Beschattung		580		502					
Red.Sonnenscheinwahrsch.		0,47		0,50					
Reduktion Betriebsdauer		0,95		0,95					
Reduktion Windrichtung		0,67		0,64					
Gesamte Reduktion		0,30		0,30					
Met.wahrsch.Beschattung		174		152					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenende
			(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP31 - Vor d. Heide 6, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19	08:59 (WEA01)	07:52	09:11 (WEA01)	06:59	06:49	05:45	05:00			
	16:12	24	09:23 (WEA01)	16:59	20	09:31 (WEA01)	17:50	19:44	20:34	21:20	
2	08:19		09:00 (WEA01)	07:51		09:13 (WEA01)	06:57	06:47	05:43	04:59	
	16:13	24	09:24 (WEA01)	17:01	17	09:30 (WEA01)	17:52	19:46	20:36	21:21	
3	08:18		08:59 (WEA01)	07:49		09:16 (WEA01)	06:55	06:45	05:41	04:58	
	16:14	25	09:24 (WEA01)	17:03	11	09:27 (WEA01)	17:54	19:47	20:38	21:22	
4	08:18		08:59 (WEA01)	07:48			06:53	06:42	05:39	04:58	
	16:15	26	09:25 (WEA01)	17:05			17:56	19:49	20:39	21:23	
5	08:18		08:59 (WEA01)	07:46			06:51	06:40	05:37	04:57	
	16:16	27	09:26 (WEA01)	17:06			17:57	19:51	20:41	21:24	
6	08:18		08:59 (WEA01)	07:44			06:48	06:38	05:36	04:56	
	16:17	28	09:27 (WEA01)	17:08			17:59	19:52	20:42	21:25	
7	08:17		08:59 (WEA01)	07:43			06:46	06:36	05:34	04:56	
	16:19	28	09:27 (WEA01)	17:10			18:01	19:54	20:44	21:26	
8	08:17		09:00 (WEA01)	07:41			06:44	06:33	05:32	04:55	
	16:20	29	09:29 (WEA01)	17:12			18:03	19:56	20:46	21:27	
9	08:16		08:59 (WEA01)	07:39			06:42	06:31	05:30	04:55	
	16:21	30	09:29 (WEA01)	17:14			18:04	19:57	20:47	21:27	
10	08:16		09:00 (WEA01)	07:37			06:39	06:29	05:29	04:54	
	16:23	30	09:30 (WEA01)	17:16			18:06	19:59	20:49	21:28	
11	08:15		09:00 (WEA01)	07:35			06:37	06:27	05:27	04:54	
	16:24	31	09:31 (WEA01)	17:17			18:08	20:01	20:51	21:29	
12	08:15		09:00 (WEA01)	07:34			06:35	06:24	05:25	04:54	
	16:25	31	09:31 (WEA01)	17:19			18:10	20:02	20:52	21:30	
13	08:14		09:00 (WEA01)	07:32			06:33	06:22	05:24	04:53	
	16:27	32	09:32 (WEA01)	17:21			18:11	20:04	20:54	21:30	
14	08:13		09:00 (WEA01)	07:30			06:30	06:20	05:22	04:53	
	16:28	32	09:32 (WEA01)	17:23			18:13	20:06	20:55	21:31	
15	08:13		09:00 (WEA01)	07:28			06:28	06:18	05:21	04:53	
	16:30	33	09:33 (WEA01)	17:25			18:15	20:07	20:57	21:31	
16	08:12		09:00 (WEA01)	07:26			06:26	06:16	05:19	04:53	
	16:32	33	09:33 (WEA01)	17:27			18:17	20:09	20:58	21:32	
17	08:11		09:01 (WEA01)	07:24			06:24	06:13	05:18	04:53	
	16:33	33	09:34 (WEA01)	17:29			18:18	20:11	21:00	21:32	
18	08:10		09:01 (WEA01)	07:22			06:21	06:11	05:16	04:53	
	16:35	33	09:34 (WEA01)	17:30			18:20	20:13	21:01	21:33	
19	08:09		09:01 (WEA01)	07:20			06:19	06:09	05:15	04:53	
	16:36	34	09:35 (WEA01)	17:32			18:22	20:14	21:03	21:33	
20	08:08		09:02 (WEA01)	07:18			06:17	06:07	05:13	04:53	
	16:38	33	09:35 (WEA01)	17:34			18:23	20:16	21:04	21:34	
21	08:07		09:02 (WEA01)	07:16			06:14	06:05	05:12	04:53	
	16:40	33	09:35 (WEA01)	17:36			18:25	20:18	21:06	21:34	
22	08:06		09:02 (WEA01)	07:14			06:12	06:03	05:11	04:53	
	16:41	33	09:35 (WEA01)	17:38			18:27	20:19	21:07	21:34	
23	08:04		09:03 (WEA01)	07:12			06:10	06:01	05:09	04:53	
	16:43	33	09:36 (WEA01)	17:39			18:29	20:21	21:08	21:34	
24	08:03		09:03 (WEA01)	07:10			06:07	05:59	05:08	04:54	
	16:45	32	09:35 (WEA01)	17:41			18:30	20:23	21:10	21:34	
25	08:02		09:04 (WEA01)	07:08			06:05	05:57	05:07	04:54	
	16:47	31	09:35 (WEA01)	17:43			18:32	20:24	21:11	21:34	
26	08:01		09:05 (WEA01)	07:06			06:03	05:55	05:06	04:54	
	16:48	31	09:36 (WEA01)	17:45			18:34	20:26	21:12	21:34	
27	07:59		09:05 (WEA01)	07:04			06:01	05:53	05:05	04:55	
	16:50	30	09:35 (WEA01)	17:47			18:35	20:28	21:14	21:34	
28	07:58		09:06 (WEA01)	07:01			05:58	05:51	05:04	04:55	
	16:52	29	09:35 (WEA01)	17:49			18:37	20:29	21:15	21:34	
29	07:57		09:07 (WEA01)				06:56	05:49	05:03	04:56	
	16:54	27	09:34 (WEA01)				19:39	20:31	21:16	21:34	
30	07:55		09:09 (WEA01)				06:54	05:47	05:02	04:56	
	16:55	25	09:34 (WEA01)				19:40	20:33	21:17	21:34	
31	07:54		09:10 (WEA01)				06:51		05:01		
	16:57	22	09:32 (WEA01)				19:42		21:19		
Sonnenscheinstunden	260		278				367	416	484	498	
astr.max.mögl.Beschattung		922		48							
Red.Sonnenscheinwahrsch.		0,19		0,26							
Reduktion Betriebsdauer		0,95		0,95							
Reduktion Windrichtung		0,58		0,58							
Gesamte Reduktion		0,10		0,14							
Met.wahrsch.Beschattung		94		7							

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP31 - Vor d. Heide 6, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57	05:33	06:22	07:11	07:04	07:55
	21:34	21:02	20:01	18:52	16:46	16:06
2	04:58	05:35	06:24	07:13	07:06	07:56
	21:33	21:00	19:58	18:49	16:44	16:05
3	04:58	05:36	06:26	07:14	07:08	07:58
	21:33	20:59	19:56	18:47	16:42	16:05
4	04:59	05:38	06:27	07:16	07:10	07:59
	21:32	20:57	19:54	18:45	16:40	16:04
5	05:00	05:39	06:29	07:18	07:11	08:00
	21:32	20:55	19:52	18:42	16:39	16:04
6	05:01	05:41	06:30	07:19	07:13	08:02
	21:32	20:54	19:49	18:40	16:37	16:03
7	05:02	05:42	06:32	07:21	07:15	08:03
	21:31	20:52	19:47	18:38	16:35	16:03
8	05:03	05:44	06:34	07:23	07:17	08:04
	21:30	20:50	19:45	18:36	16:34	16:02
9	05:04	05:46	06:35	07:24	07:19	08:05
	21:30	20:48	19:42	18:33	16:32	16:02
10	05:05	05:47	06:37	07:26	07:20	08:06
	21:29	20:46	19:40	18:31	16:30	16:02
11	05:06	05:49	06:39	07:28	07:22	08:07
	21:28	20:44	19:38	18:29	16:29	16:02
12	05:07	05:50	06:40	07:29	07:24	08:08
	21:27	20:43	19:36	18:27	16:27	16:02
13	05:08	05:52	06:42	07:31	07:26	08:09
	21:26	20:41	19:33	18:25	16:26	16:02
14	05:09	05:53	06:43	07:33	07:27	08:10
	21:26	20:39	19:31	18:22	16:24	16:02
15	05:10	05:55	06:45	07:34	07:29	08:11
	21:25	20:37	19:29	18:20	16:23	16:02
16	05:11	05:57	06:47	07:36	07:31	08:12
	21:24	20:35	19:26	18:18	16:22	16:02
17	05:12	05:58	06:48	07:38	07:32	08:13
	21:23	20:33	19:24	18:16	16:20	16:02
18	05:14	06:00	06:50	07:40	07:34	08:14
	21:21	20:31	19:22	18:14	16:19	16:02
19	05:15	06:01	06:51	07:41	07:36	08:14
	21:20	20:29	19:19	18:12	16:18	16:02
20	05:16	06:03	06:53	07:43	07:38	08:15
	21:19	20:26	19:17	18:10	16:16	16:03
21	05:17	06:05	06:55	07:45	07:39	08:16
	21:18	20:24	19:15	18:07	16:15	16:03
22	05:19	06:06	06:56	07:47	07:41	08:16
	21:17	20:22	19:12	18:05	16:14	16:04
23	05:20	06:08	06:58	07:48	07:43	08:17
	21:15	20:20	19:10	18:03	16:13	16:04
24	05:22	06:10	06:59	07:50	07:44	08:17
	21:14	20:18	19:08	18:01	16:12	16:05
25	05:23	06:11	07:01	07:52	07:46	08:18
	21:13	20:16	19:05	16:59	16:11	16:05
26	05:24	06:13	07:03	07:54	07:47	08:18
	21:11	20:14	19:03	16:57	16:10	16:06
27	05:26	06:14	07:04	07:55	07:49	08:18
	21:10	20:12	19:01	16:55	16:09	16:07
28	05:27	06:16	07:06	07:57	07:50	08:18
	21:08	20:09	18:58	16:53	16:08	16:08
29	05:29	06:18	07:08	07:59	07:52	08:19
	21:07	20:07	18:56	16:51	16:07	16:09
30	05:30	06:19	07:09	07:01	07:53	08:19
	21:05	20:05	18:54	16:50	16:07	16:09
31	05:32	06:21		07:02		08:19
	21:04	20:03		16:48		16:10
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung					672	711
Red.Sonnenscheinwahrsch.					0,21	0,16
Reduktion Betriebsdauer					0,95	0,95
Reduktion Windrichtung					0,58	0,58
Gesamte Reduktion					0,11	0,09
Met.wahrsch.Beschattung					76	64

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **Schattenrezeptor:** IP32 - Vor d. Heide 4, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57	05:33	06:22	07:11	07:04	07:55
	21:34	21:02	20:01	18:52	16:46	16:06
2	04:58	05:35	06:24	07:13	07:06	07:56
	21:33	21:00	19:58	18:49	16:44	16:05
3	04:58	05:36	06:26	07:14	07:08	07:58
	21:33	20:59	19:56	18:47	16:42	16:05
4	04:59	05:38	06:27	07:16	07:10	07:59
	21:32	20:57	19:54	18:45	16:40	16:04
5	05:00	05:39	06:29	07:18	07:11	08:00
	21:32	20:55	19:52	18:42	16:39	16:04
6	05:01	05:41	06:30	07:19	07:13	08:02
	21:32	20:54	19:49	18:40	16:37	16:03
7	05:02	05:42	06:32	07:21	07:15	08:03
	21:31	20:52	19:47	18:38	16:35	16:03
8	05:03	05:44	06:34	07:23	07:17	08:04
	21:30	20:50	19:45	18:36	16:34	16:02
9	05:04	05:46	06:35	07:24	07:19	08:05
	21:30	20:48	19:42	18:33	16:32	16:02
10	05:05	05:47	06:37	07:26	07:20	08:06
	21:29	20:46	19:40	18:31	16:30	16:02
11	05:06	05:49	06:39	07:28	07:22	08:07
	21:28	20:44	19:38	18:29	16:29	16:02
12	05:07	05:50	06:40	07:29	07:24	08:08
	21:27	20:43	19:36	18:27	16:27	16:02
13	05:08	05:52	06:42	07:31	07:26	08:09
	21:26	20:41	19:33	18:25	16:26	16:02
14	05:09	05:53	06:43	07:33	07:27	08:10
	21:26	20:39	19:31	18:22	16:24	16:02
15	05:10	05:55	06:45	07:34	07:29	08:11
	21:25	20:37	19:29	18:20	16:23	16:02
16	05:11	05:57	06:47	07:36	07:31	08:12
	21:24	20:35	19:26	18:18	16:22	16:02
17	05:12	05:58	06:48	07:38	07:32	08:13
	21:23	20:33	19:24	18:16	16:20	16:02
18	05:14	06:00	06:50	07:40	07:34	08:14
	21:21	20:31	19:22	18:14	16:19	16:02
19	05:15	06:01	06:51	07:41	07:36	08:14
	21:20	20:29	19:19	18:12	16:18	16:02
20	05:16	06:03	06:53	07:43	07:38	08:15
	21:19	20:26	19:17	18:10	16:16	16:03
21	05:17	06:05	06:55	07:45	07:39	08:16
	21:18	20:24	19:15	18:07	16:15	16:03
22	05:19	06:06	06:56	07:47	07:41	08:16
	21:17	20:22	19:12	18:05	16:14	16:04
23	05:20	06:08	06:58	07:48	07:43	08:17
	21:15	20:20	19:10	18:03	16:13	16:04
24	05:22	06:10	06:59	07:50	07:44	08:17
	21:14	20:18	19:08	18:01	16:12	16:05
25	05:23	06:11	07:01	07:52	07:46	08:18
	21:13	20:16	19:05	16:59	16:11	16:05
26	05:24	06:13	07:03	07:54	07:47	08:18
	21:11	20:14	19:03	16:57	16:10	16:06
27	05:26	06:14	07:04	07:55	07:49	08:18
	21:10	20:12	19:01	16:55	16:09	16:07
28	05:27	06:16	07:06	07:57	07:50	08:18
	21:08	20:09	18:58	16:53	16:08	16:08
29	05:29	06:18	07:08	07:59	07:52	08:19
	21:07	20:07	18:56	16:51	16:07	16:09
30	05:30	06:19	07:09	07:01	07:53	08:19
	21:05	20:05	18:54	16:50	16:07	16:09
31	05:32	06:21		07:02		08:19
	21:04	20:03		16:48		16:10
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung					587	804
Red.Sonnenscheinwahrsch.					0,21	0,16
Reduktion Betriebsdauer					0,95	0,95
Reduktion Windrichtung					0,58	0,58
Gesamte Reduktion					0,11	0,09
Met.wahrsch.Beschattung					67	73

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
--------------	-----------------------	-------------------------	----------------------	----------------------------------	--------------------------------	---------------------------	----------------------------

Projekt:

SW25034 Salzfurthkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurthkapelle Gesamtbelastung Schattenrezeptor: IP34 - Kleinleipziger Str. 7, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember	
1	08:19	14:56 (WEA01)	07:52	06:59	05:45	05:00	04:57	05:33	06:22	07:11	07:04	07:55	14:42 (WEA01)
2	08:19	14:56 (WEA01)	07:51	06:57	05:43	05:00	04:57	05:33	06:24	07:12	07:06	07:56	14:42 (WEA01)
3	08:18	14:56 (WEA01)	07:49	06:55	05:41	05:00	04:58	05:36	06:26	07:14	07:08	07:58	14:43 (WEA01)
4	08:18	14:57 (WEA01)	07:47	06:53	05:39	05:00	04:57	05:38	06:27	07:16	07:10	07:59	14:43 (WEA01)
5	08:18	14:57 (WEA01)	07:46	06:50	05:37	05:00	04:57	05:39	06:29	07:17	07:11	08:00	14:44 (WEA01)
6	08:18	14:58 (WEA01)	07:44	06:48	05:35	05:01	04:57	05:41	06:30	07:19	07:13	08:02	14:44 (WEA01)
7	08:17	14:57 (WEA01)	07:42	06:46	05:35	05:02	04:57	05:42	06:32	07:21	07:15	08:03	14:44 (WEA01)
8	08:17	14:58 (WEA01)	07:41	06:44	05:33	05:02	04:55	05:42	06:34	07:22	07:17	08:04	14:44 (WEA01)
9	08:16	14:59 (WEA01)	07:39	06:42	05:31	05:03	04:55	05:45	06:35	07:24	07:18	08:05	14:45 (WEA01)
10	08:16	14:59 (WEA01)	07:37	06:39	05:28	05:04	04:54	05:47	06:37	07:26	07:20	08:06	14:46 (WEA01)
11	08:15	15:00 (WEA01)	07:35	06:37	05:27	05:05	04:54	05:49	06:38	07:28	07:22	08:07	14:46 (WEA01)
12	08:15	15:00 (WEA01)	07:34	06:35	05:25	05:06	04:53	05:50	06:40	07:29	07:24	08:08	14:46 (WEA01)
13	08:14	15:01 (WEA01)	07:32	06:33	05:24	05:08	04:52	05:52	06:42	07:31	07:25	08:09	14:47 (WEA01)
14	08:13	15:01 (WEA01)	07:30	06:30	05:22	05:09	04:53	05:53	06:43	07:33	07:27	08:10	14:48 (WEA01)
15	08:12	15:02 (WEA01)	07:28	06:28	05:20	05:10	04:53	05:55	06:45	07:34	07:29	08:11	14:48 (WEA01)
16	08:12	15:02 (WEA01)	07:26	06:26	05:19	05:11	04:53	05:57	06:46	07:36	07:31	08:12	14:49 (WEA01)
17	08:11	15:03 (WEA01)	07:24	06:23	05:17	05:12	04:53	05:58	06:48	07:38	07:32	08:13	14:49 (WEA01)
18	08:10	15:04 (WEA01)	07:22	06:21	05:16	05:13	04:53	05:59	06:50	07:40	07:34	08:14	14:49 (WEA01)
19	08:09	15:05 (WEA01)	07:20	06:19	05:15	05:15	04:53	06:01	06:51	07:41	07:36	08:15	14:50 (WEA01)
20	08:08	15:06 (WEA01)	07:18	06:17	05:13	05:16	04:53	06:03	06:53	07:43	07:37	08:16	14:51 (WEA01)
21	08:07	15:07 (WEA01)	07:16	06:14	05:12	05:17	04:53	06:05	06:55	07:45	07:39	08:17	14:51 (WEA01)
22	08:06	15:08 (WEA01)	07:14	06:12	05:11	05:19	04:53	06:07	06:57	07:47	07:41	08:18	14:52 (WEA01)
23	08:04	15:10 (WEA01)	07:12	06:10	05:09	05:20	04:53	06:08	06:58	07:48	07:42	08:19	14:52 (WEA01)
24	08:03	15:11 (WEA01)	07:10	06:07	05:07	05:21	04:53	06:10	06:59	07:50	07:44	08:20	14:53 (WEA01)
25	08:02	15:12 (WEA01)	07:08	06:05	05:05	05:22	04:53	06:11	07:01	07:51	07:46	08:21	14:54 (WEA01)
26	08:01	15:13 (WEA01)	07:06	06:03	05:03	05:23	04:53	06:12	07:02	07:52	07:47	08:22	14:55 (WEA01)
27	07:59	15:14 (WEA01)	07:04	06:01	05:01	05:24	04:53	06:13	07:03	07:53	07:48	08:23	14:56 (WEA01)
28	07:58	15:15 (WEA01)	07:02	05:59	05:00	05:25	04:53	06:14	07:04	07:54	07:49	08:24	14:57 (WEA01)
29	07:57	15:16 (WEA01)	07:00	05:57	04:59	05:26	04:53	06:15	07:05	07:55	07:50	08:25	14:58 (WEA01)
30	07:55	15:17 (WEA01)	06:58	05:54	04:58	05:27	04:53	06:16	07:06	07:56	07:51	08:26	14:59 (WEA01)
31	07:54	15:18 (WEA01)	06:56	05:52	04:56	05:28	04:53	06:17	07:07	07:57	07:52	08:27	15:00 (WEA01)
	16:57	15:19 (WEA01)	06:54	05:50	04:54	05:29	04:53	06:18	07:08	07:58	07:53	08:28	15:01 (WEA01)
	260	278	367	416	484	498	501	453	381	267	315	245	866
astr.max.mögl.Beschattung											0,21		0,16
Red.Sonnenscheinwahrsch.											0,95		0,95
Reduktion Betriebsdauer											0,68		0,68
Reduktion Windrichtung											0,13		0,11
Gesamte Reduktion											42		92
Met.wahrsch.Beschattung													

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP36 - Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19	09:04 (WEA13)	07:52	15:15 (WEA02)	06:59	06:49	07:11 (WEA14)	05:45	05:00		
	16:12	40 15:22 (WEA02)	16:59	15	16:28 (WEA01)	17:50	19:44	5 07:16 (WEA14)	20:34	21:20	
2	08:18	09:05 (WEA13)	07:51	16:16 (WEA01)	06:57	06:47	07:09 (WEA14)	05:43	04:59		
	16:13	39 15:22 (WEA02)	17:01	14	16:30 (WEA01)	17:52	19:45	8 07:17 (WEA14)	20:36	21:21	
3	08:18	09:06 (WEA13)	07:49	16:15 (WEA01)	06:55	06:44	07:07 (WEA14)	05:41	04:58		
	16:14	38 15:23 (WEA02)	17:03	18	16:33 (WEA01)	17:54	19:47	9 07:16 (WEA14)	20:37	21:22	
4	08:18	09:07 (WEA13)	07:47	16:14 (WEA01)	06:53	06:42	07:07 (WEA14)	05:39	04:57		
	16:15	38 15:24 (WEA02)	17:04	20	16:34 (WEA01)	17:56	19:49	9 07:16 (WEA14)	20:39	21:23	
5	08:18	09:08 (WEA13)	07:46	16:13 (WEA01)	06:50	06:40	07:07 (WEA14)	05:37	04:57		
	16:16	36 15:24 (WEA02)	17:06	21	16:34 (WEA01)	17:57	19:50	7 07:14 (WEA14)	20:41	21:24	
6	08:18	14:53 (WEA02)	07:44	16:12 (WEA01)	06:48	06:38		05:35	04:56		
	16:17	32 15:25 (WEA02)	17:08	23	16:35 (WEA01)	17:59	19:52	20:42	21:25		
7	08:17	14:53 (WEA02)	07:42	16:13 (WEA01)	06:46	06:35		05:34	04:56		
	16:18	32 15:25 (WEA02)	17:10	23	16:36 (WEA01)	18:01	19:54	20:44	21:26		
8	08:17	14:54 (WEA02)	07:41	16:12 (WEA01)	06:44	06:33		05:32	04:55		
	16:20	33 15:27 (WEA02)	17:12	25	16:37 (WEA01)	18:03	19:56	20:46	21:26		
9	08:16	14:54 (WEA02)	07:39	16:12 (WEA01)	06:42	06:31		05:30	04:55		
	16:21	33 15:27 (WEA02)	17:14	25	16:37 (WEA01)	18:04	19:57	20:47	21:27		
10	08:16	14:54 (WEA02)	07:37	16:12 (WEA01)	06:39	06:29		05:28	04:54		
	16:22	33 15:27 (WEA02)	17:16	25	16:37 (WEA01)	18:06	19:59	20:49	21:28		
11	08:15	14:55 (WEA02)	07:35	16:12 (WEA01)	06:37	06:26		05:27	04:54		
	16:24	33 15:28 (WEA02)	17:17	25	16:37 (WEA01)	18:08	20:01	20:50	21:29		
12	08:15	14:55 (WEA02)	07:33	16:12 (WEA01)	06:35	06:24		05:25	04:53		
	16:25	34 15:29 (WEA02)	17:19	25	16:37 (WEA01)	18:10	20:02	20:52	21:30		
13	08:14	14:55 (WEA02)	07:32	16:12 (WEA01)	06:33	06:22		05:24	04:53		
	16:27	34 15:29 (WEA02)	17:21	24	16:36 (WEA01)	18:11	20:04	20:54	21:30		
14	08:13	14:55 (WEA02)	07:30	16:13 (WEA01)	06:30	06:20		05:22	04:53		
	16:28	34 15:29 (WEA02)	17:23	23	16:36 (WEA01)	18:13	20:06	2 06:45 (WEA15)	20:55	21:31	
15	08:12	14:56 (WEA02)	07:28	16:14 (WEA01)	06:28	06:18		06:41 (WEA15)	05:20	04:53	
	16:30	34 15:30 (WEA02)	17:25	21	16:35 (WEA01)	18:15	20:07	5 06:46 (WEA15)	20:57	21:31	
16	08:12	14:56 (WEA02)	07:26	16:15 (WEA01)	06:26	06:15		06:38 (WEA15)	05:19	04:53	
	16:31	34 15:30 (WEA02)	17:27	19	16:34 (WEA01)	18:16	20:09	7 06:45 (WEA15)	20:58	21:32	
17	08:11	14:56 (WEA02)	07:24	16:16 (WEA01)	06:23	06:13		06:36 (WEA15)	05:17	04:53	
	16:33	34 15:30 (WEA02)	17:28	17	16:33 (WEA01)	18:18	20:11	9 06:45 (WEA15)	21:00	21:32	
18	08:10	14:57 (WEA02)	07:22	16:18 (WEA01)	06:21	06:11		06:35 (WEA15)	05:16	04:53	
	16:35	34 15:31 (WEA02)	17:30	13	16:31 (WEA01)	18:20	20:12	10 06:45 (WEA15)	21:01	21:33	
19	08:09	14:58 (WEA02)	07:20	16:22 (WEA01)	06:19	06:09		06:36 (WEA15)	05:15	04:53	
	16:36	33 15:31 (WEA02)	17:32	5 16:27 (WEA01)	18:22	20:14	8 06:44 (WEA15)	21:03	21:33		
20	08:08	14:58 (WEA02)	07:18		06:17	06:07		06:38 (WEA15)	05:13	04:53	
	16:38	33 15:31 (WEA02)	17:34		18:23	20:16	3 06:41 (WEA15)	21:04	21:33		
21	08:07	14:58 (WEA02)	07:16	07:40 (WEA22)	06:14	06:05		05:12	04:53		
	16:40	33 15:31 (WEA02)	17:36	5 07:45 (WEA22)	18:25	20:17		21:05	21:34		
22	08:06	14:59 (WEA02)	07:14	07:38 (WEA22)	06:12	06:03		05:11	04:53		
	16:41	32 15:31 (WEA02)	17:38	8 07:46 (WEA22)	18:27	20:19		21:07	21:34		
23	08:04	15:00 (WEA02)	07:12	07:36 (WEA22)	06:10	06:01		05:09	04:53		
	16:43	31 15:31 (WEA02)	17:39	11 07:47 (WEA22)	18:28	20:21		21:08	21:34		
24	08:03	15:00 (WEA02)	07:10	07:35 (WEA22)	06:07	05:59		05:08	04:54		
	16:45	30 15:30 (WEA02)	17:41	11 07:46 (WEA22)	18:30	20:22		21:10	21:34		
25	08:02	15:01 (WEA02)	07:08	07:36 (WEA22)	06:05	05:57		05:07	04:54		
	16:46	30 15:31 (WEA02)	17:43	9 07:45 (WEA22)	18:32	20:24		21:11	21:34		
26	08:01	15:03 (WEA02)	07:06	07:37 (WEA22)	06:03	05:55		05:06	04:54		
	16:48	28 15:31 (WEA02)	17:45	7 07:44 (WEA22)	18:34	20:26		21:12	21:34		
27	07:59	15:03 (WEA02)	07:03	07:40 (WEA22)	06:00	05:53		05:05	04:55		
	16:50	26 15:29 (WEA02)	17:47	2 07:42 (WEA22)	18:35	20:27		21:14	21:34		
28	07:58	15:05 (WEA02)	07:01		05:58	05:51		05:04	04:55		
	16:52	24 15:29 (WEA02)	17:48		18:37	20:29		21:15	21:34		
29	07:57	15:06 (WEA02)			06:56	05:49		05:03	04:56		
	16:54	22 15:28 (WEA02)			19:39	20:31		21:16	21:34		
30	07:55	15:08 (WEA02)			06:54	05:47		05:02	04:56		
	16:55	18 15:26 (WEA02)			19:40	20:32		21:17	21:34		
31	07:54	15:11 (WEA02)			06:51	07:14 (WEA14)		05:01			
	16:57	14 15:25 (WEA02)			19:42	2 07:16 (WEA14)		21:18			
Sonnenscheinstunden	260		278		367		416	484	498		
astr.max.mögl.Beschattung	979		434		2		82				
Red.Sonnenscheinwahrsch.	0,19		0,26		0,33		0,42				
Reduktion Betriebsdauer	0,95		0,95		0,95		0,95				
Reduktion Windrichtung	0,68		0,67		0,64		0,64				
Gesamte Reduktion	0,12		0,17		0,20		0,25				
Met.wahrsch.Beschattung	118		72		0		21				

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Minuten mit Schatten
		Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP36 - Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Jul	August	September	Oktober	November	Dezember		
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	15:41 (WEA01) 16:06 (WEA01)	07:55 16:06	14:37 (WEA02) 15:10 (WEA02)
2	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	15:41 (WEA01) 16:07 (WEA01)	07:56 16:05	14:37 (WEA02) 15:10 (WEA02)
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	15:42 (WEA01) 16:06 (WEA01)	07:58 16:04	14:38 (WEA02) 15:11 (WEA02)
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	15:42 (WEA01) 16:06 (WEA01)	07:59 16:04	14:38 (WEA02) 15:11 (WEA02)
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	15:43 (WEA01) 16:06 (WEA01)	08:00 16:03	14:38 (WEA02) 15:10 (WEA02)
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	15:43 (WEA01) 16:04 (WEA01)	08:01 16:03	14:40 (WEA02) 15:11 (WEA02)
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	15:44 (WEA01) 16:03 (WEA01)	08:03 16:03	08:55 (WEA13) 15:11 (WEA02)
8	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:33	15:45 (WEA01) 16:02 (WEA01)	08:04 16:02	08:54 (WEA13) 15:11 (WEA02)
9	05:03 21:30	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	15:47 (WEA01) 16:01 (WEA01)	08:05 16:02	08:55 (WEA13) 15:12 (WEA02)
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	15:47 (WEA02) 15:59 (WEA01)	08:06 16:02	08:55 (WEA13) 15:12 (WEA02)
11	05:05 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	14:41 (WEA02) 14:56 (WEA02)	08:07 16:02	08:55 (WEA13) 15:12 (WEA02)
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	14:40 (WEA02) 14:58 (WEA02)	08:08 16:02	08:55 (WEA13) 15:12 (WEA02)
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	14:38 (WEA02) 15:00 (WEA02)	08:09 16:01	08:55 (WEA13) 15:13 (WEA02)
14	05:09 21:25	05:53 20:39	06:43 19:31	07:33 18:22	07:27 16:24	14:37 (WEA02) 15:01 (WEA02)	08:10 16:01	08:55 (WEA13) 15:13 (WEA02)
15	05:10 21:24	05:55 20:37	06:45 19:28	07:34 18:20	07:29 16:23	14:36 (WEA02) 15:02 (WEA02)	08:11 16:02	08:55 (WEA13) 15:13 (WEA02)
16	05:11 21:23	05:57 20:35	06:46 19:26	07:36 18:18	07:31 16:21	14:36 (WEA02) 15:04 (WEA02)	08:12 16:02	08:56 (WEA13) 15:14 (WEA02)
17	05:12 21:22	05:58 20:33	06:48 19:24	07:38 18:16	07:32 16:20	14:34 (WEA02) 15:04 (WEA02)	08:13 16:02	08:55 (WEA13) 15:13 (WEA02)
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	14:34 (WEA02) 15:04 (WEA02)	08:14 16:02	08:56 (WEA13) 15:14 (WEA02)
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:17	14:34 (WEA02) 15:05 (WEA02)	08:14 16:02	08:57 (WEA13) 15:15 (WEA02)
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	14:34 (WEA02) 15:06 (WEA02)	08:15 16:03	08:57 (WEA13) 15:15 (WEA02)
21	05:17 21:18	06:05 20:24	06:54 19:15	07:45 18:07	07:39 16:15	14:34 (WEA02) 15:07 (WEA02)	08:16 16:03	08:58 (WEA13) 15:15 (WEA02)
22	05:19 21:17	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	14:34 (WEA02) 15:08 (WEA02)	08:16 16:04	08:58 (WEA13) 15:15 (WEA02)
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	14:34 (WEA02) 15:07 (WEA02)	08:17 16:04	08:59 (WEA13) 15:16 (WEA02)
24	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	14:34 (WEA02) 15:08 (WEA02)	08:17 16:05	08:59 (WEA13) 15:17 (WEA02)
25	05:23 21:13	06:11 20:16	07:01 19:05	07:52 17:59	07:46 16:11	14:34 (WEA02) 15:08 (WEA02)	08:17 16:05	08:59 (WEA13) 15:17 (WEA02)
26	05:24 21:11	06:13 20:14	07:03 19:03	07:53 17:57	07:47 16:10	14:35 (WEA02) 15:09 (WEA02)	08:18 16:06	09:00 (WEA13) 15:18 (WEA02)
27	05:26 21:10	06:14 20:11	07:04 19:01	07:55 17:55	07:49 16:09	14:35 (WEA02) 15:09 (WEA02)	08:18 16:07	09:01 (WEA13) 15:19 (WEA02)
28	05:27 21:08	06:16 20:09	07:06 18:58	07:57 17:53	07:50 16:08	14:35 (WEA02) 15:09 (WEA02)	08:18 16:08	09:01 (WEA13) 15:19 (WEA02)
29	05:29 21:07	06:17 20:07	07:08 18:56	07:59 17:51	07:52 16:06	14:36 (WEA02) 15:10 (WEA02)	08:18 16:08	09:02 (WEA13) 15:20 (WEA02)
30	05:30 21:05	06:19 20:05	07:09 18:54	08:01 17:49	07:53 16:06	14:36 (WEA02) 15:10 (WEA02)	08:19 16:09	09:02 (WEA13) 15:20 (WEA02)
31	05:32 21:04	06:21 20:03		08:02 17:48	07:54 16:07	14:36 (WEA02) 15:10 (WEA02)	08:19 16:10	09:03 (WEA13) 15:21 (WEA02)
Sonnenscheinstunden	501	453	381	332	267		245	
astr.max.mögl.Beschattung				235	805		1212	
Red.Sonnenscheinwahrsch.		0,50	0,42	0,35	0,21		0,16	
Reduktion Betriebsdauer		0,95	0,95	0,95	0,95		0,95	
Reduktion Windrichtung		0,64	0,64	0,66	0,68		0,66	
Gesamte Reduktion		0,30	0,25	0,22	0,13		0,10	
Met.wahrsch.Beschattung		13	10	52	108		126	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP37 - Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19	15:10 (WEA02)	07:52	15:17 (WEA02)	06:59	06:49		05:45	05:00		
	16:12	18 15:28 (WEA02)	16:59	24 15:41 (WEA02)	17:50	19:44		20:34	21:20		
2	08:18	15:09 (WEA02)	07:51	08:16 (WEA21)	06:57	06:47		07:09 (WEA14)	05:43	04:59	
	16:13	19 15:28 (WEA02)	17:01	25 15:39 (WEA02)	17:52	19:45	4	07:13 (WEA14)	20:36	21:21	
3	08:18	15:09 (WEA02)	07:49	08:15 (WEA21)	06:55	06:44		07:07 (WEA14)	05:41	04:58	
	16:14	21 15:30 (WEA02)	17:03	25 15:38 (WEA02)	17:54	19:47	7	07:14 (WEA14)	20:37	21:22	
4	08:18	15:09 (WEA02)	07:47	08:14 (WEA21)	06:53	06:42		07:05 (WEA14)	05:39	04:57	
	16:15	22 15:31 (WEA02)	17:04	28 16:34 (WEA01)	17:55	19:49	10	07:15 (WEA14)	20:39	21:23	
5	08:18	15:09 (WEA02)	07:46	08:13 (WEA21)	06:50	06:40		07:03 (WEA14)	05:37	04:57	
	16:16	22 15:31 (WEA02)	17:06	23 16:37 (WEA01)	17:57	19:50	11	07:14 (WEA14)	20:41	21:24	
6	08:18	15:09 (WEA02)	07:44	08:13 (WEA21)	06:48	06:38		07:04 (WEA14)	05:35	04:56	
	16:17	24 15:33 (WEA02)	17:08	26 16:38 (WEA01)	17:59	19:52	9	07:13 (WEA14)	20:42	21:25	
7	08:17	15:09 (WEA02)	07:42	08:14 (WEA21)	06:46	06:35		07:05 (WEA14)	05:34	04:56	
	16:18	24 15:33 (WEA02)	17:10	28 16:40 (WEA01)	18:01	19:54	6	07:11 (WEA14)	20:44	21:26	
8	08:17	15:09 (WEA02)	07:41	08:15 (WEA21)	06:44	06:33			05:32	04:55	
	16:20	26 15:35 (WEA02)	17:12	28 16:41 (WEA01)	18:03	19:56			20:46	21:26	
9	08:16	15:09 (WEA02)	07:39	08:17 (WEA21)	06:42	06:31			05:30	04:55	
	16:21	26 15:35 (WEA02)	17:14	26 16:42 (WEA01)	18:04	19:57			20:47	21:27	
10	08:16	15:08 (WEA02)	07:37	16:19 (WEA01)	06:39	06:29			05:28	04:54	
	16:22	28 15:36 (WEA02)	17:16	24 16:43 (WEA01)	18:06	19:59			20:49	21:28	
11	08:15	15:09 (WEA02)	07:35	16:19 (WEA01)	06:37	06:26			05:27	04:54	
	16:24	28 15:37 (WEA02)	17:17	24 16:43 (WEA01)	18:08	20:01			20:50	21:29	
12	08:15	15:09 (WEA02)	07:33	16:19 (WEA01)	06:35	06:24			05:25	04:53	
	16:25	29 15:38 (WEA02)	17:19	24 16:43 (WEA01)	18:10	20:02			20:52	21:30	
13	08:14	15:09 (WEA02)	07:32	16:19 (WEA01)	06:33	06:22			05:24	04:53	
	16:27	29 15:38 (WEA02)	17:21	24 16:43 (WEA01)	18:11	20:04			20:54	21:30	
14	08:13	15:09 (WEA02)	07:30	16:19 (WEA01)	06:30	06:20			05:22	04:53	
	16:28	30 15:39 (WEA02)	17:23	24 16:43 (WEA01)	18:13	20:06			20:55	21:31	
15	08:12	15:09 (WEA02)	07:28	16:19 (WEA01)	06:28	06:18			05:20	04:53	
	16:30	31 15:40 (WEA02)	17:25	24 16:43 (WEA01)	18:15	20:07			20:57	21:31	
16	08:12	15:09 (WEA02)	07:26	16:19 (WEA01)	06:26	06:15		06:38 (WEA15)	05:19	04:53	
	16:31	31 15:40 (WEA02)	17:27	23 16:42 (WEA01)	18:16	20:09	2	06:40 (WEA15)	20:58	21:32	
17	08:11	15:09 (WEA02)	07:24	16:20 (WEA01)	06:23	06:13		06:36 (WEA15)	05:17	04:53	
	16:33	32 15:41 (WEA02)	17:28	22 16:42 (WEA01)	18:18	20:11	5	06:41 (WEA15)	21:00	21:32	
18	08:10	15:09 (WEA02)	07:22	16:21 (WEA01)	06:21	06:11		06:34 (WEA15)	05:16	04:53	
	16:35	33 15:42 (WEA02)	17:30	20 16:41 (WEA01)	18:20	20:12	8	06:42 (WEA15)	21:01	21:33	
19	08:09	15:10 (WEA02)	07:20	16:22 (WEA01)	06:19	06:09		06:32 (WEA15)	05:15	04:53	
	16:36	32 15:42 (WEA02)	17:32	18 16:40 (WEA01)	18:22	20:14	10	06:42 (WEA15)	21:03	21:33	
20	08:08	15:10 (WEA02)	07:18	07:42 (WEA22)	06:17	06:07		06:31 (WEA15)	05:13	04:53	
	16:38	33 15:43 (WEA02)	17:34	16 16:38 (WEA01)	18:23	20:16	10	06:41 (WEA15)	21:04	21:33	
21	08:07	15:09 (WEA02)	07:16	07:40 (WEA22)	06:14	06:05		06:31 (WEA15)	05:12	04:53	
	16:40	33 15:42 (WEA02)	17:36	15 16:35 (WEA01)	18:25	20:17	10	06:41 (WEA15)	21:05	21:34	
22	08:06	15:10 (WEA02)	07:14	07:38 (WEA22)	06:12	06:03		06:32 (WEA15)	05:11	04:53	
	16:41	33 15:43 (WEA02)	17:38	10 07:48 (WEA22)	18:27	20:19	8	06:40 (WEA15)	21:07	21:34	
23	08:04	15:11 (WEA02)	07:12	07:38 (WEA22)	06:10	06:01		06:34 (WEA15)	05:09	04:53	
	16:43	33 15:44 (WEA02)	17:39	11 07:49 (WEA22)	18:28	20:21	3	06:37 (WEA15)	21:08	21:34	
24	08:03	15:11 (WEA02)	07:10	07:37 (WEA22)	06:07	05:59			05:08	04:54	
	16:45	32 15:43 (WEA02)	17:41	11 07:48 (WEA22)	18:30	20:22			21:10	21:34	
25	08:02	15:11 (WEA02)	07:08	07:37 (WEA22)	06:05	05:57			05:07	04:54	
	16:46	33 15:44 (WEA02)	17:43	11 07:48 (WEA22)	18:32	20:24			21:11	21:34	
26	08:01	15:12 (WEA02)	07:06	07:38 (WEA22)	06:03	05:55			05:06	04:54	
	16:48	32 15:44 (WEA02)	17:45	9 07:47 (WEA22)	18:34	20:26			21:12	21:34	
27	07:59	15:13 (WEA02)	07:03	07:40 (WEA22)	06:00	05:52			05:05	04:55	
	16:50	30 15:43 (WEA02)	17:47	5 07:45 (WEA22)	18:35	20:27			21:14	21:34	
28	07:58	15:14 (WEA02)	07:01		05:58	05:51			05:04	04:55	
	16:52	30 15:44 (WEA02)	17:48		18:37	20:29			21:15	21:34	
29	07:57	15:14 (WEA02)			06:56	05:49			05:03	04:56	
	16:54	29 15:43 (WEA02)			19:39	20:31			21:16	21:34	
30	07:55	15:15 (WEA02)			06:54	05:47			05:02	04:56	
	16:55	27 15:42 (WEA02)			19:40	20:32			21:17	21:34	
31	07:54	15:16 (WEA02)			06:51				05:01		
	16:57	26 15:42 (WEA02)			19:42				21:18		
Sonnenscheinstunden	260		278		367	416		484	498		
astr.max.mögl.Beschattung	876		548			103					
Red.Sonnenscheinwahrsch.	0,19		0,26			0,42					
Reduktion Betriebsdauer	0,95		0,95			0,95					
Reduktion Windrichtung	0,67		0,65			0,64					
Gesamte Reduktion	0,12		0,16			0,25					
Met.wahrsch.Beschattung	105		90			26					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP38 - Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19 16:12		07:52 16:59	38	08:21 (WEA21) 15:56 (WEA02)	06:59 17:50		06:49 19:44		05:45 20:34	05:00 21:20
2	08:18 16:13		07:51 17:01	39	08:20 (WEA21) 15:56 (WEA02)	06:57 17:52		06:47 19:45		05:43 20:36	04:59 21:21
3	08:18 16:14		07:49 17:03	37	08:21 (WEA21) 15:56 (WEA02)	06:55 17:54		06:44 19:47	07:07 (WEA14)	05:41 20:37	04:58 21:22
4	08:18 16:15		07:47 17:04	35	08:21 (WEA21) 15:55 (WEA02)	06:53 17:55	6	06:42 19:49	07:05 (WEA14) 07:14 (WEA14)	05:39 20:39	04:57 21:23
5	08:18 16:16		07:46 17:06	30	08:22 (WEA21) 15:53 (WEA02)	06:50 17:57	9	06:40 19:50	07:03 (WEA14) 07:14 (WEA14)	05:37 20:41	04:57 21:24
6	08:18 16:17		07:44 17:08	26	08:23 (WEA21) 15:52 (WEA02)	06:48 17:59	11	06:38 19:52	07:02 (WEA14) 07:14 (WEA14)	05:35 20:42	04:56 21:25
7	08:17 16:18		07:42 17:10	15	15:36 (WEA02) 15:51 (WEA02)	06:46 18:01	12	06:35 19:54	07:03 (WEA14) 07:13 (WEA14)	05:34 20:44	04:56 21:26
8	08:17 16:20		07:41 17:12	7	15:40 (WEA02) 15:47 (WEA02)	06:44 18:03	10	06:33 19:56	07:03 (WEA14) 07:12 (WEA14)	05:32 20:46	04:55 21:26
9	08:16 16:21	5	15:33 (WEA02) 17:14		07:39 18:04	06:42 18:04	9	06:31 19:57	07:05 (WEA14) 07:11 (WEA14)	05:30 20:47	04:55 21:27
10	08:16 16:22	10	15:30 (WEA02) 17:16		07:37 18:06	06:39 18:06	6	06:29 19:59		05:28 20:49	04:54 21:28
11	08:15 16:24	13	15:30 (WEA02) 17:17		07:35 18:08	06:37 18:08		06:26 20:01		05:27 20:50	04:54 21:29
12	08:15 16:25	16	15:43 (WEA02) 17:19		07:33 18:10	06:35 18:10		06:24 20:02		05:25 20:52	04:53 21:30
13	08:14 16:27	18	15:29 (WEA02) 17:21		07:33 18:11	06:33 18:11		06:22 20:04		05:23 20:54	04:53 21:30
14	08:13 16:28	20	15:46 (WEA02) 17:23		17:21 18:13	06:30 18:13		06:20 20:06		05:22 20:55	04:53 21:31
15	08:12 16:30	21	15:30 (WEA02) 17:25		17:23 18:15	06:28 18:15		06:18 20:07		05:20 20:57	04:53 21:31
16	08:12 16:31	23	15:27 (WEA02) 17:26		17:25 18:16	06:26 18:16		06:15 20:09		05:19 20:58	04:53 21:32
17	08:11 16:33	25	15:49 (WEA02) 17:27		17:27 18:18	06:26 18:18		06:15 20:11		05:19 21:00	04:53 21:32
18	08:11 16:35	26	15:26 (WEA02) 17:30		07:24 (WEA22) 18:20	06:23 18:20		06:13 20:12		05:17 21:01	04:53 21:33
19	08:09 16:36	27	15:26 (WEA02) 17:32	7	15:52 (WEA02) 07:46 (WEA22)	06:19 18:22	1	06:11 20:14	06:34 (WEA15) 06:35 (WEA15)	05:16 21:01	04:53 21:33
20	08:08 16:38	28	15:53 (WEA02) 17:34	10	15:32 (WEA02) 07:53 (WEA22)	06:17 18:23	6	06:09 20:16	06:32 (WEA15) 06:38 (WEA15)	05:15 21:03	04:53 21:33
21	08:07 16:40	29	15:26 (WEA02) 17:36	11	15:26 (WEA02) 07:45 (WEA22)	06:17 18:23	9	06:07 20:19	06:30 (WEA15) 06:39 (WEA15)	05:13 21:04	04:53 21:33
22	08:06 16:41	29	15:25 (WEA02) 17:38	12	15:25 (WEA02) 07:44 (WEA22)	06:14 18:27	11	06:05 20:21	06:28 (WEA15) 06:39 (WEA15)	05:12 21:05	04:53 21:34
23	08:04 16:43	30	15:25 (WEA02) 17:39	11	15:25 (WEA02) 07:44 (WEA22)	06:14 18:28	12	06:05 20:21	06:28 (WEA15) 06:39 (WEA15)	05:12 21:08	04:53 21:34
24	08:03 16:45	30	15:25 (WEA02) 17:41	10	15:25 (WEA02) 07:44 (WEA22)	06:07 18:30	8	06:01 20:22	06:27 (WEA15) 06:38 (WEA15)	05:09 21:10	04:53 21:34
25	08:02 16:46	31	15:55 (WEA02) 17:43	8	15:55 (WEA02) 07:45 (WEA22)	06:07 18:32	10	06:01 20:24	06:28 (WEA15) 06:37 (WEA15)	05:08 21:11	04:53 21:34
26	08:01 16:48	31	15:26 (WEA02) 17:45		15:26 (WEA02) 07:45 (WEA22)	06:03 18:34	10	06:01 20:26	06:30 (WEA15) 06:35 (WEA15)	05:06 21:12	04:54 21:34
27	07:59 16:50	31	15:57 (WEA02) 17:47		15:57 (WEA02) 07:47 (WEA22)	06:00 18:35	10	06:01 20:27		05:05 21:14	04:55 21:34
28	07:58 16:52	30	15:26 (WEA02) 17:48		15:26 (WEA02) 07:48 (WEA22)	05:58 18:37	8	06:01 20:29		05:04 21:15	04:55 21:34
29	07:57 16:54	33	08:25 (WEA21) 17:50		08:25 (WEA21) 17:50 (WEA22)	06:56 19:39	2	07:32 (WEA16) 07:34 (WEA16)		05:03 21:16	04:56 21:34
30	07:55 16:55	36	15:57 (WEA02) 17:51		15:57 (WEA02) 07:51 (WEA22)	06:54 19:40		05:47 20:32		05:02 21:17	04:56 21:34
31	07:54 16:57	38	08:22 (WEA21) 17:52		08:22 (WEA21) 17:52 (WEA22)	06:51 19:42				05:01 21:18	
Sonnenscheinstunden		260		278		367		416		484	498
astr.max.mögl.Beschattung		580		296		54		137			
Red.Sonnenscheinwahrsch.		0,19		0,26		0,33		0,42			
Reduktion Betriebsdauer		0,95		0,95		0,95		0,95			
Reduktion Windrichtung		0,67		0,64		0,63		0,64			
Gesamte Reduktion		0,12		0,16		0,20		0,25			
Met.wahrsch.Beschattung		69		47		11		35			

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenende
			(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP38 - Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Jul	August	September	Oktober	November	Dezember	
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06	15:12 (WEA02)
2	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05	13 15:25 (WEA02)
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:58 16:04	11 15:24 (WEA02)
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04	5 15:22 (WEA02)
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03	
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03	
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03	
8	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:33	08:04 16:02	
9	05:03 21:30	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02	
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02	
11	05:05 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	08:07 16:02	
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:01	
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01	
14	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:01	
15	05:10 21:24	05:55 20:37	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02	
16	05:11 21:23	05:57 20:35	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02	
17	05:12 21:22	05:58 20:33	06:48 19:24	07:38 18:16	07:33 16:20	08:13 16:02	
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:14 16:02	
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:17	08:14 16:02	
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03	
21	05:17 21:18	06:05 20:24	06:54 19:15	07:45 18:07	07:39 16:15	08:16 16:03	
22	05:19 21:17	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04	
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:17 16:04	
24	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05	
25	05:23 21:13	06:11 20:16	07:01 19:05	07:52 17:59	07:46 16:11	08:18 16:05	
26	05:24 21:11	06:13 20:14	07:03 19:03	07:53 17:57	07:47 16:10	08:18 16:06	
27	05:26 21:10	06:14 20:11	07:04 19:01	07:55 17:55	07:49 16:09	08:18 16:07	
28	05:27 21:08	06:16 20:09	07:06 18:58	07:57 17:53	07:50 16:08	08:18 16:08	
29	05:29 21:07	06:17 20:07	07:08 18:56	07:59 17:51	07:52 16:07	08:18 16:08	
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:49	07:53 16:06	08:18 16:09	
31	05:32 21:04	06:21 20:03		07:02 16:48		08:19 16:10	
Sonnenscheinstunden	501	453	381	332	267	245	
astr.max.mögl.Beschattung		74	119	74	785		29
Red.Sonnenscheinwahrsch.		0,50	0,42	0,35	0,21		0,16
Reduktion Betriebsdauer		0,95	0,95	0,95	0,95		0,95
Reduktion Windrichtung		0,64	0,63	0,60	0,67		0,68
Gesamte Reduktion		0,30	0,25	0,20	0,13		0,11
Met.wahrsch.Beschattung		22	30	15	103		3

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP39 - Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar			Februar			März			April			Mai			Juni		
1	08:19		15:10 (WEA03)	07:52		15:20 (WEA02)	06:59		16:36 (WEA01)	06:49		05:45			05:00		
	16:12	23	15:33 (WEA03)	07:59	38	15:58 (WEA02)	17:50	16	16:52 (WEA01)	19:44		20:34			21:20		
2	08:18		15:10 (WEA03)	07:51		15:20 (WEA02)	06:57		16:38 (WEA01)	06:47		05:43			04:59		
	16:13	23	15:33 (WEA03)	17:01	38	15:58 (WEA02)	17:52	12	16:50 (WEA01)	19:45		20:36			21:21		
3	08:18		15:10 (WEA03)	07:49		15:20 (WEA02)	06:55			06:44		05:41			04:58		
	16:14	24	15:34 (WEA03)	17:03	39	15:59 (WEA02)	17:54			19:47		20:37			21:22		
4	08:18		15:11 (WEA03)	07:47		15:21 (WEA02)	06:53			06:42		05:39			04:57		
	16:15	24	15:35 (WEA03)	17:04	38	15:59 (WEA02)	17:56			19:49		20:39			21:23		
5	08:18		08:52 (WEA12)	07:46		15:21 (WEA02)	06:50			06:40		05:37			04:57		
	16:16	29	15:35 (WEA03)	17:06	37	15:58 (WEA02)	17:57			19:50		20:41			21:24		
6	08:18		08:52 (WEA12)	07:44		15:21 (WEA02)	06:48		07:11 (WEA22)	06:38		05:35			04:56		
	16:17	31	15:36 (WEA03)	17:08	37	15:58 (WEA02)	17:59	6	07:17 (WEA22)	19:52		20:42			21:25		
7	08:17		08:51 (WEA12)	07:42		15:22 (WEA02)	06:46		07:09 (WEA22)	06:35		05:34			04:56		
	16:18	33	15:36 (WEA03)	17:10	37	15:59 (WEA02)	18:01	9	07:18 (WEA22)	19:54		20:44			21:26		
8	08:17		08:51 (WEA12)	07:41		15:23 (WEA02)	06:44		07:08 (WEA22)	06:33		05:32			04:55		
	16:20	36	15:38 (WEA03)	17:12	35	15:58 (WEA02)	18:03	10	07:18 (WEA22)	19:56		20:46			21:26		
9	08:16		08:51 (WEA12)	07:39		15:24 (WEA02)	06:42		07:07 (WEA22)	06:31		05:30			04:55		
	16:21	37	15:38 (WEA03)	17:14	33	15:57 (WEA02)	18:04	10	07:17 (WEA22)	19:57		20:47			21:27		
10	08:16		08:50 (WEA12)	07:37		15:24 (WEA02)	06:39		07:08 (WEA22)	06:29		05:28			04:54		
	16:23	39	15:38 (WEA03)	17:16	32	15:56 (WEA02)	18:06	9	07:17 (WEA22)	19:59		20:49			21:28		
11	08:15		08:51 (WEA12)	07:35		15:25 (WEA02)	06:37		07:09 (WEA22)	06:26		05:27			04:54		
	16:24	39	15:39 (WEA03)	17:17	30	15:55 (WEA02)	18:08	7	07:16 (WEA22)	20:01		20:50			21:29		
12	08:15		08:51 (WEA12)	07:33		15:27 (WEA02)	06:35			06:24		05:25			04:53		
	16:25	40	15:40 (WEA03)	17:19	27	15:54 (WEA02)	18:10			20:02		20:52			21:30		
13	08:14		08:51 (WEA12)	07:32		15:28 (WEA02)	06:33			06:22		05:24			04:53		
	16:27	40	15:40 (WEA03)	17:21	34	16:50 (WEA01)	18:11			20:04		20:54			21:30		
14	08:13		08:42 (WEA13)	07:30		15:30 (WEA02)	06:30			06:20		05:22			04:53		
	16:28	43	15:40 (WEA03)	17:23	36	16:53 (WEA01)	18:13			20:06		20:55			21:31		
15	08:12		08:41 (WEA13)	07:28		15:33 (WEA02)	06:28			06:18		05:20			04:53		
	16:30	48	15:42 (WEA02)	17:25	34	16:55 (WEA01)	18:15			20:07		20:57			21:31		
16	08:12		08:40 (WEA13)	07:26		07:50 (WEA21)	06:26			06:15		05:19			04:53		
	16:31	51	15:44 (WEA02)	17:27	27	16:56 (WEA01)	18:16			20:09		20:58			21:32		
17	08:11		08:39 (WEA13)	07:24		07:48 (WEA21)	06:23			06:13		05:17			04:53		
	16:33	54	15:46 (WEA02)	17:28	31	16:57 (WEA01)	18:18			20:11		21:00			21:32		
18	08:10		08:38 (WEA13)	07:22		07:47 (WEA21)	06:21			06:11		05:16			04:53		
	16:35	57	15:48 (WEA02)	17:30	35	16:58 (WEA01)	18:20			20:12		21:01			21:33		
19	08:09		08:37 (WEA13)	07:20		07:47 (WEA21)	06:19			06:09		05:15			04:53		
	16:36	59	15:49 (WEA02)	17:32	35	16:58 (WEA01)	18:22			20:14		21:03			21:33		
20	08:08		08:37 (WEA13)	07:18		07:47 (WEA21)	06:17			06:07		05:13			04:53		
	16:38	59	15:51 (WEA02)	17:34	36	16:59 (WEA01)	18:23			20:16		21:04			21:33		
21	08:07		08:36 (WEA13)	07:16		07:48 (WEA21)	06:14			06:05		05:12			04:53		
	16:40	58	15:51 (WEA02)	17:36	34	16:59 (WEA01)	18:25			20:17		21:05			21:34		
22	08:06		08:37 (WEA13)	07:14		07:50 (WEA21)	06:12			06:03		05:11			04:53		
	16:41	52	15:52 (WEA02)	17:38	30	16:59 (WEA01)	18:27			20:19		21:07			21:34		
23	08:04		08:37 (WEA13)	07:12		16:32 (WEA01)	06:10			06:01		05:09			04:53		
	16:43	52	15:54 (WEA02)	17:39	27	16:59 (WEA01)	18:28			20:21		21:08			21:34		
24	08:03		08:37 (WEA13)	07:10		16:31 (WEA01)	06:07			05:59		05:08			04:54		
	16:45	51	15:54 (WEA02)	17:41	27	16:58 (WEA01)	18:30			20:22		21:10			21:34		
25	08:02		08:38 (WEA13)	07:08		16:32 (WEA01)	06:05			05:57		05:07			04:54		
	16:46	50	15:55 (WEA02)	17:43	25	16:57 (WEA01)	18:32			20:24		21:11			21:34		
26	08:01		08:39 (WEA13)	07:06		16:33 (WEA01)	06:03			05:55		05:06			04:54		
	16:48	50	15:56 (WEA02)	17:45	24	16:57 (WEA01)	18:34			20:26		21:12			21:34		
27	07:59		08:40 (WEA13)	07:03		16:34 (WEA01)	06:00			05:53		05:05			04:55		
	16:50	48	15:56 (WEA02)	17:47	22	16:56 (WEA01)	18:35			20:27		21:14			21:34		
28	07:58		08:41 (WEA13)	07:01		16:35 (WEA01)	05:58			05:51		05:04			04:55		
	16:52	49	15:58 (WEA02)	17:48	20	16:55 (WEA01)	18:37			20:29		21:15			21:34		
29	07:57		08:43 (WEA13)				06:56			05:49		05:03			04:56		
	16:54	45	15:58 (WEA02)				19:39			20:31		21:16			21:34		
30	07:55		15:19 (WEA02)				06:54			05:47		05:02			04:56		
	16:55	39	15:58 (WEA02)				19:40			20:32		21:17			21:34		
31	07:54		15:20 (WEA02)				06:51					05:01					
	16:57	39	15:59 (WEA02)				19:42					21:18					
Sonnenscheinstunden	260			278			367			416		484			498		
astr.max.mögl.Beschattung		1322		898			79										
Red.Sonnenscheinwahrsch.		0,19		0,26			0,33										
Reduktion Betriebsdauer		0,95		0,95			0,95										
Reduktion Windrichtung		0,65		0,67			0,62										
Gesamte Reduktion		0,12		0,17			0,19										
Met.wahrsch.Beschattung		153		150			15										

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

Schattenrezeptor: IP39 - Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	14:54 (WEA02) 15:26 (WEA02)
2	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	14:53 (WEA02) 15:27 (WEA02)
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	14:52 (WEA02) 15:28 (WEA02)
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	14:52 (WEA02) 15:28 (WEA02)
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	14:52 (WEA02) 15:29 (WEA02)
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	14:50 (WEA02) 15:28 (WEA02)
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	14:50 (WEA02) 15:29 (WEA02)
8	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	14:50 (WEA02) 15:29 (WEA02)
9	05:03 21:30	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	14:50 (WEA02) 15:29 (WEA02)
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	14:51 (WEA02) 15:29 (WEA02)
11	05:05 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	14:51 (WEA02) 15:29 (WEA02)
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	14:51 (WEA02) 15:29 (WEA02)
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:14 (WEA13) 15:29 (WEA02)
14	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:13 (WEA13) 15:29 (WEA02)
15	05:10 21:24	05:55 20:37	06:45 19:28	07:34 18:20	07:29 16:23	08:12 (WEA13) 15:29 (WEA02)
16	05:11 21:23	05:57 20:35	06:46 19:26	07:36 18:18	07:31 16:21	08:12 (WEA13) 15:29 (WEA02)
17	05:12 21:22	05:58 20:33	06:48 19:24	07:38 18:16	07:32 16:20	08:11 (WEA13) 15:28 (WEA02)
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:11 (WEA13) 15:28 (WEA02)
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:17	08:11 (WEA13) 15:28 (WEA02)
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:12 (WEA13) 15:27 (WEA02)
21	05:17 21:18	06:05 20:24	06:54 19:15	07:45 18:07	07:39 16:15	08:12 (WEA13) 15:27 (WEA02)
22	05:19 21:17	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:13 (WEA13) 15:27 (WEA02)
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:13 (WEA13) 15:25 (WEA02)
24	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:15 (WEA13) 15:25 (WEA02)
25	05:23 21:13	06:11 20:16	07:01 19:05	06:52 16:59	07:46 16:11	08:17 (WEA13) 15:24 (WEA02)
26	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:19 (WEA13) 15:23 (WEA02)
27	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:20 (WEA13) 15:22 (WEA02)
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:22 (WEA13) 15:20 (WEA03)
29	05:29 21:07	06:17 20:07	07:08 18:56	06:59 16:51	07:52 16:07	08:32 (WEA12) 15:21 (WEA03)
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:49	07:53 16:06	08:32 (WEA12) 15:21 (WEA03)
31	05:32 21:04	06:21 20:03	07:02 18:48	07:02 16:48	07:55 (WEA02) 15:25 (WEA02)	08:19 16:10
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung				636	1352	754
Red.Sonnenscheinwahrsch.				0,35	0,21	0,16
Reduktion Betriebsdauer				0,95	0,95	0,95
Reduktion Windrichtung				0,65	0,66	0,66
Gesamte Reduktion				0,22	0,13	0,10
Met.wahrsch.Beschattung				140	175	79

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP40 - Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar		Februar		März		April		Mai		Juni	
1	08:19	08:56 (WEA12)	07:52	15:37 (WEA03)	06:59	16:41 (WEA01)	06:49	05:45	06:09 (WEA15)	05:00	
	16:12	15:36 (WEA03)	16:59	16:11 (WEA02)	17:50	23	17:04 (WEA01)	19:44	20:34	3	06:12 (WEA15)
2	08:18	08:55 (WEA12)	07:51	15:37 (WEA02)	06:57		16:42 (WEA01)	06:47	05:43		06:07 (WEA15)
	16:13	15:37 (WEA03)	17:01	16:12 (WEA02)	17:52	21	17:03 (WEA01)	19:45	20:36	5	06:12 (WEA15)
3	08:18	08:55 (WEA12)	07:49	15:37 (WEA02)	06:55		16:43 (WEA01)	06:44	05:41		06:05 (WEA15)
	16:14	15:39 (WEA03)	17:03	16:13 (WEA02)	17:54	19	17:02 (WEA01)	19:47	20:37	7	06:12 (WEA15)
4	08:18	08:55 (WEA12)	07:47	15:37 (WEA02)	06:53		16:45 (WEA01)	06:42	05:39		06:04 (WEA15)
	16:15	15:40 (WEA03)	17:04	16:13 (WEA02)	17:56	16	17:01 (WEA01)	19:49	20:39	9	06:13 (WEA15)
5	08:18	08:54 (WEA12)	07:46	15:37 (WEA02)	06:50		16:48 (WEA01)	06:40	05:37		06:02 (WEA15)
	16:16	15:41 (WEA03)	17:06	16:13 (WEA02)	17:57	10	16:58 (WEA01)	19:50	20:41	10	06:12 (WEA15)
6	08:18	08:55 (WEA12)	07:44	15:36 (WEA02)	06:48			06:38	05:35		06:02 (WEA15)
	16:17	15:43 (WEA03)	17:08	16:13 (WEA02)	17:59			19:52	20:42	9	06:11 (WEA15)
7	08:17	08:54 (WEA12)	07:42	15:37 (WEA02)	06:46		07:09 (WEA22)	06:35	05:34		06:04 (WEA15)
	16:18	15:43 (WEA03)	17:10	16:14 (WEA02)	18:01	5	07:14 (WEA22)	19:54	20:44	7	06:11 (WEA15)
8	08:17	08:55 (WEA12)	07:41	15:37 (WEA02)	06:44		07:07 (WEA22)	06:33	05:32		06:04 (WEA15)
	16:20	15:45 (WEA03)	17:12	16:14 (WEA02)	18:03	9	07:16 (WEA22)	19:56	20:46		06:04 (WEA15)
9	08:16	08:55 (WEA12)	07:39	15:37 (WEA02)	06:42		07:05 (WEA22)	06:31	05:30		06:04 (WEA15)
	16:21	15:46 (WEA03)	17:14	16:14 (WEA02)	18:04	11	07:16 (WEA22)	19:57	20:47		06:04 (WEA15)
10	08:16	08:55 (WEA12)	07:37	15:37 (WEA02)	06:39		07:05 (WEA22)	06:29	05:28		06:04 (WEA15)
	16:22	15:46 (WEA03)	17:16	16:14 (WEA02)	18:06	11	07:16 (WEA22)	19:59	20:49		06:04 (WEA15)
11	08:15	08:45 (WEA13)	07:35	15:38 (WEA02)	06:37		07:05 (WEA22)	06:26	05:27		06:04 (WEA15)
	16:24	15:48 (WEA03)	17:17	16:14 (WEA02)	18:08	11	07:16 (WEA22)	20:01	20:50		06:04 (WEA15)
12	08:15	08:44 (WEA13)	07:33	15:38 (WEA02)	06:35		07:06 (WEA22)	06:24	05:25		06:04 (WEA15)
	16:25	15:49 (WEA03)	17:19	16:13 (WEA02)	18:10	9	07:15 (WEA22)	20:02	20:52		06:04 (WEA15)
13	08:14	08:43 (WEA13)	07:32	15:39 (WEA02)	06:33		07:07 (WEA22)	06:22	05:24		06:04 (WEA15)
	16:27	15:49 (WEA03)	17:21	16:13 (WEA02)	18:11	6	07:13 (WEA22)	20:04	20:54		06:04 (WEA15)
14	08:13	08:42 (WEA13)	07:30	15:40 (WEA02)	06:30			06:20	05:22		06:04 (WEA15)
	16:28	15:50 (WEA03)	17:23	16:12 (WEA02)	18:13			20:06	20:55		06:04 (WEA15)
15	08:12	08:41 (WEA13)	07:28	15:40 (WEA02)	06:28			06:18	05:20		06:04 (WEA15)
	16:30	15:51 (WEA03)	17:25	16:11 (WEA02)	18:15			20:07	20:57		06:04 (WEA15)
16	08:12	08:41 (WEA13)	07:26	07:50 (WEA21)	06:26		1	06:42 (WEA14)	05:19		06:04 (WEA15)
	16:31	15:51 (WEA03)	17:27	16:10 (WEA02)	18:16		4	06:42 (WEA14)	20:58		06:04 (WEA15)
17	08:11	08:41 (WEA13)	07:24	07:48 (WEA21)	06:23			06:13	05:17		06:04 (WEA15)
	16:33	15:52 (WEA03)	17:28	16:59 (WEA01)	18:18		6	06:42 (WEA14)	21:00		06:04 (WEA15)
18	08:10	08:41 (WEA13)	07:22	07:47 (WEA21)	06:21			06:11	05:16		06:04 (WEA15)
	16:35	15:53 (WEA03)	17:30	17:02 (WEA01)	18:20		9	06:43 (WEA14)	21:01		06:04 (WEA15)
19	08:09	08:41 (WEA13)	07:20	07:47 (WEA21)	06:19			06:09	05:15		06:04 (WEA15)
	16:36	15:53 (WEA03)	17:32	17:03 (WEA01)	18:22		10	06:42 (WEA14)	21:03		06:04 (WEA15)
20	08:08	08:41 (WEA13)	07:18	07:47 (WEA21)	06:17			06:07	05:13		06:04 (WEA15)
	16:38	15:54 (WEA03)	17:34	17:05 (WEA01)	18:23		8	06:41 (WEA14)	21:04		06:04 (WEA15)
21	08:07	08:41 (WEA13)	07:16	07:47 (WEA21)	06:14			06:05	05:12		06:04 (WEA15)
	16:40	15:53 (WEA03)	17:36	17:06 (WEA01)	18:25		6	06:40 (WEA14)	21:05		06:04 (WEA15)
22	08:06	08:41 (WEA13)	07:14	07:48 (WEA21)	06:12			06:03	05:11		06:04 (WEA15)
	16:41	15:54 (WEA03)	17:38	17:06 (WEA01)	18:27			20:19	21:07		06:04 (WEA15)
23	08:04	08:42 (WEA13)	07:12	16:42 (WEA01)	06:10			06:01	05:09		06:04 (WEA15)
	16:43	15:59 (WEA02)	17:39	17:07 (WEA01)	18:28			20:21	21:08		06:04 (WEA15)
24	08:03	08:42 (WEA13)	07:10	16:40 (WEA01)	06:07			05:59	05:08		06:04 (WEA15)
	16:45	16:01 (WEA02)	17:41	17:06 (WEA01)	18:30			20:22	21:10		06:04 (WEA15)
25	08:02	08:43 (WEA13)	07:08	16:40 (WEA01)	06:05			05:57	05:07		06:04 (WEA15)
	16:46	16:03 (WEA02)	17:43	17:06 (WEA01)	18:32			20:24	21:11		06:04 (WEA15)
26	08:01	08:45 (WEA13)	07:06	16:40 (WEA01)	06:03			05:55	05:06		06:04 (WEA15)
	16:48	16:05 (WEA02)	17:45	17:06 (WEA01)	18:34			20:26	21:12		06:04 (WEA15)
27	07:59	08:45 (WEA13)	07:03	16:41 (WEA01)	06:00			05:53	05:05		06:04 (WEA15)
	16:50	16:06 (WEA02)	17:47	17:06 (WEA01)	18:35			20:27	21:14		06:04 (WEA15)
28	07:58	08:47 (WEA13)	07:01	16:41 (WEA01)	05:58			05:51	05:04		06:04 (WEA15)
	16:52	16:08 (WEA02)	17:48	17:06 (WEA01)	18:37			20:29	21:15		06:04 (WEA15)
29	07:57	08:49 (WEA13)			06:56			05:49	05:03		06:04 (WEA15)
	16:54	16:09 (WEA02)			19:39			20:31	21:16		06:04 (WEA15)
30	07:55	15:33 (WEA03)			06:54			05:47	05:02		06:04 (WEA15)
	16:55	16:09 (WEA02)			19:40			20:32	21:17		06:04 (WEA15)
31	07:54	15:35 (WEA03)			06:51				05:01		06:04 (WEA15)
	16:57	16:11 (WEA02)			19:42				21:18		06:04 (WEA15)
Sonnenscheinstunden		260	278	367	416	484	498				
astr.max.mögl.Beschattung		1225	958	151	44	50					
Red.Sonnenscheinwahrsch.		0,19	0,26	0,33	0,42	0,48					
Reduktion Betriebsdauer		0,95	0,95	0,95	0,95	0,95					
Reduktion Windrichtung		0,64	0,67	0,63	0,64	0,65					
Gesamte Reduktion		0,11	0,17	0,20	0,25	0,29					
Met.wahrsch.Beschattung		138	160	30	11	15					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP40 - Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

		Juli	August	September	Oktober	November	Dezember			
1	04:57	05:33		06:22	07:11	07:45 (WEA22)	07:04	15:07 (WEA02)	07:55	08:27 (WEA13)
	21:33	21:02		20:00	18:51					
2	04:58	05:35		06:24	07:12	9 07:54 (WEA22)	16:46	37 15:44 (WEA02)	16:06	39 15:30 (WEA03)
	21:33	21:00		19:58	18:49	11 07:44 (WEA22)	07:06		07:56	08:38 (WEA12)
3	04:58	05:36		06:26	07:14	11 07:55 (WEA22)	16:44	37 15:44 (WEA02)	16:05	33 15:29 (WEA03)
	21:33	20:59		19:56	18:47	11 07:43 (WEA22)	07:08		07:58	08:39 (WEA12)
4	04:59	05:38		06:27	07:16	11 07:54 (WEA22)	16:42	37 15:44 (WEA02)	16:05	33 15:30 (WEA03)
	21:32	20:57		19:54	18:45	11 07:43 (WEA22)	07:09		07:59	08:39 (WEA12)
5	05:00	05:39		06:29	07:17	11 07:54 (WEA22)	16:40	37 15:44 (WEA02)	16:04	30 15:29 (WEA03)
	21:32	20:55	4 06:14 (WEA15)	19:51	18:42	10 07:43 (WEA22)	07:11		08:00	08:39 (WEA12)
6	05:01	05:41	06:18 (WEA15)	19:51	18:42	10 07:53 (WEA22)	16:39	37 15:44 (WEA02)	16:03	30 15:29 (WEA03)
	21:31	20:53	06:13 (WEA15)	19:51	18:42	10 07:44 (WEA22)	07:13		08:01	08:41 (WEA12)
7	05:02	05:42	7 06:20 (WEA15)	19:49	18:40	7 07:51 (WEA22)	16:37	37 15:43 (WEA02)	16:03	27 15:29 (WEA03)
	21:31	20:52	06:12 (WEA15)	19:47	18:38	7 07:46 (WEA22)	16:35		08:03	08:41 (WEA12)
8	05:02	05:44	9 06:21 (WEA15)	19:47	18:38	3 07:49 (WEA22)	16:35	36 15:43 (WEA02)	16:03	25 15:28 (WEA03)
	21:30	20:50	06:12 (WEA15)	19:45	18:36	5 17:25 (WEA01)	16:34		08:04	08:42 (WEA12)
9	05:03	05:45	10 06:22 (WEA15)	19:45	18:36	5 17:30 (WEA01)	16:34	36 15:43 (WEA02)	16:02	22 15:28 (WEA03)
	21:29	20:48	06:13 (WEA15)	19:42	18:33	13 17:20 (WEA01)	16:32		08:05	08:44 (WEA12)
10	05:04	05:47	8 06:21 (WEA15)	19:42	18:33	13 17:33 (WEA01)	16:32	35 15:43 (WEA02)	16:02	19 15:28 (WEA03)
	21:29	20:46	06:15 (WEA15)	19:42	18:33	13 17:33 (WEA01)	16:32		08:06	08:45 (WEA12)
11	05:05	05:49	6 06:21 (WEA15)	19:40	18:31	18 17:18 (WEA01)	16:30	34 15:42 (WEA02)	16:02	15 15:27 (WEA03)
	21:28	20:44	06:16 (WEA15)	19:38	18:29	20 17:36 (WEA01)	16:29	36 15:42 (WEA02)	16:02	11 15:26 (WEA03)
12	05:06	05:50	4 06:20 (WEA15)	19:38	18:29	20 17:17 (WEA01)	16:27	36 15:06 (WEA03)	08:07	08:46 (WEA12)
	21:27	20:42	06:18 (WEA15)	19:35	18:27	22 17:37 (WEA01)	16:29	36 15:42 (WEA02)	16:02	11 15:26 (WEA03)
13	05:08	05:52	2 06:20 (WEA15)	19:35	18:27	22 17:16 (WEA01)	16:27	36 15:05 (WEA03)	08:08	08:47 (WEA12)
	21:26	20:40		19:33	18:24	24 17:38 (WEA01)	16:26	42 15:41 (WEA02)	16:01	15:24 (WEA03)
14	05:09	05:53		19:33	18:24	24 17:14 (WEA01)	16:26	42 15:41 (WEA02)	16:01	
	21:25	20:38		19:31	18:22	25 17:13 (WEA01)	16:24	47 15:39 (WEA13)	08:10	
15	05:10	05:55		19:31	18:22	25 17:38 (WEA01)	16:24	47 15:40 (WEA02)	16:01	
	21:24	20:37		19:28	18:20	26 17:13 (WEA01)	16:23	48 15:38 (WEA02)	16:02	
16	05:11	05:57		19:28	18:20	26 17:39 (WEA01)	16:23	48 15:39 (WEA02)	16:02	
	21:23	20:35		19:26	18:18	26 17:13 (WEA01)	16:21	49 15:37 (WEA02)	16:02	
17	05:12	05:58		19:26	18:18	26 17:39 (WEA01)	16:21	49 15:38 (WEA02)	16:02	
	21:22	20:33		19:24	18:16	26 17:13 (WEA01)	16:20	49 15:36 (WEA02)	16:02	
18	05:13	06:00		19:24	18:16	26 17:39 (WEA01)	16:20	49 15:36 (WEA02)	16:02	
	21:21	20:30		19:21	18:14	25 17:12 (WEA01)	16:19	49 15:35 (WEA02)	16:02	
19	05:15	06:01		19:21	18:14	25 17:37 (WEA01)	16:19	49 15:35 (WEA02)	16:02	
	21:20	20:28		19:19	18:12	29 08:20 (WEA21)	16:17	48 15:33 (WEA02)	16:02	
20	05:16	06:03		19:19	18:12	29 08:18 (WEA21)	16:17	48 15:33 (WEA02)	16:02	
	21:19	20:26		19:17	18:09	32 08:18 (WEA21)	16:16	45 15:33 (WEA02)	16:02	
21	05:17	06:05		19:17	18:09	32 08:17 (WEA21)	16:16	45 15:29 (WEA03)	16:03	
	21:18	20:24		19:15	18:07	33 08:17 (WEA21)	16:15	44 15:29 (WEA03)	16:03	
22	05:19	06:06		19:15	18:07	33 08:17 (WEA21)	16:15	44 15:29 (WEA03)	16:03	
	21:17	20:22	7 06:38 (WEA14)	19:12	18:05	45 08:17 (WEA21)	16:14	51 15:30 (WEA03)	16:04	
23	05:20	06:08	06:45 (WEA14)	19:12	18:05	45 08:17 (WEA21)	16:14	51 15:30 (WEA03)	16:04	
	21:15	20:20	06:36 (WEA14)	19:10	18:03	47 08:17 (WEA21)	16:13	53 15:29 (WEA03)	16:04	
24	05:21	06:09	9 06:45 (WEA14)	19:10	18:03	47 08:18 (WEA21)	16:13	53 15:29 (WEA03)	16:04	
	21:14	20:18	06:36 (WEA14)	19:08	18:01	46 08:18 (WEA21)	16:12	54 15:30 (WEA03)	16:05	
25	05:23	06:11	10 06:46 (WEA14)	19:08	18:01	46 07:18 (WEA21)	16:12	54 15:30 (WEA03)	16:05	
	21:13	20:16	06:38 (WEA14)	19:05	18:01	46 07:32 (WEA01)	16:12	54 15:30 (WEA03)	16:05	
26	05:24	06:13	8 06:46 (WEA14)	19:05	16:59	42 07:20 (WEA21)	16:11	53 15:30 (WEA03)	16:05	
	21:11	20:14	06:39 (WEA14)	19:03	16:59	42 07:20 (WEA21)	16:11	53 15:30 (WEA03)	16:05	
27	05:26	06:14	6 06:45 (WEA14)	19:03	16:57	32 07:20 (WEA21)	16:10	52 15:30 (WEA03)	16:06	
	21:10	20:11	06:45 (WEA14)	19:03	16:57	32 15:40 (WEA02)	16:10	52 15:30 (WEA03)	16:06	
28	05:27	06:16	4 06:41 (WEA14)	19:04	16:55	31 15:10 (WEA02)	16:09	52 15:30 (WEA03)	16:07	
	21:08	20:09	06:45 (WEA14)	19:01	16:55	31 15:41 (WEA02)	16:09	52 15:30 (WEA03)	16:07	
29	05:29	06:17		19:01	16:55	31 15:09 (WEA02)	16:09	52 15:30 (WEA03)	16:07	
	21:07	20:07		19:06	16:57	33 15:42 (WEA02)	16:08	50 15:30 (WEA03)	16:08	
30	05:30	06:19		19:06	16:57	33 15:08 (WEA02)	16:08	50 15:30 (WEA03)	16:08	
	21:05	20:05		18:56	16:51	34 15:42 (WEA02)	16:07	46 15:29 (WEA03)	16:08	
31	05:32	06:21		18:56	16:51	34 15:08 (WEA02)	16:07	46 15:29 (WEA03)	16:08	
	21:04	20:03		18:54	16:49	35 15:43 (WEA02)	16:06	44 15:30 (WEA03)	16:09	
					07:48 (WEA22)	07:01				
					07:51 (WEA22)	16:49				
						07:02				
						16:48				
						332				

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP41 - Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57	05:33	06:09 (WEA15)	06:22	06:55 (WEA16)	07:11	07:45 (WEA22)	07:04	15:20 (WEA02)	07:55	08:30 (WEA13)
2	21:33	21:02	6 06:15 (WEA15)	20:00	7 07:02 (WEA16)	18:51	10 07:55 (WEA22)	16:46	35 15:55 (WEA02)	16:06	39 15:33 (WEA03)
3	04:58	05:35	06:07 (WEA15)	06:24	06:54 (WEA16)	07:12	07:44 (WEA22)	07:06	15:20 (WEA02)	07:56	08:31 (WEA13)
4	21:33	21:00	9 06:16 (WEA15)	19:58	9 07:03 (WEA16)	18:49	12 07:56 (WEA22)	16:44	35 15:55 (WEA02)	16:05	31 15:29 (WEA03)
5	04:58	05:36	06:07 (WEA15)	06:26	06:53 (WEA16)	07:14	07:43 (WEA22)	07:08	15:21 (WEA02)	07:58	08:32 (WEA13)
6	21:33	20:59	10 06:17 (WEA15)	19:56	10 07:03 (WEA16)	18:47	12 07:55 (WEA22)	16:42	34 15:55 (WEA02)	16:05	28 09:01 (WEA12)
7	04:59	05:38	06:06 (WEA15)	06:27	06:53 (WEA16)	07:16	07:43 (WEA22)	07:09	15:21 (WEA02)	07:59	08:32 (WEA13)
8	21:32	20:57	11 06:17 (WEA15)	19:54	10 07:03 (WEA16)	18:45	12 07:55 (WEA22)	16:40	33 15:54 (WEA02)	16:04	28 09:01 (WEA12)
9	05:00	05:39	06:07 (WEA15)	06:29	06:54 (WEA16)	07:17	07:44 (WEA22)	07:11	15:22 (WEA02)	08:00	08:33 (WEA13)
10	21:32	20:55	9 06:16 (WEA15)	19:51	8 07:02 (WEA16)	18:42	10 07:54 (WEA22)	16:39	32 15:54 (WEA02)	16:03	26 09:01 (WEA12)
11	05:01	05:41	06:09 (WEA15)	06:30	06:56 (WEA16)	07:19	07:45 (WEA22)	07:13	15:19 (WEA03)	08:01	08:35 (WEA13)
12	21:31	20:53	8 06:17 (WEA15)	19:49	4 07:00 (WEA16)	18:40	6 07:51 (WEA22)	16:37	34 15:53 (WEA02)	16:03	25 09:02 (WEA12)
13	05:02	05:42	06:10 (WEA15)	06:32	07:21	17:29 (WEA01)	07:15	15:16 (WEA03)	08:03	08:36 (WEA13)	
14	21:31	20:52	6 06:16 (WEA15)	19:47	18:38	11 17:40 (WEA01)	16:35	15:16 (WEA03)	16:03	23 09:02 (WEA12)	
15	05:02	05:44	06:12 (WEA15)	06:34	07:22	17:26 (WEA01)	07:17	15:15 (WEA03)	08:04	08:37 (WEA13)	
16	21:30	20:50	3 06:15 (WEA15)	19:45	18:36	16 17:42 (WEA01)	16:33	15:15 (WEA02)	16:02	21 09:02 (WEA12)	
17	05:03	05:45	06:15 (WEA15)	06:35	07:24	17:24 (WEA01)	07:18	15:13 (WEA03)	08:05	08:39 (WEA13)	
18	21:29	20:48	06:16 (WEA15)	19:42	18:33	19 17:43 (WEA01)	16:32	15:13 (WEA02)	16:02	19 09:04 (WEA12)	
19	05:04	05:47	06:17 (WEA15)	06:37	07:26	17:23 (WEA01)	07:20	15:13 (WEA03)	08:06	08:50 (WEA12)	
20	21:29	20:46	06:18 (WEA15)	19:40	18:31	21 17:44 (WEA01)	16:30	15:13 (WEA02)	16:02	14 09:04 (WEA12)	
21	05:05	05:49	06:19 (WEA15)	06:38	07:28	17:22 (WEA01)	07:22	15:12 (WEA03)	08:07	08:51 (WEA12)	
22	21:28	20:44	06:20 (WEA15)	19:38	18:29	23 17:45 (WEA01)	16:29	15:12 (WEA03)	16:02	16 14:25 (WEA04)	
23	05:06	05:50	06:21 (WEA15)	06:40	07:29	17:21 (WEA01)	07:24	15:12 (WEA03)	08:08	08:51 (WEA12)	
24	21:27	20:42	06:22 (WEA15)	19:35	18:27	24 17:45 (WEA01)	16:27	15:12 (WEA03)	16:02	20 14:28 (WEA04)	
25	05:08	05:52	06:23 (WEA15)	06:42	07:31	17:20 (WEA01)	07:25	15:11 (WEA03)	08:09	08:52 (WEA11)	
26	21:26	20:40	06:24 (WEA15)	19:33	18:24	24 17:44 (WEA01)	16:26	15:11 (WEA03)	16:01	21 14:29 (WEA04)	
27	05:09	05:53	06:25 (WEA15)	06:43	07:33	17:20 (WEA01)	07:27	15:11 (WEA03)	08:10	08:52 (WEA12)	
28	21:25	20:38	06:26 (WEA15)	19:31	18:22	25 17:45 (WEA01)	16:24	15:11 (WEA03)	16:01	23 14:30 (WEA04)	
29	05:10	05:55	06:27 (WEA15)	06:45	07:34	17:20 (WEA01)	07:29	15:11 (WEA03)	08:11	08:53 (WEA11)	
30	21:24	20:37	06:28 (WEA15)	19:28	18:20	24 17:44 (WEA01)	16:23	15:11 (WEA03)	16:02	24 14:31 (WEA04)	
31	05:11	05:57	06:29 (WEA15)	06:46	07:36	17:20 (WEA01)	07:31	15:11 (WEA03)	08:12	08:54 (WEA11)	
1	21:23	20:35	06:30 (WEA15)	19:26	18:18	24 17:44 (WEA01)	16:21	15:11 (WEA03)	16:02	25 14:33 (WEA04)	
2	05:12	05:58	06:31 (WEA15)	06:48	07:38	17:20 (WEA01)	07:32	15:11 (WEA03)	08:13	08:54 (WEA11)	
3	21:22	20:33	06:32 (WEA15)	19:24	18:16	24 17:44 (WEA01)	16:20	15:11 (WEA03)	16:02	26 14:33 (WEA04)	
4	05:13	06:00	06:33 (WEA15)	06:50	07:39	17:20 (WEA01)	07:34	15:11 (WEA03)	08:14	08:54 (WEA11)	
5	21:21	20:30	2 06:34 (WEA14)	19:21	18:14	22 17:42 (WEA01)	16:19	15:11 (WEA03)	16:02	27 14:34 (WEA04)	
6	05:15	06:01	06:35 (WEA14)	06:51	07:41	16:32 (WEA02)	07:36	15:11 (WEA03)	08:14	08:55 (WEA11)	
7	21:20	20:28	8 06:36 (WEA14)	19:19	18:12	33 17:41 (WEA01)	16:17	15:11 (WEA03)	16:02	27 14:35 (WEA04)	
8	05:16	06:03	06:37 (WEA14)	06:53	07:43	08:21 (WEA21)	07:37	15:11 (WEA03)	08:15	08:55 (WEA11)	
9	21:19	20:26	10 06:38 (WEA14)	19:17	18:09	45 17:40 (WEA01)	16:16	15:11 (WEA03)	16:03	27 14:35 (WEA04)	
10	05:17	06:05	06:39 (WEA14)	06:54	07:45	08:20 (WEA21)	07:39	15:11 (WEA03)	08:16	08:56 (WEA11)	
11	21:18	20:24	11 06:40 (WEA14)	19:15	18:07	49 17:39 (WEA01)	16:15	15:11 (WEA03)	16:03	27 14:36 (WEA04)	
12	05:19	06:06	06:41 (WEA14)	06:56	07:46	08:20 (WEA21)	07:41	15:11 (WEA03)	08:16	08:56 (WEA11)	
13	21:17	20:22	10 06:42 (WEA14)	19:12	18:05	47 17:36 (WEA01)	16:14	15:11 (WEA03)	16:04	27 14:36 (WEA04)	
14	05:20	06:08	06:43 (WEA14)	06:58	07:48	08:19 (WEA21)	07:42	15:11 (WEA03)	08:17	08:57 (WEA11)	
15	21:15	20:20	8 06:44 (WEA14)	19:10	18:03	41 16:53 (WEA02)	16:13	15:11 (WEA03)	16:04	27 14:37 (WEA04)	
16	05:21	06:09	06:45 (WEA14)	06:59	07:50	08:20 (WEA21)	07:44	15:11 (WEA03)	08:17	08:57 (WEA11)	
17	21:14	20:18	6 06:46 (WEA14)	19:08	18:01	41 16:54 (WEA02)	16:12	15:11 (WEA03)	16:05	27 14:37 (WEA04)	
18	05:23	06:11	06:47 (WEA14)	07:01	06:52	07:19 (WEA21)	07:46	15:11 (WEA03)	08:17	08:57 (WEA11)	
19	21:13	20:16	3 06:48 (WEA14)	19:05	16:59	41 15:53 (WEA02)	16:11	15:11 (WEA03)	16:05	26 14:37 (WEA04)	
20	05:24	06:13	06:49 (WEA14)	07:03	06:53	07:21 (WEA21)	07:47	15:11 (WEA03)	08:18	08:59 (WEA11)	
21	21:11	20:14	06:50 (WEA14)	19:03	16:57	40 15:54 (WEA02)	16:10	15:11 (WEA03)	16:06	26 14:38 (WEA04)	
22	05:26	06:14	06:51 (WEA14)	07:04	06:55	15:20 (WEA02)	07:49	15:11 (WEA03)	08:18	08:59 (WEA11)	
23	21:10	20:11	06:52 (WEA14)	19:01	16:55	34 15:54 (WEA02)	16:09	15:11 (WEA03)	16:07	25 14:38 (WEA04)	
24	05:27	06:16	06:53 (WEA14)	07:06	06:57	15:20 (WEA02)	07:50	15:11 (WEA03)	08:18	08:59 (WEA11)	
25	21:08	20:09	06:54 (WEA14)	18:58	16:53	35 15:55 (WEA02)	16:08	15:11 (WEA03)	16:08	25 14:38 (WEA04)	
26	05:29	06:17	06:55 (WEA14)	07:08	06:59	15:20 (WEA02)	07:52	15:11 (WEA03)	08:18	08:59 (WEA12)	
27	21:07	20:07	06:56 (WEA14)	18:56	16:51	35 15:55 (WEA02)	16:07	15:11 (WEA03)	16:08	24 14:37 (WEA04)	
28	05:30	06:19	06:57 (WEA14)	07:09	07:01	15:20 (WEA02)	07:53	15:11 (WEA03)	08:18	09:00 (WEA11)	
29	21:05	20:05	06:58 (WEA14)	18:54	16:49	35 15:55 (WEA02)	16:06	15:11 (WEA03)	16:09	21 14:37 (WEA04)	
30	05:32	06:11 (WEA15)	06:21	06:58 (WEA16)	07:02	35 15:55 (WEA02)	16:06	15:11 (WEA03)	16:09	21 14:37 (WEA04)	
31	21:04	1 06:12 (WEA15)	20:03	3 07:01 (WEA16)	16:48	35 15:55 (WEA02)	16:06	15:11 (WEA03)	16:10	21 14:37 (WEA04)	
Sonnenscheinstunden		501	453	381	332	830	267	766			
astr.max.mögl.Beschattung		1	123	56							
Red.Sonnenscheinwahrsch.		0,47	0,50	0,42	0,35			0,21		0,16	
Reduktion Betriebsdauer		0,95	0,95	0,95	0,95			0,95		0,95	
Reduktion Windrichtung		0,66	0,65	0,63	0,66			0,65		0,60	
Gesamte Reduktion		0,29	0,31	0,25	0,22			0,13		0,09	
Met.wahrsch.Beschattung		0	38	14	183			145		72	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP42 - Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar			Februar			März			April			Mai			Juni		
1	08:19		09:01 (WEA13)	07:52		15:45 (WEA03)	06:59		16:47 (WEA01)	06:49		05:45			05:00		
	16:12	38	14:45 (WEA04)	16:59	35	16:20 (WEA02)	17:50	23	17:10 (WEA01)	19:44		20:34			21:20		
2	08:18		09:01 (WEA13)	07:51		15:46 (WEA03)	06:57		16:48 (WEA01)	06:47		05:43			04:59		
	16:13	35	14:43 (WEA04)	17:01	35	16:21 (WEA02)	17:52	21	17:09 (WEA01)	19:45		20:36			21:21		
3	08:18		09:02 (WEA13)	07:49		15:48 (WEA03)	06:55		16:49 (WEA01)	06:44		05:41			04:58		
	16:14	30	14:42 (WEA04)	17:03	35	16:23 (WEA02)	17:54	19	17:08 (WEA01)	19:47		20:37			21:22		
4	08:18		09:03 (WEA13)	07:47		15:50 (WEA03)	06:53		07:18 (WEA22)	06:42		05:39			04:57		
	16:15	27	09:30 (WEA12)	17:04	34	16:24 (WEA02)	17:55	22	17:07 (WEA01)	19:49	2	07:07 (WEA16)	20:39	3	06:07 (WEA15)	21:23	
5	08:18		09:02 (WEA13)	07:46		15:53 (WEA03)	06:50		07:15 (WEA22)	06:40		05:37			04:57		
	16:16	27	09:29 (WEA12)	17:06	32	16:25 (WEA02)	17:57	22	17:04 (WEA01)	19:50	7	07:09 (WEA16)	20:41	6	06:08 (WEA15)	21:24	
6	08:18		09:03 (WEA13)	07:44		15:54 (WEA02)	06:48		07:14 (WEA22)	06:38		05:35			04:56		
	16:17	26	09:29 (WEA12)	17:08	31	16:25 (WEA02)	17:59	13	16:58 (WEA01)	19:52	10	07:10 (WEA16)	20:42	8	06:08 (WEA15)	21:25	
7	08:17		09:03 (WEA13)	07:42		15:55 (WEA02)	06:46		07:14 (WEA22)	06:35		05:34			04:56		
	16:18	26	09:29 (WEA12)	17:10	32	16:27 (WEA02)	18:01	12	07:26 (WEA22)	19:54	10	07:10 (WEA16)	20:44	10	06:08 (WEA15)	21:26	
8	08:17		09:05 (WEA13)	07:41		15:55 (WEA02)	06:44		07:14 (WEA22)	06:33		05:32			04:55		
	16:20	24	09:29 (WEA12)	17:12	32	16:27 (WEA02)	18:03	12	07:26 (WEA22)	19:55	10	07:10 (WEA16)	20:46	12	06:09 (WEA15)	21:26	
9	08:16		09:05 (WEA13)	07:39		15:54 (WEA02)	06:42		07:13 (WEA22)	06:31		05:30			04:55		
	16:21	22	09:27 (WEA12)	17:14	33	16:27 (WEA02)	18:04	12	07:25 (WEA22)	19:57	10	07:10 (WEA16)	20:47	11	06:08 (WEA15)	21:27	
10	08:16		09:05 (WEA13)	07:37		15:54 (WEA02)	06:39		07:14 (WEA22)	06:29		05:28			04:54		
	16:22	18	09:23 (WEA13)	17:16	33	16:27 (WEA02)	18:06	10	07:24 (WEA22)	19:59	7	07:07 (WEA16)	20:49	10	06:08 (WEA15)	21:28	
11	08:15		09:07 (WEA13)	07:35		08:02 (WEA21)	06:37		07:16 (WEA22)	06:26		05:27			04:54		
	16:24	17	09:24 (WEA13)	17:17	37	16:27 (WEA02)	18:08	6	07:22 (WEA22)	20:01		20:50		9	06:07 (WEA15)	21:29	
12	08:15		09:07 (WEA13)	07:33		08:00 (WEA21)	06:35			06:24		05:25			04:53		
	16:25	22	15:52 (WEA03)	17:19	41	16:27 (WEA02)	18:10			20:02		20:52		6	06:06 (WEA15)	21:30	
13	08:14		09:08 (WEA13)	07:32		07:59 (WEA21)	06:33			06:22		05:24			04:53		
	16:27	25	15:54 (WEA03)	17:21	43	16:27 (WEA02)	18:11			20:04		20:54			21:30		
14	08:13		09:09 (WEA13)	07:30		07:58 (WEA21)	06:30			06:20		05:22			04:53		
	16:28	25	15:55 (WEA03)	17:23	43	16:26 (WEA02)	18:13			20:06		20:55			21:31		
15	08:12		09:10 (WEA13)	07:28		07:58 (WEA21)	06:28			06:18		05:20			04:53		
	16:30	27	15:57 (WEA03)	17:25	43	16:26 (WEA02)	18:15			20:07		20:57			21:31		
16	08:12		09:11 (WEA13)	07:26		07:58 (WEA21)	06:26			06:15		05:19			04:53		
	16:31	28	15:59 (WEA03)	17:27	41	16:25 (WEA02)	18:16			20:09		20:58			21:32		
17	08:11		09:13 (WEA13)	07:24		07:59 (WEA21)	06:23			06:13		05:17			04:53		
	16:33	26	16:00 (WEA03)	17:28	38	16:25 (WEA02)	18:18			20:11	5	06:41 (WEA14)	21:00		21:32		
18	08:10		15:42 (WEA03)	07:22		08:00 (WEA21)	06:21			06:11		05:16			04:53		
	16:35	19	16:01 (WEA03)	17:30	34	16:24 (WEA02)	18:20			20:12	8	06:42 (WEA14)	21:01		21:33		
19	08:09		15:41 (WEA03)	07:20		08:02 (WEA21)	06:19			06:09		05:15			04:53		
	16:36	22	16:03 (WEA03)	17:32	36	17:05 (WEA01)	18:22			20:14	10	06:42 (WEA14)	21:03		21:33		
20	08:08		15:41 (WEA03)	07:18		16:01 (WEA02)	06:17			06:07		05:13			04:53		
	16:38	23	16:04 (WEA03)	17:34	34	17:07 (WEA01)	18:23			20:16	11	06:42 (WEA14)	21:04		21:33		
21	08:07		15:41 (WEA03)	07:16		16:03 (WEA02)	06:14			06:05		05:12			04:53		
	16:40	23	16:04 (WEA03)	17:36	34	17:09 (WEA01)	18:25			20:17	11	06:42 (WEA14)	21:05		21:34		
22	08:05		15:41 (WEA03)	07:14		16:07 (WEA02)	06:12			06:03		05:11			04:53		
	16:41	23	16:04 (WEA03)	17:38	28	17:10 (WEA01)	18:27			20:19	10	06:41 (WEA14)	21:07		21:34		
23	08:04		15:41 (WEA03)	07:12		16:49 (WEA01)	06:10			06:01		05:09			04:53		
	16:43	24	16:05 (WEA03)	17:39	22	17:11 (WEA01)	18:28			20:21	8	06:40 (WEA14)	21:08		21:34		
24	08:03		15:41 (WEA03)	07:10		16:48 (WEA01)	06:07			05:59		05:08			04:54		
	16:45	24	16:05 (WEA03)	17:41	23	17:11 (WEA01)	18:30			20:22	3	06:37 (WEA14)	21:10		21:34		
25	08:02		15:41 (WEA03)	07:08		16:47 (WEA01)	06:05			05:57		05:07			04:54		
	16:46	25	16:06 (WEA03)	17:43	24	17:11 (WEA01)	18:32			20:24		21:11			21:34		
26	08:01		15:41 (WEA03)	07:06		16:47 (WEA01)	06:03			05:55		05:06			04:54		
	16:48	25	16:06 (WEA03)	17:45	24	17:11 (WEA01)	18:34			20:26		21:12			21:34		
27	07:59		15:42 (WEA03)	07:03		16:47 (WEA01)	06:00			05:52		05:05			04:55		
	16:50	24	16:06 (WEA03)	17:47	24	17:11 (WEA01)	18:35			20:27		21:14			21:34		
28	07:58		15:42 (WEA03)	07:01		16:48 (WEA01)	05:58			05:51		05:04			04:55		
	16:52	24	16:06 (WEA03)	17:48	23	17:11 (WEA01)	18:37			20:29		21:15			21:34		
29	07:57		15:43 (WEA03)				06:56			05:49		05:03			04:56		
	16:54	30	16:13 (WEA02)				19:39			20:31		21:16			21:34		
30	07:55		15:43 (WEA03)				06:54			05:47		05:02			04:56		
	16:55	33	16:16 (WEA02)				19:40					21:17			21:34		
31	07:54		15:44 (WEA03)				06:51			20:32		05:01			21:34		
	16:57	35	16:19 (WEA02)				19:42					21:18					
Sonnenscheinstunden			260		278		367		416			484			498		
astr.max.mögl.Beschattung			797		924		172		122			75					
Red.Sonnenscheinwahrsch.			0,19		0,26		0,33		0,42			0,48					
Reduktion Betriebsdauer			0,95		0,95		0,95		0,95			0,95					
Reduktion Windrichtung			0,64		0,67		0,62		0,64			0,65					
Gesamte Reduktion			0,11		0,17		0,20		0,25			0,30					
Met.wahrsch.Beschattung			90		154		34		31			22					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP42 - Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1 04:57	05:33	06:10 (WEA15)	06:22	07:11	07:04	15:24 (WEA02) 07:55
2 21:33	21:02	7 06:17 (WEA15)	20:00	18:51	16:46	33 15:57 (WEA02) 16:06
3 04:58	05:35	06:08 (WEA15)	06:24	07:12	07:06	15:24 (WEA02) 07:56
4 21:33	21:00	10 06:18 (WEA15)	19:58	18:49	16:44	33 15:57 (WEA02) 16:05
5 04:58	05:36	06:07 (WEA15)	06:26	07:14	07:08	15:24 (WEA02) 07:58
6 21:33	20:59	11 06:18 (WEA15)	19:56	18:47	16:42	32 15:56 (WEA02) 16:04
7 04:59	05:38	06:07 (WEA15)	06:27	07:16	07:09	15:25 (WEA02) 07:59
8 21:32	20:57	12 06:19 (WEA15)	19:54	18:45	16:40	31 15:56 (WEA02) 16:04
9 05:00	05:39	06:07 (WEA15)	06:29	07:17	07:11	15:25 (WEA02) 08:00
10 21:32	20:55	11 06:18 (WEA15)	19:51	18:42	16:39	31 15:56 (WEA02) 16:03
11 05:01	05:41	06:09 (WEA15)	06:30	07:19	07:13	15:22 (WEA03) 08:01
12 21:31	20:53	10 06:19 (WEA15)	19:49	18:40	16:37	32 15:54 (WEA02) 16:03
13 05:02	05:42	06:10 (WEA15)	06:32	07:21	07:15	15:19 (WEA03) 08:03
14 21:31	20:52	8 06:18 (WEA15)	19:47	18:38	16:35	35 15:54 (WEA02) 16:03
15 05:02	05:44	5 06:12 (WEA15)	06:34	07:22	07:17	15:18 (WEA03) 08:04
16 21:30	20:50	8 06:17 (WEA15)	19:45	18:36	16:33	35 15:54 (WEA02) 16:02
17 05:03	05:45	06:13 (WEA15)	06:35	07:24	07:18	15:16 (WEA03) 08:05
18 21:29	20:48	2 06:15 (WEA15)	19:42	18:33	16:32	36 15:52 (WEA02) 16:02
19 05:04	05:47		06:37	07:26	07:20	15:16 (WEA03) 08:06
20 21:29	20:46		19:40	18:31	16:30	35 15:51 (WEA02) 16:02
21 05:05	05:49		06:38	07:28	07:22	15:15 (WEA03) 08:07
22 21:28	20:44		19:38	18:29	16:29	35 15:50 (WEA02) 16:02
23 05:06	05:50		06:40	07:29	07:24	15:15 (WEA03) 08:08
24 21:27	20:42		19:35	18:27	16:27	33 15:48 (WEA02) 16:02
25 05:08	05:52		06:42	07:31	07:25	15:15 (WEA03) 08:09
26 21:26	20:40		19:33	18:24	16:26	30 15:45 (WEA02) 16:01
27 05:09	05:53		06:43	07:33	07:27	15:15 (WEA03) 08:10
28 21:25	20:38		19:31	18:22	16:24	24 15:39 (WEA03) 16:01
29 05:10	05:55		06:45	07:34	07:29	15:15 (WEA03) 08:11
30 21:24	20:37		19:28	18:20	16:23	24 15:39 (WEA03) 16:02
31 05:11	05:57		06:46	07:36	07:31	15:15 (WEA03) 08:12
1 21:23	20:35		19:26	18:18	16:21	25 15:40 (WEA03) 16:02
2 05:12	05:58		06:48	07:38	07:32	15:14 (WEA03) 08:13
3 21:22	20:33		19:24	18:16	16:20	25 15:39 (WEA03) 16:02
4 05:13	06:00		06:50	07:39	07:34	15:15 (WEA03) 08:14
5 21:21	20:30		19:21	18:14	16:19	24 15:39 (WEA03) 16:02
6 05:15	06:01	06:39 (WEA14)	06:51	07:41	07:36	15:15 (WEA03) 08:14
7 21:20	20:28	5 06:44 (WEA14)	19:19	18:12	16:17	24 15:39 (WEA03) 16:02
8 05:16	06:03	06:37 (WEA14)	06:53	07:43	07:37	15:16 (WEA03) 08:15
9 21:19	20:26	9 06:46 (WEA14)	19:17	18:09	16:16	23 15:39 (WEA03) 16:03
10 05:17	06:05	06:35 (WEA14)	06:54	07:45	07:39	15:17 (WEA03) 08:16
11 21:18	20:24	11 06:46 (WEA14)	19:15	18:07	16:15	23 15:40 (WEA03) 16:03
12 05:19	06:06	06:35 (WEA14)	06:56	07:46	07:41	15:17 (WEA03) 08:16
13 21:17	20:22	11 06:46 (WEA14)	19:12	18:05	16:14	23 15:40 (WEA03) 16:04
14 05:20	06:08	06:34 (WEA14)	06:58	07:48	07:42	15:17 (WEA03) 08:17
15 21:15	20:20	12 06:46 (WEA14)	19:10	18:03	16:13	22 15:39 (WEA03) 16:04
16 05:21	06:09	06:36 (WEA14)	06:59	07:50	07:44	15:19 (WEA03) 08:17
17 21:14	20:18	10 06:46 (WEA14)	19:08	18:01	16:12	20 15:39 (WEA03) 16:05
18 05:23	06:11	06:37 (WEA14)	07:01	06:52	07:46	08:51 (WEA13) 08:17
19 21:13	20:16	7 06:44 (WEA14)	19:05	16:59	16:11	26 15:38 (WEA03) 16:05
20 05:24	06:13	06:39 (WEA14)	07:03	06:53	07:47	08:50 (WEA13) 08:18
21 21:11	20:14	4 06:43 (WEA14)	19:03	16:57	16:10	28 15:38 (WEA03) 16:06
22 05:26	06:14		07:04	06:55	07:49	08:49 (WEA13) 08:18
23 21:10	20:11		19:01	16:55	16:09	27 15:36 (WEA03) 16:07
24 05:27	06:16		07:06	06:57	07:50	08:49 (WEA13) 08:18
25 21:08	20:09		18:58	16:53	16:08	25 15:35 (WEA03) 16:08
26 05:29	06:17		07:08	06:59	07:52	08:48 (WEA13) 08:18
27 21:07	20:07		18:56	16:51	16:07	25 15:34 (WEA03) 16:08
28 05:30	06:19		07:09	07:01	07:53	08:48 (WEA13) 08:18
29 21:05	20:05		18:54	16:49	16:06	23 15:33 (WEA03) 16:09
30 05:32	06:11 (WEA15)	06:21		07:02	07:53 (WEA21)	
31 21:04	4 06:15 (WEA15)	20:03		16:48	34 15:57 (WEA02)	
Sonnenscheinstunden	501	453	381	332	267	245
astr.max.mögl.Beschattung	4	145	56	766	842	1141
Red.Sonnenscheinwahrsch.	0,47	0,50	0,42	0,35	0,21	0,16
Reduktion Betriebsdauer	0,95	0,95	0,95	0,95	0,95	0,95
Reduktion Windrichtung	0,65	0,65	0,64	0,65	0,67	0,61
Gesamte Reduktion	0,29	0,31	0,25	0,22	0,13	0,10
Met.wahrsch.Beschattung	1	44	14	168	111	109

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP43 - Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar			Februar			März			April			Mai			Juni		
1	08:19		09:27 (WEA13)	07:52		06:59			06:49			05:45			05:00		
	16:12	34	15:03 (WEA04)	16:59		17:50			19:44			20:34			21:20		
2	08:18		09:27 (WEA13)	07:51	16:17 (WEA02)	06:57			06:47			05:43			04:59		
	16:13	33	15:02 (WEA04)	17:01	16:22 (WEA02)	17:52			19:45			20:36			21:21		
3	08:18		09:28 (WEA13)	07:49	16:14 (WEA02)	06:55		07:22 (WEA22)	06:44			05:41			04:58		
	16:14	31	15:02 (WEA04)	17:03	16:27 (WEA02)	17:54	9	07:31 (WEA22)	19:47			20:37			21:22		
4	08:18		09:29 (WEA13)	07:47	16:12 (WEA02)	06:53		07:21 (WEA22)	06:42			05:39			04:57		
	16:15	30	15:03 (WEA04)	17:04	16:29 (WEA02)	17:55	11	07:32 (WEA22)	19:49			20:39			21:23		
5	08:18		09:30 (WEA13)	07:46	16:10 (WEA02)	06:50		07:19 (WEA22)	06:40		07:05 (WEA16)	05:37			04:57		
	16:16	27	15:02 (WEA04)	17:06	16:30 (WEA02)	17:57	13	07:32 (WEA22)	19:50	1	07:06 (WEA16)	20:41			21:24		
6	08:18		09:32 (WEA13)	07:44	16:08 (WEA02)	06:48		07:19 (WEA22)	06:38		07:01 (WEA16)	05:35			04:56		
	16:17	23	15:02 (WEA04)	17:08	16:31 (WEA02)	17:59	13	07:32 (WEA22)	19:52	8	07:09 (WEA16)	20:42			21:25		
7	08:17		09:33 (WEA13)	07:42	16:08 (WEA02)	06:46		07:19 (WEA22)	06:35		07:00 (WEA16)	05:34		05:58 (WEA15)	04:56		
	16:18	18	15:01 (WEA04)	17:10	16:33 (WEA02)	18:01	13	07:32 (WEA22)	19:54	10	07:10 (WEA16)	20:44	1	05:59 (WEA15)	21:26		
8	08:17		14:50 (WEA04)	07:41	08:10 (WEA21)	06:44		07:19 (WEA22)	06:33		06:59 (WEA16)	05:32		05:57 (WEA15)	04:55		
	16:20	11	15:01 (WEA04)	17:12	16:34 (WEA02)	18:03	13	07:32 (WEA22)	19:55	11	07:10 (WEA16)	20:46	5	06:02 (WEA15)	21:26		
9	08:16		14:51 (WEA04)	07:39	08:08 (WEA21)	06:42		07:19 (WEA22)	06:31		06:58 (WEA16)	05:30		05:55 (WEA15)	04:55		
	16:21	9	15:00 (WEA04)	17:14	16:35 (WEA02)	18:04	11	07:30 (WEA22)	19:57	11	07:09 (WEA16)	20:47	8	06:03 (WEA15)	21:27		
10	08:16		14:54 (WEA04)	07:37	08:07 (WEA21)	06:39		07:21 (WEA22)	06:29		06:58 (WEA16)	05:28		05:54 (WEA15)	04:54		
	16:22	4	14:58 (WEA04)	17:16	16:35 (WEA02)	18:06	7	07:28 (WEA22)	19:59	11	07:09 (WEA16)	20:49	10	06:04 (WEA15)	21:28		
11	08:15			07:35	08:06 (WEA21)	06:37			06:26		06:59 (WEA16)	05:27		05:52 (WEA15)	04:54		
	16:24			17:17	16:36 (WEA02)	18:08			20:01	9	07:08 (WEA16)	20:50	12	06:05 (WEA15)	21:29		
12	08:15			07:33	08:06 (WEA21)	06:35			06:24		07:01 (WEA16)	05:25		05:52 (WEA15)	04:53		
	16:25			17:19	16:36 (WEA02)	18:10			20:02	5	07:06 (WEA16)	20:52	13	06:05 (WEA15)	21:30		
13	08:14			07:32	08:06 (WEA21)	06:33			06:22			05:23		05:52 (WEA15)	04:53		
	16:27			17:21	16:36 (WEA02)	18:11			20:04			20:54	12	06:04 (WEA15)	21:30		
14	08:13			07:30	08:06 (WEA21)	06:30			06:20			05:22		05:52 (WEA15)	04:53		
	16:28			17:23	16:36 (WEA02)	18:13			20:06			20:55	12	06:04 (WEA15)	21:31		
15	08:12			07:28	08:07 (WEA21)	06:28			06:18			05:20		05:52 (WEA15)	04:53		
	16:30			17:25	16:36 (WEA02)	18:15			20:07			20:57	11	06:03 (WEA15)	21:31		
16	08:12			07:26	08:09 (WEA21)	06:26			06:15			05:19		05:53 (WEA15)	04:53		
	16:31			17:27	16:36 (WEA02)	18:16			20:09			20:58	10	06:03 (WEA15)	21:32		
17	08:11			07:24	16:06 (WEA02)	06:23			06:13			05:17		05:54 (WEA15)	04:53		
	16:33			17:28	16:35 (WEA02)	18:18			20:11			21:00	9	06:03 (WEA15)	21:32		
18	08:10			07:22	16:07 (WEA02)	06:21			06:11			05:16		05:55 (WEA15)	04:53		
	16:35			17:30	16:35 (WEA02)	18:20			20:12			21:01	5	06:00 (WEA15)	21:33		
19	08:09			07:20	16:08 (WEA02)	06:19			06:09		06:32 (WEA14)	05:15			04:53		
	16:36			17:32	16:34 (WEA02)	18:22			20:14	6	06:38 (WEA14)	21:03			21:33		
20	08:08			07:18	16:09 (WEA02)	06:17		06:39 (WEA23)	06:07		06:30 (WEA14)	05:13			04:53		
	16:38			17:34	16:33 (WEA02)	18:23	3	06:42 (WEA23)	20:16	9	06:39 (WEA14)	21:04			21:33		
21	08:07			07:16	16:10 (WEA02)	06:14		06:37 (WEA23)	06:05		06:28 (WEA14)	05:12			04:53		
	16:40			17:36	16:32 (WEA02)	18:25	8	06:45 (WEA23)	20:17	11	06:39 (WEA14)	21:05			21:34		
22	08:05			07:14	16:12 (WEA02)	06:12		06:35 (WEA23)	06:03		06:27 (WEA14)	05:11			04:53		
	16:41			17:38	16:30 (WEA02)	18:27	10	06:45 (WEA23)	20:19	13	06:40 (WEA14)	21:07			21:34		
23	08:04			07:12	16:14 (WEA02)	06:10		06:35 (WEA23)	06:01		06:27 (WEA14)	05:09			04:53		
	16:43			17:39	16:28 (WEA02)	18:28	10	06:45 (WEA23)	20:21	13	06:40 (WEA14)	21:08			21:34		
24	08:03			07:10	16:17 (WEA02)	06:07		06:35 (WEA23)	05:59		06:27 (WEA14)	05:08			04:53		
	16:45			17:41	6	16:23 (WEA02)	18:30	10	06:45 (WEA23)	20:22	12	06:39 (WEA14)	21:10		21:34		
25	08:02			07:08		06:05		06:35 (WEA23)	05:57		06:28 (WEA14)	05:07			04:54		
	16:46			17:43		18:32	8	06:43 (WEA23)	20:24	10	06:38 (WEA14)	21:11			21:34		
26	08:01			07:06		06:03		06:36 (WEA23)	05:54		06:28 (WEA14)	05:06			04:54		
	16:48			17:45		18:34	5	06:41 (WEA23)	20:26	9	06:37 (WEA14)	21:12			21:34		
27	07:59			07:03		06:00			05:52		06:30 (WEA14)	05:05			04:55		
	16:50			17:47		18:35			20:27	4	06:34 (WEA14)	21:14			21:34		
28	07:58			07:01		05:58			05:51			05:04			04:55		
	16:52			17:48		18:37			20:29			21:15			21:34		
29	07:57					06:56			05:49			05:03			04:56		
	16:54					19:39			20:31			21:16			21:34		
30	07:55					06:54			05:47			05:02			04:56		
	16:55					19:40			20:32			21:17			21:34		
31	07:54					06:51						05:01					
	16:57					19:42						21:18					
Sonnenscheinstunden			260	278		367			416			484			498		
astr.max.mögl.Beschattung			220	630		144			153			108					
Red.Sonnenscheinwahrsch.			0,19	0,26		0,33			0,42			0,48					
Reduktion Betriebsdauer			0,95	0,95		0,95			0,95			0,95					
Reduktion Windrichtung			0,66	0,66		0,61			0,64			0,66					
Gesamte Reduktion			0,12	0,17		0,19			0,25			0,30					
Met.wahrsch.Beschattung			26	104		28			39			32					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang (WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende (WEA mit letztem Schatten)
	Minuten mit Schatten	

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP43 - Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Juli		August		September		Oktober		November		Dezember	
1	04:57	05:33	06:03 (WEA15)	06:22	06:58 (WEA16)	07:11		07:04	07:37 (WEA21)	07:55	
2	21:33	21:02	12 06:15 (WEA15)	20:00	9 07:07 (WEA16)	18:51		16:46	39 16:05 (WEA02)	16:06	
3	04:58	05:35	06:03 (WEA15)	06:24	06:57 (WEA16)	07:12		07:06	07:38 (WEA21)	07:56	14:37 (WEA04)
4	21:33	21:00	11 06:14 (WEA15)	19:58	11 07:08 (WEA16)	18:49		16:44	35 16:04 (WEA02)	16:05	4 14:41 (WEA04)
5	04:58	05:36	06:04 (WEA15)	06:25	06:56 (WEA16)	07:14	08:00 (WEA22)	07:08	07:40 (WEA21)	07:57	14:35 (WEA04)
6	21:33	20:59	9 06:13 (WEA15)	19:56	11 07:07 (WEA16)	18:47	5 08:05 (WEA22)	16:42	31 16:04 (WEA02)	16:04	9 14:44 (WEA04)
7	04:59	05:38	06:06 (WEA15)	06:27	06:56 (WEA16)	07:16	07:58 (WEA22)	07:09	15:38 (WEA02)	07:59	14:34 (WEA04)
8	21:32	20:57	7 06:13 (WEA15)	19:54	11 07:07 (WEA16)	18:45	9 08:07 (WEA22)	16:40	25 16:03 (WEA02)	16:04	11 14:45 (WEA04)
9	05:00	05:39	06:07 (WEA15)	06:29	06:56 (WEA16)	07:17	07:57 (WEA22)	07:11	15:38 (WEA02)	08:00	09:19 (WEA13)
10	21:32	20:55	4 06:11 (WEA15)	19:51	10 07:06 (WEA16)	18:42	11 08:08 (WEA22)	16:39	23 16:01 (WEA02)	16:03	18 14:47 (WEA04)
11	05:01	05:41		06:30	06:57 (WEA16)	07:19	07:55 (WEA22)	07:13	15:40 (WEA02)	08:01	09:18 (WEA13)
12	21:31	20:53		19:49	8 07:05 (WEA16)	18:40	13 08:08 (WEA22)	16:37	20 16:00 (WEA02)	16:03	23 14:48 (WEA04)
13	05:02	05:42		06:32	07:00 (WEA16)	07:21	07:55 (WEA22)	07:15	15:42 (WEA02)	08:03	09:17 (WEA13)
14	21:31	20:52		19:47	2 07:02 (WEA16)	18:38	13 08:08 (WEA22)	16:35	16 15:58 (WEA02)	16:03	27 14:49 (WEA04)
15	05:02	05:44		06:34		07:22	07:55 (WEA22)	07:17	15:44 (WEA02)	08:04	09:16 (WEA13)
16	21:30	20:50		19:45		18:35	13 08:08 (WEA22)	16:33	12 15:56 (WEA02)	16:02	30 14:50 (WEA04)
17	05:03	05:45		06:35		07:24	07:54 (WEA22)	07:18	15:49 (WEA02)	08:05	09:17 (WEA13)
18	21:29	20:48		19:42		18:33	13 08:07 (WEA22)	16:32	3 15:52 (WEA02)	16:02	31 14:51 (WEA04)
19	05:04	05:47		06:37		07:26	07:55 (WEA22)	07:20		08:06	09:17 (WEA13)
20	21:29	20:46		19:40		18:31	11 08:06 (WEA22)	16:30		16:02	33 14:52 (WEA04)
21	05:05	05:49		06:38		07:28	07:57 (WEA22)	07:22		08:07	09:17 (WEA13)
22	21:28	20:44		19:38		18:29	7 08:04 (WEA22)	16:29		16:02	34 14:53 (WEA04)
23	05:06	05:50		06:40		07:29		07:24		08:08	09:17 (WEA13)
24	21:27	20:42		19:35		18:27		16:27		16:01	35 14:53 (WEA04)
25	05:08	05:52		06:42		07:31		07:25		08:09	09:17 (WEA13)
26	21:26	20:40		19:33		18:24		16:26		16:01	37 14:54 (WEA04)
27	05:09	05:53		06:43		07:33		07:27		08:10	09:17 (WEA13)
28	21:25	20:38		19:31		18:22		16:24		16:01	39 14:55 (WEA04)
29	05:10	05:55		06:45		07:34		07:29		08:11	09:18 (WEA13)
30	21:24	20:37		19:28		18:20		16:23		16:02	37 14:55 (WEA04)
31	05:11	05:57	06:37 (WEA14)	06:46		07:36		07:31		08:12	09:18 (WEA13)
1	21:23	20:35	6 06:43 (WEA14)	19:26		18:18		16:21		16:02	39 14:56 (WEA04)
2	05:12	05:58	06:35 (WEA14)	06:48		07:38		07:32		08:13	09:18 (WEA13)
3	21:22	20:32	9 06:44 (WEA14)	19:24	4 07:25 (WEA23)	18:16		16:20		16:02	39 14:56 (WEA04)
4	05:13	06:00	06:34 (WEA14)	06:50	07:23 (WEA23)	07:39	16:47 (WEA02)	07:34		08:14	09:18 (WEA13)
5	21:21	20:30	11 06:45 (WEA14)	19:21	8 07:31 (WEA23)	18:14	9 16:56 (WEA02)	16:19		16:02	41 14:57 (WEA04)
6	05:15	06:01	06:33 (WEA14)	06:51	07:21 (WEA23)	07:41	16:43 (WEA02)	07:36		08:14	09:19 (WEA13)
7	21:20	20:28	12 06:45 (WEA14)	19:19	10 07:31 (WEA23)	18:12	16:59 (WEA02)	16:17		16:02	41 14:58 (WEA04)
8	05:16	06:03	06:33 (WEA14)	06:53	07:21 (WEA23)	07:43	16:41 (WEA02)	07:37		08:15	09:19 (WEA13)
9	21:19	20:26	12 06:45 (WEA14)	19:17	10 07:31 (WEA23)	18:09	20 17:01 (WEA02)	16:16		16:03	41 14:58 (WEA04)
10	05:17	06:05	06:32 (WEA14)	06:54	07:20 (WEA23)	07:45	16:40 (WEA02)	07:39		08:16	09:20 (WEA13)
11	21:18	20:24	12 06:44 (WEA14)	19:15	10 07:30 (WEA23)	18:07	23 17:03 (WEA02)	16:15		16:03	40 14:58 (WEA04)
12	05:19	06:06	06:33 (WEA14)	06:56	07:21 (WEA23)	07:46	16:39 (WEA02)	07:41		08:16	09:20 (WEA13)
13	21:17	20:22	11 06:44 (WEA14)	19:12	9 07:30 (WEA23)	18:05	25 17:04 (WEA02)	16:14		16:04	40 14:58 (WEA04)
14	05:20	06:08	06:34 (WEA14)	06:58	07:23 (WEA23)	07:48	16:38 (WEA02)	07:42		08:17	09:21 (WEA13)
15	21:15	20:20	9 06:43 (WEA14)	19:10	5 07:28 (WEA23)	18:03	27 17:05 (WEA02)	16:13		16:04	41 15:00 (WEA04)
16	05:21	06:09	06:36 (WEA14)	06:59		07:50	16:37 (WEA02)	07:44		08:17	09:21 (WEA13)
17	21:14	20:18	5 06:41 (WEA14)	19:08		18:01	28 17:05 (WEA02)	16:12		16:05	41 15:00 (WEA04)
18	05:23	06:11		07:01		06:52	07:41 (WEA21)	07:46		08:17	09:21 (WEA13)
19	21:13	3 06:10 (WEA15)		20:16		19:05	16:59	31 16:05 (WEA02)	16:11	16:05	41 15:00 (WEA04)
20	05:24	06:05 (WEA15)		06:13		07:03	07:38 (WEA21)	07:47		08:18	09:22 (WEA13)
21	21:11	7 06:12 (WEA15)		20:14		19:03	16:57	38 16:05 (WEA02)	16:10	16:06	40 15:01 (WEA04)
22	05:26	06:04 (WEA15)		06:14		07:04	06:55	07:37 (WEA21)	07:49	08:18	09:23 (WEA13)
23	21:10	9 06:13 (WEA15)		20:11		19:01	16:55	41 16:06 (WEA02)	16:09	16:07	39 15:01 (WEA04)
24	05:27	06:03 (WEA15)		06:16		07:06	06:57	07:36 (WEA21)	07:50	08:18	09:23 (WEA13)
25	21:08	11 06:14 (WEA15)		20:09		18:58	16:53	43 16:06 (WEA02)	16:08	16:08	39 15:01 (WEA04)
26	05:29	06:02 (WEA15)		06:17		07:08	06:59	07:36 (WEA21)	07:52	08:18	09:24 (WEA13)
27	21:07	12 06:14 (WEA15)		20:07		18:56	16:51	43 16:06 (WEA02)	16:07	16:08	39 15:02 (WEA04)
28	05:30	06:03 (WEA15)		06:19		07:09	07:01	07:36 (WEA21)	07:53	08:18	09:25 (WEA13)
29	21:05	12 06:15 (WEA15)		20:05		18:54	16:49	42 16:05 (WEA02)	16:06	16:09	37 15:02 (WEA04)
30	05:32	06:02 (WEA15)		06:21		07:01 (WEA16)	07:02	07:36 (WEA21)		08:19	09:25 (WEA13)
31	21:04	12 06:14 (WEA15)		20:03	5 07:06 (WEA16)		16:48	42 16:05 (WEA02)		16:10	37 15:02 (WEA04)
Sonnenscheinstunden		501	453	381	332	523	267	204	1003		
astr.max.mögl.Beschattung		66	135	118	523	204					
Red.Sonnenscheinwahrsch.		0,47	0,50	0,42	0,35	0,21					
Reduktion Betriebsdauer		0,95	0,95	0,95	0,95	0,95					
Reduktion Windrichtung		0,66	0,64	0,63	0,65	0,67					
Gesamte Reduktion		0,30	0,31	0,25	0,22	0,13					
Met.wahrsch.Beschattung		19	41	29	114	27					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	(WEA mit erstem Schatten)	(WEA mit letztem Schatten)
--------------	-----------------------	-------------------------	----------------------	----------------------------------	--------------------------------	---------------------------	----------------------------

Projekt:

SW25034 Salzfurthkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurthkapelle Gesamtbelastung Schattenrezeptor: IP44 - Am Dorfe 1, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

Januar			Februar			März			April			Mai			Juni		
1	08:19		09:09 (WEA13)	07:52		06:59			16:27 (WEA02)	06:49		07:16 (WEA23)	05:45		06:09 (WEA14)	05:00	05:33 (WEA15)
	16:12	59	15:22 (WEA04)	16:59		17:50	25		16:52 (WEA02)	19:44	10	07:26 (WEA23)	20:34	8	06:17 (WEA14)	21:19	05:44 (WEA15)
2	08:18		09:09 (WEA13)	07:51		06:57			16:28 (WEA02)	06:47		07:16 (WEA23)	05:43		06:07 (WEA14)	04:59	05:33 (WEA15)
	16:13	58	15:21 (WEA04)	17:01		17:52	23		16:51 (WEA02)	19:45	9	07:25 (WEA23)	20:36	10	06:17 (WEA14)	21:21	05:44 (WEA15)
3	08:18		09:09 (WEA13)	07:49		06:55			16:30 (WEA02)	06:44		07:18 (WEA23)	05:41		06:05 (WEA14)	04:58	05:35 (WEA15)
	16:14	59	15:22 (WEA04)	17:03		17:54	20		16:50 (WEA02)	19:47	6	07:24 (WEA23)	20:37	12	06:17 (WEA14)	21:22	05:44 (WEA15)
4	08:18		09:10 (WEA13)	07:47		06:53			16:32 (WEA02)	06:42			05:39		06:06 (WEA14)	04:57	05:35 (WEA15)
	16:15	58	15:23 (WEA04)	17:04		17:55	15		16:47 (WEA02)	19:49			20:39	12	06:18 (WEA14)	21:23	05:44 (WEA15)
5	08:18		09:10 (WEA13)	07:46		06:50			16:35 (WEA02)	06:40			05:37		06:05 (WEA14)	04:57	05:36 (WEA15)
	16:16	58	15:23 (WEA04)	17:06		17:57	8		16:43 (WEA02)	19:50			20:41	13	06:18 (WEA14)	21:24	05:44 (WEA15)
6	08:18		08:48 (WEA17)	07:44		06:48				06:38			05:35		06:05 (WEA14)	04:56	05:36 (WEA15)
	16:17	59	15:24 (WEA04)	17:08		17:59				19:52			20:42	12	06:17 (WEA14)	21:25	7 05:43 (WEA15)
7	08:17		08:47 (WEA17)	07:42		06:46				06:35			05:34		06:06 (WEA14)	04:56	05:38 (WEA15)
	16:18	59	15:23 (WEA04)	17:10		18:01				19:54			20:44	10	06:16 (WEA14)	21:26	5 05:43 (WEA15)
8	08:17		08:47 (WEA17)	07:41		06:44				06:33			05:32		06:07 (WEA14)	04:55	05:39 (WEA15)
	16:20	60	15:24 (WEA04)	17:12		18:03				19:55			20:46	9	06:16 (WEA14)	21:26	2 05:41 (WEA15)
9	08:16		08:46 (WEA17)	07:39		06:42				06:31			05:30		06:08 (WEA14)	04:55	
	16:21	61	15:24 (WEA04)	17:14		18:04				19:57			20:47	6	06:14 (WEA14)	21:27	
10	08:16		08:45 (WEA17)	07:37		06:39				06:29			05:28			04:54	
	16:22	60	15:24 (WEA04)	17:16		18:06				19:59			20:49			21:28	
11	08:15		08:45 (WEA17)	07:35		06:37				06:26			05:27			04:54	
	16:24	60	15:25 (WEA04)	17:17		18:08				20:01			20:50			21:29	
12	08:15		08:44 (WEA17)	07:33		06:35			07:03 (WEA22)	06:24			05:25			04:53	
	16:25	59	15:25 (WEA04)	17:19		18:10	6		07:09 (WEA22)	20:02			20:52			21:30	
13	08:14		08:43 (WEA17)	07:32		06:33			07:00 (WEA22)	06:22			05:23			04:53	
	16:27	58	15:25 (WEA04)	17:21	10	16:46 (WEA02)	10		07:10 (WEA22)	20:04			20:53			21:30	
14	08:13		08:43 (WEA17)	07:30		06:30			06:59 (WEA22)	06:20			05:22			04:53	
	16:28	55	15:24 (WEA04)	17:23	16	16:49 (WEA02)	12		07:11 (WEA22)	20:06			20:55			21:31	
15	08:12		08:44 (WEA17)	07:28		06:28			06:58 (WEA22)	06:18		06:42 (WEA16)	05:20			04:53	
	16:30	53	15:24 (WEA04)	17:25	20	16:51 (WEA02)	14		07:12 (WEA22)	20:07	7	06:49 (WEA16)	20:57			21:31	
16	08:12		08:45 (WEA17)	07:26		06:26			06:57 (WEA22)	06:15		06:39 (WEA16)	05:19			04:53	
	16:31	50	15:24 (WEA04)	17:27	28	16:53 (WEA02)	14		07:11 (WEA22)	20:09	10	06:49 (WEA16)	20:58			21:32	
17	08:11		08:45 (WEA17)	07:24		06:23			06:57 (WEA22)	06:13		06:38 (WEA16)	05:17			04:53	
	16:33	47	15:23 (WEA04)	17:28	35	16:54 (WEA02)	14		07:11 (WEA22)	20:11	11	06:49 (WEA16)	21:00			21:32	
18	08:10		08:47 (WEA17)	07:22		06:21			06:58 (WEA22)	06:11		06:38 (WEA16)	05:16			04:53	
	16:35	42	15:23 (WEA04)	17:30	39	16:55 (WEA02)	13		07:11 (WEA22)	20:12	12	06:50 (WEA16)	21:01			21:33	
19	08:09		08:48 (WEA17)	07:20		06:19			06:58 (WEA22)	06:09		06:38 (WEA16)	05:15			04:53	
	16:36	35	15:22 (WEA04)	17:32	41	16:55 (WEA02)	10		07:08 (WEA22)	20:14	11	06:49 (WEA16)	21:03			21:33	
20	08:08		09:21 (WEA13)	07:18		06:17			07:00 (WEA22)	06:07		06:38 (WEA16)	05:13			04:53	
	16:38	25	15:21 (WEA04)	17:34	43	16:56 (WEA02)	6		07:06 (WEA22)	20:16	11	06:49 (WEA16)	21:04			21:33	
21	08:07		09:22 (WEA13)	07:16		06:14				06:05		06:39 (WEA16)	05:12		05:39 (WEA15)	04:53	
	16:40	12	09:34 (WEA13)	17:36	43	16:56 (WEA02)				20:17	8	06:47 (WEA16)	21:05	2	05:41 (WEA15)	21:34	
22	08:05		09:25 (WEA13)	07:14		06:12				06:03		06:41 (WEA16)	05:11		05:37 (WEA15)	04:53	
	16:41	7	09:32 (WEA13)	17:38	44	16:57 (WEA02)				20:19	4	06:45 (WEA16)	21:07	5	05:42 (WEA15)	21:34	
23	08:04			07:12		06:10				06:01			05:09		05:36 (WEA15)	04:53	
	16:43			17:39	42	16:57 (WEA02)				20:21			21:08	7	05:43 (WEA15)	21:34	
24	08:03			07:10		06:07				05:59			05:08		05:35 (WEA15)	04:54	
	16:45			17:41	39	16:56 (WEA02)				20:22			21:10	8	05:43 (WEA15)	21:34	
25	08:02			07:08		06:05				05:57			05:07		05:34 (WEA15)	04:54	
	16:46			17:43	31	16:56 (WEA02)				20:24			21:11	10	05:44 (WEA15)	21:34	
26	08:01			07:06		06:03				05:54			05:06		05:33 (WEA15)	04:54	
	16:48			17:45	29	16:55 (WEA02)				20:26			21:12	11	05:44 (WEA15)	21:34	
27	07:59			07:03		06:00				05:52			05:05		05:32 (WEA15)	04:55	
	16:50			17:47	29	16:55 (WEA02)				20:27			21:14	12	05:44 (WEA15)	21:34	
28	07:58			07:01		05:58			06:21 (WEA23)	05:51			05:04		05:32 (WEA15)	04:55	
	16:52			17:48	27	16:54 (WEA02)				20:29			21:15	12	05:44 (WEA15)	21:34	
29	07:56					06:56	4		06:25 (WEA23)	05:49			05:03		05:33 (WEA15)	04:56	
	16:54					19:39			07:18 (WEA23)	20:31			21:16	12	05:45 (WEA15)	21:34	
30	07:55					06:54	8		07:17 (WEA23)	05:47			05:02		05:33 (WEA15)	04:56	
	16:55					19:40			07:27 (WEA23)	20:32	5	06:11 (WEA14)	21:17		05:45 (WEA15)	21:34	
31	07:54					06:51	10		07:17 (WEA23)				05:01		05:33 (WEA15)		
	16:57					19:42	10		07:27 (WEA23)				21:18	12	05:45 (WEA15)		
Sonnenscheinstunden	260			278		367			416				484		498		
astr.max.mögl.Beschattung		1094		516		222			104				195		62		
Red.Sonnenscheinwahrsch.		0,19		0,26		0,33			0,42				0,48		0,45		
Reduktion Betriebsdauer		0,95		0,95		0,95			0,95				0,95		0,95		
Reduktion Windrichtung		0,62		0,65		0,63			0,64				0,66		0,67		
Gesamte Reduktion		0,11		0,16		0,20			0,25				0,30		0,29		
Met.wahrsch.Beschattung		121		84		44			26				58		18		

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung Schattenrezeptor: IP44 - Am Dorfe 1, 06779 Raguhn-Jeßnitz

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Jul	August	September	Oktober	November	Dezember
1	04:57	05:33	06:22	07:11	07:41 (WEA22)	07:04
2	21:33	21:02	20:00	18:51	8 07:49 (WEA22)	16:46
3	04:58	05:35	06:24	07:12		07:06
4	21:33	21:00	19:58	18:49		16:44
5	04:58	05:36	06:25	07:14		07:08
6	21:33	20:59	19:56	18:47		16:42
7	04:59	05:38	06:27	07:16		07:09
8	21:32	20:57	19:54	18:45		16:40
9	05:00	05:39	06:29	07:17		07:11
10	21:32	20:55	19:51	18:42		16:39
11	05:01	05:41	06:30	07:19		07:13
12	21:31	20:53	19:49	18:40		16:37
13	05:02	05:42	06:32	07:21		07:15
14	21:31	20:52	19:47	18:38		16:35
15	05:02	05:44	06:34	07:22		07:17
16	21:30	20:50	19:45	18:35		16:33
17	05:03	05:45	06:35	07:24	17:08 (WEA02)	07:18
18	21:29	20:48	19:42	18:33	12 17:20 (WEA02)	16:32
19	05:04	05:47	06:37	07:26	17:05 (WEA02)	07:20
20	21:29	20:46	19:40	18:31	18 17:23 (WEA02)	16:30
21	05:05	05:49	06:38	07:27	17:03 (WEA02)	07:22
22	21:28	20:44	19:38	18:29	22 17:25 (WEA02)	16:29
23	05:06	05:50	06:40	07:29	17:02 (WEA02)	07:24
24	21:27	20:42	19:35	18:27	24 17:26 (WEA02)	16:27
25	05:08	05:52	06:42	07:31	17:00 (WEA02)	07:25
26	21:26	20:40	19:33	18:24	26 17:26 (WEA02)	16:26
27	05:09	05:53	06:43	07:33	16:59 (WEA02)	07:27
28	21:25	20:38	19:31	18:22	28 17:27 (WEA02)	16:24
29	05:10	05:55	06:45	07:34	16:58 (WEA02)	07:29
30	21:24	20:36	19:28	18:20	29 17:27 (WEA02)	16:23
31	05:11	05:57	06:46	07:36	16:58 (WEA02)	07:31
32	21:23	20:35	19:26	18:18	30 17:28 (WEA02)	16:21
33	05:12	05:58	06:48	07:38	08:27 (WEA21)	07:32
34	21:22	20:32	19:24	18:16	35 17:28 (WEA02)	16:20
35	05:13	06:00	06:50	07:39	08:23 (WEA21)	07:34
36	21:21	20:30	19:21	18:14	41 17:27 (WEA02)	16:19
37	05:15	06:01	06:51	07:41	08:22 (WEA21)	07:36
38	21:20	20:28	19:19	18:12	43 17:27 (WEA02)	16:17
39	05:16	06:03	06:53	07:43	08:22 (WEA21)	07:37
40	21:19	20:26	19:17	18:09	43 17:27 (WEA02)	16:16
41	05:17	06:05	06:54	07:45	08:21 (WEA21)	07:39
42	21:18	20:24	19:14	18:07	45 17:27 (WEA02)	16:15
43	05:19	06:06	06:56	07:46	08:21 (WEA21)	07:41
44	21:17	20:22	19:12	18:05	43 17:26 (WEA02)	16:14
45	05:20	06:08	06:58	07:48	08:22 (WEA21)	07:42
46	21:15	20:20	19:10	18:03	41 17:26 (WEA02)	16:13
47	05:21	06:09	06:59	07:50	08:22 (WEA21)	07:44
48	21:14	20:18	19:08	18:01	39 17:25 (WEA02)	16:12
49	05:23	06:11	07:01	07:52	07:23 (WEA21)	07:46
50	21:13	20:16	19:05	18:00	33 16:23 (WEA02)	16:11
51	05:24	06:13	07:03	07:54	07:26 (WEA21)	07:47
52	21:11	20:14	19:03	18:02	25 16:22 (WEA02)	16:10
53	05:26	06:14	07:04	07:56	16:01 (WEA02)	07:49
54	21:10	20:11	19:01	18:03	19 16:20 (WEA02)	16:09
55	05:27	06:16	07:06	07:57	16:03 (WEA02)	07:50
56	21:08	20:09	18:58	18:05	15 16:18 (WEA02)	16:08
57	05:29	06:17	07:08	07:59	16:06 (WEA02)	07:52
58	21:07	20:07	18:56	18:04	9 16:15 (WEA02)	16:07
59	05:30	06:19	07:09	07:59	07:53	08:25 (WEA17)
60	21:05	20:05	18:54	18:02	16:06	15:06 (WEA04)
61	05:32	06:21	18:54	18:02	16:06	15:06 (WEA04)
62	21:04	20:03	18:54	18:02	16:06	15:06 (WEA04)
63	Sonnenscheinstunden	501	453	381	332	267
64	astr.max.mögl.Beschattung	167	170	153	628	442
65	Red.Sonnenscheinwahrsch.	0,47	0,50	0,42	0,35	0,21
66	Reduktion Betriebsdauer	0,95	0,95	0,95	0,95	0,95
67	Reduktion Windrichtung	0,67	0,64	0,61	0,65	0,62
68	Gesamte Reduktion	0,30	0,30	0,24	0,22	0,12
69	Met.wahrsch.Beschattung	50	52	37	138	54
70						1822
71						0,16
72						0,95
73						0,62
74						0,10
75						178

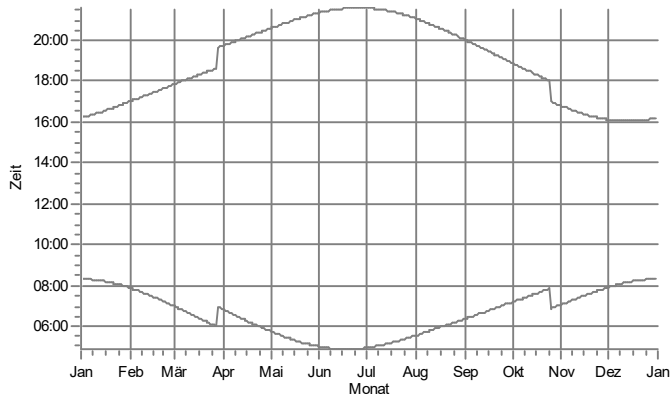
Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	(WEA mit erstem Schatten)
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenende	(WEA mit letztem Schatten)
	Minuten mit Schatten		

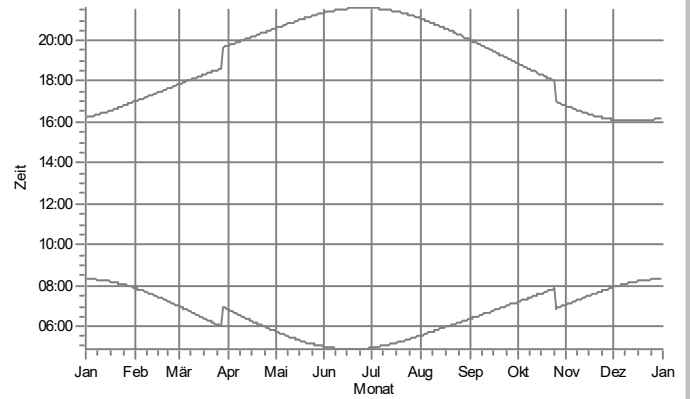
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

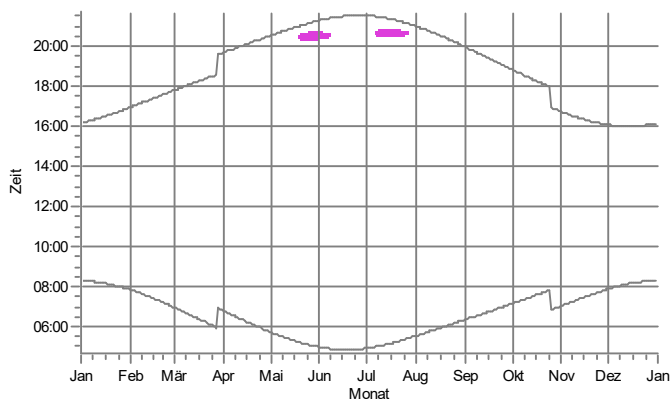
IP01: Dorfstraße 59, 06766 Bitterfeld-Wolfen



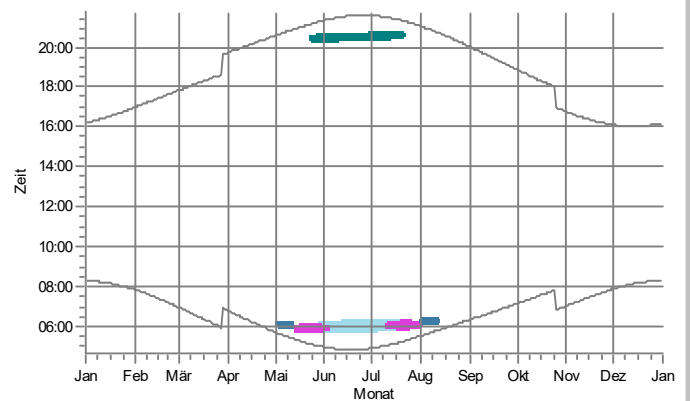
IP02: Auenstraße 24, 06766 Bitterfeld-Wolfen



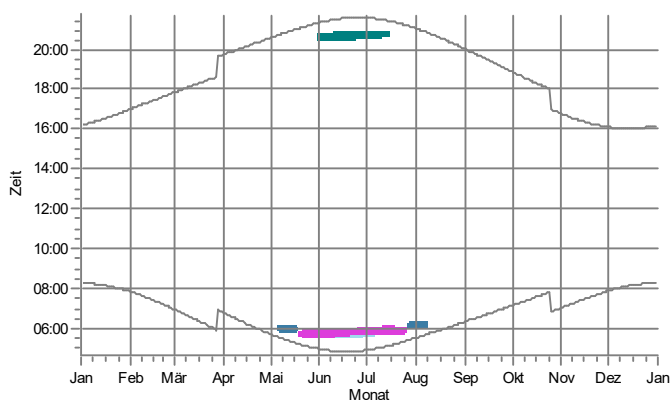
IP03: Siebenhausener Str. 8, 06766 Bitterfeld-Wolfen



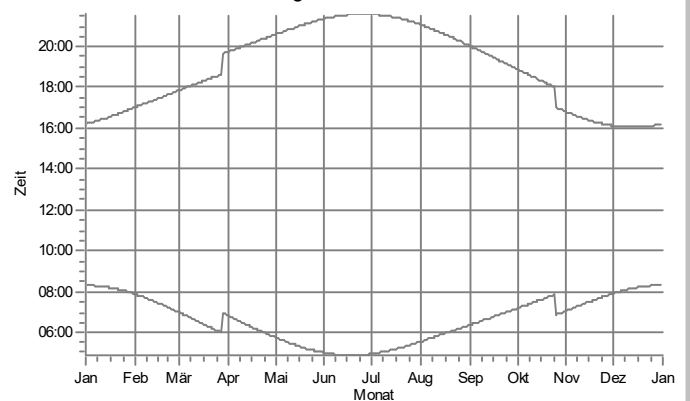
IP04: Siebenhausen 14, 06766 Bitterfeld-Wolfen



IP05: Siebenhausen 15, 06766 Bitterfeld-Wolfen



IP06: Reudener Weg 10, 06766 Bitterfeld-Wolfen



WEA

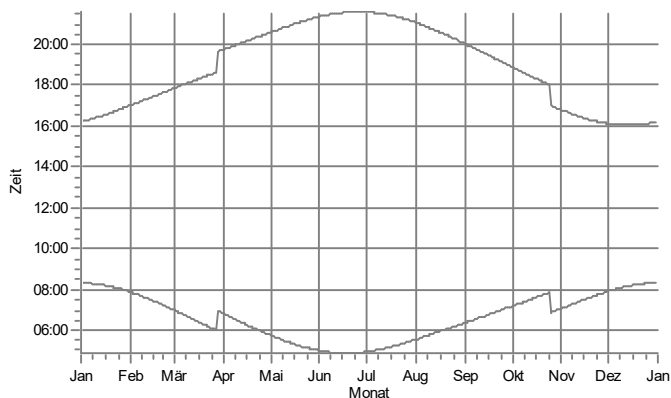
WEA06: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (206)
WEA33: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (233)

WEA35: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (235)
WEA37: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (237)

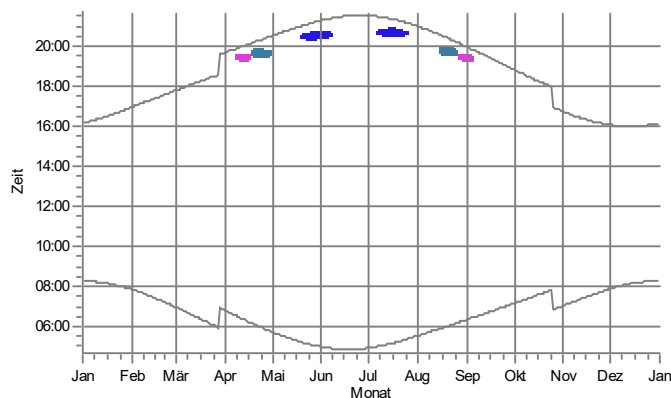
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

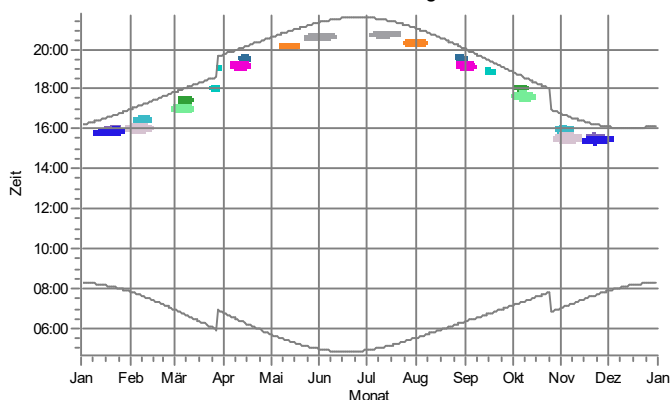
IP07: Siebenhausen 43, 06766 Bitterfeld-Wolfen



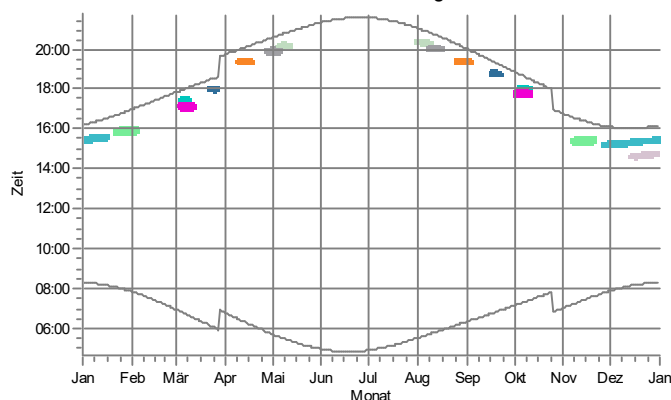
IP08: Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)



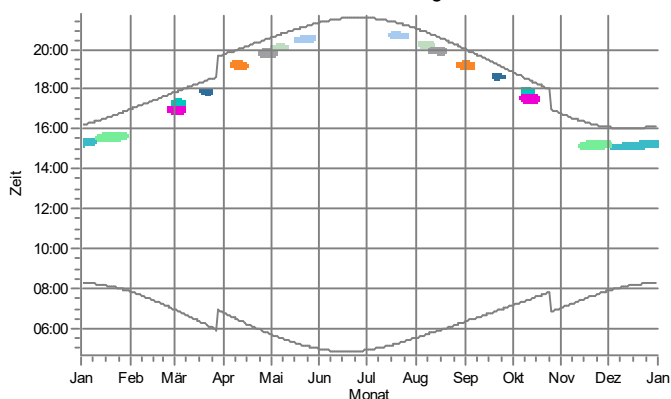
IP09: Thurländer Str. 1, 06779 Raguhn-Jeßnitz



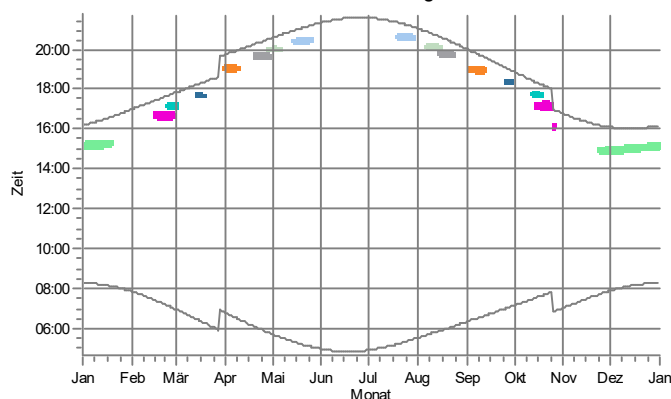
IP10: Thurländer Str. 24, 06779 Raguhn-Jeßnitz



IP11: Thurländer Str. 28, 06779 Raguhn-Jeßnitz



IP12: Zerbster Str. 17, 06779 Raguhn-Jeßnitz



WEA

WEA14: ENERCON E-70 E4 2000 71.0 IO! NH: 98,8 m (Ges:134,3 m) (214)
 WEA15: ENERCON E-70 E4 2000 71.0 IO! NH: 98,2 m (Ges:133,7 m) (215)
 WEA16: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (216)
 WEA19: ENERCON E-66/20.70 2000 70.0 IO! NH: 114,1 m (Ges:149,1 m) (219)
 WEA20: ENERCON E-66/20.70 2000 70.0 IO! NH: 114,1 m (Ges:149,1 m) (220)

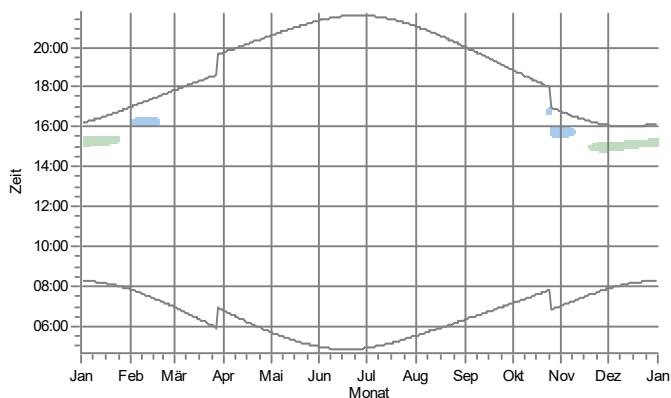
WEA21: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (221)
 WEA22: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (222)
 WEA23: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (223)
 WEA24: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (224)
 WEA25: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (225)

WEA26: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (226)
 WEA34: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (234)
 WEA35: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (235)
 WEA36: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (236)
 WEA37: DEWIND D8/80-2MW 2000 80.0 IO! NH: 100,0 m (Ges:140,0 m) (237)

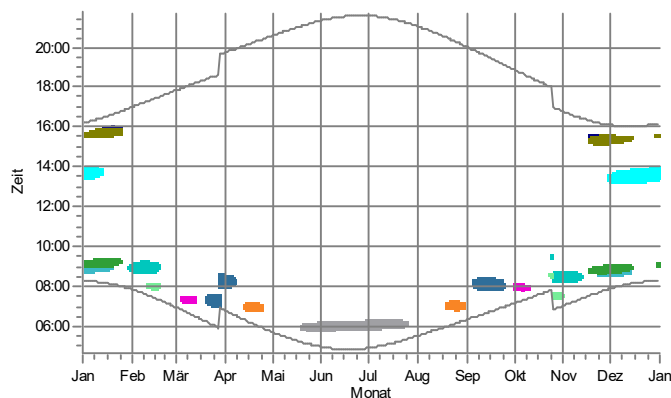
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

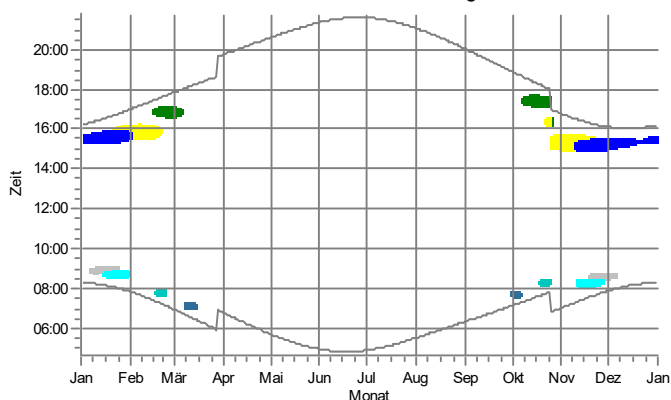
IP13: Dorfstraße 30, 06779 Raguhn-Jeßnitz



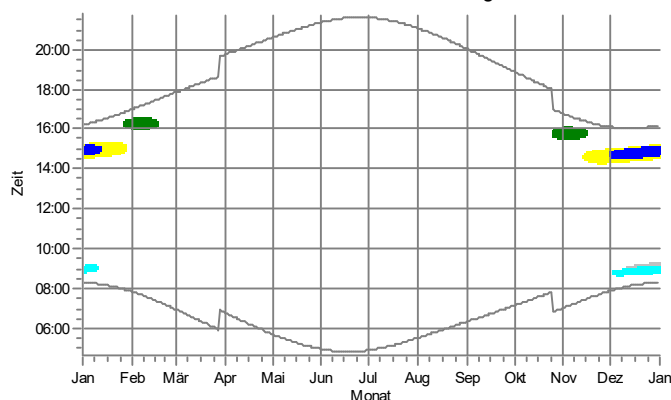
IP14: Holländer Mühle 1, 06779 Raguhn-Jeßnitz



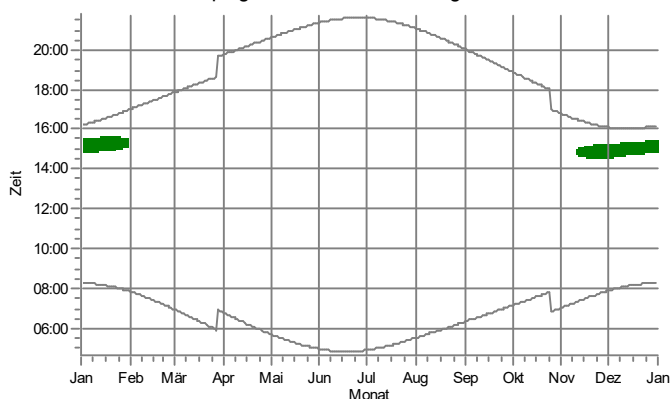
IP15: Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz



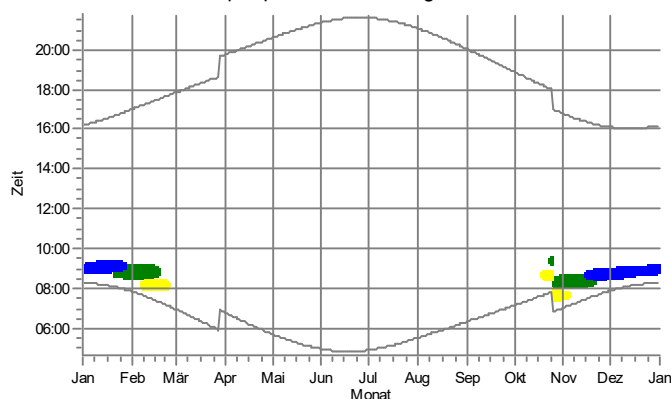
IP16: Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz



IP17: Kleinleipziger Str. 12A, 06779 Raguhn-Jeßnitz



IP18: Am Sportplatz 8, 06779 Raguhn-Jeßnitz



WEA

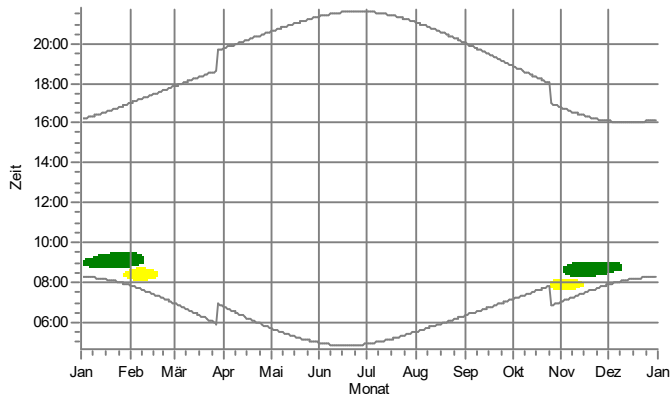
WEA01: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (1)
 WEA02: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (2)
 WEA03: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (3)
 WEA07: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (207)
 WEA10: ENERCON E-92 E2 2300 82.0 IO! NH: 85,0 m (Ges:126,0 m) (210)
 WEA12: ENERCON E-70 E4 2000 71.0 IO! NH: 114,1 m (Ges:149,6 m) (212)

WEA13: ENERCON E-70 E4 2000 71.0 IO! NH: 85,0 m (Ges:120,5 m) (213)
 WEA14: ENERCON E-70 E4 2000 71.0 IO! NH: 98,8 m (Ges:134,3 m) (214)
 WEA15: ENERCON E-70 E4 2000 71.0 IO! NH: 98,2 m (Ges:133,7 m) (215)
 WEA16: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (216)
 WEA19: ENERCON E-66/20.70 2000 70.0 I-I NH: 114,1 m (Ges:149,1 m) (219)
 WEA20: ENERCON E-66/20.70 2000 70.0 I-I NH: 114,1 m (Ges:149,1 m) (220)

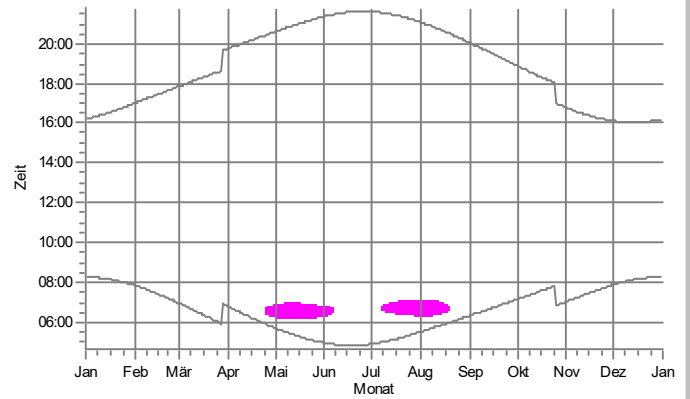
WEA21: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (221)
 WEA22: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (222)
 WEA23: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (223)
 WEA24: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (224)
 WEA26: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (226)

SHADOW - Grafischer Kalender**Berechnung:** SW25034 Salzfurkapelle Gesamtbelastung

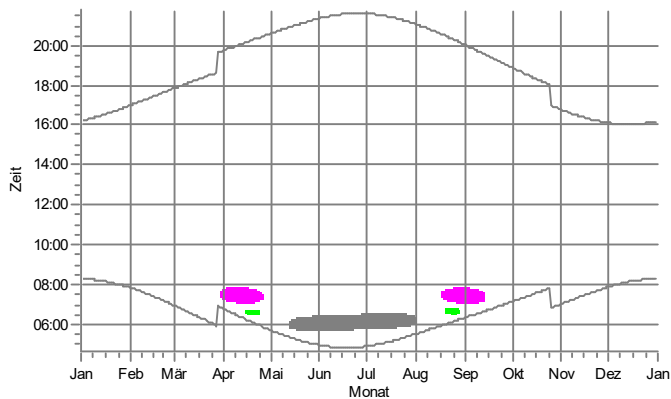
IP19: Vor d. Heide 10, 06779 Raguhn-Jeßnitz



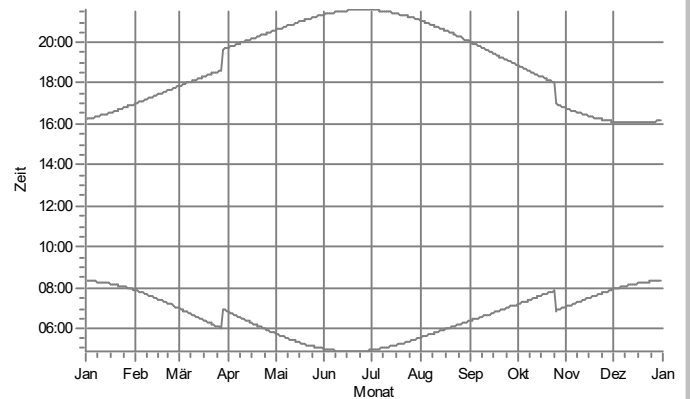
IP20: Am Sandberg 11, 06780 Zörbig



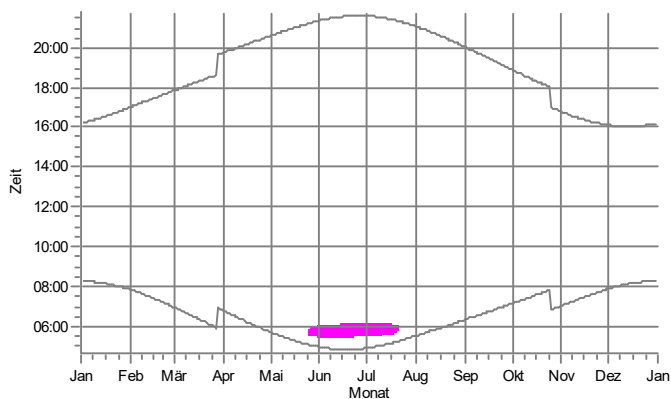
IP21: Am Sandberg 24, 06780 Zörbig



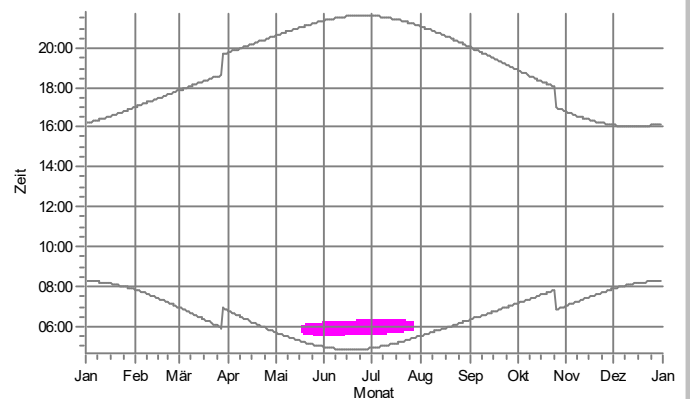
IP22: Hallesche Str. 9, 06779 Raguhn-Jeßnitz



IP23: Hallesche Straße 10, 06780 Zörbig



IP24: Hallesche Straße 13, 06780 Zörbig



WEA

WEA01: ENERCON E-175 EPS E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (1)
WEA02: ENERCON E-175 EPS E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (2)

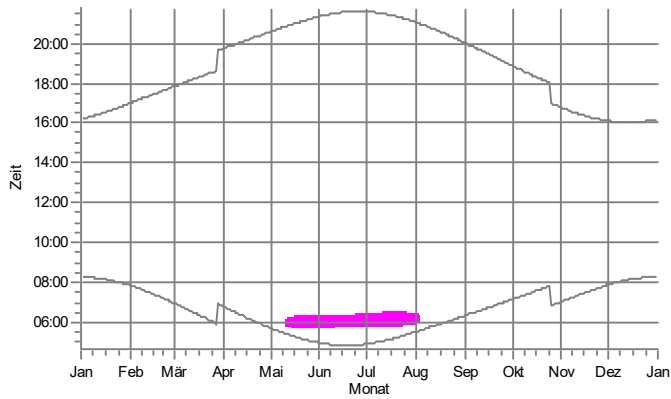
WEA04: ENERCON E-175 EPS E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (4)
WEA05: ENERCON E-175 EPS E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (5)

WEA09: ENERCON E-70 E4 2000 71.0 IOI NH: 113,5 m (Ges:149,0 m) (209)

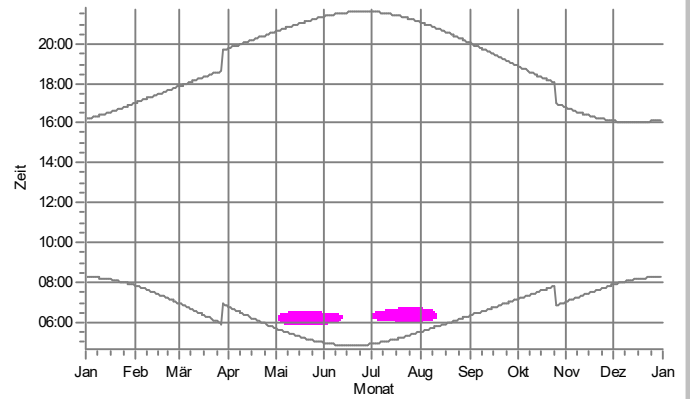
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

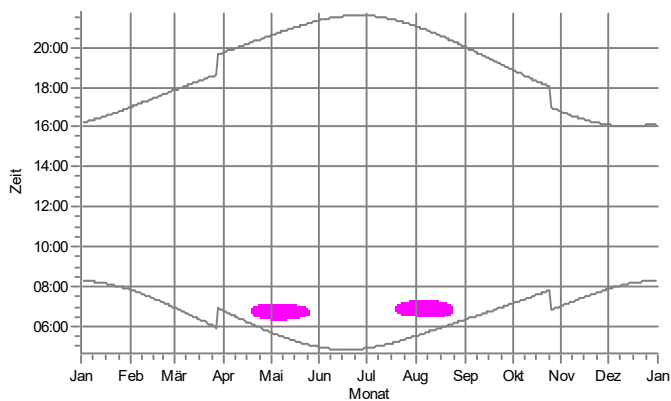
IP25: Hallesche Straße 15, 06780 Zörbig



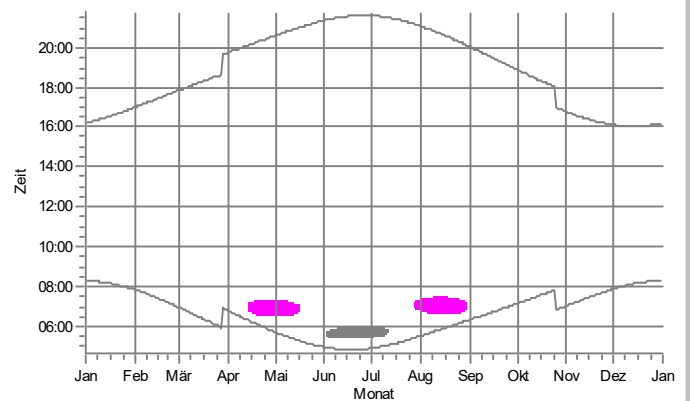
IP26: Hallesche Straße 18, 06780 Zörbig



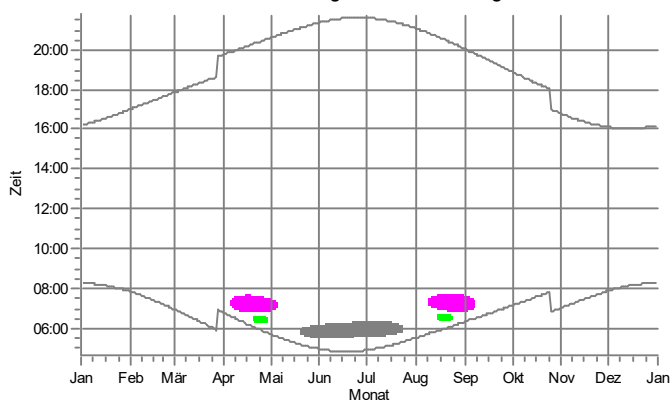
IP27: Am Sandberg 14, 06780 Zörbig



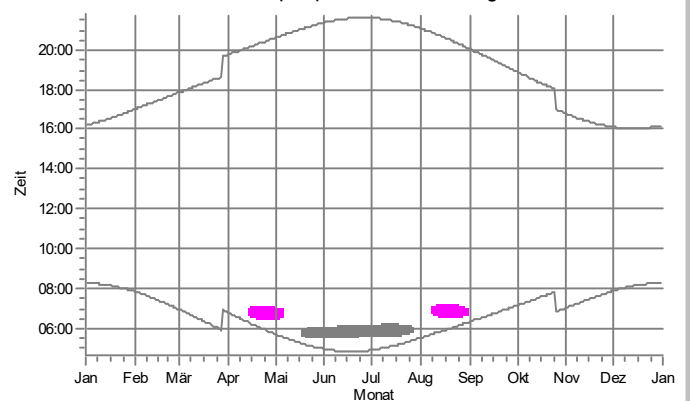
IP28: Am Sandberg 18, 06780 Zörbig



IP29: Am Sandberg 20, 06780 Zörbig



IP30: Am Sportpl. 15, 06780 Zörbig



WEA

WEA04: ENERCON E-175 EP5 E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (4)

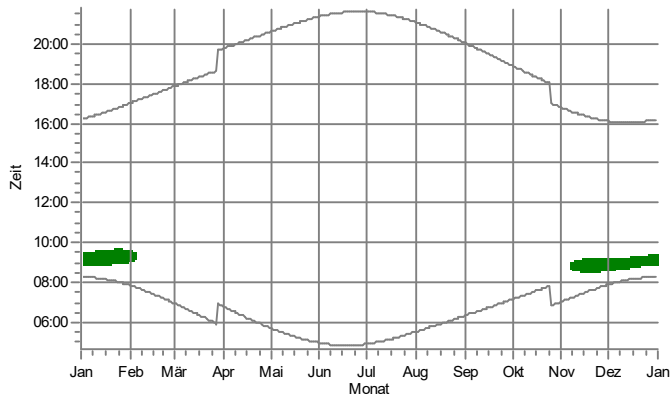
WEA05: ENERCON E-175 EP5 E2 7000 175.0 IOI NH: 174,5 m (Ges:262,0 m) (5)

WEA09: ENERCON E-70 E4 2000 71.0 IOI NH: 113,5 m (Ges:149,0 m) (209)

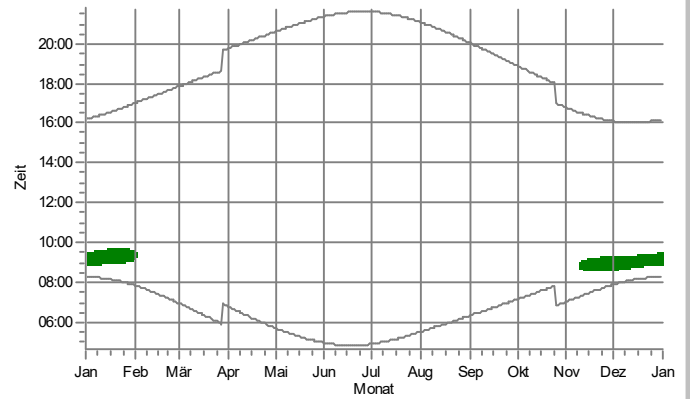
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurtkapelle Gesamtbelastung

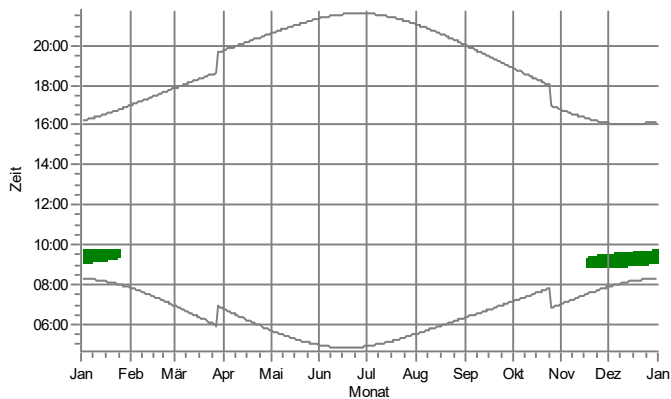
IP31: Vor d. Heide 6, 06779 Raguhn-Jeßnitz



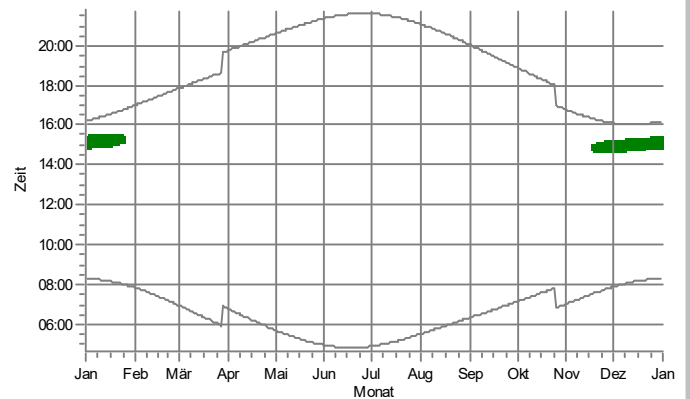
IP32: Vor d. Heide 4, 06779 Raguhn-Jeßnitz



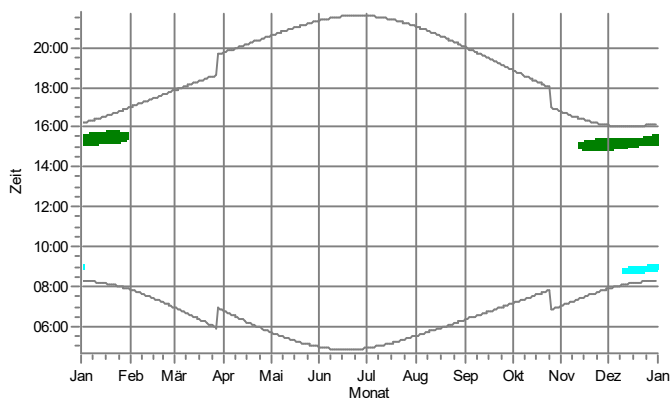
IP33: Am Trappenberg 2, 06779 Raguhn-Jeßnitz



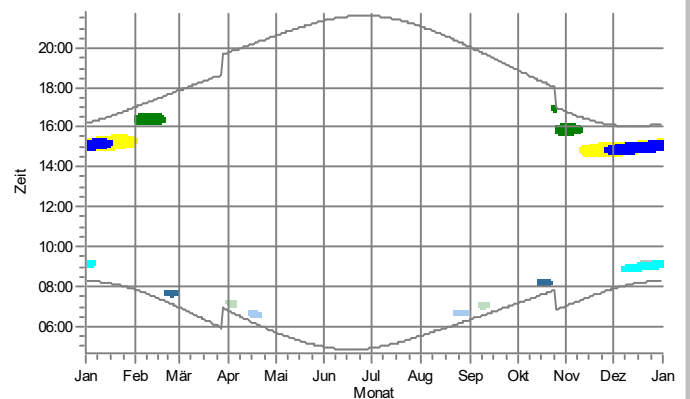
IP34: Kleinleipziger Str. 7, 06779 Raguhn-Jeßnitz



IP35: Kleinleipziger Str. 3, 06779 Raguhn-Jeßnitz



IP36: Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz



WEA

WEA01: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (1)
WEA02: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (2)
WEA03: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (3)

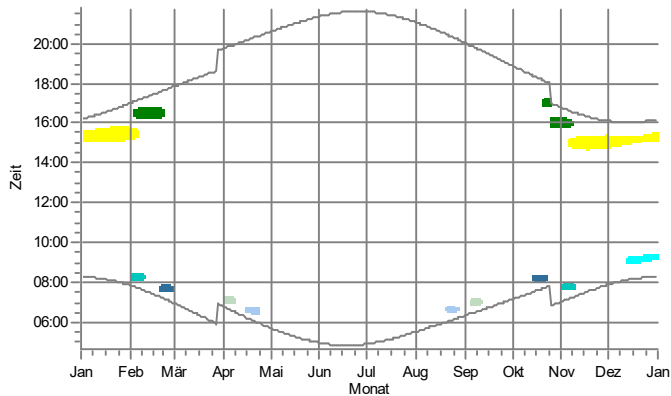
WEA12: ENERCON E-70 E4 2000 71.0 IO! NH: 114,1 m (Ges:149,6 m) (212)
WEA13: ENERCON E-70 E4 2000 71.0 IO! NH: 85,0 m (Ges:120,5 m) (213)
WEA14: ENERCON E-70 E4 2000 71.0 IO! NH: 98,8 m (Ges:134,3 m) (214)

WEA15: ENERCON E-70 E4 2000 71.0 IO! NH: 98,2 m (Ges:133,7 m) (215)
WEA22: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (222)

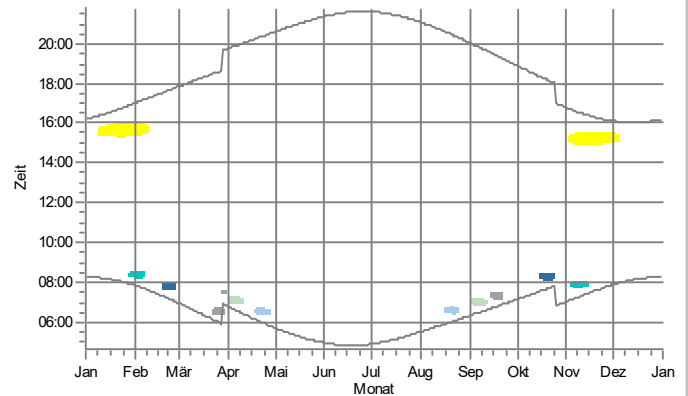
SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

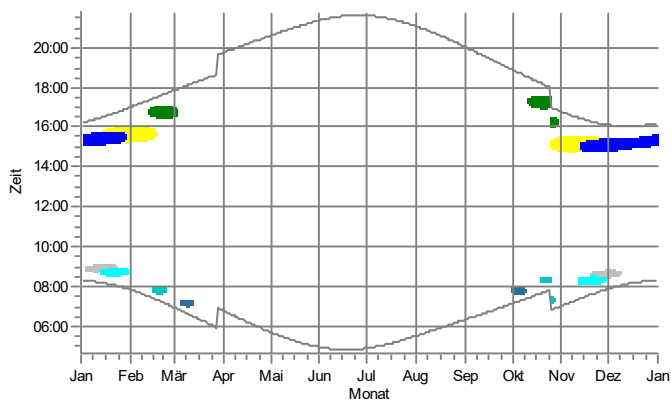
IP37: Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz



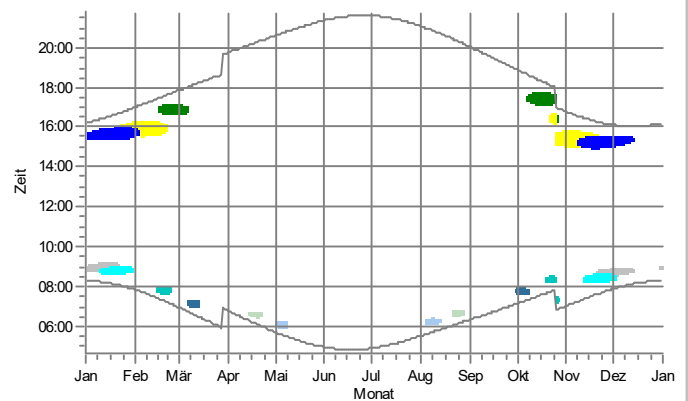
IP38: Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz



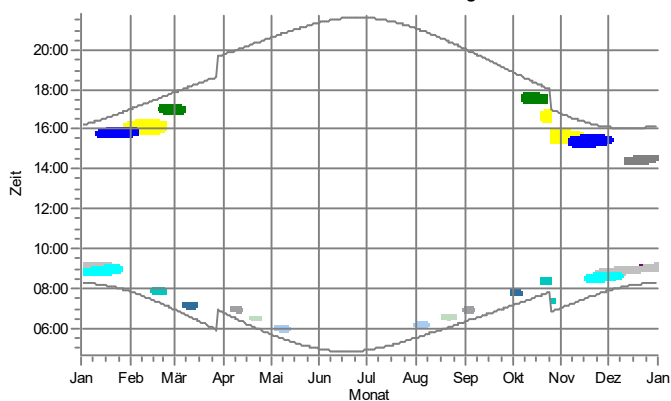
IP39: Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz



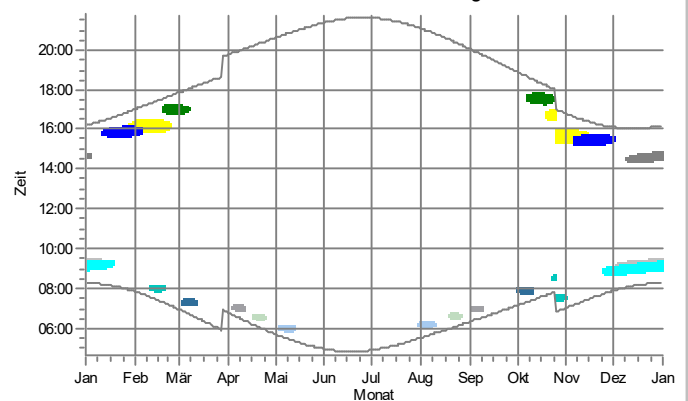
IP40: Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz



IP41: Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz



IP42: Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz



WEA

WEA01: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (1)
 WEA02: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (2)
 WEA03: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (3)
 WEA04: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (4)

WEA11: ENERCON E-66/20.70 2000 70.0 IO! NH: 114,1 m (Ges:149,1 m) (211)
 WEA12: ENERCON E-70 E4 2000 71.0 IO! NH: 114,1 m (Ges:149,6 m) (212)
 WEA13: ENERCON E-70 E4 2000 71.0 IO! NH: 85,0 m (Ges:120,5 m) (213)
 WEA14: ENERCON E-70 E4 2000 71.0 IO! NH: 98,8 m (Ges:134,3 m) (214)

WEA15: ENERCON E-70 E4 2000 71.0 IO! NH: 98,2 m (Ges:133,7 m) (215)
 WEA16: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (216)
 WEA21: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (221)
 WEA22: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (222)

Projekt:

SW25034 Salzfurkapelle

Lizenziertes Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

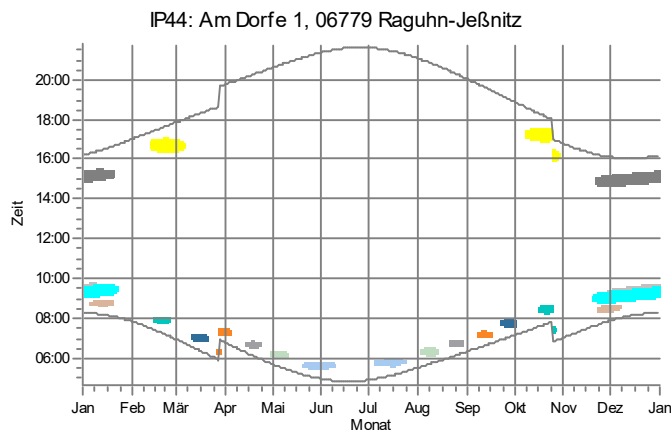
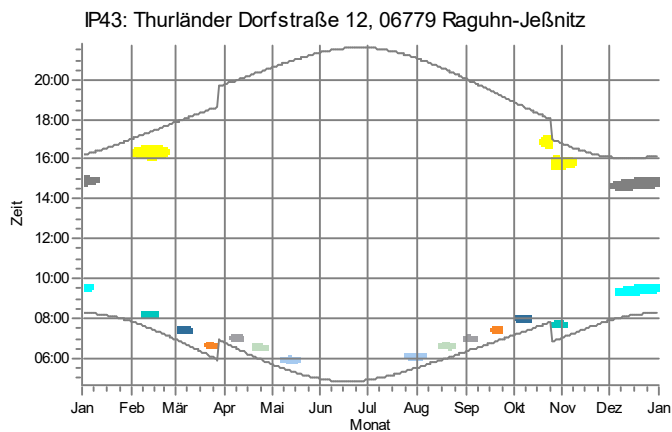
Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Grafischer Kalender

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung



WEA

WEA02: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (2)
WEA04: ENERCON E-175 EPS E2 7000 175.0 IO! NH: 174,5 m (Ges:262,0 m) (4)
WEA11: ENERCON E-66/20.70 2000 70.0 IO! NH: 114,1 m (Ges:149,1 m) (211)
WEA12: ENERCON E-70 E4 2000 71.0 IO! NH: 114,1 m (Ges:149,6 m) (212)

WEA13: ENERCON E-70 E4 2000 71.0 IO! NH: 85,0 m (Ges:120,5 m) (213)
WEA14: ENERCON E-70 E4 2000 71.0 IO! NH: 98,8 m (Ges:134,3 m) (214)
WEA15: ENERCON E-70 E4 2000 71.0 IO! NH: 98,2 m (Ges:133,7 m) (215)
WEA16: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (216)

WEA17: ENERCON E-70 E4 2000 71.0 IO! NH: 100,0 m (Ges:135,5 m) (217)
WEA21: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (221)
WEA22: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (222)
WEA23: ENERCON E-70 E4 2000 71.0 IO! NH: 113,5 m (Ges:149,0 m) (223)

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA01 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (1)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:19 14:55-15:33/38 16:12 08:59-09:43/44	07:52 16:05-16:28/23 16:59 08:36-09:31/55	06:59 16:36-17:11/35 17:50	06:49 19:44	05:45 20:34	05:00 21:20
2	08:19 14:54-15:33/39 16:13 09:00-09:44/44	07:51 16:04-16:30/26 17:01 08:36-09:30/54	06:57 16:38-17:11/33 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 14:55-15:34/39 16:14 08:59-09:44/45	07:49 16:04-16:33/29 17:03 08:36-09:27/51	06:55 16:41-17:10/29 17:54	06:45 19:47	05:41 20:38	04:58 21:22
4	08:18 14:55-15:35/40 16:15 08:59-09:44/45	07:47 16:04-16:34/30 17:05 08:35-09:24/49	06:53 16:43-17:09/26 17:56	06:42 19:49	05:39 20:39	04:58 21:23
5	08:18 14:55-15:35/40 16:16 08:57-09:45/48	07:46 16:03-16:37/34 17:06 08:35-09:23/48	06:51 16:46-17:08/22 17:57	06:40 19:51	05:37 20:41	04:57 21:24
6	08:18 14:56-15:36/40 16:17 08:57-09:45/48	07:44 16:03-16:38/35 17:08 08:36-09:22/46	06:48 16:51-17:05/14 17:59	06:38 19:52	05:36 20:42	04:56 21:25
7	08:17 14:56-15:37/41 16:19 08:55-09:45/50	07:42 16:04-16:40/36 17:10 08:36-09:20/44	06:46 16:55-17:02/7 18:01	06:35 19:54	05:34 20:44	04:56 21:26
8	08:17 14:56-15:38/42 16:20 08:55-09:46/51	07:41 16:04-16:41/37 17:12 08:36-09:17/41	06:44 18:03	06:33 19:56	05:32 20:46	04:55 21:27
9	08:16 14:56-15:38/42 16:21 08:55-09:46/51	07:39 16:04-16:42/38 17:14 08:36-09:11/35	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 14:56-15:38/42 16:23 08:55-09:47/52	07:37 16:04-16:43/39 17:16 08:36-09:11/35	06:39 18:06	06:29 19:59	05:29 20:49	04:54 21:28
11	08:15 14:57-15:40/43 16:24 08:54-09:47/53	07:35 16:05-16:43/38 17:17 08:37-09:10/33	06:37 18:08	06:27 20:01	05:27 20:50	04:54 21:29
12	08:15 14:58-15:40/42 16:25 08:54-09:47/53	07:34 16:06-16:43/37 17:19 08:37-09:09/32	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:30
13	08:14 14:58-15:41/43 16:27 08:53-09:47/54	07:32 16:07-16:50/43 17:21 08:38-09:09/31	06:33 18:11	06:22 20:04	05:24 20:54	04:53 21:30
14	08:13 14:58-15:41/43 16:28 08:53-09:47/54	07:30 16:08-16:53/45 17:23 08:39-09:08/29	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31
15	08:12 14:58-15:41/43 16:30 08:53-09:47/54	07:28 16:09-16:55/46 17:25 08:40-09:06/26	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31
16	08:12 14:59-15:42/43 16:32 08:52-09:47/55	07:26 16:12-16:56/44 17:27 08:42-09:05/23	06:26 18:17	06:16 20:09	05:19 20:58	04:53 21:32
17	08:11 14:59-15:42/43 16:33 08:52-09:47/55	07:24 16:16-16:59/43 17:29 08:44-09:03/19	06:24 18:18	06:13 20:11	05:17 21:00	04:53 21:32
18	08:10 15:00-15:43/43 16:35 08:52-09:47/55	07:22 16:18-17:02/44 17:30 08:46-09:00/14	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33
19	08:09 15:01-15:43/42 16:36 08:52-09:47/55	07:20 16:22-17:05/43 17:32	06:19 18:22	06:09 20:14	05:15 21:03	04:53 21:33
20	08:08 15:02-15:43/41 16:38 08:53-09:47/54	07:18 16:24-17:07/43 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:07 15:02-15:43/41 16:40 08:47-09:46/59	07:16 16:27-17:09/42 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:06 15:03-15:43/40 16:41 08:44-09:45/61	07:14 16:32-17:10/38 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34
23	08:04 15:04-15:43/39 16:43 08:42-09:45/63	07:12 16:32-17:11/39 17:39	06:10 18:29	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 15:04-15:42/38 16:45 08:40-09:42/62	07:10 16:31-17:11/40 17:41	06:07 18:30	05:59 20:23	05:08 21:10	04:54 21:34
25	08:02 15:06-15:42/36 16:47 08:40-09:41/61	07:08 16:32-17:12/40 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34
26	08:01 15:07-15:42/35 16:48 08:39-09:37/58	07:06 16:33-17:12/39 17:45	06:03 18:34	05:55 20:26	05:06 21:12	04:54 21:34
27	07:59 15:08-15:40/32 16:50 08:38-09:36/58	07:04 16:34-17:12/38 17:47	06:01 18:35	05:53 20:28	05:05 21:14	04:55 21:34
28	07:58 15:11-15:40/29 16:11-16:21/10 16:52 08:38-09:35/57	07:01 16:35-17:12/37 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34
29	07:57 15:27-15:37/10 15:12-15:26/14 16:54 08:37-09:34/57 16:08-16:23/15		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34
30	07:55 08:37-09:34/57 16:07-16:24/17 16:55 15:16-15:22/6		06:54 19:40	05:47 20:33	05:02 21:17	04:56 21:34
31	07:54 08:36-09:32/56 16:57 16:06-16:26/20		06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	2880	1731	166	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA01 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (1)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe
380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349
Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 15:34-16:12/38 16:46 08:06-08:40/34	07:55 14:40-15:22/42 16:06 08:36-09:29/53
2	04:58 21:33	05:35 21:00	06:24 19:58	07:13 18:49	07:06 15:34-16:12/38 16:44 08:06-08:41/35	07:56 14:39-15:22/43 16:05 08:37-09:29/52
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 15:34-16:11/37 16:42 08:06-08:47/41	07:58 14:40-15:22/42 16:05 08:39-09:30/51
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:10 15:34-16:10/36 16:40 08:05-08:50/45	07:59 14:41-15:22/41 16:04 08:39-09:30/51
5	05:00 21:32	05:39 20:55	06:29 19:51	07:18 18:42	07:11 15:34-16:09/35 16:39 08:06-08:52/46	08:00 14:42-15:22/40 16:04 08:41-09:31/50
6	05:01 21:31	05:41 20:54	06:30 19:49	07:19 18:40	07:13 15:33-16:06/33 16:37 08:06-08:54/48	08:02 14:42-15:22/40 16:03 08:43-09:31/48
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 17:29-17:40/11 18:38	07:15 15:34-16:03/29 16:35 08:06-08:55/49	08:03 14:42-15:22/40 16:03 08:44-09:31/47
8	05:03 21:30	05:44 20:50	06:34 19:45	07:23 17:24-17:42/18 18:36	07:17 15:34-16:02/28 16:34 08:05-08:57/52	08:04 14:42-15:22/40 16:02 08:47-09:33/46
9	05:04 21:30	05:46 20:48	06:35 19:42	07:24 17:19-17:43/24 18:33	07:18 15:35-16:01/26 16:32 08:06-09:00/54	08:05 14:44-15:23/39 16:02 08:48-09:33/45
10	05:05 21:29	05:47 20:46	06:37 19:40	07:26 17:16-17:44/28 18:31	07:20 15:36-15:59/23 16:30 08:06-09:02/56	08:06 14:44-15:23/39 16:02 08:49-09:33/44
11	05:06 21:28	05:49 20:44	06:38 19:38	07:28 17:15-17:45/30 18:29	07:22 08:07-09:03/56 16:29 15:37-15:57/20	08:07 14:45-15:23/38 16:02 08:49-09:33/44
12	05:07 21:27	05:50 20:42	06:40 19:35	07:29 17:11-17:45/34 18:27	07:24 08:08-09:05/57 15:38-15:56/18 16:27 14:47-14:54/7	08:08 14:45-15:23/38 16:02 08:50-09:34/44
13	05:08 21:26	05:52 20:41	06:42 19:33	07:31 17:08-17:44/36 18:25	07:25 14:59-15:09/10 14:44-14:58/14 16:26 08:09-09:06/57 15:40-15:54/14	08:09 14:46-15:23/37 16:02 08:51-09:34/43
14	05:09 21:25	05:53 20:39	06:43 19:31	07:33 17:07-17:45/38 18:22	07:27 14:42-15:12/30 15:43-15:52/9 16:24 08:10-09:07/57	08:10 14:46-15:23/37 16:02 08:52-09:34/42
15	05:10 21:25	05:55 20:37	06:45 19:29	07:34 17:05-17:44/39 18:20	07:29 14:41-15:13/32 16:23 08:11-09:08/57	08:11 14:47-15:24/37 16:02 08:53-09:35/42
16	05:11 21:24	05:57 20:35	06:47 19:26	07:36 17:05-17:44/39 18:18	07:31 14:40-15:15/35 16:22 08:12-09:10/58	08:12 14:48-15:24/36 16:02 08:53-09:35/42
17	05:12 21:22	05:58 20:33	06:48 19:24	07:38 17:04-17:44/40 18:16	07:32 14:40-15:16/36 16:20 08:14-09:15/61	08:13 14:48-15:23/35 16:02 08:54-09:36/42
18	05:14 21:21	06:00 20:31	06:50 19:22	07:40 17:03-17:42/39 18:14	07:34 14:38-15:16/38 16:19 08:14-09:16/62	08:14 14:49-15:24/35 16:02 08:54-09:36/42
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 17:02-17:41/39 18:12	07:36 14:38-15:17/39 16:18 08:16-09:19/63	08:14 14:49-15:25/36 16:02 08:55-09:37/42
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 17:02-17:40/38 18:10	07:37 14:38-15:18/40 16:16 08:19-09:20/61	08:15 14:49-15:24/35 16:03 08:56-09:37/41
21	05:17 21:18	06:05 20:24	06:55 19:15	07:45 16:56-17:39/43 18:07	07:39 14:38-15:19/41 16:15 08:23-09:22/59	08:16 14:50-15:25/35 16:03 08:56-09:37/41
22	05:19 21:17	06:06 20:22	06:56 19:12	07:47 16:54-17:37/43 18:05	07:41 14:38-15:19/41 16:14 08:29-09:23/54	08:16 14:50-15:25/35 16:04 08:57-09:38/41
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 16:51-17:34/43 18:03 09:20-09:27/7	07:42 14:37-15:19/42 16:13 08:29-09:24/55	08:17 14:51-15:26/35 16:04 08:57-09:38/41
24	05:22 21:14	06:09 20:18	06:59 19:08	07:50 16:48-17:32/44 18:01 09:16-09:31/15	07:44 14:37-15:20/43 16:12 08:29-09:24/55	08:17 14:51-15:27/36 16:05 08:57-09:38/41
25	05:23 21:13	06:11 20:16	07:01 19:05	06:52 15:45-16:28/43 16:59 08:13-08:34/21	07:46 14:37-15:20/43 16:11 08:30-09:25/55	08:17 14:52-15:27/35 16:05 08:58-09:40/42
26	05:24 21:11	06:13 20:14	07:03 19:03	06:54 15:41-16:25/44 16:57 08:11-08:35/24	07:47 14:38-15:21/43 16:10 08:31-09:26/55	08:18 14:53-15:28/35 16:06 08:58-09:40/42
27	05:26 21:10	06:14 20:12	07:04 19:01	06:55 15:39-16:24/45 16:55 08:09-08:36/27	07:49 14:38-15:20/42 16:09 08:32-09:26/54	08:18 14:53-15:29/36 16:07 08:58-09:40/42
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 15:37-16:22/45 16:53 08:08-08:37/29	07:50 14:38-15:21/43 16:08 08:33-09:27/54	08:18 14:53-15:29/36 16:08 08:59-09:41/42
29	05:29 21:07	06:18 20:07	07:08 18:56	06:59 15:36-16:19/43 16:51 08:07-08:38/31	07:52 14:39-15:22/43 16:07 08:34-09:28/54	08:18 14:53-15:30/37 16:09 08:59-09:41/42
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 15:35-16:13/38 16:50 08:07-08:39/32	07:53 14:39-15:21/42 16:07 08:35-09:28/53	08:19 14:54-15:31/37 16:09 08:59-09:42/43
31	05:32 21:04	06:21 20:03		07:02 15:34-16:12/38 16:48 08:06-08:40/34		08:19 14:54-15:32/38 16:10 08:59-09:42/43
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	1142	2685	2536

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA02 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (2)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:19 14:37-15:28/51 16:12	07:52 15:15-16:20/65 16:59 08:18-08:34/16	06:59 16:27-16:52/25 17:50	06:49 19:44	05:45 20:34	05:00 21:20
2	08:18 14:37-15:28/51 16:13	07:51 15:18-16:22/64 17:01 08:17-08:36/19	06:57 16:28-16:51/23 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 14:37-15:30/53 16:14	07:49 15:20-16:27/67 17:03 08:16-08:37/21	06:55 16:30-16:50/20 17:54	06:45 19:47	05:41 20:37	04:58 21:22
4	08:18 14:38-15:31/53 16:15	07:47 15:21-16:29/68 17:05 08:15-08:37/22	06:53 16:32-16:47/15 17:56	06:42 19:49	05:39 20:39	04:58 21:23
5	08:18 14:38-15:31/53 16:16	07:46 15:21-16:30/69 17:06 08:15-08:38/23	06:50 16:35-16:43/8 17:57	06:40 19:50	05:37 20:41	04:57 21:24
6	08:18 14:39-15:33/54 16:17	07:44 15:21-16:31/70 17:08 08:15-08:39/24	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25
7	08:17 14:39-15:33/54 16:19	07:42 15:22-16:33/71 17:10 08:08-08:39/31	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26
8	08:17 14:40-15:35/55 16:20	07:41 15:23-16:34/71 17:12 08:06-08:39/33	06:44 18:03	06:33 19:56	05:32 20:46	04:55 21:26
9	08:16 14:40-15:38/58 16:21	07:39 15:24-16:35/71 17:14 08:04-08:39/35	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 14:40-15:40/60 16:23	07:37 15:24-16:35/71 17:16 08:03-08:38/35	06:39 18:06	06:29 19:59	05:29 20:49	04:54 21:28
11	08:15 14:41-15:43/62 16:24	07:35 15:25-16:36/71 17:17 08:02-08:38/36	06:37 18:08	06:27 20:01	05:27 20:50	04:54 21:29
12	08:15 14:42-15:45/63 16:25	07:34 15:27-16:36/69 17:19 08:01-08:37/36	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:30
13	08:14 14:42-15:46/64 16:27	07:32 15:28-16:46/78 17:21 08:00-08:36/36	06:33 18:11	06:22 20:04	05:24 20:54	04:53 21:30
14	08:13 14:42-15:47/65 16:28	07:30 15:30-16:49/79 17:23 08:00-08:35/35	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31
15	08:12 14:43-15:48/65 16:30	07:28 15:33-16:51/78 17:25 08:00-08:33/33	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31
16	08:12 14:44-15:49/65 16:31	07:26 15:37-16:53/76 17:27 08:00-08:30/30	06:26 18:17	06:16 20:09	05:19 20:58	04:53 21:32
17	08:11 14:44-15:51/67 16:33	07:24 15:39-16:54/75 17:28 08:00-08:24/24	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32
18	08:10 14:45-15:52/67 16:35	07:22 15:41-16:55/74 17:30 08:00-08:24/24	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33
19	08:09 14:46-15:53/67 16:36	07:20 15:44-16:55/71 17:32 08:01-08:24/23	06:19 18:22	06:09 20:14	05:15 21:03	04:53 21:33
20	08:08 14:47-15:54/67 16:38	07:18 15:49-16:56/67 17:34 08:02-08:23/21	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:07 14:47-15:54/67 16:40	07:16 15:57-16:56/59 17:36 08:03-08:22/19	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:06 14:49-15:56/67 16:41	07:14 16:00-16:57/57 17:38 08:04-08:20/16	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34
23	08:04 14:50-15:59/69 16:43	07:12 16:03-16:57/54 17:39 08:06-08:18/12	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 14:51-16:01/70 16:45	07:10 16:25-16:56/31 17:41 16:17-16:23/6	06:07 18:30	05:59 20:22	05:08 21:10	04:54 21:34
25	08:02 14:53-16:03/70 16:47	07:08 16:25-16:56/31 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34
26	08:01 14:56-16:05/69 16:48	07:06 16:26-16:55/29 17:45	06:03 18:34	05:55 20:26	05:06 21:12	04:54 21:34
27	07:59 14:58-16:06/68 16:50	07:03 16:26-16:55/29 17:47	06:01 18:35	05:53 20:28	05:05 21:14	04:55 21:34
28	07:58 15:05-16:08/63 16:52	07:01 16:27-16:54/27 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34
29	07:57 15:06-16:13/67 16:54	08:24-08:27/3	06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34
30	07:55 15:08-16:16/68 16:55	08:22-08:31/9	06:54 19:40	05:47 20:33	05:02 21:17	04:56 21:34
31	07:54 15:11-16:19/68 16:57	08:20-08:33/13	06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	1965	2354	91	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA02 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (2)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe
380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349
Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 14:54-16:05/71 16:46 07:32-08:08/36	07:55 14:23-15:25/62 16:06
2	04:58 21:33	05:35 21:00	06:24 19:58	07:13 18:49	07:06 14:53-16:04/71 16:44 07:34-08:08/34	07:56 14:23-15:24/61 16:05
3	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 14:52-16:04/72 16:42 07:36-08:09/33	07:58 14:24-15:22/58 16:05
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:10 14:52-16:03/71 16:40 07:39-08:09/30	07:59 14:24-15:19/55 16:04
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 14:52-16:01/69 16:39 07:45-08:09/24	08:00 14:24-15:18/54 16:04
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 14:50-16:00/70 16:37 07:46-08:08/22	08:01 14:25-15:19/54 16:03
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 14:50-15:58/68 16:35 07:46-08:08/22	08:03 14:25-15:18/53 16:03
8	05:03 21:30	05:44 20:50	06:34 19:45	07:23 18:36	07:17 14:50-15:56/66 16:34 07:46-08:07/21	08:04 14:25-15:18/53 16:02
9	05:03 21:30	05:45 20:48	06:35 19:42	07:24 17:08-17:20/12 18:33	07:18 14:49-15:52/63 16:32 07:47-08:06/19	08:05 14:27-15:19/52 16:02
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 17:05-17:23/18 18:31	07:20 14:45-15:51/66 16:30 07:49-08:05/16	08:06 14:27-15:18/51 16:02
11	05:06 21:28	05:49 20:44	06:38 19:38	07:28 17:03-17:25/22 18:29	07:22 14:41-15:50/69 16:29 07:51-08:04/13	08:07 14:27-15:18/51 16:02
12	05:07 21:27	05:50 20:42	06:40 19:35	07:29 17:02-17:26/24 18:27	07:24 14:40-15:48/68 16:27 07:53-08:02/9	08:08 14:28-15:18/50 16:02
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 17:00-17:26/26 18:24	07:25 14:38-15:45/67 16:26 07:56-07:58/2	08:09 14:28-15:18/50 16:02
14	05:09 21:25	05:53 20:39	06:43 19:31	07:33 16:59-17:27/28 18:22	07:27 14:35-15:40/65 16:24	08:10 14:29-15:18/49 16:02
15	05:10 21:24	05:55 20:37	06:45 19:28	07:34 16:58-17:27/29 18:20	07:29 14:30-15:39/69 16:23	08:11 14:29-15:18/49 16:02
16	05:11 21:23	05:57 20:35	06:46 19:26	07:36 16:58-17:28/30 18:18	07:31 14:28-15:38/70 16:21	08:12 14:30-15:18/48 16:02
17	05:12 21:22	05:58 20:33	06:48 19:24	07:38 16:57-17:28/31 18:16	07:32 14:26-15:36/70 16:20	08:13 14:30-15:17/47 16:02
18	05:14 21:21	06:00 20:31	06:50 19:22	07:40 16:47-17:27/40 18:14	07:34 14:25-15:35/70 16:19	08:14 14:30-15:18/48 16:02
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 16:32-17:27/55 18:12	07:36 14:24-15:33/69 16:18	08:14 14:31-15:18/47 16:02
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 16:29-17:27/58 18:09	07:37 14:24-15:31/67 16:16	08:15 14:31-15:18/47 16:03
21	05:17 21:18	06:05 20:24	06:55 19:15	07:45 16:27-17:27/60 18:07	07:39 14:23-15:30/67 16:15	08:16 14:32-15:19/47 16:03
22	05:19 21:17	06:06 20:22	06:56 19:12	07:46 16:17-17:26/69 18:05	07:41 14:23-15:30/67 16:14	08:16 14:32-15:19/47 16:04
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 16:13-17:26/73 18:03	07:42 14:22-15:29/67 16:13	08:17 14:33-15:20/47 16:04
24	05:21 21:14	06:09 20:18	06:59 19:08	07:50 16:11-17:25/74 18:01	07:44 14:22-15:29/67 16:12	08:17 14:33-15:20/47 16:05
25	05:23 21:13	06:11 20:16	07:01 19:05	06:52 15:08-16:23/75 16:59	07:46 14:22-15:29/67 16:11	08:17 14:33-15:21/48 16:05
26	05:24 21:11	06:13 20:14	07:03 19:03	06:54 15:06-16:22/76 16:57	07:47 14:23-15:29/66 16:10	08:18 14:35-15:22/47 16:06
27	05:26 21:10	06:14 20:11	07:04 19:01	06:55 15:02-16:20/78 16:55	07:49 14:22-15:27/65 16:09	08:18 14:35-15:23/48 16:07
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 14:59-16:18/79 16:53	07:50 14:23-15:27/64 16:08	08:18 14:35-15:24/49 16:08
29	05:29 21:07	06:18 20:07	07:08 18:56	06:59 14:58-16:15/77 16:51	07:52 14:23-15:27/64 16:07	08:18 14:36-15:25/49 16:08
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 14:56-16:05/69 16:50	07:53 14:23-15:26/63 16:07	08:19 14:36-15:26/50 16:09
31	05:32 21:04	06:21 20:03		07:02 14:55-16:05/70 16:48		08:19 14:36-15:27/51 16:10
Sonnenscheinstunden		501	453	381	332	267
Anzahl Minuten mit Schatten		0	0	0	1532	2309
						1569

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA03 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (3)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	[Januar		[Februar		[März		[April		[Mai		[Juni		[Juli		[August		[Septemb4		[Oktober		[November		[Dezember	
1	08:19	14:46-15:36/50	07:52	15:36-16:05/29	06:59	06:49	05:45	05:00	04:57	05:33	06:22	07:11	07:04									07:55	14:40-15:33/53	
	16:12	08:51-09:12/21	16:59		17:50	19:44	20:34	21:20	21:33	21:02	20:00	18:51	16:46									16:06	08:39-09:01/25	
2	08:18	14:46-15:37/51	07:51	15:41-16:04/23	06:57	06:47	05:43	04:59	04:58	05:35	06:24	07:13	07:06									07:56	14:38-15:29/51	
	16:13	08:52-09:13/21	17:01		17:52	19:45	20:36	21:21	21:33	21:00	19:58	18:49	16:44									16:05	08:36-09:01/25	
3	08:18	14:47-15:39/52	07:49	15:45-16:03/18	06:55	06:45	05:41	04:58	04:58	05:36	06:26	07:14	07:08									07:58	14:38-15:30/52	
	16:14	08:51-09:13/22	17:03		17:54	19:47	20:37	21:22	21:33	20:59	19:56	18:47	16:42									16:05	08:37-09:01/24	
4	08:18	14:48-15:40/52	07:47	15:47-16:01/14	06:53	06:42	05:39	04:58	04:59	05:38	06:27	07:16	07:10									07:59	14:37-15:29/52	
	16:15	08:52-09:14/22	17:05		17:56	19:49	20:39	21:23	21:32	20:57	19:54	18:45	16:40									16:04	08:37-09:01/24	
5	08:18	14:49-15:41/52	07:46	15:50-15:57/7	06:50	06:40	05:37	04:57	05:00	05:39	06:29	07:18	07:11									08:00	14:36-15:29/53	
	16:16	08:51-09:14/23	17:06		17:57	19:50	20:41	21:24	21:32	20:55	19:51	18:42	16:39									16:04	08:38-09:02/24	
6	08:18	14:50-15:43/53	07:44		06:48	06:38	05:36	04:56	05:01	05:41	06:30	07:19	07:13	15:19-15:28/9								08:01	14:36-15:29/53	
	16:17	08:52-09:16/24	17:08		17:59	19:52	20:42	21:25	21:31	20:54	19:49	18:40	16:37									16:03	08:38-09:02/24	
7	08:17	14:51-15:43/52	07:42		06:46	06:35	05:34	04:56	05:02	05:42	06:32	07:21	07:15	15:16-15:31/15								08:03	14:36-15:28/52	
	16:19	08:52-09:16/24	17:10		18:01	19:54	20:44	21:26	21:31	20:52	19:47	18:38	16:35									16:03	08:38-09:02/24	
8	08:17	14:52-15:45/53	07:41		06:44	06:33	05:32	04:55	05:03	05:44	06:34	07:23	07:17	15:15-15:33/18								08:04	14:36-15:28/52	
	16:20	08:53-09:17/24	17:12		18:03	19:56	20:46	21:26	21:30	20:50	19:45	18:36	16:34									16:02	08:40-09:02/22	
9	08:16	14:53-15:46/53	07:39		06:42	06:31	05:30	04:55	05:04	05:46	06:35	07:24	07:18	15:11-15:35/24								08:05	14:36-15:28/52	
	16:21	08:52-09:17/25	17:14		18:04	19:57	20:47	21:27	21:31	20:48	19:42	18:33	16:32									16:02	08:40-09:02/22	
10	08:16	14:55-15:46/51	07:37		06:39	06:29	05:29	04:54	05:05	05:47	06:37	07:26	07:20	15:07-15:36/29								08:06	14:36-15:27/51	
	16:23	08:53-09:18/25	17:16		18:06	19:59	20:49	21:28	21:29	20:46	19:40	18:31	16:30									16:02	08:41-09:02/21	
11	08:15	14:58-15:51/53	07:35		06:37	06:27	05:27	04:54	05:06	05:49	06:38	07:28	07:22	15:04-15:37/33								08:07	14:36-15:27/51	
	16:24	08:53-09:19/26	17:17		18:08	20:01	20:50	21:29	21:28	20:44	19:38	18:29	16:29									16:02	08:41-09:03/22	
12	08:15	15:02-15:52/50	07:34		06:35	06:24	05:25	04:54	05:07	05:50	06:40	07:29	07:24	15:02-15:37/35								08:08	14:36-15:26/50	
	16:25	08:54-09:19/25	17:19		18:10	20:02	20:52	21:30	21:27	20:42	19:35	18:27	16:27									16:02	08:42-09:03/21	
13	08:14	15:03-15:54/51	07:32		06:33	06:22	05:24	04:53	05:06	05:52	06:43	07:32	07:26	15:01-15:38/37								16:04	14:37-15:26/49	
	16:27	08:54-09:19/25	17:21		18:11	20:04	20:54	21:30	21:26	20:40	19:33	18:25	16:26									16:02	08:43-09:03/20	
14	08:13	15:04-15:55/51	07:30		06:30	06:20	05:22	04:53	05:09	05:53	06:43	07:33	07:27	14:58-15:39/41								16:01	14:37-15:26/49	
	16:28	08:54-09:20/26	17:23		18:13	20:06	20:55	21:31	21:25	20:39	19:31	18:22	16:24									16:02	08:43-09:03/20	
15	08:12	15:06-15:57/51	07:28		06:28	06:18	05:20	04:53	05:10	05:55	06:45	07:34	07:29	14:56-15:39/43								18:11	14:37-15:26/49	
	16:30	08:54-09:20/26	17:25		18:15	20:07	20:57	21:31	21:24	20:37	19:29	18:20	16:23	08:39-08:48/9								16:02	08:44-09:03/19	
16	08:12	15:08-15:59/51	07:26		06:26	06:16	05:19	04:53	05:11	05:57	06:46	07:36	07:31	14:55-15:40/45								18:12	14:38-15:26/48	
	16:32	08:55-09:20/25	17:27		18:17	20:09	20:58	21:32	21:23	20:35	19:26	18:18	16:22	08:37-08:51/14								16:02	08:45-09:04/19	
17	08:11	15:14-16:00/46	07:24		06:23	06:13	05:17	04:53	05:12	05:58	06:48	07:38	07:32	14:53-15:39/46								18:13	14:38-15:25/47	
	16:33	08:55-09:21/26	17:29		18:18	20:11	21:00	21:32	21:22	20:33	19:24	18:16	16:20	08:36-08:52/16								16:02	08:46-09:04/18	
18	08:10	15:15-16:01/46	07:22		06:21	06:11	05:16	04:53	05:14	06:00	06:50	07:40	07:34	14:53-15:39/46								18:14	14:38-15:25/47	
	16:35	08:56-09:21/25	17:30		18:20	20:12	21:01	21:33	21:21	20:31	19:22	18:14	16:19	08:34-08:53/19								16:02	08:46-09:04/18	
19	08:09	15:15-16:03/48	07:20		06:19	06:09	05:15	04:53	05:15	06:01	06:51	07:41	07:36	14:52-15:39/47								18:14	14:39-15:25/46	
	16:36	08:57-09:21/24	17:32		18:22	20:14	21:03	21:33	21:20	20:28	19:19	18:12	16:18	08:34-08:54/20								16:02	08:47-09:05/18	
20	08:08	15:16-16:04/48	07:18		06:17	06:07	05:13	04:53	05:16	06:03	06:53	07:43	07:37	14:52-15:39/47								18:15	14:39-15:25/46	
	16:38	08:57-09:21/24	17:34		18:23	20:16	21:04	21:33	21:19	20:26	19:17	18:10	16:16	08:34-08:55/21								16:03	08:48-09:05/17	
21	08:07	15:16-16:04/48	07:16		06:14	06:05	05:12	04:53	05:17	06:05	06:55	07:45	07:39	14:52-15:40/48								18:16	14:40-15:26/46	
	16:40	08:57-09:20/23	17:36		18:25	20:17	21:05	21:34	21:18	20:24	19:15	18:07	16:15	08:33-08:56/23								16:03	08:48-09:05/17	
22	08:06	15:17-16:04/47	07:14		06:12	06:03	05:11	04:53	05:19	06:06	06:56	07:46	07:41	14:52-15:40/48								18:16	14:40-15:26/46	
	16:41	08:59-09:20/21	17:38		18:27	20:19	21:07	21:34	21:17	20:22	19:12	18:05	16:14	08:34-08:57/23								16:04	08:49-09:06/17	
23	08:04	15:18-16:05/47	07:12		06:10	06:01	05:09	04:53	05:20	06:08	06:58	07:48	07:42	14:51-15:39/48								18:17	14:41-15:27/46	
	16:43	09:00-09:20/20	17:39		18:28	20:21	21:08	21:34	21:15	20:20	19:10	18:03	16:13	08:34-08:58/24								16:04	08:49-09:06/17	
24	08:03	15:19-16:05/46	07:10		06:07	05:59	05:08	04:54	05:22	06:09	06:59	07:50	07:44	14:52-15:39/47								18:17	14:41-15:27/46	
	16:45	09:00-09:19/19	17:41		18:30	20:22	21:10	21:34	21:14	20:18	19:08	18:01	16:12	08:33-08:58/25								16:05	08:49-09:07/18	
25	08:02	15:20-16:06/46	07:08		06:05	05:57	05:07	04:54	05:23	06:11	07:01	06:52	07:46	14:52-15:38/46								18:17	14:41-15:28/47	
	16:47	09:02-09:18/16	17:43		18:32	20:24	21:11	21:34	21:13	20:16	19:05	16:59	16:11	08:33-08:59/26								16:05	08:50-09:08/18	
26	08:01	15:22-16:06/44	07:06		06:03	05:55	05:06	04:54	05:24	06:13	07:03	06:54	07:47	14:47-15:38/51								18:18	14:42-15:30/48	
	16:48	09:04-09:18/14	17:45		18:33	20:26	21:13	21:34	21:11	20:14	19:03	16:57	16:10	08:33-08:59/25								16:06	08:50-09:08/18	
27	07:59	15:24-16:06/42	07:04		06:01	05:53	05:05	04:55	05:26	06:14	07:04	06:55	07:48	14:45-15:38/51								18:18	14:43-15:31/48	
	16:50	09:06-09:15/9	17:47		18:35	20:28	21:14	21:34	21:10	20:11	19:01	16:55	16:09	08:33-08:56/26								16:07	08:50-09:09/19	
28	07:58	15:27-16:06/39	07:01		05:58	05:51	05:04	04:55	05:27	06:16	07:06	06:57	07:50	14:44-15:35/51								18:18	1	



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA04 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (4)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:19 14:32-15:22/50 16:12	07:52 16:59 17:50	06:59 17:50 19:44	06:49 19:44 20:34	05:45 20:34 21:20	05:00 05:37-06:22/45 21:20
2	08:18 14:36-15:21/45 16:13	07:51 17:01 17:52	06:57 17:52 19:45	06:47 19:45 20:36	05:43 20:36 21:21	04:59 05:38-06:23/45 21:21
3	08:18 14:44-15:22/38 16:14 14:39-14:42/3	07:49 17:03 17:54	06:55 17:54 19:47	06:45 19:47 20:37	05:41 20:37 21:22	04:58 05:37-06:23/46 21:22
4	08:18 14:45-15:23/38 16:15	07:47 17:05 17:56	06:53 17:56 19:49	06:42 19:49 20:39	05:39 20:39 21:23	04:58 05:35-06:23/48 21:23
5	08:18 14:45-15:23/38 16:16	07:46 17:06 17:57	06:50 17:57 19:50	06:40 19:50 20:41	05:37 20:41 21:24	04:57 05:35-06:23/48 21:24
6	08:18 14:47-15:24/37 16:17	07:44 17:08 17:59	06:48 17:59 19:52	06:38 19:52 20:42	05:35 20:42 21:25	04:56 05:33-06:23/50 21:25
7	08:17 14:48-15:23/35 16:19	07:42 17:10 18:01	06:46 18:01 19:54	06:35 19:54 20:44	05:34 20:44 21:26	04:56 05:33-06:24/51 21:26
8	08:17 14:50-15:24/34 16:20	07:41 17:12 18:03	06:44 18:03 19:56	06:33 19:56 20:46	05:32 20:46 21:26	04:55 05:32-06:23/51 21:26
9	08:16 14:51-15:24/33 16:21	07:39 17:14 18:04	06:42 18:04 19:57	06:31 19:57 20:47	05:30 20:47 21:27	04:55 05:32-06:24/52 21:27
10	08:16 14:59-15:24/25 16:23 14:54-14:58/4	07:37 17:16 18:06	06:39 18:06 19:59	06:29 19:59 20:49	05:29 20:49 21:28	04:54 05:32-06:24/52 21:28
11	08:15 15:00-15:25/25 16:24	07:35 17:17 18:08	06:37 18:08 20:01	06:27 20:01 20:50	05:27 20:50 21:29	04:54 05:31-06:24/53 21:29
12	08:15 15:01-15:25/24 16:25	07:33 17:19 18:10	06:35 18:10 20:02	06:24 20:02 20:52	05:25 20:52 21:30	04:54 05:31-06:24/53 21:30
13	08:14 15:01-15:25/24 16:27	07:32 17:21 18:11	06:33 18:11 20:04	06:22 20:04 20:54	06:02-06:05/3 20:54 21:30	04:53 05:31-06:24/53 21:30
14	08:13 15:02-15:24/22 16:28	07:30 17:23 18:13	06:30 18:13 20:06	06:20 20:06 20:55	05:22 05:58-06:10/12 20:55 21:31	04:53 05:32-06:25/53 21:31
15	08:12 15:03-15:24/21 16:30	07:28 17:25 18:15	06:28 18:15 20:07	06:18 20:07 20:57	05:20 05:55-06:12/17 20:57 21:31	04:53 05:32-06:25/53 21:31
16	08:12 15:04-15:24/20 16:32	07:26 17:27 18:16	06:26 18:16 20:09	06:16 20:09 20:58	05:19 05:54-06:14/20 20:58 21:32	04:53 05:32-06:25/53 21:32
17	08:11 15:05-15:23/18 16:33	07:24 17:28 18:18	06:23 18:18 20:11	06:13 20:11 21:00	05:17 05:53-06:15/22 21:00 21:32	04:53 05:32-06:25/53 21:32
18	08:10 15:07-15:23/16 16:35	07:22 17:30 18:20	06:21 18:20 20:12	06:11 20:12 21:01	05:16 05:46-06:16/30 21:01 21:33	04:53 05:32-06:25/53 21:33
19	08:09 15:09-15:22/13 16:36	07:20 17:32 18:22	06:19 18:22 20:14	06:09 20:14 21:03	05:15 05:43-06:17/34 21:03 21:33	04:53 05:32-06:26/54 21:33
20	08:08 15:11-15:21/10 16:38	07:18 17:34 18:23	06:17 18:23 20:16	06:07 20:16 21:04	05:13 05:42-06:18/36 21:04 21:33	04:53 05:32-06:26/54 21:33
21	08:07 16:40 17:36	07:16 17:36 18:25	06:14 18:25 20:17	06:05 20:17 21:05	05:12 05:41-06:19/38 21:05 21:34	04:53 05:32-06:26/54 21:34
22	08:05 16:41 17:38	07:14 17:38 18:27	06:12 18:27 20:19	06:03 20:19 21:07	05:11 05:40-06:20/40 21:07 21:34	04:53 05:33-06:27/54 21:34
23	08:04 16:43 17:39	07:12 17:39 18:28	06:10 18:28 20:21	06:01 20:21 21:08	05:09 05:39-06:20/41 21:08 21:34	04:53 05:33-06:27/54 21:34
24	08:03 16:45 17:41	07:10 17:41 18:30	06:07 18:30 20:22	05:59 20:22 21:10	05:08 05:38-06:20/42 21:10 21:34	04:54 05:33-06:26/53 21:34
25	08:02 16:47 17:43	07:08 17:43 18:32	06:05 18:32 20:24	05:57 20:24 21:11	05:07 05:38-06:20/42 21:11 21:34	04:54 05:33-06:26/53 21:34
26	08:01 16:48 17:45	07:06 17:45 18:34	06:03 18:34 20:26	05:55 20:26 21:12	05:06 05:37-06:21/44 21:12 21:34	04:54 05:34-06:27/53 21:34
27	07:59 16:50 17:47	07:03 17:47 18:35	06:01 18:35 20:27	05:53 20:27 21:14	05:05 05:38-06:21/43 21:14 21:34	04:55 05:34-06:27/53 21:34
28	07:58 16:52 17:48	07:01 17:48 18:37	05:58 18:37 20:29	05:51 20:29 21:15	05:04 05:38-06:22/44 21:15 21:34	04:55 05:35-06:28/53 21:34
29	07:57 16:54 17:55	07:00 17:55 18:44	05:56 18:44 20:36	05:49 20:36 21:16	05:03 05:37-06:22/45 21:16 21:34	04:56 05:34-06:28/54 21:34
30	07:55 16:55 17:54	07:00 17:54 18:43	05:54 18:43 20:35	05:47 20:35 21:17	05:02 05:37-06:22/45 21:17 21:34	04:56 05:35-06:28/53 21:34
31	07:54 16:57	07:00 17:54 18:42	05:51 18:42 20:34	05:45 20:34 21:18	05:01 05:37-06:22/45 21:18 21:34	04:56 05:35-06:28/53 21:34
Sonnenscheinstunden		260	278	367	416	484
Anzahl Minuten mit Schatten		573	0	0	0	643
						1554

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
			Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA04 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (4)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57 05:36-06:29/53 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 14:42-15:07/25 16:06
2	04:58 05:36-06:28/52 21:33	05:35 21:00	06:24 19:58	07:13 18:49	07:06 16:44	07:56 14:42-15:07/25 16:05 14:37-14:41/4
3	04:58 05:37-06:29/52 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 14:35-15:08/33 16:05
4	04:59 05:38-06:29/51 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 14:34-15:08/34 16:04
5	05:00 05:38-06:29/51 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 14:33-15:08/35 16:04
6	05:01 05:39-06:29/50 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 14:33-15:10/37 16:03
7	05:02 05:41-06:30/49 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 14:32-15:10/38 16:03
8	05:03 05:42-06:30/48 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 14:32-15:10/38 16:02
9	05:04 05:44-06:30/46 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 14:33-15:11/38 16:02 14:28-14:31/3
10	05:05 05:45-06:31/46 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 14:26-15:12/46 16:02
11	05:06 05:45-06:31/46 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	08:07 14:22-15:12/50 16:02
12	05:07 05:45-06:31/46 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 14:21-15:12/51 16:02
13	05:08 05:46-06:31/45 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 14:20-15:13/53 16:02
14	05:09 05:46-06:31/45 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 14:20-15:13/53 16:02
15	05:10 05:46-06:31/45 21:24	05:55 20:37	06:45 19:28	07:34 18:20	07:29 16:23	08:11 14:20-15:14/54 16:02
16	05:11 05:46-06:31/45 21:23	05:57 20:35	06:46 19:26	07:36 18:18	07:31 16:21	08:12 14:20-15:14/54 16:02
17	05:12 05:47-06:30/43 21:22	05:58 20:33	06:48 19:24	07:38 18:16	07:32 16:20	08:13 14:19-15:14/55 16:02
18	05:14 05:47-06:30/43 21:21	06:00 20:30	06:50 19:22	07:40 18:14	07:34 16:19	08:14 14:20-15:15/55 16:02
19	05:15 05:48-06:31/43 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 14:20-15:15/55 16:02
20	05:16 05:49-06:30/41 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 14:20-15:15/55 16:03
21	05:17 05:49-06:30/41 21:18	06:05 20:24	06:55 19:15	07:45 18:07	07:39 16:15	08:16 14:21-15:16/55 16:03
22	05:19 05:50-06:29/39 21:17	06:06 20:22	06:56 19:12	07:46 18:05	07:41 14:47-14:57/10 16:14	08:16 14:21-15:16/55 16:04
23	05:20 05:52-06:29/37 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 14:45-14:58/13 16:13	08:17 14:22-15:17/55 16:04
24	05:21 05:53-06:28/35 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 14:44-15:00/16 16:12	08:17 14:22-15:17/55 16:05
25	05:23 05:54-06:27/33 21:13	06:11 20:16	07:01 19:05	06:52 16:59	07:46 14:43-15:02/19 16:11	08:17 14:23-15:18/55 16:05
26	05:24 06:03-06:27/24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 14:43-15:03/20 16:10	08:18 14:24-15:19/55 16:06
27	05:26 06:04-06:25/21 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 14:42-15:03/21 16:09	08:18 14:25-15:19/54 16:07
28	05:27 06:05-06:24/19 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 14:42-15:04/22 16:08	08:18 14:25-15:19/54 16:08
29	05:29 06:07-06:22/15 21:07	06:18 20:07	07:08 18:56	06:59 16:51	07:52 14:41-15:05/24 16:07	08:18 14:26-15:20/54 16:09
30	05:30 06:10-06:19/9 21:05	06:19 20:05	07:09 18:54	07:01 16:50	07:53 14:42-15:06/24 16:07	08:18 14:28-15:20/52 16:09
31	05:32 21:04	06:21 20:03	07:02 16:48	07:02 16:48	07:53 14:42-15:06/24 16:07	08:19 14:29-15:21/52 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	1213	0	0	0	169	1487

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA05 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (5)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44	07:24-07:44/20 20:34	05:45 20:34
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45	07:21-07:45/24 20:36	05:43 20:36
3	08:18 16:14	07:49 17:03	06:55 17:54	06:45 19:47	07:19-07:47/28 20:37	05:41 20:37
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49	07:18-07:48/30 20:39	05:39 20:39
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	07:16-07:49/33 20:41	05:37 20:41
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52	07:14-07:49/35 20:42	05:36 20:42
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	07:11-07:49/38 20:44	05:34 20:44
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56	07:08-07:50/42 20:46	05:32 20:46
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	07:06-07:50/44 20:47	05:30 20:47
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	07:03-07:49/46 20:49	05:29 20:49
11	08:15 16:24	07:35 17:17	06:37 18:08	06:27 20:01	07:02-07:49/47 20:50	05:27 20:50
12	08:15 16:25	07:33 17:19	06:35 18:10	06:24 20:02	07:01-07:49/48 20:52	05:25 20:52
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04	07:00-07:49/49 20:53	05:24 20:53
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	06:49-06:56/7 20:55	05:22 20:55
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	06:45-07:48/63 20:57	05:20 20:57
16	08:11 16:32	07:26 17:27	06:26 18:17	06:16 20:09	06:43-07:47/64 20:58	05:19 20:58
17	08:11 16:33	07:24 17:29	06:23 18:18	06:13 20:11	06:40-07:45/65 21:00	05:18 21:00
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	06:39-07:45/66 21:01	05:16 21:01
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	06:38-07:43/65 21:03	05:15 21:03
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	06:37-07:42/65 21:04	05:13 21:04
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	06:37-07:41/64 21:05	05:12 21:05
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	06:36-07:39/63 21:07	05:11 21:07
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	06:36-07:37/61 21:08	05:09 21:08
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	06:34-07:34/60 21:10	05:08 21:10
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	06:33-07:31/58 21:11	05:07 21:11
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	06:32-07:30/58 21:12	05:06 21:12
27	07:59 16:50	07:03 17:47	06:01 18:35	05:53 20:27	06:29-07:29/60 21:13	05:05 21:13
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	06:27-07:28/61 21:15	05:04 21:15
29	07:57 16:54		06:56 19:39	05:49 20:31	06:25-07:27/62 21:16	05:03 21:16
30	07:55 16:55		06:54 19:40	05:47 20:32	06:23-07:25/62 21:17	05:02 21:17
31	07:54 16:57		06:51 19:42			05:01 21:18
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	0	0	14	1537	2133	1464

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
			Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA05 - ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (5)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember	
1	04:57	05:38-06:24/46	05:33	06:07-07:18/71	06:22	07:01-07:48/47	07:11	07:04	07:55			
	21:33		21:02		20:00		18:51	16:46	16:06			
2	04:58	05:38-06:24/46	05:35	06:09-07:19/70	06:24	07:02-07:48/46	07:13	07:06	07:56			
	21:33		21:00		19:58		18:49	16:44	16:05			
3	04:58	05:39-06:26/47	05:36	06:12-07:20/68	06:26	07:03-07:47/44	07:14	07:08	07:57			
	21:33		20:59		19:56		18:47	16:42	16:05			
4	04:59	05:39-06:28/49	05:38	06:12-07:21/69	06:27	07:05-07:47/42	07:16	07:09	07:59			
	21:32		20:57		19:54		18:45	16:40	16:04			
5	05:00	05:39-06:28/49	05:39	06:14-07:23/69	06:29	07:08-07:46/38	07:17	07:11	08:00			
	21:32		20:55		19:51		18:42	16:39	16:04			
6	05:01	05:39-06:29/50	05:41	06:14-07:23/69	06:30	07:11-07:45/34	07:19	07:13	08:01			
	21:31		20:53		19:49		18:40	16:37	16:03			
7	05:02	05:40-06:30/50	05:42	06:16-07:23/67	06:32	07:11-07:44/33	07:21	07:15	08:03			
	21:31		20:52		19:47		18:38	16:35	16:03			
8	05:03	05:41-06:31/50	05:44	06:18-07:24/66	06:34	07:12-07:42/30	07:22	07:17	08:04			
	21:30	06:40-06:48/8	20:50		19:45		18:36	16:34	16:02			
9	05:04	05:41-06:32/51	05:46	06:28-07:24/56	06:35	07:13-07:41/28	07:24	07:18	08:05			
	21:29	06:39-06:51/12	20:48	06:21-06:26/5	19:42		18:33	16:32	16:02			
10	05:05	05:42-06:33/51	05:47	06:29-07:26/57	06:37	07:14-07:38/24	07:26	07:20	08:06			
	21:29	06:37-06:52/15	20:46		19:40		18:31	16:30	16:02			
11	05:06	05:42-06:34/52	05:49	06:29-07:29/60	06:38	07:16-07:36/20	07:28	07:22	08:07			
	21:28	06:36-06:54/18	20:44		19:38		18:29	16:29	16:02			
12	05:07	05:43-06:55/72	05:50	06:31-07:32/61	06:40	07:18-07:32/14	07:29	07:24	08:08			
	21:27		20:42		19:35		18:27	16:27	16:02			
13	05:08	05:44-06:56/72	05:52	06:31-07:33/62	06:42		07:31	07:25	08:09			
	21:26		20:40		19:33		18:24	16:26	16:02			
14	05:09	05:45-06:57/72	05:53	06:33-07:35/62	06:43		07:33	07:27	08:10			
	21:25		20:38		19:31		18:22	16:24	16:02			
15	05:10	05:45-06:58/73	05:55	06:34-07:35/61	06:45		07:34	07:29	08:11			
	21:24		20:37		19:28		18:20	16:23	16:02			
16	05:11	05:46-06:59/73	05:57	06:37-07:36/59	06:46		07:36	07:31	08:12			
	21:23		20:35		19:26		18:18	16:22	16:02			
17	05:12	05:48-06:59/71	05:58	06:38-07:37/59	06:48		07:38	07:32	08:13			
	21:22		20:33		19:24		18:16	16:20	16:02			
18	05:14	05:49-07:00/71	06:00	06:40-07:38/58	06:50		07:40	07:34	08:14			
	21:21		20:30		19:22		18:14	16:19	16:02			
19	05:15	05:52-07:02/70	06:01	06:40-07:40/60	06:51		07:41	07:36	08:14			
	21:20		20:28		19:19		18:12	16:18	16:03			
20	05:16	05:52-07:02/70	06:03	06:41-07:43/62	06:53		07:43	07:37	08:15			
	21:19		20:26		19:17		18:10	16:16	16:03			
21	05:17	05:53-07:03/70	06:05	06:42-07:45/63	06:55		07:45	07:39	08:16			
	21:18		20:24		19:15		18:07	16:15	16:03			
22	05:19	05:54-07:05/71	06:06	06:41-07:46/65	06:56		07:46	07:41	08:16			
	21:17		20:22		19:12		18:05	16:14	16:04			
23	05:20	05:55-07:07/72	06:08	06:42-07:47/65	06:58		07:48	07:42	08:17			
	21:15		20:20		19:10		18:03	16:13	16:04			
24	05:22	05:57-07:08/71	06:09	06:42-07:47/65	06:59		07:50	07:44	08:17			
	21:14		20:18		19:08		18:01	16:12	16:05			
25	05:23	05:58-07:09/71	06:11	06:43-07:48/65	07:01		06:52	07:46	08:17			
	21:13		20:16		19:05		16:59	16:11	16:05			
26	05:24	06:01-07:11/70	06:13	06:43-07:48/65	07:03		06:53	07:47	08:18			
	21:11		20:14		19:03		16:57	16:10	16:06			
27	05:26	06:01-07:11/70	06:14	06:45-07:49/64	07:04		06:55	07:49	08:18			
	21:10		20:11		19:01		16:55	16:09	16:07			
28	05:27	06:02-07:12/70	06:16	06:46-07:49/63	07:06		06:57	07:50	08:18			
	21:08		20:09		18:58		16:53	16:08	16:08			
29	05:29	06:03-07:13/70	06:18	06:50-06:57/7	07:08		06:59	07:52	08:18			
	21:07		20:07	07:00-07:49/49	18:56		16:51	16:07	16:09			
30	05:30	06:04-07:14/70	06:19	07:00-07:49/49	07:09		07:01	07:53	08:18			
	21:05		20:05		18:54		16:50	16:07	16:09			
31	05:32	06:05-07:15/70	06:21	07:01-07:49/48			07:02		08:18			
	21:04		20:03				16:48		16:10			
Sonnenscheinstunden	501		453		381		332	267	245			
Anzahl Minuten mit Schatten	2013		1939		400		0	0	0			

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA06 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (206)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Jun	Jul	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:05	06:53 17:56	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:46	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:04 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:29 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:06 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	08:07 16:02
12	08:15 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:16 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:14 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:03	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34	05:17 21:18	06:05 20:24	06:54 19:15	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:17 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:10	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	07:52 18:00	07:46 16:11	08:17 16:05
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	07:53 18:00	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	07:55 18:00	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	07:57 18:00	07:50 16:08	08:18 16:08
29	07:56 16:54		05:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:08 18:56	07:58 18:01	07:52 16:07	08:18 16:08
30	07:55 16:55		05:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:01 18:00	07:53 16:07	08:18 16:09
31	07:54 16:57		05:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	113	670	371	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA07 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (207)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:51 17:52	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:56	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56	05:32 20:46	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	08:07 16:02
12	08:15 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:02
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:16 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:35	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:14 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:03	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34	05:17 21:18	06:05 20:24	06:54 19:15	07:45 18:07	07:39 16:15	08:16 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:17	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:17 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:10	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:13	06:11 20:16	07:01 19:05	06:52 16:59	07:46 16:11	08:17 16:05
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:08 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:50	07:53 16:07	08:18 16:09
31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonneneinstrahlung	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	119	0	0	0	0	0	0	0	0	0	120	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten
			Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA08 - ENERCON E-66/20.70 2000 70.0 !-! NH: 93,8 m (Ges:128,8 m) (208)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe

380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:46	04:55 21:26	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:15 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:53 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:33 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
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16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:14 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:03	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
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24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:10	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:46 16:11	08:17 16:05
26	08:01 16:48	07:06 17:45	06:03 18:33	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:08 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:49	07:53 16:07	08:18 16:09
31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA09 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (209)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember	
1	08:19 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06	
2	08:18 16:13	07:51 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05	
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05	
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5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04	
6	08:18 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03	
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03	
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:56	05:32 20:46	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 16:02	
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11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:06 21:28	05:49 20:44	06:38 19:38	07:28 18:29	07:22 16:29	08:07 16:02	
12	08:15 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:54 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02	
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17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	06:36-06:44/8	05:17 21:00	05:12 21:22	05:58 20:32	06:32-06:40/8	06:48 19:24	07:38 18:16	07:32 16:20	08:13
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	06:35-06:44/9	05:16 21:01	05:14 21:21	06:00 20:30	06:31-06:41/10	06:50 19:21	07:39 18:14	07:34 16:19	08:14
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	06:34-06:44/10	05:15 21:03	05:15 21:20	06:01 20:28	06:30-06:41/11	06:51 19:19	07:41 18:12	07:36 16:18	08:14
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	06:34-06:44/10	05:13 21:04	05:16 21:19	06:03 20:26	06:31-06:41/10	06:53 19:17	07:43 18:09	07:37 16:16	08:15
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23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	06:25-06:35/10	05:09 21:08	05:20 21:34	06:08 20:20	06:39-06:49/10	06:58 19:10	07:48 18:03	07:42 16:13	08:17
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25	08:02 16:47	07:08 17:43	06:05 18:32	05:57 20:24	06:25-06:35/10	05:07 21:11	05:23 21:13	06:11 20:16	06:38-06:48/10	07:01 19:05	06:52 16:59	07:46 16:11	08:17
26	08:01 16:48	07:06 17:45	06:03 18:34	05:55 20:26	06:25-06:34/9	05:06 21:12	05:24 21:34	06:13 21:11	06:39-06:46/7	07:03 19:03	06:53 16:57	07:47 16:10	08:18
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	06:26-06:32/6	05:05 21:13	05:26 21:34	06:14 20:11	06:41-06:44/3	07:04 19:01	06:55 16:55	07:49 16:09	08:18
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29		05:04 21:15	05:27 21:34	06:16 21:08		07:06 18:58	06:57 16:53	07:50 16:08	08:18
29	07:56 16:54		06:56 19:39	05:49 20:31		05:03 21:16	05:29 21:34	06:17 21:07		07:08 18:56	06:59 16:51	07:52 16:07	08:18
30	07:55 16:55		06:54 19:40	05:47 20:32		05:02 21:17	05:30 21:05	06:19 20:05		07:09 18:54	07:01 16:50	07:53 16:07	08:18
31	07:54 16:57		06:51 19:42			05:01 21:18	05:32 21:04	06:21 20:03			07:02 16:48		08:18
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245	0
Anzahl Minuten mit Schatten	0	0	0	117	0	0	0	118	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA10 - ENERCON E-82 E2 2300 82.0 !O! NH: 85,0 m (Ges:126,0 m) (210)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:19 15:33-15:37/4 16:12	07:52 16:59 17:50	06:59 17:50 19:44	06:49 19:44 20:34	05:45 20:34 21:19	05:00 21:19 21:33	04:57 21:33 21:02	05:33 21:02 20:00	06:22 20:00 18:51	07:11 18:51 16:46	07:04 16:46 16:06	07:55 15:15-15:33/18 16:06
2	08:18 15:32-15:38/6 16:13	07:51 17:52 17:01	06:57 17:52 19:45	06:47 19:45 20:36	05:43 20:36 21:21	04:58 21:21 21:33	05:35 21:33 21:00	06:24 21:00 19:58	07:12 19:58 18:49	07:06 18:49 16:44	07:56 15:15-15:32/17 16:05	07:56 15:15-15:32/17 16:05
3	08:18 15:32-15:39/7 16:14	07:49 17:53 17:03	06:55 17:54 19:47	06:44 19:47 20:37	05:41 20:37 21:22	04:58 21:22 21:33	05:36 21:33 20:59	06:26 20:59 19:56	07:14 19:56 18:47	07:08 18:47 16:42	07:57 15:16-15:31/15 16:05	07:57 15:16-15:31/15 16:05
4	08:18 15:32-15:41/9 16:15	07:47 17:04 17:56	06:53 17:56 19:49	06:42 19:49 20:39	05:39 20:39 21:23	04:58 21:23 21:32	05:38 21:32 20:57	06:27 20:57 19:54	07:16 19:54 18:45	07:09 18:45 16:40	07:59 15:17-15:30/13 16:04	07:59 15:17-15:30/13 16:04
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6	08:18 15:32-15:43/11 16:17	07:44 17:08 17:59	06:48 17:59 19:52	06:38 19:52 20:42	05:35 20:42 21:25	04:56 21:25 21:31	05:41 21:31 20:53	06:30 20:53 19:49	07:19 19:49 18:40	07:13 18:40 16:37	08:01 15:18-15:29/11 16:03	08:01 15:18-15:29/11 16:03
7	08:17 15:32-15:44/12 16:19	07:42 17:10 18:01	06:46 18:01 19:54	06:35 19:54 20:44	05:34 20:44 21:26	04:56 21:26 21:31	05:42 21:31 20:52	06:32 20:52 19:47	07:21 19:47 18:38	07:15 18:38 16:35	08:03 15:19-15:29/10 16:03	08:03 15:19-15:29/10 16:03
8	08:17 15:32-15:46/14 16:20	07:41 17:12 18:03	06:44 18:03 19:55	06:33 19:55 20:46	05:32 20:46 21:26	04:55 21:26 21:30	05:44 21:30 20:50	06:34 20:50 19:45	07:22 19:45 18:36	07:17 18:36 16:34	08:04 15:19-15:28/9 16:02	08:04 15:19-15:28/9 16:02
9	08:16 15:32-15:47/15 16:21	07:39 17:14 18:04	06:42 18:04 19:57	06:31 19:57 20:47	05:30 20:47 21:27	04:55 21:27 21:29	05:45 21:29 20:48	06:35 20:48 19:42	07:24 19:42 18:33	07:18 18:33 16:32	08:05 15:21-15:28/7 16:02	08:05 15:21-15:28/7 16:02
10	08:16 15:32-15:48/16 16:23	07:37 17:16 18:06	06:39 18:06 19:59	06:29 19:59 20:49	05:28 20:49 21:28	04:54 21:28 21:29	05:47 21:29 20:46	06:37 20:46 19:40	07:26 19:40 18:31	07:20 18:31 16:30	08:06 15:22-15:28/6 16:02	08:06 15:22-15:28/6 16:02
11	08:15 15:33-15:51/18 16:24	07:35 17:17 18:08	06:37 18:08 20:01	06:26 20:01 20:50	05:27 20:50 21:29	04:54 21:29 21:28	05:49 21:28 20:44	06:38 20:44 19:38	07:28 19:38 18:29	07:22 18:29 16:29	08:07 15:23-15:27/4 16:02	08:07 15:23-15:27/4 16:02
12	08:15 15:33-15:51/18 16:25	07:33 17:19 18:10	06:35 18:10 20:02	06:24 20:02 20:52	05:25 20:52 21:29	04:53 21:29 21:27	05:50 21:27 20:42	06:40 20:42 19:35	07:29 19:35 18:27	07:24 18:27 16:27	08:08 15:24-15:27/3 16:02	08:08 15:24-15:27/3 16:02
13	08:14 15:33-15:51/18 16:27	07:32 17:21 18:11	06:33 18:11 20:04	06:22 20:04 20:53	05:24 20:53 21:30	04:53 21:30 21:26	05:52 21:26 20:40	06:42 20:40 19:33	07:31 19:33 18:24	07:25 18:24 16:26	08:09 15:25-15:27/2 16:01	08:09 15:25-15:27/2 16:01
14	08:13 15:33-15:52/19 16:28	07:30 17:23 18:13	06:30 18:13 20:06	06:20 20:06 20:55	05:22 20:55 21:31	04:53 21:31 21:25	05:53 21:25 20:38	06:43 20:38 19:31	07:33 19:31 18:22	07:27 18:22 16:24	08:10 15:26-15:27/1 16:02	08:10 15:26-15:27/1 16:02
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21	08:07 15:37-15:52/15 16:40	07:16 17:36 18:25	06:14 18:25 20:17	06:05 20:17 21:05	05:12 21:05 21:34	04:53 21:34 21:18	05:17 21:18 20:24	06:05 20:24 19:15	07:45 19:15 18:07	07:39 18:07 16:15	08:17 16:03 16:03	08:17 16:03 16:03
22	08:05 15:39-15:52/13 16:41	07:14 17:38 18:27	06:12 18:27 20:19	06:03 20:19 21:07	05:11 21:07 21:34	04:53 21:34 21:17	05:19 21:17 20:22	06:06 20:22 19:12	07:46 19:12 18:05	07:41 18:05 16:14	08:18 16:04 16:04	08:18 16:04 16:04
23	08:04 15:41-15:51/10 16:43	07:12 17:39 18:28	06:10 18:28 20:21	06:01 20:21 21:08	05:09 21:08 21:34	04:53 21:34 21:15	05:20 21:15 20:20	06:08 20:20 19:10	07:48 19:10 18:03	07:42 18:03 16:13	08:17 16:04 16:04	08:17 16:04 16:04
24	08:03 15:42-15:49/7 16:45	07:10 17:41 18:30	06:07 18:30 20:22	05:59 20:22 21:10	05:08 21:10 21:34	04:54 21:34 21:14	05:21 21:14 20:18	06:09 20:18 19:08	07:50 19:08 18:01	07:44 18:01 16:12	08:17 16:05 16:05	08:17 16:05 16:05
25	08:02 16:46 17:43	07:08 18:32 20:24	06:05 20:24 21:11	05:57 21:11 21:34	05:07 21:34 21:13	04:54 21:13 20:16	05:23 20:16 19:05	06:11 19:05 16:59	07:01 16:59 16:11	06:52 16:11 16:11	08:17 16:05 16:05	08:17 16:05 16:05
26	08:01 16:48 17:45	07:06 18:34 20:26	06:03 20:26 21:12	05:55 21:12 21:34	05:06 21:34 21:11	04:54 21:11 20:14	05:24 20:14 19:03	06:13 19:03 16:57	07:03 16:57 16:10	06:53 16:10 16:10	08:18 16:06 16:06	08:18 16:06 16:06
27	07:59 16:50 17:47	07:03 18:35 20:27	06:00 20:27 21:13	05:53 21:13 21:34	05:05 21:34 21:10	04:55 21:10 20:11	05:26 20:11 19:01	06:14 19:01 16:55	07:04 16:55 16:09	06:55 16:09 16:11	08:18 16:07 16:07	08:18 16:07 16:07
28	07:58 16:52 17:48	07:01 18:37 20:29	05:58 20:29 21:15	05:51 21:15 21:34	05:04 21:34 21:08	04:55 21:08 20:09	05:27 20:09 18:58	06:16 18:58 16:53	07:06 16:53 16:08	06:57 16:08 16:08	08:18 16:08 16:08	08:18 16:08 16:08
29	07:56 16:54 17:44	06:56 19:39 20:31	05:49 20:31 21:16	05:03 21:16 21:34	05:03 21:34 21:07	04:56 21:07 20:07	05:29 20:07 18:56	06:17 18:56 16:51	07:08 16:51 16:07	06:59 16:07 16:07	08:18 16:08 16:08	08:18 16:08 16:08
30	07:55 16:55 17:44	06:54 19:40 20:32	05:47 20:32 21:17	05:02 21:17 21:34	05:02 21:34 21:05	04:56 21:05 20:05	05:30 20:05 18:54	06:19 18:54 16:49	07:09 16:49 16:07	07:01 16:07 16:07	08:18 16:09 16:09	08:18 16:09 16:09
31	07:54 16:57	06:51 19:42	05:41 19:42	05:01 19:42	05:01 19:42	05:32 21:04	06:21 20:03	07:02 16:48	07:02 16:48	07:02 16:48	08:18 16:10 16:10	08:18 16:10 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	326	0	0	0	0	0	0	0	0	0	207	134

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA11 - ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (211)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 09:02-09:13/11 16:12	07:52 16:59 17:50	06:59 17:50 19:44	06:49 19:44 20:34	05:45 20:34 21:19	05:00 21:19 21:33	04:57 21:33 21:02	05:33 21:02 20:00	06:22 20:00 18:51	07:11 18:51 16:46	07:04 16:46 16:06	
2	08:18 09:01-09:13/12 16:13	07:50 17:01 17:52	06:57 17:52 19:45	06:47 19:45 20:36	05:43 20:36 21:21	04:59 21:21 21:33	04:58 21:33 21:00	05:35 21:00 19:58	06:24 19:58 18:49	07:12 18:49 16:44	07:06 16:44 16:05	
3	08:18 09:02-09:14/12 16:14	07:49 17:03 17:54	06:55 17:54 19:47	06:44 19:47 20:37	05:41 20:37 21:22	04:58 21:22 21:33	04:58 21:33 20:59	05:36 20:59 19:56	06:25 19:56 18:47	07:14 18:47 16:42	07:08 16:42 16:04	08:52-08:57/5
4	08:18 09:03-09:14/11 16:15	07:47 17:04 17:55	06:53 17:55 19:49	06:42 19:49 20:39	05:39 20:39 21:23	04:57 21:23 21:32	04:59 21:32 20:57	05:38 20:57 19:54	06:27 19:54 18:44	07:16 18:44 16:40	07:09 16:40 16:04	08:51-08:58/7
5	08:18 09:04-09:14/10 16:16	07:46 17:06 17:57	06:50 17:57 19:50	06:40 19:50 20:41	05:37 20:41 21:24	04:57 21:24 21:32	05:00 21:32 20:55	05:39 20:55 19:51	06:29 19:51 18:42	07:17 18:42 16:39	07:11 16:39 16:03	08:50-08:59/9
6	08:17 09:05-09:14/9 16:17	07:44 17:08 17:59	06:48 17:59 19:52	06:38 19:52 20:42	05:35 20:42 21:25	04:56 21:25 21:31	05:01 21:31 20:53	05:41 20:53 19:49	06:30 19:49 18:40	07:19 18:40 16:37	07:13 16:37 16:03	08:51-09:00/9
7	08:17 09:05-09:14/9 16:18	07:42 17:10 18:01	06:46 18:01 19:54	06:35 19:54 20:44	05:34 20:44 21:25	04:56 21:25 21:31	05:02 21:31 20:52	05:42 20:52 19:47	06:32 19:47 18:38	07:21 18:38 16:35	07:15 16:35 16:03	08:51-09:01/10
8	08:17 09:07-09:14/7 16:20	07:41 17:12 18:03	06:44 18:03 19:55	06:33 19:55 20:46	05:32 20:46 21:26	04:55 21:26 21:30	05:02 21:30 20:50	05:44 20:50 19:45	06:34 19:45 18:35	07:22 18:35 16:33	07:17 16:33 16:02	08:50-09:01/11
9	08:16 09:08-09:13/5 16:21	07:39 17:14 18:04	06:41 18:04 19:57	06:31 19:57 20:47	05:30 20:47 21:27	04:55 21:27 21:29	05:03 21:29 20:48	05:45 20:48 19:42	06:35 19:42 18:33	07:24 18:33 16:32	07:18 16:32 16:02	08:51-09:03/12
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26	08:01 16:48 16:48	07:05 17:45 18:33	06:03 18:33 20:26	05:54 20:26 21:12	05:06 21:12 21:34	04:54 21:34 21:11	05:24 21:11 20:14	06:13 20:14 19:03	07:03 19:03 16:57	06:53 16:57 16:10	07:47 16:10 16:06	09:14-09:19/12
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31	07:54 16:57 16:57	07:00 17:49 18:42	06:00 18:42 20:32	05:52 20:32 21:17	05:05 21:17 21:34	04:55 21:34 21:05	05:30 21:05 20:05	06:19 20:05 18:54	07:09 18:54 16:49	07:00 16:49 16:06	07:53 16:06 16:08	09:16-09:21/12
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	86	0	0	0	0	0	0	0	0	0	0	536

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurthkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurthkapelle Gesamtbelastung WEA: WEA12 - ENERCON E-70 E4 2000 71.0 !O! NH: 114,1 m (Ges:149,6 m) (212)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 09:16-09:41/25 16:12 08:56-09:14/18 2 08:18 09:15-09:40/25 16:13 08:55-09:14/19 3 08:18 09:16-09:41/25 16:14 08:55-09:14/19 4 08:18 09:18-09:41/23 16:15 08:55-09:15/20 5 08:18 09:18-09:41/23 16:16 08:52-09:15/23 6 08:17 09:19-09:42/23 16:17 08:52-09:16/24 7 08:17 09:20-09:41/21 16:18 08:51-09:16/25 8 08:17 09:22-09:42/20 16:20 08:51-09:17/26 9 08:16 09:29-09:41/12 08:51-09:17/26 16:21 09:23-09:27/4 10 08:16 09:30-09:40/10 16:22 08:50-09:17/27 11 08:15 09:32-09:40/8 16:24 08:51-09:18/27 12 08:14 09:34-09:39/5 16:25 08:51-09:18/27 13 08:14 09:32-09:18/27 16:27 14 08:13 09:30-09:18/27 16:28 15 08:12 09:31-09:18/27 16:30 16 08:11 09:31-09:18/27 16:31 17 08:11 09:31-09:17/26 16:33 18 08:10 09:12-09:15/3 16:35 08:52-09:10/18 19 08:09 08:53-09:10/17 16:36 20 08:08 08:54-09:09/15 16:38 21 08:07 09:05-09:06/1 16:40 08:54-09:04/10 22 08:05 08:55-09:04/9 16:41 23 08:04 08:58-09:03/5 16:43 24 08:03 16:45 25 08:02 16:46 26 08:01 16:48 27 07:59 16:50 28 07:58 16:52 29 07:56 16:54 30 07:55 16:55 31 07:54 16:57 Sonnenscheinstunden 260 Anzahl Minuten mit Schatten 717	07:52 06:59 06:49 05:45 05:00 04:57 05:33 06:22 07:11 07:04 07:55 09:14-09:22/8 16:59 17:50 19:44 20:34 21:19 21:33 21:02 20:00 18:51 16:46 07:50 06:57 06:47 05:43 04:59 04:58 05:35 06:24 07:12 07:06 17:01 17:52 19:45 20:36 21:21 21:33 21:00 19:58 18:49 16:44 07:49 06:55 06:44 05:41 04:58 04:58 05:36 06:25 07:14 07:08 17:03 17:54 19:47 20:37 21:22 21:33 20:59 19:56 18:47 16:42 07:47 06:53 06:42 05:39 04:57 04:59 05:38 06:27 07:16 07:09 17:04 17:55 19:49 20:39 21:23 21:32 20:57 19:54 18:45 16:40 07:46 06:50 06:40 05:37 04:57 05:00 05:39 06:29 07:17 07:11 17:06 17:57 19:50 20:41 21:24 21:32 20:55 19:51 18:42 16:39 07:44 06:48 06:38 05:35 04:56 05:01 05:41 06:30 07:19 07:13 17:08 17:59 19:52 20:42 21:25 21:31 20:53 19:49 18:40 16:37 07:42 06:46 06:35 05:34 04:56 05:02 05:42 06:32 07:21 07:15 17:10 18:01 19:54 20:44 21:25 21:31 20:52 19:47 18:38 16:35 07:41 06:44 06:33 05:32 04:55 05:02 05:44 06:34 07:22 07:17 17:12 18:03 19:55 20:46 21:26 21:30 20:50 19:45 18:35 16:33 07:39 06:41 06:31 05:30 04:55 05:03 05:45 06:35 07:24 07:18 17:14 18:04 19:57 20:47 21:27 21:29 20:48 19:42 18:33 16:32 07:37 06:39 06:29 05:28 04:54 05:04 05:47 06:37 07:26 07:20 17:15 18:06 19:59 20:49 21:28 21:29 20:46 19:40 18:31 16:30 07:35 06:37 06:26 05:27 04:54 05:05 05:49 06:38 07:27 07:22 17:17 18:08 20:01 20:50 21:29 21:28 20:44 19:38 18:29 16:29 07:33 06:35 06:24 05:25 04:53 05:06 05:50 06:40 07:29 07:24 17:19 18:09 20:02 20:52 21:29 21:27 20:42 19:35 18:27 16:27 07:32 06:32 06:22 05:23 04:53 05:08 05:52 06:42 07:31 07:25 17:21 18:11 20:04 20:53 21:30 21:26 20:40 19:33 18:24 16:26 07:30 06:30 06:20 05:22 04:53 05:09 05:53 06:43 07:33 07:27 17:23 18:13 20:06 20:55 21:31 21:25 20:38 19:31 18:22 16:24 07:28 06:28 06:18 05:20 04:53 05:10 05:55 06:45 07:34 07:29 17:25 18:15 20:07 20:57 21:31 21:24 20:36 19:28 18:20 16:23 07:26 06:26 06:15 05:19 04:53 05:11 05:57 06:46 07:36 07:31 17:27 18:16 20:09 20:58 21:32 21:23 20:34 19:26 18:18 16:21 07:24 06:23 06:13 05:17 04:53 05:12 05:58 06:48 07:38 07:32 17:28 18:18 20:11 21:00 21:32 21:22 20:32 19:24 18:16 16:20 07:22 06:21 06:11 05:16 04:53 05:13 06:00 06:50 07:39 07:34 17:30 18:20 20:12 21:01 21:33 21:21 20:30 19:21 18:14 16:19 07:20 06:19 06:09 05:15 04:53 05:15 06:01 06:51 07:41 07:36 08:32-08:37/5 17:32 18:22 20:14 21:02 21:33 21:20 20:28 19:19 18:11 16:17 07:18 06:17 06:07 05:13 04:53 05:16 06:03 06:53 07:43 07:37 08:30-08:39/9 17:34 18:23 20:16 21:04 21:33 21:19 20:26 19:17 18:09 16:16 07:16 06:14 06:05 05:12 04:53 05:17 06:05 06:54 07:45 07:39 08:41-08:42/1 17:36 18:25 20:17 21:05 21:34 21:18 20:24 19:14 18:07 16:15 08:30-08:40/10 07:14 06:12 06:03 05:11 04:53 05:19 06:06 06:56 07:46 07:41 08:30-08:45/15 17:38 18:27 20:19 21:07 21:34 21:16 20:22 19:12 18:05 16:14 07:12 06:10 06:01 05:09 04:53 05:20 06:08 06:58 07:48 07:42 08:29-08:46/17 17:39 18:28 20:21 21:08 21:34 21:15 20:20 19:10 18:03 16:13 07:10 06:07 05:59 05:08 04:54 05:21 06:09 06:59 07:50 07:44 08:49-08:52/3 17:41 18:30 20:22 21:10 21:34 21:14 20:18 19:08 18:01 16:12 08:29-08:47/18 07:08 06:05 05:57 05:07 04:54 05:23 06:11 07:01 06:52 07:46 08:29-08:55/26 17:43 18:32 20:24 21:11 21:34 21:12 20:16 19:05 16:59 16:11 07:06 06:03 05:54 05:06 04:54 05:24 06:13 07:03 06:53 07:47 08:30-08:57/27 17:45 18:33 20:26 21:12 21:34 21:11 20:14 19:03 16:57 16:10 07:03 06:00 05:52 05:05 04:55 05:26 06:14 07:04 06:55 07:49 08:30-08:57/27 17:47 18:35 20:27 21:13 21:34 21:10 20:11 19:01 16:55 16:09 07:01 05:58 05:50 05:04 04:55 05:27 06:16 07:06 06:57 07:50 08:31-08:58/27 17:48 18:37 20:29 21:15 21:34 21:08 20:09 18:58 16:53 16:08 06:56 05:49 05:03 04:56 05:29 06:17 07:07 06:59 07:52 08:32-08:58/26 19:39 20:31 21:16 21:34 21:07 20:07 18:56 16:51 16:07 06:54 05:47 05:02 04:56 05:30 06:19 07:09 07:00 07:53 09:15-09:20/5 19:40 20:32 21:17 21:34 21:05 20:05 18:54 16:49 16:06 08:32-08:59/27 06:51 05:01 05:32 06:21 07:02 19:42 21:18 21:04 20:03 16:48 278 367 416 484 498 501 453 381 332 267 243 1275										

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA13 - ENERCON E-70 E4 2000 71.0 !O! NH: 85,0 m (Ges:120,5 m) (213)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 08:55-09:41/46 16:12 13:26-13:56/30	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19
2	08:18 08:55-09:41/46 16:13 13:26-13:55/29	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 08:56-09:41/45 13:27-13:55/28 16:14 08:50-08:55/5	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22
4	08:18 08:50-09:41/51 16:15 13:28-13:56/28	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 21:23
5	08:18 08:49-09:40/51 16:16 13:29-13:55/26	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24
6	08:17 08:49-09:40/51 16:17 13:30-13:55/25	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25
7	08:17 08:48-09:38/50 16:18 13:31-13:55/24	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:26
8	08:17 08:48-09:36/48 16:20 13:33-13:55/22	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:46	04:55 21:26
9	08:16 08:48-09:36/48 16:21 13:34-13:54/20	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 09:05-09:36/31 13:35-13:53/18 16:22 08:48-09:03/15	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28
11	08:15 09:07-09:37/30 13:37-13:53/16 16:24 08:45-09:05/20	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29
12	08:15 09:07-09:37/30 13:39-13:52/13 16:25 08:44-09:05/21	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:53 21:29
13	08:14 09:08-09:37/29 13:42-13:49/7 16:27 08:43-09:06/23	07:32 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30
14	08:13 09:09-09:37/28 16:28 08:42-09:06/24	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31
15	08:12 09:10-09:37/27 16:30 08:41-09:07/26	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31
16	08:11 09:11-09:37/26 16:31 08:40-09:07/27	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32
17	08:11 09:13-09:37/24 16:33 08:39-09:08/29	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32
18	08:10 09:18-09:37/19 16:35 08:38-09:08/30	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33
19	08:09 09:19-09:36/17 16:36 08:37-09:08/31	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33
20	08:08 09:21-09:36/15 16:38 08:36-09:09/33	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:07 09:22-09:34/12 16:40 08:35-09:08/33	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:05 09:25-09:32/7 16:41 08:35-09:08/33	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34
23	08:04 08:35-09:08/33 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 08:35-09:07/32 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:10	04:54 21:34
25	08:02 08:36-09:06/30 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34
26	08:01 08:36-09:04/28 16:48	07:06 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 08:36-08:57/21 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34
28	07:58 08:38-08:57/19 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34
29	07:56 08:38-08:54/16 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34
30	07:55 08:39-08:50/11 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34
31	07:54 08:41-08:49/8 16:57		06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	1565	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA13 - ENERCON E-70 E4 2000 71.0 !O! NH: 85,0 m (Ges:120,5 m) (213)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 08:49-09:19/30 13:19-13:35/16 16:06 08:27-08:47/20
2	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 08:48-09:19/31 13:18-13:36/18 16:05 08:31-08:46/15
3	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 08:32-09:20/48 16:04 13:18-13:38/20
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 08:32-09:20/48 16:04 13:17-13:39/22
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 08:33-09:23/50 16:03 13:16-13:40/24
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 08:35-09:26/51 16:03 13:16-13:42/26
7	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 08:36-09:27/51 16:03 13:16-13:42/26
8	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:35	07:17 16:33	08:04 08:37-09:28/51 16:02 13:16-13:43/27
9	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 08:45-09:30/45 13:16-13:44/28 16:02 08:39-08:44/5
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 08:45-09:31/46 16:02 13:16-13:45/29
11	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 08:12-08:20/8 16:29	08:07 08:45-09:31/46 16:02 13:16-13:46/30
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 08:11-08:22/11 16:27	08:08 08:45-09:32/47 16:01 13:16-13:46/30
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 08:10-08:26/16 16:26	08:09 08:46-09:33/47 16:01 13:16-13:47/31
14	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 08:10-08:29/19 16:24	08:10 08:46-09:34/48 16:01 13:17-13:48/31
15	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 08:09-08:30/21 16:23	08:11 08:47-09:34/47 16:02 13:17-13:48/31
16	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:31 08:09-08:38/29 16:21	08:12 08:47-09:35/48 16:02 13:18-13:49/31
17	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 08:09-08:39/30 16:20	08:13 08:47-09:35/48 16:02 13:17-13:49/32
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 08:09-08:41/32 16:19	08:14 08:48-09:36/48 16:02 13:18-13:50/32
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 08:09-08:42/33 16:17	08:14 08:48-09:37/49 16:02 13:19-13:51/32
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 09:00-09:07/7 16:16	08:15 08:48-09:37/49 16:03 13:18-13:50/32
21	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 08:58-09:10/12 16:15	08:15 08:49-09:38/49 16:03 13:19-13:51/32
22	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 08:57-09:12/15 16:14	08:16 08:49-09:38/49 16:04 13:19-13:51/32
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 08:56-09:12/16 16:13	08:17 08:50-09:39/49 16:04 13:20-13:52/32
24	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 08:55-09:14/19 16:12	08:17 08:50-09:39/49 16:05 13:20-13:53/33
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:46 08:51-09:15/24 16:11	08:17 08:50-09:39/49 16:05 13:21-13:53/32
26	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 08:50-09:16/26 16:10	08:18 08:52-09:40/48 16:06 13:22-13:54/32
27	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 08:49-09:16/27 16:09	08:18 08:52-09:40/48 16:07 13:22-13:54/32
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 08:49-09:17/28 16:08	08:18 08:52-09:40/48 16:08 13:23-13:54/31
29	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 08:48-09:17/29 13:22-13:29/7 16:07	08:18 08:53-09:41/48 16:08 13:24-13:54/30
30	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:49	07:53 08:48-09:18/30 13:20-13:33/13 16:06	08:18 08:53-09:41/48 16:09 13:24-13:55/31
31	05:32 21:04	06:21 20:03		07:02 16:48		08:18 08:54-09:41/47 16:10 13:25-13:55/30
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	762	2395

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA14 - ENERCON E-70 E4 2000 71.0 !O! NH: 98,8 m (Ges:134,3 m) (214)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe
380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349
Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 15:07-15:23/16 16:11	07:52 16:59 17:50	06:59 17:50	06:49 07:11-07:16/5 19:44	05:45 06:09-06:17/8 20:34 19:54-20:06/12	05:00 21:19
2	08:18 15:07-15:23/16 16:12	07:50 17:01 17:52	06:57 17:52	06:47 07:09-07:17/8 19:45	05:43 06:07-06:17/10 20:36 19:54-20:07/13	04:59 21:21
3	08:18 15:07-15:24/17 16:14	07:49 17:03 17:54	06:55 17:54	06:44 07:07-07:16/9 19:47	05:41 06:05-06:17/12 20:37 19:54-20:09/15	04:58 21:22
4	08:18 15:08-15:25/17 16:15	07:47 17:04 17:55	06:53 17:55	06:42 07:05-07:16/11 19:49	05:39 06:06-06:18/12 20:39 19:54-20:10/16	04:57 21:23
5	08:18 15:07-15:25/18 16:16	07:46 17:06 17:57	06:50 17:57	06:40 07:03-07:14/11 19:50	05:37 06:05-06:18/13 20:41 19:55-20:12/17	04:57 21:24
6	08:17 15:08-15:27/19 16:17	07:44 17:08 17:59	06:48 17:59	06:38 07:02-07:14/12 19:52	05:35 06:05-06:17/12 20:42 19:56-20:13/17	04:56 21:25
7	08:17 15:08-15:27/19 16:18	07:42 17:10 18:01	06:46 18:01	06:35 07:03-07:13/10 19:54	05:34 06:06-06:16/10 20:44 20:01-20:14/13	04:55 21:26
8	08:17 15:09-15:28/19 16:20	07:41 17:12 18:02	06:44 18:02	06:33 07:03-07:12/9 19:55	05:32 06:07-06:16/9 20:46 20:02-20:17/15	04:55 21:26
9	08:16 15:09-15:28/19 16:21	07:39 17:14 18:04	06:41 18:04	06:31 07:05-07:11/6 19:57	05:30 06:08-06:14/6 20:47 20:02-20:16/14	04:54 21:27
10	08:16 15:09-15:28/19 16:22	07:37 17:15 18:06	06:39 18:06	06:29 19:59 20:49	05:28 20:04-20:16/12 20:50	04:54 21:28
11	08:15 15:10-15:29/19 16:24	07:35 17:17 18:08	06:37 18:08	06:26 20:00 20:50	05:27 20:07-20:15/8 20:52	04:54 21:29
12	08:14 15:10-15:30/20 16:25	07:33 17:19 18:09	06:35 18:09	06:24 20:02 20:52	05:25 20:07-20:13/6 20:53	04:53 21:29
13	08:14 15:10-15:30/20 16:27	07:32 17:21 18:11	06:32 18:11	06:22 20:04 20:53	05:23 20:52 21:00	04:53 21:30
14	08:13 15:11-15:30/19 16:28	07:30 17:23 18:13	06:30 18:13	06:20 20:06 20:55	05:22 20:55 21:01	04:53 21:31
15	08:12 15:11-15:30/19 16:30	07:28 17:25 18:15	06:28 18:15	06:18 06:41-06:42/1 20:07	05:20 20:57 21:00	04:53 21:31
16	08:11 15:12-15:30/18 16:31	07:26 17:26 18:16	06:26 18:16	06:15 06:38-06:42/4 20:09	05:19 20:58 21:01	04:53 21:32
17	08:11 15:13-15:30/17 16:33	07:24 17:28 18:18	06:23 18:18	06:13 06:36-06:42/6 20:11	05:17 21:00 21:01	04:52 21:32
18	08:10 15:14-15:30/16 16:35	07:22 17:30 18:20	06:21 18:20	06:11 06:34-06:43/9 20:12	05:16 21:01 21:02	04:52 21:33
19	08:09 15:15-15:30/15 16:36	07:20 17:32 18:22	06:19 18:22	06:09 06:32-06:42/10 20:14	05:14 21:02 21:03	04:52 21:33
20	08:08 15:15-15:29/14 16:38	07:18 17:34 18:23	06:16 18:23	06:07 06:30-06:42/12 20:16	05:13 21:04 21:05	04:53 21:33
21	08:07 15:17-15:28/11 16:39	07:16 17:36 18:25	06:14 18:25	06:05 06:28-06:42/14 20:17	05:12 21:05 21:06	04:53 21:34
22	08:05 15:19-15:27/8 16:41	07:14 17:37 18:27	06:12 18:27	06:03 06:27-06:41/14 20:19	05:10 21:07 21:08	04:53 21:34
23	08:04 15:23-15:25/2 16:43	07:12 17:39 18:28	06:10 18:28	06:01 06:27-06:40/13 20:21	05:09 21:08 21:09	04:53 21:34
24	08:03 16:45 16:46	07:10 17:41 18:30	06:07 18:30	05:58 06:27-06:39/12 20:22	05:08 21:10 21:11	04:53 21:34
25	08:02 16:46 16:48	07:08 17:43 18:32	06:05 18:32	05:56 06:28-06:38/10 20:24	05:07 21:11 21:12	04:54 21:34
26	08:01 16:48 16:50	07:05 17:45 18:33	06:03 18:33	05:54 06:28-06:37/9 20:26	05:06 21:12 21:13	04:54 21:34
27	07:59 16:52 16:53	07:03 17:46 18:35	06:00 18:35	05:52 06:30-06:34/4 20:27	05:05 21:13 21:14	04:55 21:34
28	07:58 16:52 16:54	07:01 17:48 18:37	05:58 18:37	05:50 19:57-20:01/4 20:29	05:03 21:15 21:16	04:55 21:34
29	07:56 16:53 16:55	06:56 19:39 19:40	05:56 19:40	05:48 19:55-20:02/7 20:31	05:02 21:16 21:17	04:56 21:34
30	07:55 16:55 16:57	06:53 19:40 19:42	05:53 19:42	05:47 06:11-06:16/5 20:32	05:01 21:17 21:18	04:56 21:34
31	07:54 16:57	06:51 07:14-07:16/2 19:42	05:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	377	0	2	225	250	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA14 - ENERCON E-70 E4 2000 71.0 !O! NH: 98,8 m (Ges:134,3 m) (214)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 20:17-20:24/7 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 14:52-15:12/20 16:06
2	04:57 21:33	05:34 20:17-20:26/9 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 14:52-15:11/19 16:05
3	04:58 21:33	05:36 20:13-20:26/13 20:59	06:25 07:02-07:08/6 19:56	07:14 18:47	07:08 16:42	07:57 14:53-15:12/19 16:04
4	04:59 21:32	05:38 06:18-06:25/7 20:57 20:12-20:27/15	06:27 07:00-07:09/9 19:54	07:16 18:44	07:09 16:40	07:59 14:53-15:12/19 16:04
5	05:00 21:32	05:39 06:16-06:25/9 20:55 20:11-20:25/14	06:29 06:59-07:09/10 19:51	07:17 18:42	07:11 16:38	08:00 14:53-15:12/19 16:03
6	05:01 21:31	05:41 06:16-06:27/11 20:53 20:07-20:24/17	06:30 06:58-07:10/12 19:49	07:19 18:40	07:13 16:37	08:01 14:54-15:13/19 16:03
7	05:01 21:31	05:42 06:15-06:27/12 20:52 20:05-20:22/17	06:32 06:59-07:10/11 19:47	07:21 18:38	07:15 16:35	08:03 14:54-15:13/19 16:03
8	05:02 21:30	05:44 06:15-06:27/12 20:50 20:04-20:21/17	06:33 06:59-07:10/11 19:44	07:22 18:35	07:17 16:33	08:04 14:55-15:12/17 16:02
9	05:03 21:29	05:45 06:14-06:27/13 20:48 20:03-20:19/16	06:35 07:01-07:11/10 19:42	07:24 18:33	07:18 16:32	08:05 14:56-15:13/17 16:02
10	05:04 21:29	05:47 06:15-06:27/12 20:46 20:03-20:18/15	06:37 07:02-07:10/8 19:40	07:26 18:31	07:20 16:30	08:06 14:57-15:13/16 16:02
11	05:05 21:28	05:48 06:16-06:26/10 20:44 20:02-20:15/13	06:38 07:04-07:09/5 19:38	07:27 18:29	07:22 16:29	08:07 14:57-15:14/17 16:02
12	05:06 21:27	05:50 06:18-06:25/7 20:42 20:03-20:14/11	06:40 07:05-07:08/3 19:35	07:29 18:27	07:24 16:27	08:08 14:58-15:14/16 16:01
13	05:07 21:26	05:52 06:19-06:23/4 20:40 20:03-20:12/9	06:41 19:33	07:31 18:24	07:25 16:26	08:09 14:59-15:14/15 16:01
14	05:09 21:25	05:53 20:04-20:10/6 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 14:59-15:14/15 16:01
15	05:10 21:24	05:55 20:05-20:08/3 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 15:00-15:14/14 16:01
16	05:11 21:23	05:56 06:37-06:43/6 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 15:01-15:15/14 16:02
17	05:12 21:22	05:58 06:35-06:44/9 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 15:01-15:14/13 16:02
18	05:13 21:21	06:00 06:34-06:45/11 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:14 15:02-15:15/13 16:02
19	05:15 21:20	06:01 06:33-06:45/12 20:28	06:51 19:19	07:41 18:11	07:36 14:57-14:59/2 16:17	08:14 15:03-15:16/13 16:02
20	05:16 21:19	06:03 06:33-06:46/13 20:26	06:53 19:17	07:43 18:09	07:37 14:54-15:02/8 16:16	08:15 15:03-15:15/12 16:03
21	05:17 21:18	06:04 06:32-06:46/14 20:24	06:54 19:14	07:45 18:07	07:39 14:53-15:04/11 16:15	08:15 15:04-15:16/12 16:03
22	05:19 21:16	06:06 06:33-06:46/13 20:22	06:56 19:12	07:46 18:05	07:41 14:52-15:06/14 16:14	08:16 15:04-15:16/12 16:03
23	05:20 21:15	06:08 06:34-06:46/12 20:20	06:58 19:10	07:48 18:03	07:42 14:51-15:06/15 16:13	08:17 15:05-15:17/12 16:04
24	05:21 21:14	06:09 06:36-06:46/10 20:18	06:59 19:07	07:50 18:01	07:44 14:51-15:07/16 16:12	08:17 15:05-15:18/13 16:05
25	05:23 21:12	06:11 06:37-06:46/9 20:16	07:01 19:05	06:52 16:59	07:46 14:51-15:08/17 16:11	08:17 15:05-15:18/13 16:05
26	05:24 21:11	06:13 06:39-06:45/6 20:14	07:03 19:03	06:53 16:57	07:47 14:50-15:08/18 16:10	08:18 15:06-15:19/13 16:06
27	05:26 21:10	06:14 06:41-06:45/4 20:11	07:04 19:01	06:55 16:55	07:49 14:50-15:09/19 16:09	08:18 15:06-15:20/14 16:07
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 14:51-15:10/19 16:08	08:18 15:06-15:20/14 16:07
29	05:28 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 14:50-15:10/20 16:07	08:18 15:06-15:21/15 16:08
30	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 14:51-15:11/20 16:06	08:18 15:07-15:22/15 16:09
31	05:31 20:20-20:23/3 21:04	06:21 20:03		07:02 16:47		08:18 15:07-15:22/15 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	3	398	85	0	179	474

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang-Zeitpunkt (SS:MM) Schattenende/Minuten mit Schatten	Zeitpunkt (SS:MM) Schattenanfang-Zeitpunkt (SS:MM) Schattenende/Minuten mit Schatten
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Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA15 - ENERCON E-70 E4 2000 71.0 !O! NH: 98,2 m (Ges:133,7 m) (215)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19
2	08:18 16:12	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 16:14	07:49 17:03	16:14-16:18/4 17:54	06:55 19:47	06:05-06:12/7 20:37	04:58 21:22
4	08:18 16:15	07:47 17:04	16:10-16:21/11 17:55	06:53 19:49	06:04-06:13/9 20:39	04:57 21:23
5	08:18 16:16	07:46 17:06	16:08-16:23/15 17:57	06:50 19:50	06:02-06:12/10 20:41	04:57 21:24
6	08:18 16:17	07:44 17:08	16:07-16:24/17 17:59	06:48 19:52	06:00-06:11/11 20:42	04:56 21:25
7	08:17 16:18	07:42 17:10	16:07-16:26/19 18:01	06:46 19:54	05:58-06:11/13 20:44	04:55 21:26
8	08:17 16:20	07:41 17:12	16:06-16:26/20 18:02	06:44 19:55	05:57-06:09/12 20:46	04:55 21:26
9	08:16 16:21	07:39 17:14	16:06-16:27/21 18:04	06:41 19:57	05:55-06:08/13 20:47	04:54 21:27
10	08:16 16:22	07:37 17:15	16:05-16:27/22 18:06	06:39 19:59	05:54-06:08/14 20:49	04:54 21:28
11	08:15 16:24	07:35 17:17	16:05-16:27/22 18:08	06:37 20:00	05:52-06:07/15 20:50	04:54 21:29
12	08:15 16:25	07:33 17:19	16:05-16:27/22 18:09	06:35 20:02	05:52-06:06/14 20:52	04:53 21:29
13	08:14 16:27	07:32 17:21	16:06-16:27/21 18:11	06:32 20:04	05:52-06:04/12 20:53	04:53 21:30
14	08:13 16:28	07:30 17:23	16:06-16:26/20 18:13	06:30 20:06	05:52-06:04/12 20:55	04:53 21:31
15	08:12 16:30	07:28 17:25	16:07-16:26/19 18:15	06:28 20:07	05:52-06:03/11 20:57	04:53 21:31
16	08:11 16:31	07:26 17:26	16:08-16:25/17 18:16	06:26 20:09	05:53-06:03/10 20:58	04:53 21:32
17	08:11 16:33	07:24 17:28	16:09-16:24/15 18:18	06:23 20:11	05:54-06:03/9 21:00	04:52 21:32
18	08:10 16:34	07:22 17:30	16:11-16:22/11 18:20	06:21 20:12	05:55-06:00/5 21:01	04:52 21:33
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:54-06:04/12 21:03	04:52 21:33
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:53-06:04/11 21:04	04:53 21:33
21	08:07 16:39	07:16 17:36	06:14 18:25	06:05 20:17	05:53-06:04/13 21:05	04:53 21:34
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:53-06:04/12 21:07	04:53 21:34
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:53-06:04/12 21:08	04:53 21:34
24	08:03 16:45	07:10 17:41	06:07 18:30	05:58 20:22	05:53-06:04/12 21:10	04:53 21:34
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:53-06:04/12 21:11	04:54 21:34
26	08:01 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:53-06:04/12 21:12	04:54 21:34
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:53-06:04/12 21:13	04:55 21:34
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:53-06:04/12 21:15	04:55 21:34
29	07:56 16:53		06:56 19:39	05:48 20:31	05:53-06:04/12 21:16	04:56 21:34
30	07:55 16:55		06:53 19:40	05:47 20:32	05:53-06:04/12 21:17	04:56 21:34
31	07:54 16:57		06:51 19:42		05:53-06:04/12 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	0	276	0	118	427	62

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA15 - ENERCON E-70 E4 2000 71.0 !O! NH: 98,2 m (Ges:133,7 m) (215)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember	
1	04:57	21:33	05:33	06:03-06:17/14	06:22	07:11	07:04	15:35-15:57/22	07:55			
2	04:57	21:33	05:34	06:03-06:18/15	06:24	07:12	07:06	15:36-15:56/20	07:56			
3	04:58	21:33	05:36	06:04-06:18/14	06:25	07:14	07:08	15:36-15:56/20	07:57			
4	04:59	21:32	05:37	06:06-06:19/13	06:27	07:16	07:09	15:36-15:54/18	07:59			
5	05:00	05:44-05:48/4	05:39	06:07-06:18/11	06:29	07:17	07:11	15:37-15:54/17	08:00			
6	05:01	05:43-05:49/6	05:41	06:09-06:20/11	06:30	07:19	07:13	15:38-15:52/14	08:01			
7	05:01	05:43-05:50/7	05:42	06:10-06:21/11	06:32	07:21	07:15	15:40-15:51/11	08:03			
8	05:02	05:42-05:51/9	05:44	06:12-06:22/10	06:33	07:22	07:17	15:44-15:47/3	08:04			
9	05:03	05:42-05:52/10	05:45	06:13-06:21/8	06:35	07:24	07:18		08:05			
10	05:04	05:42-05:52/10	05:47	06:15-06:21/6	06:37	07:26	07:20		08:06			
11	05:05	05:42-05:53/11	05:48	06:16-06:20/4	06:38	07:27	07:22		08:07			
12	05:06	05:42-05:53/11	05:50	06:18-06:20/2	06:40	07:29	07:24		08:08			
13	05:07	05:42-05:53/11	05:52		06:41	07:31	07:25		08:09			
14	05:09	05:42-05:54/12	05:53		06:43	07:33	07:27		08:10			
15	05:10	05:41-05:54/13	05:55		06:45	07:34	07:29		08:11			
16	05:11	05:41-05:54/13	05:56		06:46	07:36	07:31		08:12			
17	05:12	05:42-05:54/12	05:58	06:36-06:42/6	06:48	07:38	07:32		08:13			
18	05:13	05:43-05:53/10	06:00	06:35-06:44/9	06:50	07:39	07:34		08:14			
19	05:15	05:44-05:53/9	06:01	06:33-06:44/11	06:51	07:41	07:36		08:14			
20	05:16	05:46-05:54/8	06:03	06:33-06:45/12	06:53	07:43	07:37		08:15			
21	05:17	05:47-05:53/6	06:04	06:32-06:44/12	06:54	07:45	07:39		08:15			
22	05:19	05:48-05:52/4	06:06	06:33-06:46/13	06:56	07:46	07:41		08:16			
23	05:20	05:49-05:50/1	06:08	06:34-06:45/11	06:58	07:48	16:44-16:50/6	07:42	08:17			
24	05:21	20:31-20:44/13	06:09	06:36-06:47/11	06:59	07:50	16:40-16:52/12	07:44	08:17			
25	05:23	06:07-06:10/3	06:11	06:37-06:48/11	07:01	06:52	15:38-15:53/15	07:46	08:17			
26	05:24	06:05-06:12/7	06:13	06:39-06:48/9	07:03	06:53	15:37-15:55/18	07:47	08:18			
27	05:26	06:04-06:13/9	06:14	06:41-06:48/7	07:04	06:55	15:36-15:56/20	07:49	08:18			
28	05:27	06:03-06:14/11	06:16	06:42-06:47/5	07:06	06:57	15:35-15:56/21	07:50	08:18			
29	05:28	06:02-06:14/12	06:17	06:44-06:46/2	07:07	06:59	15:35-15:56/21	07:52	08:18			
30	05:30	06:03-06:15/12	06:19		07:09	07:00	15:35-15:57/22	07:53	08:18			
31	05:31	06:02-06:15/13	06:21			07:02	15:35-15:57/22		08:18			
Sonnenscheinstunden		501	453		381	332	267	245				
Anzahl Minuten mit Schatten		377	238	0	157	125	0					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA16 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (216)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	19:42-20:00/18 05:00 05:51-06:10/19	
2	08:18 16:12	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	19:42-19:59/17 04:59 05:51-06:10/19	
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	19:44-19:58/14 21:21 20:31-20:42/11	
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	19:47-19:57/10 04:57 05:51-06:11/20	
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	19:49-19:57/8 21:23 20:32-20:42/10	
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	19:50-19:54/4 04:56 05:52-06:11/19	
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	06:58-07:10/12 21:25 20:33-20:41/8	
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	05:32 20:46	06:56-07:10/14 04:55 05:53-06:12/19	
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	06:56-07:10/14 21:27 20:36-20:40/4	
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	06:55-07:09/14 04:54 05:54-06:12/18	
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	06:56-07:08/12 21:28 20:36-20:39/3	
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	07:01-07:06/5 04:54 05:53-06:11/18	
13	08:14 16:27	07:32 17:21	06:32 18:11	06:22 20:04	05:23 20:53	06:59-07:00/1 21:29 05:54-06:12/18	
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	06:58-07:09/11 04:53 05:55-06:12/17	
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	06:42-06:49/7 21:31 05:56-06:12/16	
16	08:11 16:31	07:26 17:26	06:26 18:16	06:15 20:09	05:19 20:58	06:39-06:49/10 04:53 05:56-06:12/16	
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	06:38-06:49/11 21:32 05:56-06:12/16	
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	06:38-06:50/12 04:52 05:56-06:13/17	
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:14 21:02	06:38-06:49/11 04:52 05:56-06:13/17	
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	06:38-06:49/11 04:53 05:56-06:13/17	
21	08:07 16:39	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	06:39-06:47/8 04:53 05:56-06:13/17	
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:10 21:07	06:41-06:45/4 04:53 05:56-06:13/17	
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	06:32-06:38/6 04:53 05:57-06:14/17	
24	08:03 16:45	07:10 17:41	06:07 18:30	05:58 20:22	05:08 21:10	06:31-06:39/8 04:53 05:57-06:14/17	
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	06:30-06:40/10 04:54 05:57-06:13/16	
26	08:01 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	06:29-06:39/10 04:54 05:58-06:14/16	
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:05 21:13	06:29-06:39/10 04:55 05:57-06:14/17	
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:03 21:15	06:30-06:38/8 04:55 05:58-06:15/17	
29	07:56 16:53		06:56 19:39	05:48 20:31	05:02 21:16	07:32-07:34/2 04:56 05:58-06:15/17	
30	07:55 16:55		06:53 19:40	05:47 20:32	05:02 21:17		04:56 05:58-06:16/18
31	07:54 16:57		06:51 19:42		05:01 21:18		
Sonnenscheinstunden	260	278	367	416	484	498	
Anzahl Minuten mit Schatten	0	0	54	367	344	608	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA16 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (216)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember	
1	04:57	05:58-06:15/17	05:33	21:02	06:22	06:55-07:07/12	07:11	07:04	07:55			
	21:33		21:02		20:00		18:51	16:46	16:06			
2	04:57	05:58-06:16/18	05:34	21:00	06:24	06:54-07:08/14	07:12	07:06	07:56			
	21:33		21:00		19:58		18:49	16:44	16:05			
3	04:58	05:58-06:17/19	05:36	20:59	06:25	06:53-07:07/14	07:14	07:08	07:57			
	21:33	20:41-20:45/4	20:59		19:56		18:47	16:42	16:04			
4	04:59	05:58-06:16/18	05:38	20:57	06:27	06:53-07:07/14	07:16	07:09	07:59			
	21:32	20:40-20:45/5	20:57		19:54		18:44	16:40	16:04			
5	05:00	05:58-06:17/19	05:39	20:55	06:29	06:54-07:06/12	07:17	07:11	08:00			
	21:32	20:40-20:47/7	20:55		19:51		18:42	16:38	16:03			
6	05:01	05:58-06:17/19	05:41	20:50	06:30	06:56-07:06/10	07:19	07:13	08:01			
	21:31	20:40-20:47/7	20:53		19:49		18:40	16:37	16:03			
7	05:01	05:58-06:18/20	05:42	19:59-20:05/6	06:32	06:58-07:05/7	07:21	07:15	08:03			
	21:31	20:40-20:48/8	20:52		19:47		18:38	16:35	16:03			
8	05:02	05:59-06:18/19	05:44	19:58-20:07/9	06:33	06:59-07:02/3	07:22	07:17	08:04			
	21:30	20:39-20:49/10	20:50		19:44		18:35	16:33	16:02			
9	05:03	05:59-06:18/19	05:45	19:56-20:07/11	06:35		07:24	07:18	08:05			
	21:29	20:39-20:49/10	20:48		19:42		18:33	16:32	16:02			
10	05:04	05:59-06:19/20	05:47	19:53-20:08/15	06:37		07:26	07:20	08:06			
	21:29	20:38-20:49/11	20:46		19:40		18:31	16:30	16:02			
11	05:05	05:59-06:19/20	05:48	19:51-20:08/17	06:38		07:27	07:22	08:07			
	21:28	20:38-20:49/11	20:44		19:38		18:29	16:29	16:02			
12	05:06	05:59-06:19/20	05:50	19:50-20:08/18	06:40		07:29	07:24	08:08			
	21:27	20:38-20:50/12	20:42		19:35		18:27	16:27	16:01			
13	05:07	06:00-06:19/19	05:52	19:49-20:07/18	06:41		07:31	07:25	08:09			
	21:26	20:39-20:51/12	20:40		19:33		18:24	16:26	16:01			
14	05:09	06:00-06:19/19	05:53	19:43-20:07/24	06:43		07:33	07:27	08:10			
	21:25	20:39-20:51/12	20:38		19:31		18:22	16:24	16:01			
15	05:10	06:00-06:19/19	05:55	19:41-20:05/24	06:45	07:20-07:27/7	07:34	07:29	08:11			
	21:24	20:40-20:51/11	20:36		19:28		18:20	16:23	16:01			
16	05:11	06:00-06:19/19	05:56	19:40-20:04/24	06:46	07:19-07:28/9	07:36	07:31	08:12			
	21:23	20:40-20:51/11	20:34		19:26		18:18	16:21	16:02			
17	05:12	06:00-06:18/18	05:58	19:38-20:00/22	06:48	07:17-07:28/11	07:38	07:32	08:13			
	21:22	20:40-20:50/10	20:32		19:24		18:16	16:20	16:02			
18	05:13	06:01-06:18/17	06:00	19:38-19:59/21	06:50	07:17-07:28/11	07:39	07:34	08:14			
	21:21	20:40-20:49/9	20:30		19:21		18:14	16:19	16:02			
19	05:15	06:01-06:17/16	06:01	19:37-19:57/20	06:51	07:17-07:26/9	07:41	07:36	08:14			
	21:20	20:41-20:48/7	20:28		19:19		18:11	16:17	16:02			
20	05:16	06:03-06:18/15	06:03	19:38-19:51/13	06:53	07:18-07:25/7	07:43	07:37	08:15			
	21:19	20:41-20:47/6	20:26		19:17		18:09	16:16	16:03			
21	05:17	06:03-06:17/14	06:04	06:45-06:50/5	06:54		07:45	07:39	08:15			
	21:18	20:44-20:47/3	20:24	19:38-19:50/12	19:14		18:07	16:15	16:03			
22	05:19	06:04-06:15/11	06:06	06:44-06:52/8	06:56		07:46	07:41	08:16			
	21:16		20:22	19:39-19:50/11	19:12		18:05	16:14	16:03			
23	05:20	06:05-06:14/9	06:08	06:42-06:52/10	06:58		07:48	07:42	08:17			
	21:15		20:20	19:39-19:47/8	19:10		18:03	16:13	16:04			
24	05:21	06:09-06:12/3	06:09	06:42-06:53/11	06:59		07:50	07:44	08:17			
	21:14		20:18		19:07		18:01	16:12	16:05			
25	05:23		06:11	06:41-06:52/11	07:01		06:52	07:46	08:17			
	21:12		20:16		19:05		16:59	16:11	16:05			
26	05:24		06:13	06:41-06:52/11	07:03		06:53	07:47	08:18			
	21:11		20:14		19:03		16:57	16:10	16:06			
27	05:26		06:14	06:42-06:52/10	07:04		06:55	07:49	08:18			
	21:10		20:11		19:01		16:55	16:09	16:07			
28	05:27		06:16	06:43-06:50/7	07:06		06:57	07:50	08:18			
	21:08		20:09		18:58		16:53	16:08	16:07			
29	05:28		06:17		07:07		06:59	07:52	08:18			
	21:07		20:07		18:56		16:51	16:07	16:08			
30	05:30		06:19		07:09		07:00	07:53	08:18			
	21:05		20:05		18:54		16:49	16:06	16:09			
31	05:31		06:21	06:58-07:06/8			07:02		08:18			
	21:03		20:03				16:47		16:10			
Sonnenscheinstunden	501		453		381		332		267		245	
Anzahl Minuten mit Schatten	573		354		140		0		0		0	

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA17 - ENERCON E-70 E4 2000 71.0 !O! NH: 100,0 m (Ges:135,5 m) (217)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:04
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	08:48-08:49/1 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	08:47-08:50/3 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	08:47-08:51/4 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	08:46-08:52/6 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	08:45-08:52/7 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	08:45-08:53/8 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	08:44-08:54/10 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:01
13	08:14 16:27	08:43-08:54/11 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	08:43-08:54/11 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	08:44-08:54/10 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	08:45-08:54/9 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	08:45-08:54/9 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	08:47-08:54/7 17:22	06:21 18:21	06:11 20:12	05:16 21:01	04:53 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	08:48-08:53/5 17:30	06:19 18:20	06:09 20:12	05:14 21:01	04:53 21:33	05:15 21:21	06:01 20:30	06:51 19:21	07:41 18:14	07:36 16:19	08:14 16:02
20	08:08 16:38	08:08 17:32	06:16 18:22	06:07 20:14	05:13 21:02	04:53 21:33	05:16 21:20	06:03 20:28	06:53 19:19	07:43 18:11	07:37 16:17	08:15 16:02
21	08:06 16:40	08:06 17:34	06:14 18:23	06:05 20:16	05:12 21:04	04:53 21:33	05:17 21:19	06:04 20:26	06:54 19:17	07:45 18:09	07:39 16:16	08:15 16:03
22	08:05 16:41	08:05 17:36	06:12 18:25	06:03 20:17	05:10 21:05	04:53 21:34	05:19 21:18	06:06 20:24	06:56 19:14	07:46 18:07	07:41 16:15	08:16 16:03
23	08:04 16:43	08:04 17:37	06:10 18:27	06:01 20:19	05:09 21:07	04:53 21:34	05:20 21:16	06:08 20:22	06:58 19:12	07:48 18:05	07:42 16:14	08:16 16:04
24	08:03 16:45	08:03 17:39	06:07 18:28	05:59 20:21	05:08 21:08	04:53 21:34	05:21 21:15	06:09 20:20	06:59 19:10	07:50 18:03	07:44 16:13	08:17 16:04
25	08:02 16:46	08:02 17:41	06:05 18:30	05:56 20:22	05:07 21:09	04:54 21:34	05:23 21:14	06:11 20:18	07:01 19:07	06:52 18:01	07:45 16:12	08:17 16:05
26	08:00 16:48	08:00 17:43	06:03 18:32	05:54 20:24	05:06 21:11	04:54 21:34	05:24 21:12	06:13 20:16	07:03 19:05	06:53 16:59	07:47 16:11	08:18 16:05
27	07:59 16:50	07:59 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:10	08:18 16:07
28	07:58 16:52	07:58 17:47	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:53	07:56 17:48	05:56 18:39	05:48 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55	07:55 17:48	05:54 18:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57	07:53 17:48	05:51 19:42	05:01 21:18	05:01 21:18	05:31 21:03	06:21 20:03	06:21 20:03	07:02 16:48	07:02 16:48	07:02 16:48	08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	101	0	0	0	0	0	0	0	0	0	71	30

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA18 - ENERCON E-70 E4 2000 71.0 !O! NH: 98,0 m (Ges:133,5 m) (218)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:04
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:01
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:53		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:31 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA19 - ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (219)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 08:52-08:55/3	07:52	06:59	06:49	05:45	05:00
	16:11 15:12-15:33/21	16:59	17:50	19:44	20:34	21:19
2	08:18 08:50-08:56/6	07:50	06:57	06:47	05:43	04:59
	16:13 15:13-15:34/21	17:01	17:52	19:45	20:36	21:20
3	08:18 08:50-08:57/7	07:49	06:55	06:44	05:41	04:58
	16:14 15:14-15:35/21	17:03	17:54	19:47	20:37	21:22
4	08:18 08:51-08:59/8	07:47 16:26-16:30/4	06:53	06:42	05:39	04:57
	16:15 15:15-15:36/21	17:04	17:55	19:49	20:39	21:23
5	08:18 08:50-08:59/9	07:46 16:24-16:32/8	06:50	06:40	05:37	04:57
	16:16 15:15-15:36/21	17:06	17:57	19:50	20:41	21:24
6	08:17 08:51-09:00/9	07:44 16:22-16:33/11	06:48	06:38	05:35	04:56
	16:17 15:17-15:37/20	17:08	17:59	19:52	20:42	21:24
7	08:17 08:50-09:01/11	07:42 16:22-16:34/12	06:46	06:35	05:34	04:56
	16:18 15:17-15:37/20	17:10	18:01	19:54	20:44	21:25
8	08:17 08:51-09:02/11 15:26-15:38/12	07:41 16:22-16:35/13	06:44	06:33	05:32	04:55
	16:20 15:19-15:25/6	17:12	18:02	19:55	20:45	21:26
9	08:16 08:51-09:02/11 15:26-15:38/12	07:39 16:22-16:35/13	06:41	06:31	05:30	04:55
	16:21 15:20-15:23/3	17:14	18:04	19:57	20:47	21:27
10	08:16 08:51-09:02/11	07:37 16:22-16:35/13	06:39	06:29	05:28	04:54
	16:22 15:26-15:38/12	17:15	18:06	19:59	20:49	21:28
11	08:15 08:52-09:04/12	07:35 16:23-16:35/12	06:37	06:26	05:27	04:54
	16:24 15:26-15:38/12	17:17	18:08	20:00	20:50	21:29
12	08:14 08:52-09:04/12	07:33 16:24-16:34/10	06:35	06:24	05:25	04:53
	16:25 15:28-15:39/11	17:19	18:09	20:02	20:52	21:29
13	08:14 08:52-09:04/12	07:31 16:25-16:32/7	06:32	06:22	05:23	04:53
	16:27 15:28-15:39/11	17:21	18:11	20:04	20:53	21:30
14	08:13 08:53-09:04/11	07:30	06:30	06:20	05:22	04:53
	16:28 15:29-15:38/9	17:23	18:13	20:05	20:55	21:31
15	08:12 08:54-09:04/10	07:28	06:28	06:18	05:20	04:53
	16:30 15:30-15:38/8	17:25	18:15	20:07	20:56	21:31
16	08:11 08:54-09:04/10	07:26	06:26	06:15	05:19	04:53
	16:31 15:32-15:37/5	17:27	18:16	20:09	20:58	21:32
17	08:10 08:56-09:03/7	07:24	06:23	06:13	05:17	04:53
	16:33	17:28	18:18	20:11	20:59	21:32
18	08:10 08:57-09:03/6	07:22	06:21	06:11	05:16	04:53
	16:35	17:30	18:20	20:12	21:01	21:33
19	08:09	07:20	06:19	06:09	05:14	04:53
	16:36	17:32	18:21	20:14	21:02	21:33
20	08:08	07:18	06:16	06:07	05:13	04:53
	16:38	17:34	18:23	20:16	21:04	21:33
21	08:06	07:16	06:14	06:05	05:12	04:53
	16:39	17:36	18:25	20:17	21:05	21:33
22	08:05	07:14	06:12	06:03	05:10	04:53
	16:41	17:37	18:27	20:19	21:07	21:34
23	08:04	07:12	06:10	06:01	05:09	04:53
	16:43	17:39	18:28	20:21	21:08	21:34
24	08:03	07:10	06:07	05:58	05:08	04:53
	16:45	17:41	18:30	20:22	21:09	21:34
25	08:02	07:08	06:05	05:56	05:07	04:54
	16:46	17:43	18:32	20:24	21:11	21:34
26	08:00	07:05	06:03	05:54	05:06	04:54
	16:48	17:45	18:33	20:26	21:12	21:34
27	07:59	07:03	06:00	05:52	05:05	04:55
	16:50	17:46	18:35	20:27	21:13	21:34
28	07:58	07:01	05:58	05:50	05:04	04:55
	16:52	17:48	18:37	20:29	21:15	21:34
29	07:56		06:56	05:48	05:03	04:56
	16:53		19:38	20:31	21:16	21:34
30	07:55		06:53	05:47	05:02	04:56
	16:55		19:40	20:32	21:17	21:34
31	07:53		06:51		05:01	
	16:57		19:42		21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	412	103	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA19 - ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (219)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember	
1	04:57	21:33	05:33	21:02	06:22	20:00	07:11	18:51	07:04	15:52-16:05/13	07:55	08:34-08:46/12
2	04:58	21:33	05:34	21:00	06:24	19:58	07:12	18:49	07:06	15:52-16:05/13	07:56	08:34-08:45/11
3	04:58	21:33	05:36	20:59	06:25	19:56	07:14	18:47	07:08	15:51-16:04/13	07:57	08:35-08:46/11
4	04:59	21:32	05:38	20:57	06:27	19:54	07:16	18:44	07:09	15:51-16:04/13	07:59	08:35-08:46/11
5	05:00	21:32	05:39	20:55	06:29	19:51	07:17	18:42	07:11	15:52-16:03/11	08:00	08:35-08:46/11
6	05:01	21:31	05:41	20:53	06:30	19:49	07:19	18:40	07:13	15:54-16:02/8	08:01	08:37-08:46/9
7	05:01	21:31	05:42	20:52	06:32	19:47	07:21	18:38	07:15	15:56-16:00/4	08:03	08:37-08:46/9
8	05:02	21:30	05:44	20:50	06:33	19:44	07:22	18:35	07:16		08:04	08:38-08:46/8
9	05:03	21:29	05:45	20:48	06:35	19:42	07:24	18:33	07:18		08:05	08:40-08:47/7
10	05:04	21:29	05:47	20:46	06:37	19:40	07:26	18:31	07:20		08:06	08:40-08:46/6
11	05:05	21:28	05:48	20:44	06:38	19:38	07:27	18:29	07:22		08:07	08:42-08:46/4
12	05:06	21:27	05:50	20:42	06:40	19:35	07:29	18:27	07:24		08:08	08:43-08:45/2
13	05:08	21:26	05:52	20:40	06:41	19:33	07:31	18:24	07:25		08:09	15:04-15:24/20
14	05:09	21:25	05:53	20:38	06:43	19:31	07:32	18:22	07:27		08:10	15:04-15:25/21
15	05:10	21:24	05:55	20:36	06:45	19:28	07:34	18:20	07:29		08:11	15:05-15:25/20
16	05:11	21:23	05:56	20:34	06:46	19:26	07:36	18:18	07:30		08:12	15:04-15:24/20
17	05:12	21:22	05:58	20:32	06:48	19:24	07:38	18:16	07:32		08:13	15:05-15:25/20
18	05:13	21:21	06:00	20:30	06:50	19:21	07:39	18:14	07:34		08:13	15:06-15:25/19
19	05:15	21:20	06:01	20:28	06:51	19:19	07:41	18:11	07:36		08:14	15:07-15:26/19
20	05:16	21:19	06:03	20:26	06:53	19:17	07:43	18:09	07:37		08:15	15:06-15:26/20
21	05:17	21:18	06:04	20:24	06:54	19:14	07:45	18:07	07:39		08:15	15:07-15:27/20
22	05:19	21:16	06:06	20:22	06:56	19:12	07:46	18:05	07:41		08:16	15:07-15:26/19
23	05:20	21:15	06:08	20:20	06:58	19:10	07:48	18:03	07:42		08:16	15:08-15:28/20
24	05:21	21:14	06:09	20:18	06:59	19:07	07:50	18:01	07:44	08:34-08:40/6	08:17	15:09-15:28/19
25	05:23	21:12	06:11	20:16	07:01	19:05	06:52	16:59	07:45	08:34-08:41/7	08:17	15:09-15:28/19
26	05:24	21:11	06:13	20:13	07:02	19:03	06:53	16:57	07:47	08:33-08:42/9	08:18	15:09-15:29/20
27	05:26	21:10	06:14	20:11	07:04	19:00	06:55	16:55	07:49	08:33-08:43/10	08:18	15:10-15:30/20
28	05:27	21:08	06:16	20:09	07:06	18:58	06:57	16:53	07:50	08:33-08:44/11	08:18	15:11-15:31/20
29	05:28	21:07	06:17	20:07	07:07	18:56	06:59	16:51	07:52	08:33-08:44/11	08:18	15:11-15:31/20
30	05:30	21:05	06:19	20:05	07:09	18:54	07:00	16:49	07:53	08:33-08:45/12	08:18	15:12-15:32/20
31	05:31	21:03	06:21	20:03			07:02	16:48	07:52	15:52-16:04/12	08:18	15:12-15:33/21
Sonnenscheinstunden		501	453		381	332		267			245	
Anzahl Minuten mit Schatten		0	0	0	31	184	699					

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA20 - ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (220)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 09:05-09:12/7 16:11 16:59	07:52 06:59 17:06 17:50		06:49 05:45 19:44 20:34	05:00 04:57 21:19 21:33	05:33 06:22 21:02 20:00	07:11 16:46 18:51 16:06				07:04 16:46 16:06 16:06	07:55 08:47-09:03/16 16:06 16:06
2	08:18 09:04-09:13/9 16:13 17:01	07:50 06:57 17:01 17:52		06:47 05:43 19:45 20:36	05:43 04:58 21:20 21:33	05:34 06:24 21:00 21:00	07:12 16:44 18:49 16:05				07:06 16:44 16:05 16:05	07:56 08:47-09:03/16 16:05 16:05
3	08:18 09:04-09:14/10 16:14 17:03	07:49 06:55 17:03 17:54		06:44 05:41 19:47 20:37	04:58 04:57 21:22 21:33	05:36 06:25 21:33 20:59	07:14 18:02-18:08/6 18:47 16:42				07:08 16:42 16:04 16:04	07:57 08:48-09:04/16 16:04 16:04
4	08:18 09:05-09:16/11 16:15 17:04	07:47 06:53 17:04 17:55		06:42 05:39 19:49 20:39	04:57 04:57 21:23 21:32	05:38 06:27 21:32 20:57	07:16 18:00-18:09/9 18:44 16:40				07:09 16:40 16:04 16:04	07:59 08:49-09:03/14 16:04 16:04
5	08:18 09:04-09:16/12 16:16 17:06	07:46 06:50 17:06 17:57	17:24-17:31/7	06:40 05:37 19:50 20:41	04:57 04:57 21:24 21:32	05:39 06:29 21:32 20:55	07:17 17:58-18:09/11 18:42 16:39				07:11 16:39 16:03 16:03	08:00 08:49-09:03/14 16:03 16:03
6	08:17 09:04-09:17/13 16:17 17:08	07:44 06:48 17:08 17:59	17:23-17:32/9	06:38 05:35 19:52 20:42	04:56 05:01 21:25 21:31	05:41 06:30 21:31 20:53	07:19 17:58-18:09/11 18:40 16:37				07:13 16:37 16:03 16:03	08:01 08:50-09:03/13 16:03 16:03
7	08:17 09:04-09:18/14 16:18 17:10	07:42 06:46 17:10 18:01	17:22-17:33/11	06:35 05:34 19:54 20:44	04:56 05:01 21:25 21:31	05:42 06:32 21:31 20:52	07:21 17:59-18:09/10 18:38 16:35				07:15 16:35 16:03 16:03	08:03 08:51-09:03/12 16:03 16:03
8	08:17 09:05-09:19/14 16:20 17:12	07:41 06:44 17:12 18:02	17:22-17:33/11	06:33 05:32 19:55 20:45	04:55 05:02 21:26 21:30	05:44 06:33 21:30 20:50	07:22 17:59-18:08/9 18:35 16:33				07:16 16:33 16:02 16:02	08:04 08:52-09:03/11 16:02 16:02
9	08:16 09:04-09:19/15 16:21 17:14	07:39 06:41 17:14 18:04	17:22-17:32/10	06:31 05:30 19:57 20:47	04:55 05:03 21:27 21:29	05:45 06:35 21:29 20:48	07:24 18:00-18:05/5 18:33 16:32				07:18 16:32 16:02 16:02	08:05 08:54-09:03/9 16:02 16:02
10	08:16 09:04-09:20/16 16:22 17:15	07:37 06:39 17:15 18:06	17:23-17:31/8	06:29 05:28 19:59 20:49	04:54 05:04 21:28 21:29	05:47 06:37 21:29 20:46	07:26 18:00-18:05/5 18:31 16:30				07:20 16:30 16:02 16:02	08:06 08:54-09:03/9 16:02 16:02
11	08:15 09:05-09:21/16 16:24 17:17	07:35 06:37 17:17 18:08	17:26-17:28/2	06:26 05:27 20:00 20:50	04:54 05:05 21:29 21:28	05:48 06:38 21:28 20:44	07:27 18:00-18:05/5 18:29 16:29				07:22 16:29 16:02 16:02	08:07 08:55-09:03/8 16:02 16:02
12	08:14 09:05-09:22/17 16:25 17:19	07:33 06:35 17:19 18:09		06:24 05:25 20:02 20:52	04:53 05:06 21:29 21:27	05:50 06:40 21:27 20:42	07:29 18:00-18:05/5 18:27 16:27				07:24 16:27 16:01 16:01	08:08 08:57-09:02/5 16:01 16:01
13	08:14 09:05-09:22/17 16:27 17:21	07:32 06:32 17:21 18:11		06:22 05:23 20:04 20:53	04:53 05:08 21:30 21:26	05:52 06:42 21:26 20:40	07:31 18:00-18:05/5 18:24 16:26				07:25 16:26 16:01 16:01	08:09 08:58-09:01/3 16:01 16:01
14	08:13 09:05-09:22/17 16:28 17:23	07:30 06:30 17:23 18:13		06:20 05:22 20:06 20:55	04:53 05:09 21:31 21:25	05:53 06:43 21:25 20:38	07:33 18:00-18:05/5 18:22 16:24				07:27 16:24 16:01 16:01	08:10 08:59-09:01/3 16:01 16:01
15	08:12 09:06-09:23/17 16:30 17:25	07:28 06:28 17:25 18:15		06:18 05:20 20:07 20:56	04:53 05:10 21:31 21:24	05:55 06:45 21:24 20:36	07:34 18:00-18:05/5 18:20 16:23				07:29 16:23 16:01 16:01	08:11 08:59-09:01/3 16:01 16:01
16	08:11 09:06-09:23/17 16:31 17:27	07:26 06:26 17:27 18:16		06:15 05:19 20:09 20:58	04:53 05:11 21:32 21:23	05:56 06:46 21:23 20:34	07:36 18:00-18:05/5 18:18 16:21				07:31 16:21 16:02 16:02	08:12 08:59-09:01/3 16:02 16:02
17	08:11 09:07-09:23/16 16:33 17:28	07:24 06:23 17:28 18:18		06:13 05:17 20:11 20:59	04:53 05:12 21:32 21:22	05:58 06:48 21:22 20:32	07:38 18:00-18:05/5 18:16 16:20				07:32 16:20 16:02 16:02	08:13 08:59-09:01/3 16:02 16:02
18	08:10 09:07-09:23/16 16:35 17:30	07:22 06:21 17:30 18:20		06:11 05:16 20:12 21:01	04:53 05:13 21:33 21:21	06:00 06:50 21:21 20:30	07:39 18:00-18:05/5 18:14 16:19				07:34 08:50-08:51/1 18:14 16:19	08:13 08:59-09:01/3 16:02 16:02
19	08:09 09:08-09:24/16 16:36 17:32	07:20 06:19 17:32 18:22		06:09 05:14 20:14 21:02	04:53 05:15 21:33 21:20	06:01 06:51 21:20 20:28	07:41 18:00-18:05/5 18:11 16:17				07:36 08:47-08:55/8 18:11 16:17	08:14 08:59-09:01/3 16:02 16:02
20	08:08 09:09-09:23/14 16:38 17:34	07:18 06:16 17:34 18:23		06:07 05:13 20:16 21:04	04:53 05:16 21:33 21:19	06:03 06:53 21:19 20:26	07:43 18:00-18:05/5 18:09 16:16				07:37 08:46-08:57/11 18:09 16:16	08:15 08:59-09:01/3 16:03 16:03
21	08:06 09:09-09:22/13 16:40 17:36	07:16 06:14 17:36 18:25		06:05 05:12 20:17 21:05	04:53 05:17 21:34 21:18	06:04 06:54 21:18 20:24	07:45 18:00-18:05/5 18:07 16:15				07:39 08:45-08:58/13 18:07 16:15	08:15 08:59-09:01/3 16:03 16:03
22	08:05 09:11-09:22/11 16:41 17:37	07:14 06:12 17:37 18:27		06:03 05:10 20:19 21:07	04:53 05:19 21:34 21:16	06:06 06:56 21:16 20:22	07:46 18:00-18:05/5 18:05 16:14				07:41 08:45-09:00/15 18:05 16:14	08:16 08:59-09:01/3 16:04 16:04
23	08:04 09:13-09:21/8 16:43 17:39	07:12 06:10 17:39 18:28		06:01 05:09 20:21 21:08	04:53 05:20 21:34 21:15	06:08 06:58 21:15 20:20	07:48 18:00-18:05/5 18:03 16:13				07:42 08:44-09:00/16 18:03 16:13	08:16 08:59-09:01/3 16:04 16:04
24	08:03 09:16-09:17/1 16:45 17:41	07:10 06:07 17:41 18:30		05:59 05:08 20:22 21:09	04:53 05:21 21:34 21:14	06:09 06:59 21:14 20:18	07:50 18:00-18:05/5 18:01 16:12				07:44 08:44-09:00/16 18:01 16:12	08:17 08:59-09:01/3 16:05 16:05
25	08:02 16:46 16:46 17:43	07:08 06:05 17:43 18:32		05:56 05:07 20:24 21:11	04:54 05:23 21:34 21:12	06:11 07:01 21:12 20:16	07:52 18:00-18:05/5 16:59 16:11				07:45 08:45-09:01/16 16:11 16:05	08:18 08:59-09:01/3 16:06 16:06
26	08:00 16:48 16:48 17:45	07:05 06:03 17:45 18:33		05:54 05:06 20:26 21:12	04:54 05:24 21:34 21:11	06:13 07:03 21:11 20:14	07:53 18:00-18:05/5 16:57 16:10				07:47 08:44-09:01/17 16:10 16:06	08:18 08:59-09:01/3 16:07 16:07
27	07:59 16:50 16:50 17:47	07:03 06:00 17:47 18:35		05:52 05:05 20:27 21:13	04:55 05:26 21:34 21:10	06:14 07:04 21:10 20:11	07:54 18:00-18:05/5 16:55 16:09				07:49 08:45-09:02/17 16:09 16:07	08:18 08:59-09:01/3 16:08 16:08
28	07:58 16:52 16:52 17:48	07:01 05:58 17:48 18:37		05:50 05:04 20:29 21:15	04:55 05:27 21:34 21:08	06:16 07:06 21:08 20:09	07:55 18:00-18:05/5 16:57 16:08				07:50 08:45-09:02/17 16:08 16:08	08:18 08:59-09:01/3 16:09 16:09
29	07:56 16:53 16:53 17:45	06:56 19:39 19:39 20:28		05:48 05:03 20:31 21:16	04:56 05:28 21:34 21:07	06:17 07:07 21:07 20:07	07:56 18:00-18:05/5 16:59 16:07				07:52 08:45-09:02/17 16:07 16:07	08:18 08:59-09:01/3 16:10 16:10
30	07:55 16:55 16:55 17:41	06:54 19:40 19:40 20:29		05:47 05:02 20:32 21:17	04:56 05:30 21:34 21:05	06:19 07:09 21:05 20:05	07:57 18:00-18:05/5 16:59 16:06				07:53 08:46-09:03/17 16:06 16:06	08:18 08:59-09:01/3 16:10 16:10
31	07:53 16:57 16:57 17:37	06:51 19:42 19:42 20:31		05:45 05:01 20:31 21:16	04:56 05:31 21:34 21:05	06:21 07:11 21:05 20:05	07:58 18:00-18:05/5 16:59 16:06				07:54 08:46-09:03/17 16:06 16:06	08:18 08:59-09:01/3 16:10 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	150
Anzahl Minuten mit Schatten	317	0	58	0	0	0	0	0	0	61	181	245

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA21 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (221)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 08:21-08:31/10 16:59 08:51-09:07/16	06:59 17:07-17:13/6 17:50 17:17-17:24/7	06:49 19:44	05:45 20:34	05:00 21:19
2	08:18 16:13	07:50 08:16-08:31/15 17:01 08:50-09:08/18	06:57 17:16-17:26/10 17:52	06:47 19:45	05:43 20:36	04:59 21:21
3	08:18 16:14	07:49 08:15-08:32/17 17:03 08:49-09:10/21	06:55 17:16-17:26/10 17:54	06:44 19:47	05:41 20:37	04:58 21:22
4	08:18 16:15	07:47 08:14-08:32/18 17:04 08:48-09:11/23	06:53 17:16-17:30/14 17:55	06:42 19:49	05:39 20:39	04:57 21:23
5	08:18 16:16	07:46 08:13-08:31/18 17:06 08:48-09:11/23	06:50 17:16-17:31/15 17:57	06:40 19:50	05:37 20:41	04:57 21:24
6	08:17 16:17	07:44 08:13-08:30/17 17:08 08:47-09:11/24	06:48 17:17-17:32/15 17:59	06:38 19:52	05:35 20:42	04:56 21:25
7	08:17 16:18	07:42 08:14-08:24/10 17:10 08:48-09:13/25	06:46 17:22-17:32/10 18:01	06:35 19:54	05:34 20:44	04:56 21:25
8	08:17 16:20	07:41 08:10-08:23/13 17:12 08:47-09:13/26	06:44 17:23-17:32/9 18:02	06:33 19:55	05:32 20:45	04:55 21:26
9	08:16 16:21	07:39 08:08-08:21/13 17:14 08:47-09:13/26	06:41 17:23-17:29/6 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 16:22	07:37 08:07-08:18/11 17:15 08:47-09:13/26	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28
11	08:15 16:24	07:35 08:02-08:18/16 17:17 08:47-09:12/25	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29
12	08:14 16:25	07:33 08:00-08:19/19 17:19 08:48-09:12/24	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29
13	08:14 16:27	07:32 07:59-08:19/20 17:21 08:48-09:11/23	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30
14	08:13 16:28	07:30 07:58-08:18/20 17:23 08:49-09:11/22	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31
15	08:12 16:30	07:28 07:58-08:17/19 08:50-09:09/19 17:25 07:53-07:56/3	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31
16	08:11 16:31	07:26 07:50-08:16/26 17:27 08:51-09:08/17	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32
17	08:11 16:33	07:24 07:48-08:09/21 17:28 08:53-09:06/13	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32
18	08:10 16:35	07:22 07:46-08:08/22 17:30 08:57-09:02/5	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33
19	08:09 16:36	07:20 07:44-08:05/21 17:32	06:19 18:22	06:09 20:14	05:14 21:02	04:53 21:33
20	08:08 16:38	07:18 07:44-08:04/20 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:07 16:40	07:16 07:44-08:04/20 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:05 16:41	07:14 07:44-08:04/20 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34
23	08:04 16:43	07:12 07:45-08:03/18 17:39 17:09-17:12/3	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 16:45	07:10 07:53-08:01/8 17:41 17:07-17:14/7	06:07 18:01-18:05/4 18:30	05:59 20:22	05:08 21:09	04:53 21:34
25	08:02 16:46	07:08 17:06-17:16/10 17:43	06:05 17:59-18:06/7 18:32	05:56 20:24	05:07 21:11	04:54 21:34
26	08:01 16:48	07:05 17:06-17:16/10 17:45	06:03 17:58-18:08/10 18:33	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 16:50	07:03 17:06-17:16/10 17:47	06:00 17:58-18:08/10 18:35	05:52 20:27	05:05 21:13	04:55 21:34
28	07:58 16:52	07:01 17:05-17:15/10 17:48 17:19-17:22/3	05:58 17:58-18:07/9 18:37	05:50 20:29	05:04 21:15	04:55 21:34
29	07:56 08:25-08:27/2 16:53		06:56 18:59-19:05/6 19:39	05:48 20:31	05:03 21:16	04:56 21:34
30	07:55 08:22-08:29/7 16:55 08:56-09:01/5		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34
31	07:54 08:22-08:31/9 16:57 08:53-09:05/12		06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	35	844	148	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA21 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (221)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 07:37-07:47/10 16:46 08:17-08:42/25	07:55 16:06
2	04:58 21:33	05:34 21:00	06:24 19:58	07:12 18:49	07:06 07:38-07:51/13 16:44 08:17-08:43/26	07:56 16:05
3	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 07:40-07:44/4 08:17-08:43/26 16:42 07:45-07:53/8	07:57 16:04
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:02-18:06/4 18:44	07:09 07:56-07:58/2 08:17-08:42/25 16:40 07:44-07:54/10	07:59 16:04
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 17:59-18:07/8 18:42	07:11 07:44-08:01/17 16:39 08:17-08:41/24	08:00 16:03
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 17:58-18:08/10 18:40	07:13 07:43-08:01/18 16:37 08:18-08:41/23	08:01 16:03
7	05:01 21:31	05:42 20:52	06:32 19:47	07:21 17:58-18:08/10 18:38	07:15 07:43-08:02/19 16:35 08:18-08:40/22	08:03 16:03
8	05:02 21:30	05:44 20:50	06:33 19:44	07:22 17:52-18:08/16 18:35	07:16 07:45-08:02/17 16:33 08:19-08:40/21	08:04 16:02
9	05:03 21:29	05:45 20:48	06:35 19:42	07:24 17:50-18:05/15 18:33	07:18 07:47-08:02/15 16:32 08:21-08:39/18	08:05 16:02
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 17:50-18:03/13 18:31	07:20 07:52-08:02/10 16:30 08:22-08:37/15	08:06 16:02
11	05:05 21:28	05:49 20:44	06:38 19:38	07:27 17:50-18:00/10 18:29	07:22 07:53-08:02/9 16:29 08:24-08:36/12	08:07 16:02
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 17:43-17:46/3 18:27 17:50-17:59/9	07:24 07:54-08:01/7 16:27 08:28-08:32/4	08:08 16:01
13	05:08 21:26	05:52 20:40	06:42 19:33	07:31 17:39-17:47/8 18:24 17:51-17:56/5	07:25 07:57-07:58/1 16:26	08:09 16:01
14	05:09 21:25	05:53 20:38	06:43 19:31	07:33 17:38-17:48/10 18:22	07:27 16:24	08:10 16:01
15	05:10 21:24	05:55 20:36	06:45 19:28	07:34 17:38-17:48/10 18:20	07:29 16:23	08:11 16:01
16	05:11 21:23	05:56 20:34	06:46 19:26	07:36 17:38-17:48/10 18:18	07:31 16:21	08:12 16:02
17	05:12 21:22	05:58 20:32	06:48 19:24	07:38 08:27-08:31/4 18:16 17:37-17:47/10	07:32 16:20	08:13 16:02
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 08:23-08:33/10 17:39-17:45/6 18:14 08:17-08:21/4	07:34 16:19	08:13 16:02
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 08:15-08:34/19 18:11	07:36 16:17	08:14 16:02
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 08:14-08:34/20 18:09	07:37 16:16	08:15 16:03
21	05:17 21:18	06:04 20:24	06:54 19:14	07:45 08:14-08:35/21 18:07	07:39 16:15	08:15 16:03
22	05:19 21:16	06:06 20:22	06:56 19:12	07:46 08:14-08:35/21 18:05	07:41 16:14	08:16 16:04
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 08:15-08:37/22 18:03	07:42 16:13	08:16 16:04
24	05:21 21:14	06:09 20:18	06:59 19:07	07:50 08:17-08:39/22 18:01 09:26-09:34/8	07:44 16:12	08:17 16:05
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 07:18-07:39/21 08:22-08:36/14 16:59 07:41-07:42/1	07:46 16:11	08:17 16:05
26	05:24 21:11	06:13 20:14	07:03 19:03	06:53 07:20-07:46/26 16:57 08:20-08:38/18	07:47 16:10	08:18 16:06
27	05:26 21:10	06:14 20:11	07:04 19:01	06:55 07:28-07:47/19 16:55 08:19-08:39/20	07:49 16:09	08:18 16:07
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 07:28-07:48/20 16:53 08:18-08:40/22	07:50 16:08	08:18 16:08
29	05:28 21:07	06:17 20:07	07:07 18:56	06:59 07:29-07:48/19 16:51 08:18-08:41/23	07:52 16:07	08:18 16:08
30	05:30 21:05	06:19 20:05	07:09 18:54	07:00 07:30-07:48/18 16:49 08:17-08:42/25	07:53 16:06	08:18 16:09
31	05:31 21:03	06:21 20:03		07:02 07:36-07:48/12 08:17-08:42/25 16:48 07:33-07:34/1		08:18 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	45	592	401	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA22 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (222)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe
380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349
Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 08:03-08:32/29 19:44	05:45 20:34	05:00 21:19
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 08:03-08:31/28 19:45	05:43 20:36	04:59 21:21
3	08:18 16:14	07:49 17:03	06:55 07:22-07:31/9 17:54	06:44 08:04-08:30/26 19:47	05:41 20:37	04:58 21:22
4	08:18 16:15	07:47 17:04	06:53 07:18-07:32/14 17:55	06:42 08:05-08:29/24 19:49	05:39 20:39	04:57 21:23
5	08:18 16:16	07:46 17:06	06:50 07:15-07:32/17 17:57	06:40 08:05-08:26/21 19:50	05:37 20:41	04:57 21:24
6	08:17 16:17	07:44 17:08	06:48 07:11-07:32/21 17:59	06:38 08:07-08:24/17 19:52	05:35 20:42	04:56 21:25
7	08:17 16:18	07:42 17:10	06:46 07:09-07:32/23 18:01	06:35 08:10-08:21/11 19:54	05:34 20:44	04:56 21:25
8	08:17 16:20	07:41 17:12	06:44 07:07-07:32/25 18:02	06:33 19:55	05:32 20:46	04:55 21:26
9	08:16 16:21	07:39 17:14	06:41 07:04-07:30/26 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 16:22	07:37 17:15	06:39 07:03-07:28/25 18:06	06:29 19:59	05:28 20:49	04:54 21:28
11	08:15 16:24	07:35 17:17	06:37 07:03-07:22/19 18:08	06:26 19:31-19:34/3 20:00	05:27 20:50	04:54 21:29
12	08:14 16:25	07:33 17:19	06:35 07:03-07:17/14 18:09	06:24 19:30-19:36/6 20:02	05:25 20:52	04:53 21:29
13	08:14 16:27	07:32 17:21	06:32 07:00-07:15/15 18:11	06:22 19:29-19:38/9 20:04	05:23 20:53	04:53 21:30
14	08:13 16:28	07:30 17:23	06:30 06:59-07:13/14 17:42-17:43/1 18:13 17:45-17:47/2	06:20 19:28-19:38/10 20:06	05:22 20:55	04:53 21:31
15	08:12 16:30	07:28 17:25	06:28 06:58-07:12/14 17:39-17:41/2 18:15 17:43-17:46/3	06:18 19:28-19:38/10 20:07	05:20 20:57	04:53 21:31
16	08:11 16:31	07:26 17:27	06:26 06:57-07:11/14 18:16 17:42-17:43/1	06:15 19:29-19:36/7 20:09	05:19 20:58	04:53 21:32
17	08:11 16:33	07:24 17:28	06:23 06:57-07:11/14 18:18 17:41-17:42/1	06:13 19:31-19:34/3 20:11	05:17 21:00	04:53 21:32
18	08:10 16:35	07:22 17:30	06:21 06:58-07:11/13 17:54-17:55/1 18:20 17:39-17:41/2	06:11 20:12	05:16 21:01	04:52 21:33
19	08:09 16:36	07:20 07:46-07:53/7 17:32	06:19 06:58-07:08/10 17:52-17:55/3 18:22 17:39-17:40/1	06:09 20:14	05:14 21:02	04:53 21:33
20	08:08 16:38	07:18 07:45-07:55/10 17:34 07:42-07:44/2	06:16 07:00-07:06/6 17:56-17:58/2 18:23 07:15-07:28/13 17:51-17:54/3	06:07 20:16	05:13 21:04	04:53 21:33
21	08:07 16:39	07:16 07:40-07:55/15 17:36	06:14 07:12-07:31/19 17:49-17:53/4 18:25 17:55-18:00/5	06:05 20:17	05:12 21:05	04:53 21:34
22	08:05 16:41	07:14 07:38-07:56/18 17:37	06:12 07:10-07:32/22 17:47-17:51/4 18:27 17:52-18:01/9	06:03 20:19	05:10 21:07	04:53 21:34
23	08:04 16:43	07:12 07:36-07:55/19 17:39	06:10 07:08-07:33/25 17:48-17:49/1 18:28 17:51-18:03/12	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 16:45	07:10 07:35-07:54/19 17:41	06:07 07:07-07:34/27 18:30 17:50-18:04/14	05:59 20:22	05:08 21:09	04:53 21:34
25	08:02 16:46	07:08 07:36-07:53/17 17:43	06:05 07:05-07:34/29 18:32 17:53-18:03/10	05:56 20:24	05:07 21:11	04:54 21:34
26	08:01 16:48	07:05 07:37-07:47/10 17:45	06:03 07:05-07:34/29 18:33 17:54-18:03/9	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 16:50	07:03 07:40-07:45/5 17:47	06:00 07:04-07:35/31 18:35 17:55-18:01/6	05:52 20:27	05:05 21:13	04:55 21:34
28	07:58 16:52	07:01 17:48	05:58 07:04-07:35/31 18:37	05:50 20:29	05:04 21:15	04:55 21:34
29	07:56 16:53		06:56 08:03-08:34/31 19:39	05:48 20:31	05:03 21:16	04:56 21:34
30	07:55 16:55		06:54 08:03-08:34/31 19:40	05:47 20:32	05:02 21:17	04:56 21:34
31	07:54 16:57		06:51 08:03-08:33/30 19:42		05:01 21:18	
Sonnenscheinstunden		260	278	367	416	484
Anzahl Minuten mit Schatten		0	122	707	204	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA22 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (222)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember	
1	04:57 21:33	05:33 21:02	06:22 19:30-19:33/3 20:00	07:11 07:41-07:55/14 18:51	07:04 16:46	07:55 16:06	
2	04:57 21:33	05:34 21:00	06:24 19:58	07:12 07:42-07:59/17 18:49	07:06 16:44	07:56 16:05	
3	04:58 21:33	05:36 20:59	06:25 19:56	07:14 07:41-08:05/24 18:47	07:08 16:42	07:57 16:04	
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 07:41-08:07/26 18:44	07:09 16:40	07:59 16:04	
5	05:00 21:32	05:39 20:55	06:29 08:06-08:17/11 19:51	07:17 07:43-08:08/25 18:42	07:11 16:39	08:00 16:03	
6	05:01 21:31	05:41 20:53	06:30 08:03-08:20/17 19:49	07:19 07:44-08:08/24 18:40	07:13 16:37	08:01 16:03	
7	05:01 21:31	05:42 20:52	06:32 08:00-08:21/21 19:47	07:21 07:46-08:08/22 18:38	07:15 16:35	08:03 16:03	
8	05:02 21:30	05:44 20:50	06:33 07:59-08:23/24 19:44	07:22 07:48-08:08/20 18:35	07:17 16:33	08:04 16:02	
9	05:03 21:29	05:45 20:48	06:35 07:58-08:24/26 19:42	07:24 07:51-08:07/16 18:33	07:18 16:32	08:05 16:02	
10	05:04 21:29	05:47 20:46	06:37 07:56-08:24/28 19:40	07:26 07:55-08:06/11 18:31	07:20 16:30	08:06 16:02	
11	05:05 21:28	05:48 20:44	06:38 07:56-08:25/29 19:38	07:27 07:57-08:04/7 18:29	07:22 16:29	08:07 16:02	
12	05:06 21:27	05:50 20:42	06:40 07:55-08:25/30 19:35	07:29 18:27	07:24 16:27	08:08 16:01	
13	05:08 21:26	05:52 20:40	06:42 07:54-08:25/31 19:33	07:31 18:24	07:25 16:26	08:09 16:01	
14	05:09 21:25	05:53 20:38	06:43 07:53-08:24/31 19:31	07:33 18:22	07:27 16:24	08:10 16:01	
15	05:10 21:24	05:55 20:36	06:45 07:53-08:24/31 19:28	07:34 08:10-08:18/8 18:20	07:29 16:23	08:11 16:01	
16	05:11 21:23	05:56 20:34	06:46 07:54-08:24/30 19:26	07:36 08:09-08:23/14 18:18	07:31 16:21	08:12 16:02	
17	05:12 21:22	05:58 20:32	06:48 07:53-08:23/30 19:24	07:38 08:08-08:25/17 18:16	07:32 16:20	08:13 16:02	
18	05:13 21:21	06:00 20:30	06:50 07:54-08:22/28 19:21	07:39 08:07-08:25/18 18:14	07:34 16:19	08:14 16:02	
19	05:15 21:20	06:01 20:28	06:51 07:53-08:21/28 19:19	07:41 08:07-08:26/19 18:11	07:36 16:17	08:14 16:02	
20	05:16 21:19	06:03 20:26	06:53 07:54-08:20/26 18:35-18:36/1 19:17	07:43 08:09-08:26/17 18:09	07:37 16:16	08:15 16:03	
21	05:17 21:18	06:04 20:24	06:54 07:55-08:18/23 18:33-18:36/3 19:14	07:45 08:11-08:26/15 18:07	07:39 16:15	08:15 16:03	
22	05:19 21:16	06:06 20:22	06:56 07:56-08:16/20 18:34-18:37/3 19:12	07:46 08:15-08:25/10 18:05	07:41 16:14	08:16 16:04	
23	05:20 21:15	06:08 20:20	06:58 07:45-07:50/5 18:40-18:43/3 19:10	07:48 08:17-08:23/6 18:03	07:42 16:13	08:17 16:04	
24	05:21 21:14	06:09 20:18	06:59 07:42-07:52/10 18:35-18:39/4 19:07	07:50 18:01	07:44 16:12	08:17 16:05	
25	05:23 21:12	06:11 20:16	07:01 07:41-07:53/12 18:36-18:38/2 19:05	06:52 16:59	07:46 16:11	08:17 16:05	
26	05:24 21:11	06:13 19:34-19:37/3 20:14	07:03 07:40-07:54/14 19:03	06:53 16:57	07:47 16:10	08:18 16:06	
27	05:26 21:10	06:14 19:31-19:38/7 20:11	07:04 07:39-07:53/14 18:20-18:21/1 19:01	06:55 16:55	07:49 16:09	08:18 16:07	
28	05:27 21:08	06:16 19:30-19:39/9 20:09	07:06 07:39-07:53/14 18:21-18:22/1 18:58	06:57 16:53	07:50 16:08	08:18 16:07	
29	05:28 21:07	06:17 19:29-19:39/10 20:07	07:07 07:38-07:51/13 18:21-18:22/1 18:56	06:59 16:51	07:52 16:07	08:18 16:08	
30	05:30 21:05	06:19 19:29-19:38/9 20:05	07:09 07:39-07:54/15 18:54	07:00 16:49	07:53 16:06	08:18 16:09	
31	05:31 21:03	06:21 19:30-19:36/6 20:03	 	07:02 16:48	 	08:18 16:10	
Sonnenscheinstunden		501	453	381	332	267	245
Anzahl Minuten mit Schatten		0	44	684	330	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
			Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA23 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (223)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	07:16-07:26/10 18:58-19:09/11	05:45 20:34
2	08:18 16:12	07:50 17:01	06:57 17:52	06:47 19:45	07:16-07:25/9 18:57-19:10/13	05:43 20:36
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	07:18-07:24/6 18:56-19:11/15	05:41 20:37
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	18:55-19:10/15	05:39 20:39
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	18:55-19:10/15	05:37 20:41
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	18:55-19:10/15 19:11-19:19/8	05:35 20:42
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	18:56-19:21/25	05:34 20:44
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	18:57-19:22/25	05:32 20:45
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	18:57-19:05/8 19:07-19:24/17	05:30 20:47
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	19:06-19:27/21	05:28 20:49
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	19:07-19:28/21	05:27 20:50
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	19:07-19:29/22	05:25 20:52
13	08:14 16:27	07:32 17:21	06:32 18:11	06:22 20:04	06:58-07:07/9 19:08-19:29/21	05:23 20:53
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	06:56-07:09/13 19:08-19:28/20	05:22 20:55
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	06:54-07:09/15 19:11-19:13/2	05:20 20:56
16	08:11 16:31	07:26 17:26	06:26 18:16	06:15 20:09	06:53-07:10/17 19:14-19:27/13	05:19 20:58
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	06:52-07:10/18 19:15-19:25/10	05:17 21:00
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	06:52-07:10/18 19:17-19:23/6	05:16 21:01
19	08:09 16:36	07:20 17:32	06:19 18:21	06:09 20:14	06:52-07:10/18	05:14 21:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	06:52-07:09/17	05:13 21:04
21	08:07 16:39	07:16 17:36	06:14 18:25	06:05 20:17	06:52-07:08/16	05:12 21:05
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	06:53-07:07/14	05:10 21:07
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	06:54-07:06/12	05:09 21:08
24	08:03 16:45	07:10 17:41	06:08 18:30	05:58 20:22	06:55-07:04/9	05:08 21:09
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24		05:07 21:11
26	08:01 16:48	07:05 17:45	06:03 18:33	05:54 20:26		05:06 21:12
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27		05:05 21:13
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	06:21-06:25/4	05:03 21:15
29	07:56 16:53		06:56 19:38	05:48 20:31	07:18-07:26/8	05:02 21:16
30	07:55 16:55		06:53 19:40	05:47 20:32	07:17-07:27/10	05:02 21:17
31	07:54 16:57		06:51 19:42		07:17-07:27/10 19:01-19:08/7	05:01 21:18
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	0	0	93	517	125	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
			Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA23 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (223)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 20:12-20:25/13 21:02	06:22 19:05-19:27/22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	04:57 21:33	05:34 20:13-20:26/13 21:00	06:24 19:05-19:26/21 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	04:58 21:33	05:36 20:13-20:25/12 20:59	06:25 18:56-19:03/7 19:56 19:05-19:22/17	07:14 18:47	07:08 16:42	07:57 16:04
4	04:59 21:32	05:38 20:14-20:25/11 20:57	06:27 18:54-19:19/25 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	05:00 21:32	05:39 20:14-20:23/9 20:55	06:29 18:52-19:17/25 19:51	07:17 18:42	07:11 16:38	08:00 16:03
6	05:01 21:31	05:41 20:17-20:22/5 20:53	06:30 18:51-19:06/15 19:49 19:07-19:15/8	07:19 18:40	07:13 16:37	08:01 16:03
7	05:01 21:31	05:42 20:52	06:32 18:50-19:05/15 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	05:02 21:30	05:44 20:50	06:33 18:50-19:05/15 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	05:03 21:29	05:45 20:48	06:35 07:12-07:18/6 19:42 18:49-19:04/15	07:24 18:33	07:18 16:32	08:05 16:02
10	05:04 21:29	05:47 20:46	06:37 07:10-07:18/8 19:40 18:50-19:04/14	07:26 18:31	07:20 16:30	08:06 16:02
11	05:05 21:28	05:48 20:44	06:38 07:09-07:19/10 19:38 18:51-19:03/12	07:27 18:29	07:22 16:29	08:07 16:02
12	05:06 21:27	05:50 20:42	06:40 07:08-07:19/11 19:35 18:52-19:00/8	07:29 18:27	07:24 16:27	08:08 16:01
13	05:07 21:26	05:52 20:40	06:41 07:08-07:18/10 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	05:09 21:25	05:53 20:38	06:43 07:08-07:17/9 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	05:10 21:24	05:55 20:36	06:45 07:10-07:15/5 19:28	07:34 18:20	07:29 16:23	08:11 16:01
16	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	05:12 21:22	05:58 20:32	06:48 07:25-07:29/4 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	05:13 21:21	06:00 20:30	06:50 07:23-07:31/8 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	05:15 21:20	06:01 07:01-07:10/9 20:28	06:51 07:21-07:31/10 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	05:16 21:19	06:03 06:59-07:12/13 20:26	06:53 07:21-07:31/10 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	05:17 21:18	06:04 06:57-07:12/15 20:24	06:54 07:20-07:30/10 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	05:19 21:16	06:06 06:57-07:13/16 20:22	06:56 07:21-07:30/9 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	05:20 21:15	06:08 06:56-07:13/17 20:20	06:58 07:23-07:28/5 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	05:21 21:14	06:09 06:56-07:13/17 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	05:23 20:19-20:20/1 21:12	06:11 06:55-07:13/18 20:16 19:19-19:27/8	07:01 19:05	06:52 16:59	07:46 16:11	08:17 16:05
26	05:24 20:16-20:23/7 21:11	06:13 06:55-07:13/18 20:14 19:18-19:28/10	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	05:26 20:15-20:24/9 21:10	06:14 06:56-07:12/16 20:11 19:16-19:29/13	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	05:27 20:14-20:25/11 21:08	06:16 06:56-07:11/15 20:09 19:13-19:29/16	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:07
29	05:28 20:13-20:25/12 21:07	06:17 06:57-07:10/13 20:07 19:09-19:29/20	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	05:30 20:13-20:26/13 21:05	06:19 06:58-07:07/9 20:05 19:07-19:29/22	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	05:31 20:13-20:26/13 21:03	06:21 19:07-19:28/21 20:03		07:02 16:47		08:18 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	66	349	334	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA24 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (224)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:11	07:52 16:59	06:59 16:49-17:07/18 17:50	06:49 19:44	05:45 20:34	05:00 21:19
2	08:18 16:12	07:50 17:01	06:57 16:49-17:07/18 17:52 17:09-17:13/4	06:47 19:45	05:43 20:36	04:59 21:20
3	08:18 16:14	07:49 17:03	06:55 16:50-17:16/26 17:54	06:44 19:47	05:41 20:37	04:58 21:22
4	08:18 16:15	07:47 17:04	06:53 16:50-17:18/28 17:55	06:42 19:49	05:39 20:39	04:57 21:23
5	08:18 16:16	07:46 17:06	06:50 07:19-07:26/7 17:57 16:50-17:18/28	06:40 19:50	05:37 20:41	04:57 21:24
6	08:17 16:17	07:44 17:08	06:48 07:17-07:27/10 17:59 16:51-17:18/27	06:38 19:12-19:15/3 19:52 19:07-19:11/4	05:35 20:42	04:56 21:25
7	08:17 16:18	07:42 17:10	06:46 07:16-07:29/13 18:01 16:54-17:19/25	06:35 19:15-19:18/3 19:54 19:05-19:14/9	05:34 20:44	04:56 21:25
8	08:17 16:20	07:41 17:12	06:44 07:16-07:29/13 18:02 17:02-17:19/17	06:33 19:14-19:19/5 19:04-19:06/2 19:55 19:07-19:13/6	05:32 20:45	04:55 21:26
9	08:16 16:21	07:39 17:14	06:41 07:15-07:28/13 18:04 17:01-17:17/16	06:31 19:12-19:18/6 19:57 19:02-19:10/8	05:30 20:47	04:54 21:27
10	08:16 16:22	07:37 17:15	06:39 07:15-07:28/13 18:06 17:02-17:17/15	06:29 19:10-19:18/8 19:59 19:02-19:09/7	05:28 20:49	04:54 21:28
11	08:15 16:24	07:35 17:17	06:37 07:16-07:27/11 18:08 17:03-17:16/13	06:26 19:09-19:18/9 19:02-19:04/2 20:00 19:05-19:07/2	05:27 20:50	04:54 21:29
12	08:14 16:25	07:33 17:19	06:35 07:16-07:25/9 18:09 17:04-17:13/9	06:24 19:08-19:18/10 20:02 19:02-19:06/4	05:25 20:52	04:53 21:29
13	08:14 16:27	07:31 17:21	06:32 07:19-07:22/3 18:11	06:22 19:07-19:17/10 20:04 19:02-19:05/3	05:23 20:53	04:53 21:30
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 19:04-19:15/11 20:06 19:02-19:03/1	05:22 20:55	04:53 21:31
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 19:03-19:14/11 20:07	05:20 20:56	04:53 21:31
16	08:11 16:31	07:26 16:36-16:45/9 17:26	06:26 18:16	06:15 19:05-19:11/6 20:09	05:19 20:58	04:53 21:32
17	08:10 16:33	07:24 16:34-16:47/13 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:52 21:32
18	08:10 16:35	07:22 16:33-16:48/15 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:52 21:33
19	08:09 16:36	07:20 16:32-16:49/17 17:32	06:19 18:21	06:09 20:14	05:14 21:02	04:52 21:33
20	08:08 16:38	07:18 16:31-16:49/18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:06 16:39	07:16 16:31-16:49/18 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34
22	08:05 16:41	07:14 16:31-16:49/18 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34
23	08:04 16:43	07:12 16:31-16:48/17 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 16:45	07:10 16:31-16:48/17 17:41	06:07 18:30	05:58 20:22	05:08 21:09	04:53 21:34
25	08:02 16:46	07:08 16:32-16:47/15 17:43 16:54-17:03/9	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34
26	08:00 16:48	07:05 16:34-16:46/12 17:45 16:52-17:05/13	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 16:50	07:03 16:36-16:43/7 17:46 16:51-17:07/16	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34
28	07:58 16:52	07:01 16:50-17:06/16 17:48	05:58 18:37	05:50 20:29	05:03 21:15	04:55 21:34
29	07:56 16:53		06:56 19:38	05:48 20:31	05:02 21:16	04:56 21:34
30	07:55 16:55		06:53 19:40	05:46 20:32	05:02 21:17	04:56 21:34
31	07:53 16:57		06:51 19:42		05:01 21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	0	230	336	130	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA24 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (224)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe

380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 19:08-19:17/9 20:00 19:04-19:06/2	07:11 07:57-08:04/7 18:51 17:45-17:52/7	07:04 16:46	07:55 16:06
2	04:57 21:33	05:34 21:00	06:24 19:09-19:17/8 19:58 19:01-19:08/7	07:12 07:54-08:05/11 18:49 17:41-17:53/12	07:06 16:44	07:56 16:05
3	04:58 21:33	05:36 20:59	06:25 19:10-19:16/6 19:56 19:00-19:08/8	07:14 07:53-08:06/13 18:47 17:40-17:54/14	07:08 16:42	07:57 16:04
4	04:59 21:32	05:38 20:57	06:27 19:11-19:16/5 19:54 19:04-19:10/6	07:16 07:53-08:06/13 18:44 17:39-17:55/16	07:09 16:40	07:59 16:04
5	05:00 21:32	05:39 20:55	06:29 19:11-19:14/3 19:51 19:01-19:10/9	07:17 07:53-08:06/13 18:42 17:38-17:54/16	07:11 16:38	08:00 16:03
6	05:01 21:31	05:41 20:53	06:30 19:08-19:11/3 19:49 19:03-19:07/4	07:19 07:52-08:05/13 18:40 17:32-17:35/3	07:13 16:37	08:01 16:03
7	05:01 21:31	05:42 20:52	06:32 19:06-19:07/1 19:47	07:21 07:53-08:04/11 18:38 17:28-17:54/26	07:15 16:35	08:03 16:03
8	05:02 21:30	05:44 20:50	06:33 19:44	07:22 07:54-08:03/9 18:35 17:27-17:54/27	07:16 16:33	08:04 16:02
9	05:03 21:29	05:45 20:48	06:35 19:42	07:24 07:56-07:59/3 18:33 17:25-17:52/27	07:18 16:32	08:05 16:02
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 17:24-17:51/27 18:31	07:20 16:30	08:06 16:02
11	05:05 21:28	05:48 20:44	06:38 19:38	07:27 17:23-17:49/26 18:29	07:22 16:29	08:07 16:02
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 17:23-17:41/18 18:27	07:24 16:27	08:08 16:01
13	05:07 21:26	05:52 20:40	06:41 19:33	07:31 17:23-17:40/17 18:24	07:25 16:26	08:09 16:01
14	05:09 21:25	05:53 20:38	06:43 19:31	07:32 17:23-17:39/16 18:22	07:27 16:24	08:10 16:01
15	05:10 21:24	05:55 20:36	06:45 19:28	07:34 17:07-17:17/10 18:20 17:24-17:38/14	07:29 16:23	08:11 16:01
16	05:11 21:23	05:56 20:34	06:46 19:26	07:36 17:05-17:18/13 18:18 17:25-17:37/12	07:30 16:21	08:12 16:02
17	05:12 21:22	05:58 20:32	06:48 19:24	07:38 17:03-17:19/16 18:16 17:26-17:34/8	07:32 16:20	08:13 16:02
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 17:02-17:19/17 18:14	07:34 16:19	08:13 16:02
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 17:02-17:20/18 18:11	07:36 16:17	08:14 16:02
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 17:02-17:20/18 18:09	07:37 16:16	08:15 16:03
21	05:17 21:18	06:04 20:24	06:54 19:14	07:45 17:02-17:20/18 18:07	07:39 16:15	08:15 16:03
22	05:19 21:16	06:06 20:22	06:56 19:12	07:46 17:02-17:19/17 18:05	07:41 16:14	08:16 16:04
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 17:03-17:19/16 18:03	07:42 16:13	08:16 16:04
24	05:21 21:14	06:09 20:18	06:59 19:07	07:50 17:02-17:17/15 18:01	07:44 16:12	08:17 16:05
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:04-16:16/12 16:59	07:45 16:11	08:17 16:05
26	05:24 21:11	06:13 20:13	07:02 19:03	06:53 16:06-16:13/7 16:57	07:47 16:10	08:18 16:06
27	05:26 21:10	06:14 19:07-19:14/7 20:11	07:04 19:00	06:55 16:55	07:49 16:09	08:18 16:07
28	05:27 21:08	06:16 19:05-19:16/11 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:07
29	05:28 21:07	06:17 19:05-19:16/11 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	05:30 21:05	06:19 19:07-19:17/10 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	05:31 21:03	06:21 19:08-19:18/10 20:03	19:02-19:03/1 19:04-19:06/2	07:02 16:47		08:18 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	55	75	574	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA25 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (225)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:11	07:52 15:54-16:09/15 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 15:23-15:42/19 16:46	07:55 16:06
2	08:18 16:12	07:50 15:53-16:10/17 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:57 21:33	05:34 21:00	06:24 19:58	07:12 18:44	07:06 15:23-15:42/19 16:44	07:56 16:05
3	08:18 16:14	07:49 15:53-16:11/18 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:58	06:25 19:56	07:14 18:47	07:08 15:21-15:42/21 16:42	07:57 16:04
4	08:18 16:15	07:47 15:52-16:12/20 17:04	06:52 17:55	06:42 19:49	05:39 20:39	04:57 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 15:21-15:42/21 16:40	07:59 16:04
5	08:18 16:16	07:46 15:52-16:12/20 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 15:21-15:42/21 16:38	08:00 16:03
6	08:17 16:17	07:44 15:52-16:12/20 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 15:22-15:42/20 16:37	08:01 16:03
7	08:17 16:18	07:42 15:52-16:12/20 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:01 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 15:22-15:42/20 16:35	08:03 16:03
8	08:17 16:20	07:40 15:53-16:13/20 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 15:23-15:41/18 16:33	08:04 16:02
9	08:16 16:21	07:39 15:53-16:12/19 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 15:24-15:41/17 16:32	08:05 16:02
10	08:16 16:22	07:37 15:54-16:12/18 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 15:25-15:40/15 16:30	08:06 16:02
11	08:15 16:24	07:35 15:54-16:11/17 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:48 20:44	06:38 19:38	07:27 18:29	07:22 15:26-15:39/13 16:29	08:07 16:02
12	08:14 16:25	07:33 15:56-16:10/14 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:26	07:23 15:28-15:37/9 16:27	08:08 16:01
13	08:14 16:27	07:31 15:57-16:08/11 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:07 21:26	05:52 20:40	06:41 19:33	07:31 18:24	07:25 16:26	08:09 14:35-14:38/3 16:01
14	08:13 16:28	07:30 16:01-16:04/3 17:23	06:30 18:13	06:20 20:05	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:32 18:22	07:27 16:24	08:10 14:34-14:40/6 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 14:34-14:41/7 16:01
16	08:11 16:31	07:26 17:26	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 14:33-14:41/8 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:52 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 14:34-14:42/8 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:52 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 14:34-14:43/9 16:02
19	08:09 16:36	07:20 17:32	06:19 18:21	06:09 20:14	05:14 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:17	08:14 14:35-14:44/9 16:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 14:35-14:44/9 16:03
21	08:06 16:39	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:04 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 14:36-14:45/9 16:03
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 14:36-14:45/9 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 14:37-14:46/9 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:58 20:22	05:08 21:09	04:53 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 14:37-14:46/9 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 14:37-14:46/9 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:12 20:13	07:02 19:03	06:53 16:57	07:47 16:10	08:18 14:38-14:46/8 16:06
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:00	06:55 16:55	07:49 16:07	08:18 14:39-14:47/8 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:03 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	15:29-15:35/6 16:53	07:50 16:08	08:18 14:40-14:47/7 16:07
29	07:56 16:53	07:00 17:45	05:56 18:38	05:48 20:31	05:02 21:16	04:56 21:34	05:28 21:07	06:17 20:07	07:07 18:56	15:26-15:38/12 16:51	07:52 16:07	08:18 14:41-14:47/6 16:08
30	07:55 16:55	15:56-16:05/9 17:40	05:53 19:40	05:46 20:32	05:02 21:17	04:56 21:33	05:30 21:05	06:19 20:05	07:09 18:54	15:25-15:40/15 16:49	07:53 16:06	08:18 14:42-14:47/5 16:09
31	07:53 16:57	15:55-16:08/13 17:42	05:51 19:42	05:01 21:18	05:01 21:18	05:31 21:03	06:21 20:02	07:02 16:47	15:24-15:41/17 16:47	16:06	07:55 16:10	08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	22	232	0	0	0	0	0	0	0	50	213	138

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA26 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (226)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 15:01-15:18/17 16:11	07:52 15:46-16:01/15 16:59	06:59 16:58-17:10/12 17:50	06:49 19:44 20:34	05:45 20:34 21:19	05:00 21:19
2	08:18 15:02-15:18/16 16:12	07:50 15:47-16:00/13 17:01	06:57 16:56-17:11/15 17:52	06:47 19:45 20:36	05:43 20:36 21:20	04:59 21:20
3	08:18 15:03-15:19/16 16:14	07:49 15:49-16:00/11 17:03	06:55 16:55-17:12/17 17:54	06:44 19:47 20:37	05:41 20:37 21:22	04:58 21:22
4	08:18 15:03-15:20/17 16:15	07:47 15:51-15:58/7 17:04	06:52 16:55-17:13/18 17:55	06:42 19:49 20:39	05:39 20:39 21:23	04:57 21:23
5	08:18 15:03-15:20/17 16:16	07:46 17:06 17:44	06:50 16:54-17:12/18 17:57	06:40 19:50 20:41	05:37 20:41 21:24	04:57 21:24
6	08:17 15:04-15:21/17 16:17	07:44 17:08 17:42	06:48 16:54-17:12/18 17:59	06:38 19:52 20:42	05:35 20:42 21:25	04:56 21:25
7	08:17 15:04-15:21/17 16:18	07:42 17:10 17:40	06:46 16:54-17:12/18 18:01	06:35 19:54 20:44	05:34 20:44 21:25	04:56 21:25
8	08:17 15:05-15:22/17 16:20	07:41 17:12 17:39	06:44 16:55-17:12/17 18:02	06:33 19:55 20:45	05:32 20:45 21:26	04:55 21:26
9	08:16 15:05-15:22/17 16:21	07:39 17:14 17:37	06:41 16:55-17:10/15 18:04	06:31 19:57 20:47	05:30 20:47 21:27	04:54 21:27
10	08:16 15:05-15:22/17 16:22	07:37 17:15 17:35	06:39 16:56-17:08/12 18:06	06:29 19:59 20:49	05:28 20:49 21:28	04:54 21:28
11	08:15 15:06-15:22/16 16:24	07:35 08:01-08:06/5 17:17	06:37 16:59-17:06/7 18:08	06:26 20:00 20:50	05:27 20:50 21:29	04:54 21:29
12	08:14 15:07-15:23/16 16:25	07:33 07:59-08:08/9 17:19	06:35 18:09 18:07	06:24 20:02 20:52	05:25 20:52 21:29	04:53 21:29
13	08:14 15:08-15:23/15 16:27	07:31 07:59-08:09/10 17:21	06:32 18:11 18:09	06:22 20:04 20:53	05:23 20:53 21:30	04:53 21:30
14	08:13 15:08-15:23/15 16:28	07:30 07:58-08:09/11 17:23	06:30 18:13 18:11	06:20 20:05 20:55	05:22 20:55 21:31	04:53 21:31
15	08:12 15:09-15:22/13 16:30	07:28 07:58-08:09/11 17:25	06:28 18:15 18:13	06:18 20:07 20:56	05:20 20:56 21:31	04:53 21:31
16	08:11 15:10-15:22/12 16:31	07:26 07:58-08:09/11 17:26	06:26 18:16 18:14	06:15 20:09 20:58	05:19 20:58 21:32	04:53 21:32
17	08:10 15:12-15:21/9 16:33	07:24 07:59-08:08/9 17:28	06:23 18:18 18:16	06:13 20:11 20:59	05:17 20:59 21:32	04:52 21:32
18	08:10 15:14-15:20/6 16:35	07:22 08:00-08:07/7 17:30	06:21 18:20 18:18	06:11 20:12 21:01	05:16 21:01 21:33	04:52 21:33
19	08:09 15:29-15:46/17 16:36	07:20 17:32 17:30	06:19 18:21 18:19	06:09 20:14 21:02	05:14 21:02 21:33	04:53 21:33
20	08:08 15:28-15:45/17 16:38	07:18 17:34 17:32	06:16 18:23 18:21	06:07 20:16 21:04	05:13 21:04 21:33	04:53 21:33
21	08:06 15:29-15:46/17 16:39	07:16 17:36 17:34	06:14 18:25 18:23	06:05 20:17 21:05	05:12 21:05 21:33	04:53 21:33
22	08:05 15:29-15:57/28 16:41	07:14 17:37 17:35	06:12 18:27 18:25	06:03 20:19 21:07	05:10 21:07 21:34	04:53 21:34
23	08:04 15:30-15:58/28 16:43	07:12 17:39 17:37	06:10 18:28 18:26	06:01 20:21 21:08	05:09 21:08 21:34	04:53 21:34
24	08:03 15:30-15:59/29 16:45	07:10 17:41 17:39	06:07 18:30 18:28	05:58 20:22 21:09	05:08 21:09 21:34	04:53 21:34
25	08:02 15:31-16:00/29 16:46	07:08 17:43 17:41	06:05 18:32 18:30	05:56 20:24 21:11	05:07 21:11 21:34	04:54 21:34
26	08:00 15:32-16:00/28 16:48	07:05 17:45 17:43	06:03 18:33 18:31	05:54 20:26 21:12	05:06 21:12 21:34	04:54 21:34
27	07:59 15:33-16:01/28 16:50	07:03 17:46 17:44	06:00 18:35 18:33	05:52 20:27 21:13	05:05 21:13 21:34	04:55 21:34
28	07:58 15:35-15:43/8 16:52	07:01 17:00-17:07/7 17:48	05:58 18:37 18:35	05:50 20:29 21:15	05:03 21:15 21:34	04:55 21:34
29	07:56 15:39-15:41/2 16:53		06:56 19:38 19:36	05:48 20:31 21:16	05:02 21:16 21:34	04:56 21:34
30	07:55 15:45-16:01/16 16:55		06:53 19:40 19:38	05:47 20:32 21:17	05:02 21:17 21:34	04:56 21:34
31	07:53 15:46-16:02/16 16:57		06:51 19:42 19:40		05:01 21:18 21:34	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	669	126	167	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA26 - ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (226)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	July	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 14:48-15:04/16 16:06 15:13-15:19/6
2	04:57 21:33	05:34 21:00	06:24 19:58	07:12 17:39-17:42/3 18:49	07:06 16:44	07:56 14:48-15:05/17 16:05
3	04:58 21:33	05:36 20:59	06:25 19:56	07:14 17:35-17:45/10 18:47	07:08 16:42	07:57 14:48-15:05/17 16:04
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 17:33-17:47/14 18:44	07:09 16:40	07:59 14:49-15:06/17 16:04
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 17:31-17:47/16 18:42	07:11 16:38	08:00 14:49-15:06/17 16:03
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 17:30-17:48/18 18:40	07:13 16:37	08:01 14:50-15:07/17 16:03
7	05:01 21:31	05:42 20:52	06:32 19:47	07:21 17:30-17:48/18 18:38	07:15 15:21-15:28/7 16:35	08:03 14:50-15:07/17 16:03
8	05:02 21:30	05:44 20:50	06:33 19:44	07:22 17:30-17:48/18 18:35	07:16 15:19-15:30/11 16:33	08:04 14:50-15:07/17 16:02
9	05:03 21:29	05:45 20:48	06:35 19:42	07:24 17:29-17:47/18 18:33	07:18 15:18-15:31/13 16:32	08:05 14:51-15:07/16 16:02
10	05:04 21:29	05:47 20:46	06:37 19:40	07:26 17:29-17:47/18 18:31	07:20 15:17-15:32/15 16:30	08:06 14:52-15:08/16 16:02
11	05:05 21:28	05:48 20:44	06:38 19:38	07:27 17:30-17:46/16 18:29	07:22 15:17-15:33/16 16:29	08:07 14:52-15:09/17 16:02
12	05:06 21:27	05:50 20:42	06:40 19:35	07:29 17:31-17:45/14 18:27	07:24 15:17-15:33/16 16:27	08:08 14:53-15:09/16 16:01
13	05:07 21:26	05:52 20:40	06:41 19:33	07:31 17:32-17:42/10 18:24	07:25 15:10-15:13/3 16:26	08:09 14:53-15:09/16 16:01
14	05:09 21:25	05:53 20:38	06:43 19:31	07:32 17:36-17:38/2 18:22	07:27 15:07-15:16/9 16:24	08:10 14:54-15:10/16 16:01
15	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 15:06-15:34/28 16:23	08:11 14:55-15:10/15 16:01
16	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 15:05-15:33/28 16:21	08:12 14:54-15:10/16 16:02
17	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 15:04-15:33/29 16:20	08:13 14:55-15:10/15 16:02
18	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 15:04-15:33/29 16:19	08:13 14:56-15:11/15 16:02
19	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 15:04-15:32/28 16:17	08:14 14:57-15:12/15 16:02
20	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 15:04-15:32/28 16:16	08:15 14:57-15:11/14 16:03
21	05:17 21:18	06:04 20:24	06:54 19:14	07:45 18:07	07:39 15:05-15:22/17 16:15	08:15 14:58-15:12/14 16:03
22	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 15:04-15:21/17 16:14	08:16 14:58-15:12/14 16:04
23	05:20 21:15	06:08 20:20	06:58 19:10	07:48 08:33-08:35/2 18:03	07:42 15:05-15:22/17 16:13	08:16 14:59-15:13/14 16:04
24	05:21 21:14	06:09 20:18	06:59 19:07	07:50 08:30-08:38/8 18:01	07:44 14:51-14:57/6 16:12	08:17 14:59-15:13/14 16:05
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 07:28-07:38/10 16:59	07:45 14:50-14:59/9 16:11	08:17 14:59-15:14/15 16:05
26	05:24 21:11	06:13 20:13	07:02 19:03	06:53 07:28-07:39/11 16:57	07:47 14:48-15:00/12 16:10	08:18 15:00-15:15/15 16:06
27	05:26 21:10	06:14 20:11	07:04 19:00	06:55 07:27-07:39/12 16:55	07:49 14:48-15:01/13 16:09	08:18 15:00-15:15/15 16:07
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 07:28-07:39/11 16:53	07:50 14:48-15:03/15 16:08	08:18 15:01-15:16/15 16:07
29	05:28 21:07	06:17 20:07	07:07 18:56	06:59 07:28-07:38/10 16:51	07:52 14:48-15:03/15 16:07	08:18 15:01-15:16/15 16:08
30	05:30 21:05	06:19 20:05	07:09 18:54	07:00 07:29-07:37/8 16:49	07:53 14:48-15:04/16 16:06	08:18 15:01-15:17/16 16:09
31	05:31 21:03	06:21 20:03		07:02 07:32-07:35/3 16:47		08:18 15:02-15:18/16 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	250	530	491

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA27 - GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (227)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe

380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:32 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA28 - GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (228)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:26 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:56	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:04
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:46	04:55 21:26	05:03 21:30	05:44 20:50	06:34 19:45	07:22 18:36	07:17 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
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15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
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31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA29 - GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (229)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe

380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
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31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA30 - GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (230)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan Feb Mär Apr Mai Jun Jul Aug Sep Okt Nov Dez
1,56 2,60 3,92 5,75 7,42 7,51 7,59 7,27 5,27 3,77 1,84 1,30

Betriebsdauer je Sektor

N NNO ONO O OSO SSO S SSW WSW W WNW NNW Summe
380 355 575 581 405 486 1.019 1.030 1.402 808 666 644 8.349
Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
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27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:01 16:49	07:53 16:07	08:18 16:09
31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:04	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden												
Anzahl Minuten mit Schatten												
	260	278	367	416	484	498	501	453	381	332	267	245

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA31 - GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (231)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:21	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:45	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:19	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:03	06:33 19:55	05:32 20:46	04:55 21:26	05:02 21:30	05:44 20:50	06:34 19:45	07:22 18:35	07:17 16:34	08:04 16:02
9	08:16 16:21	07:39 17:14	06:42 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:23	07:37 17:16	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:01	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:10	06:24 20:02	05:25 20:52	04:53 21:29	05:07 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:32 17:21	06:32 18:11	06:22 20:04	05:24 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:02
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:57	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:57 20:34	06:46 19:26	07:36 18:18	07:31 16:21	08:12 16:02
17	08:11 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 21:00	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:14 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:12	07:36 16:18	08:14 16:02
20	08:08 16:38	07:18 17:34	06:17 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:07 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:34	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:38	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:08	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:57 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:46 16:11	08:17 16:05
26	08:01 16:48	07:06 17:45	06:03 18:33	05:55 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:53 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:51 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:07	08:18 16:09
31	07:54 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA32 - ENERCON E-70 E4 2,3 MW 2300 71.0 !O! NH: 114,0 m (Ges:149,5 m) (232)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:35 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:59	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:04
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:25	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:42 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:05 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:14	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:39	05:49 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:32 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	0	0	0	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA33 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (233)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Jun	Jul	August	September	Oktober	November	Dezember
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	05:47-06:12/25 21:33	04:57 21:02	05:43-06:19/36 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	05:48-06:13/25 21:33	04:58 21:00	05:44-06:20/36 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	05:48-06:13/25 21:33	04:58 20:59	05:45-06:20/35 19:56	07:14 18:47	07:08 16:42	07:57 16:05
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:58 21:23	05:47-06:13/26 21:32	04:59 20:57	05:46-06:20/34 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:48-06:14/26 21:32	05:00 20:55	05:47-06:20/33 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:44-05:46/2 21:31	05:01 20:53	05:49-06:20/31 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:42-06:14/32 21:31	05:02 20:52	05:54-06:20/26 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:41-06:14/33 21:30	05:02 20:50	05:54-06:20/26 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:40-06:15/35 21:29	05:03 20:48	05:55-06:21/26 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:40-06:15/35 21:29	05:04 20:46	05:55-06:21/26 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:39-06:15/36 21:28	05:05 20:44	05:56-06:20/24 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:39-06:15/36 21:27	05:06 20:42	05:56-06:20/24 19:35	07:29 18:27	07:24 16:27	08:08 16:02
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:39-06:16/37 21:26	05:08 20:40	05:57-06:20/23 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:06	05:22 20:55	04:53 21:31	05:39-06:16/37 21:25	05:09 20:38	05:57-06:20/23 19:31	07:33 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:39-06:16/37 21:24	05:10 20:36	05:58-06:19/21 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:39-06:17/38 21:23	05:11 20:34	05:58-06:19/21 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:39-06:17/38 21:22	05:12 20:32	05:59-06:18/19 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:39-06:17/38 21:21	05:13 20:30	06:00-06:17/17 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:22	06:09 20:14	05:15 21:02	04:53 21:33	05:39-06:17/38 21:20	05:15 20:28	06:01-06:16/15 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:39-06:17/38 21:19	05:16 20:26	06:03-06:15/12 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:39-06:17/38 21:18	05:17 20:24	06:05-06:13/8 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:11 21:07	04:53 21:34	05:39-06:17/38 21:16	05:19 20:22	06:06 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:40-06:18/38 21:15	05:20 20:20	06:08 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34	05:40-06:18/38 21:14	05:21 20:18	06:09 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:40-06:18/38 21:12	05:23 20:16	06:11 19:05	07:01 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:41-06:19/38 21:11	05:24 20:13	06:13 19:03	07:03 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:47	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:41-06:19/38 21:10	05:26 20:11	06:14 19:01	07:04 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34	05:42-06:19/37 21:08	05:27 20:09	06:16 18:58	07:06 16:53	07:50 16:08	08:18 16:08
29	07:56 16:54		06:56 19:38	05:49 20:31	05:03 21:16	04:56 21:34	05:42-06:19/37 21:07	05:29 20:07	06:17 18:56	07:07 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:54 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:43-06:20/37 21:05	05:30 20:05	06:19 18:54	07:09 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18			05:32 21:03	06:21 20:03	07:02 16:48	08:18 16:10	
Sonnenscheinstunden	260	278	367	416	484	497	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	0	174	1041	516	0	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA34 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (234)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 21:19	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 16:06
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 21:20	04:58 21:33	05:34 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 16:05
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 21:22	04:58 21:33	05:36 20:58	06:25 19:56	07:14 18:47	07:08 16:42	07:57 16:04
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 21:23	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 21:24	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:39	08:00 16:03
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 21:24	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25	05:02 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	08:17 16:20	07:41 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26	05:02 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27	05:03 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28	05:04 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29	05:05 21:28	05:49 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29	05:06 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:24 16:27	08:08 16:01
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30	05:08 21:26	05:52 20:40	06:41 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:05	05:22 20:55	04:53 21:31	05:09 21:25	05:53 20:38	06:43 19:31	07:32 18:22	07:27 16:24	08:10 16:01
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31	05:10 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 16:23	08:11 16:02
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32	05:11 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 16:21	08:12 16:02
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32	05:12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 16:20	08:13 16:02
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33	05:13 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 16:19	08:13 16:02
19	08:09 16:36	07:20 17:32	06:19 18:21	06:09 20:14	05:14 21:02	04:53 21:33	05:15 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 16:17	08:14 16:02
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33	05:16 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 16:16	08:15 16:03
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33	05:17 21:18	06:04 20:24	06:54 19:14	07:45 18:07	07:39 16:15	08:15 16:03
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34	05:19 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 16:14	08:16 16:04
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34	05:20 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 16:13	08:16 16:04
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:53 21:34	05:21 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 16:12	08:17 16:05
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 16:11	08:17 16:05
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34	05:24 21:11	06:13 20:13	07:03 19:03	06:53 16:57	07:47 16:10	08:18 16:06
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34	05:26 21:10	06:14 20:11	07:04 19:01	06:55 16:55	07:49 16:09	08:18 16:07
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 16:08	08:18 16:08
29	07:56 16:53		06:56 19:38	05:48 20:31	05:03 21:16	04:56 21:34	05:29 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 16:07	08:18 16:08
30	07:55 16:55		06:53 19:40	05:47 20:32	05:02 21:17	04:56 21:34	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 16:06	08:18 16:09
31	07:53 16:57		06:51 19:42		05:01 21:18		05:31 21:03	06:21 20:03		07:02 16:48		08:18 16:10
Sonneneinstrahlung	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	99	0	0	0	0	0	0	0	0	0	100	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten
			Zeitpunkt (SS:MM) Schattenanfang	Zeitpunkt (SS:MM) Schattenende	Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA35 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (235)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18 16:12	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	05:00 20:29-20:40/11
2	08:18 16:13	07:50 17:01	06:57 17:52	06:47 19:45	05:43 20:36	04:59 20:29-20:39/10
3	08:18 16:14	07:49 17:03	06:55 17:54	06:44 19:47	05:41 20:37	04:58 20:31-20:39/8
4	08:18 16:15	07:47 17:04	06:53 17:55	06:42 19:49	05:39 20:39	04:57 20:31-20:38/7
5	08:18 16:16	07:46 17:06	06:50 17:57	06:40 19:50	05:37 20:41	04:57 20:33-20:38/5
6	08:17 16:17	07:44 17:08	06:48 17:59	06:38 19:52	05:35 20:42	04:56 20:34-20:36/2
7	08:17 16:18	07:42 17:10	06:46 18:01	06:35 19:54	05:34 20:44	04:56 21:25
8	08:17 16:20	07:40 17:12	06:44 18:02	06:33 19:55	05:32 20:45	04:55 21:26
9	08:16 16:21	07:39 17:14	06:41 18:04	06:31 19:57	05:30 20:47	04:55 21:27
10	08:16 16:22	07:37 17:15	06:39 18:06	06:29 19:59	05:28 20:49	04:54 21:28
11	08:15 16:24	07:35 17:17	06:37 18:08	06:26 20:00	05:27 20:50	04:54 21:29
12	08:14 16:25	07:33 17:19	06:35 18:09	06:24 20:02	05:25 20:52	04:53 21:29
13	08:14 16:27	07:31 17:21	06:32 18:11	06:22 20:04	05:23 20:53	04:53 21:30
14	08:13 16:28	07:30 17:23	06:30 18:13	06:20 20:05	05:22 20:55	04:53 21:31
15	08:12 16:30	07:28 17:25	06:28 18:15	06:18 20:07	05:20 20:56	04:53 21:31
16	08:11 16:31	07:26 17:27	06:26 18:16	06:15 20:09	05:19 20:58	04:53 21:32
17	08:10 16:33	07:24 17:28	06:23 18:18	06:13 20:11	05:17 20:59	04:53 21:32
18	08:10 16:35	07:22 17:30	06:21 18:20	06:11 20:12	05:16 21:01	04:53 21:33
19	08:09 16:36	07:20 17:32	06:19 18:21	06:09 20:14	05:14 21:02	04:53 21:33
20	08:08 16:38	07:18 17:34	06:16 18:23	06:07 20:16	05:13 21:04	04:53 21:33
21	08:06 16:40	07:16 17:36	06:14 18:25	06:05 20:17	05:12 21:05	04:53 21:33
22	08:05 16:41	07:14 17:37	06:12 18:27	06:03 20:19	05:10 21:07	04:53 21:34
23	08:04 16:43	07:12 17:39	06:10 18:28	06:01 20:21	05:09 21:08	04:53 21:34
24	08:03 16:45	07:10 17:41	06:07 18:30	05:59 20:22	05:08 21:09	04:54 21:34
25	08:02 16:46	07:08 17:43	06:05 18:32	05:56 20:24	05:07 21:11	04:54 21:34
26	08:00 16:48	07:05 17:45	06:03 18:33	05:54 20:26	05:06 21:12	04:54 21:34
27	07:59 16:50	07:03 17:46	06:00 18:35	05:52 20:27	05:05 21:13	04:55 21:34
28	07:58 16:52	07:01 17:48	05:58 18:37	05:50 20:29	05:04 21:15	04:55 21:34
29	07:56 16:53		05:56 19:38	05:48 20:31	05:03 21:16	04:56 21:34
30	07:55 16:55		05:53 19:40	05:47 20:32	05:02 21:17	04:56 21:33
31	07:53 16:57		05:51 19:42		05:01 21:18	04:56 21:33
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	0	0	0	55	526	438

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA35 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (235)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli		August		September		Oktober		November		Dezember
1	04:57	05:47-06:00/13	05:33		06:22	19:24-19:33/9	07:11	07:04	07:55		
	21:33		21:02		20:00		18:51	16:46	16:06		
2	04:58	05:47-06:01/14	05:35		06:24	19:25-19:31/6	07:12	07:06	07:56		
	21:33		21:00		19:58		18:49	16:44	16:05		
3	04:58	05:48-06:02/14	05:36		06:25	19:25-19:29/4	07:14	07:08	07:57		
	21:33		20:58		19:56		18:47	16:42	16:04		
4	04:59	05:48-06:02/14	05:38		06:27		07:16	07:09	07:59		
	21:32		20:57		19:54		18:44	16:40	16:04		
5	05:00	05:47-06:02/15	05:39		06:29		07:17	07:11	08:00		
	21:32		20:55		19:51		18:42	16:39	16:03		
6	05:01	05:47-06:03/16	05:41		06:30		07:19	07:13	08:01		
	21:31		20:53		19:49		18:40	16:37	16:03		
7	05:02	05:47-06:03/16	05:42		06:32		07:21	07:15	08:03		
	21:31	20:40-20:44/4	20:52		19:47		18:38	16:35	16:03		
8	05:02	05:47-06:04/17	05:44		06:33		07:22	07:16	08:04		
	21:30	20:39-20:45/6	20:50		19:44		18:35	16:33	16:02		
9	05:03	05:48-06:04/16	05:45		06:35		07:24	07:18	08:05		
	21:29	20:38-20:46/8	20:48		19:42		18:33	16:32	16:02		
10	05:04	05:48-06:08/20	05:47		06:37		07:26	07:20	08:06		
	21:29	20:38-20:47/9	20:46		19:40		18:31	16:30	16:02		
11	05:05	05:48-06:10/22	05:49		06:38		07:27	07:22	08:07		
	21:28	20:38-20:48/10	20:44		19:38		18:29	16:29	16:02		
12	05:06	05:48-06:11/23	05:50		06:40		07:29	07:23	08:08		
	21:27	20:37-20:49/12	20:42		19:35		18:27	16:27	16:01		
13	05:08	05:48-06:12/24	05:52		06:41		07:31	07:25	08:09		
	21:26	20:37-20:49/12	20:40		19:33		18:24	16:26	16:01		
14	05:09	05:48-06:13/25	05:53		06:43		07:32	07:27	08:10		
	21:25	20:37-20:49/12	20:38		19:31		18:22	16:24	16:01		
15	05:10	05:48-06:13/25	05:55		06:45		07:34	07:29	08:11		
	21:24	20:37-20:50/13	20:36		19:28		18:20	16:23	16:02		
16	05:11	05:48-06:14/26	05:56		06:46		07:36	07:30	08:12		
	21:23	20:36-20:50/14	20:34		19:26		18:18	16:21	16:02		
17	05:12	05:48-06:14/26	05:58		06:48		07:38	07:32	08:13		
	21:22	20:36-20:50/14	20:32		19:24		18:16	16:20	16:02		
18	05:13	05:48-06:14/26	06:00		06:50		07:39	07:34	08:13		
	21:21	20:36-20:49/13	20:30		19:21		18:14	16:19	16:02		
19	05:15	05:49-06:15/26	06:01		06:51		07:41	07:36	08:14		
	21:20	20:36-20:48/12	20:28		19:19		18:11	16:17	16:02		
20	05:16	05:50-06:16/26	06:03		06:53		07:43	07:37	08:15		
	21:19	20:37-20:48/11	20:26		19:17		18:09	16:16	16:03		
21	05:17	05:51-06:16/25	06:04		06:54		07:45	07:39	08:15		
	21:18	20:37-20:46/9	20:24		19:14		18:07	16:15	16:03		
22	05:19	05:51-06:16/25	06:06		06:56		07:46	07:41	08:16		
	21:16	20:38-20:45/7	20:22		19:12		18:05	16:14	16:04		
23	05:20	05:52-06:15/23	06:08		06:58		07:48	07:42	08:16		
	21:15	20:38-20:44/6	20:20		19:10		18:03	16:13	16:04		
24	05:21	05:55-06:16/21	06:09		06:59		07:50	07:44	08:17		
	21:14	20:40-20:43/3	20:18		19:07		18:01	16:12	16:05		
25	05:23	05:59-06:15/16	06:11		07:01		06:52	07:45	08:17		
	21:12	20:41-20:42/1	20:16		19:05		16:59	16:11	16:05		
26	05:24	05:59-06:15/16	06:13		07:03		06:53	07:47	08:18		
	21:11		20:13		19:03		16:57	16:10	16:06		
27	05:26	06:00-06:15/15	06:14		07:04		06:55	07:49	08:18		
	21:10		20:11		19:01		16:55	16:09	16:07		
28	05:27	06:00-06:14/14	06:16	19:28-19:35/7	07:06		06:57	07:50	08:18		
	21:08		20:09		18:58		16:53	16:08	16:08		
29	05:29	06:01-06:13/12	06:17	19:26-19:35/9	07:07		06:59	07:52	08:18		
	21:07		20:07		18:56		16:51	16:07	16:08		
30	05:30	06:03-06:12/9	06:19	19:25-19:36/11	07:09		07:00	07:53	08:18		
	21:05		20:05		18:54		16:49	16:06	16:09		
31	05:31	06:05-06:09/4	06:21	19:25-19:36/11			07:02		08:18		
	21:03		20:03				16:48		16:10		
Sonnenscheinstunden	501		453		381		332	267	245		
Anzahl Minuten mit Schatten	760		38		19		0	0	0		

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA36 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (236)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni
1	08:18	07:52	06:59	06:49	05:45	05:00 20:30-20:41/11
	16:11	16:59	17:50	19:44	20:34	21:19
2	08:18	07:50	06:57	06:47	05:43	04:59 20:31-20:40/9
	16:13	17:01	17:52	19:45	20:36	21:20
3	08:18	07:49	06:55	06:44	05:41	04:58 20:32-20:41/9
	16:14	17:03	17:54	19:47	20:37	21:22
4	08:18	07:47	06:52	06:42	05:39	04:57 20:33-20:40/7
	16:15	17:04	17:55	19:49	20:39	21:23
5	08:18	07:46	06:50	06:40	05:37	04:57 20:34-20:40/6
	16:16	17:06	17:57	19:50	20:41	21:24
6	08:17	07:44	06:48	06:38	05:35	04:56 20:35-20:38/3
	16:17	17:08	17:59	19:52	20:42	21:24
7	08:17	07:42	06:46	06:35	05:34	04:56
	16:18	17:10	18:01	19:54	20:44	21:25
8	08:17	07:40	06:44	06:33	05:32	04:55
	16:20	17:12	18:02	19:55	20:45	21:26
9	08:16	07:39	06:41	06:31	05:30	04:55
	16:21	17:14	18:04	19:57	20:47	21:27
10	08:16 15:44-15:48/4	07:37	06:39	06:29	05:28	04:54
	16:22	17:15	18:06	19:59	20:49	21:28
11	08:15 15:43-15:50/7	07:35	06:37	06:26	05:27	04:54
	16:24	17:17	18:08	20:00	20:50	21:29
12	08:14 15:44-15:52/8	07:33	06:35	06:24	05:25	04:53
	16:25	17:19	18:09	20:02	20:52	21:29
13	08:14 15:43-15:54/11	07:31	06:32	06:22	05:23	04:53
	16:27	17:21	18:11	20:04	20:53	21:30
14	08:13 15:43-15:55/12	07:30	06:30	06:20	05:22	04:53
	16:28	17:23	18:13	20:05	20:55	21:31
15	08:12 15:43-15:57/14	07:28	06:28	06:18	05:20	04:53
	16:30	17:25	18:15	20:07	20:56	21:31
16	08:11 15:43-15:57/14	07:26	06:26	06:15	05:19	04:53
	16:31	17:26	18:16	20:09	20:58	21:32
17	08:10 15:43-15:58/15	07:24	06:23	06:13	05:17	04:53
	16:33	17:28	18:18	20:11	20:59	21:32
18	08:10 15:43-15:59/16	07:22	06:21	06:11	05:16	04:53
	16:35	17:30	18:20	20:12	21:01	21:33
19	08:09 15:43-15:59/16	07:20	06:19	06:09	05:14	04:53
	16:36	17:32	18:21	20:14	21:02	21:33
20	08:08 15:43-15:59/16	07:18	06:16	06:07	05:13 20:31-20:33/2	04:53
	16:38	17:34	18:23	20:16	21:04	21:33
21	08:06 15:44-15:59/15	07:16	06:14	06:05	05:12 20:30-20:35/5	04:53
	16:39	17:36	18:25	20:17	21:05	21:33
22	08:05 15:45-16:00/15	07:14	06:12	06:03	05:10 20:29-20:35/6	04:53
	16:41	17:37	18:27	20:19	21:07	21:34
23	08:04 15:46-16:00/14	07:12	06:10	06:01	05:09 20:28-20:37/9	04:53
	16:43	17:39	18:28	20:21	21:08	21:34
24	08:03 15:46-15:59/13	07:10	06:07	05:58	05:08 20:28-20:38/10	04:53
	16:45	17:41	18:30	20:22	21:09	21:34
25	08:02 15:47-15:59/12	07:08	06:05	05:56	05:07 20:28-20:39/11	04:54
	16:46	17:43	18:32	20:24	21:11	21:34
26	08:00 15:48-15:57/9	07:05	06:03	05:54	05:06 20:28-20:40/12	04:54
	16:48	17:45	18:33	20:26	21:12	21:34
27	07:59 15:51-15:55/4	07:03	06:00	05:52	05:05 20:28-20:41/13	04:55
	16:50	17:46	18:35	20:27	21:13	21:34
28	07:58	07:01	05:58	05:50	05:04 20:29-20:41/12	04:55
	16:52	17:48	18:37	20:29	21:15	21:34
29	07:56		06:56	05:48	05:03 20:29-20:41/12	04:56
	16:53		19:38	20:31	21:16	21:34
30	07:55		06:53	05:47	05:02 20:30-20:42/12	04:56
	16:55		19:40	20:32	21:17	21:33
31	07:53		06:51		05:01 20:30-20:41/11	
	16:57		19:42		21:18	
Sonnenscheinstunden	260	278	367	416	484	498
Anzahl Minuten mit Schatten	215	0	0	0	115	45

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung **WEA:** WEA36 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (236)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Juli	August	September	Oktober	November	Dezember
1	04:57 21:33	05:33 21:02	06:22 20:00	07:11 18:51	07:04 16:46	07:55 15:25-15:32/7 16:06
2	04:58 21:33	05:34 21:00	06:24 19:58	07:12 18:49	07:06 16:44	07:56 15:27-15:32/5 16:05
3	04:58 21:33	05:36 20:58	06:25 19:56	07:14 18:47	07:08 16:42	07:57 15:29-15:30/1 16:04
4	04:59 21:32	05:38 20:57	06:27 19:54	07:16 18:44	07:09 16:40	07:59 16:04
5	05:00 21:32	05:39 20:55	06:29 19:51	07:17 18:42	07:11 16:38	08:00 16:03
6	05:01 21:31	05:41 20:53	06:30 19:49	07:19 18:40	07:13 16:37	08:01 16:03
7	05:01 20:41-20:45/4 21:31	05:42 20:52	06:32 19:47	07:21 18:38	07:15 16:35	08:03 16:03
8	05:02 20:40-20:47/7 21:30	05:44 20:50	06:33 19:44	07:22 18:35	07:16 16:33	08:04 16:02
9	05:03 20:40-20:48/8 21:29	05:45 20:48	06:35 19:42	07:24 18:33	07:18 16:32	08:05 16:02
10	05:04 20:39-20:49/10 21:29	05:47 20:46	06:37 19:40	07:26 18:31	07:20 16:30	08:06 16:02
11	05:05 20:38-20:48/10 21:28	05:48 20:44	06:38 19:38	07:27 18:29	07:22 16:29	08:07 16:02
12	05:06 20:39-20:50/11 21:27	05:50 20:42	06:40 19:35	07:29 18:27	07:23 16:27	08:08 16:01
13	05:08 20:38-20:50/12 21:26	05:52 20:40	06:41 19:33	07:31 18:24	07:25 16:26	08:09 16:01
14	05:09 20:38-20:51/13 21:25	05:53 20:38	06:43 19:31	07:32 18:22	07:27 16:24	08:10 16:01
15	05:10 20:38-20:51/13 21:24	05:55 20:36	06:45 19:28	07:34 18:20	07:29 15:24-15:29/5 16:23	08:11 16:01
16	05:11 20:38-20:51/13 21:23	05:56 20:34	06:46 19:26	07:36 18:18	07:30 15:21-15:30/9 16:21	08:12 16:02
17	05:12 20:38-20:50/12 21:22	05:58 20:32	06:48 19:24	07:38 18:16	07:32 15:20-15:32/12 16:20	08:13 16:02
18	05:13 20:38-20:49/11 21:21	06:00 20:30	06:50 19:21	07:39 18:14	07:34 15:20-15:33/13 16:19	08:13 16:02
19	05:15 20:38-20:48/10 21:20	06:01 20:28	06:51 19:19	07:41 18:11	07:36 15:20-15:34/14 16:17	08:14 16:02
20	05:16 20:39-20:48/9 21:19	06:03 20:26	06:53 19:17	07:43 18:09	07:37 15:20-15:35/15 16:16	08:15 16:03
21	05:17 20:39-20:47/8 21:18	06:04 20:24	06:54 19:14	07:45 18:07	07:39 15:20-15:35/15 16:15	08:15 16:03
22	05:19 20:39-20:45/6 21:16	06:06 20:22	06:56 19:12	07:46 18:05	07:41 15:19-15:35/16 16:14	08:16 16:04
23	05:20 20:40-20:44/4 21:15	06:08 20:20	06:58 19:10	07:48 18:03	07:42 15:20-15:35/15 16:13	08:16 16:04
24	05:21 20:42-20:43/1 21:14	06:09 20:18	06:59 19:07	07:50 18:01	07:44 15:20-15:36/16 16:12	08:17 16:05
25	05:23 21:12	06:11 20:16	07:01 19:05	06:52 16:59	07:45 15:21-15:36/15 16:11	08:17 16:05
26	05:24 21:11	06:13 20:13	07:02 19:03	06:53 16:57	07:47 15:21-15:36/15 16:10	08:18 16:06
27	05:26 21:10	06:14 20:11	07:04 19:00	06:55 16:55	07:49 15:22-15:36/14 16:09	08:18 16:07
28	05:27 21:08	06:16 20:09	07:06 18:58	06:57 16:53	07:50 15:23-15:35/12 16:08	08:18 16:07
29	05:28 21:07	06:17 20:07	07:07 18:56	06:59 16:51	07:52 15:23-15:34/11 16:07	08:18 16:08
30	05:30 21:05	06:19 20:05	07:09 18:54	07:00 16:49	07:53 15:25-15:33/8 16:06	08:18 16:09
31	05:31 21:03	06:21 20:03	07:02 16:47	07:02 16:47	07:02 16:47	08:18 16:10
Sonnenscheinstunden	501	453	381	332	267	245
Anzahl Minuten mit Schatten	162	0	0	0	205	13

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

14.10.2025 14:42/4.1.273



SHADOW - Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung WEA: WEA37 - DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (237)

Annahmen für Schattenwurfberechnung

Sonnenscheinwahrscheinlichkeit S (Mittlere tägliche Sonnenstunden) [POTSDAM]

Jan	Feb	Mär	Apr	Mai	Jun	Jul	Aug	Sep	Okt	Nov	Dez
1,56	2,60	3,92	5,75	7,42	7,51	7,59	7,27	5,27	3,77	1,84	1,30

Betriebsdauer je Sektor

N	NNO	ONO	O	OSO	SSO	S	SSW	WSW	W	WNW	NNW	Summe
380	355	575	581	405	486	1.019	1.030	1.402	808	666	644	8.349

Startwindgeschwindigkeit: Startwindgeschw. aus Leistungskennlinie

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1	08:18 16:11	07:52 16:59	06:59 17:50	06:49 19:44	05:45 20:34	06:09-06:11/2 21:19	04:57 21:33	05:33 21:02	06:05-06:21/16 20:00	06:22 18:51	07:11 16:46	07:04 16:06
2	08:18 16:13	07:50 17:52	06:57 17:55	06:47 19:45	05:43 20:36	06:07-06:13/6 21:20	04:58 21:33	05:34 21:00	06:05-06:22/17 19:58	06:24 18:49	07:12 16:44	07:06 16:05
3	08:18 16:14	07:49 17:54	06:55 17:54	06:44 19:47	05:41 20:37	06:05-06:14/9 21:21	04:58 21:33	05:36 20:58	06:05-06:24/19 19:56	06:25 18:47	07:14 16:42	07:08 16:04
4	08:18 16:15	07:47 17:55	06:52 17:55	06:42 19:49	05:39 20:39	06:04-06:15/11 21:23	04:57 21:32	05:38 20:57	06:06-06:24/18 19:54	06:27 18:44	07:16 16:40	07:09 16:04
5	08:18 16:16	07:46 17:57	06:50 17:57	06:40 19:50	05:37 20:41	06:02-06:15/13 21:23	04:57 21:32	05:39 20:55	06:07-06:24/17 19:51	06:29 18:42	07:17 16:38	07:11 16:03
6	08:17 16:17	07:44 17:59	06:48 17:59	06:38 19:52	05:35 20:42	06:00-06:15/15 21:24	04:56 21:31	05:41 20:53	06:09-06:25/16 19:49	06:30 18:40	07:19 16:37	07:13 16:03
7	08:17 16:18	07:42 18:01	06:46 18:01	06:35 19:54	05:34 20:44	05:59-06:15/16 21:25	04:56 21:31	05:42 20:51	06:10-06:24/14 19:47	06:32 18:38	07:21 16:35	07:15 16:03
8	08:17 16:20	07:40 18:02	06:44 18:02	06:33 19:55	05:32 20:45	05:57-06:15/18 21:26	04:55 21:30	05:44 20:50	06:12-06:25/13 19:44	06:33 18:35	07:22 16:33	07:16 16:02
9	08:16 16:21	07:39 18:04	06:41 18:04	06:31 19:57	05:30 20:47	05:55-06:14/19 21:27	04:55 21:29	05:45 20:48	06:13-06:24/11 19:42	06:35 18:33	07:24 16:32	07:18 16:02
10	08:16 16:22	07:37 18:06	06:39 18:06	06:29 19:59	05:28 20:49	05:55-06:13/18 21:28	04:54 21:29	05:47 20:46	06:15-06:23/8 19:40	06:37 18:31	07:26 16:30	07:20 16:02
11	08:15 16:24	07:35 18:08	06:37 18:08	06:26 20:00	05:27 20:50	05:54-06:11/17 21:29	04:54 21:28	05:48 20:44	06:16-06:21/5 19:38	06:38 18:29	07:27 16:29	07:22 16:02
12	08:14 16:25	07:33 18:09	06:35 18:09	06:24 20:02	05:25 20:52	05:55-06:07/12 21:29	04:53 21:27	05:50 20:42	06:40-06:21/5 19:35	06:40 18:27	07:29 16:27	07:23 16:01
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14	08:13 16:28	07:30 18:13	06:30 18:13	06:20 20:05	05:22 20:55	05:55-06:06/11 21:31	04:53 21:25	05:53 20:38	06:43-06:21/5 19:31	06:43 18:22	07:32 16:24	07:27 16:01
15	08:12 16:30	07:28 18:15	06:28 18:15	06:18 20:07	05:20 20:56	05:56-06:05/9 21:31	04:53 21:24	05:55 20:36	19:44-19:52/8 19:28	06:45 18:20	07:34 16:23	07:29 16:01
16	08:11 16:31	07:26 18:16	06:26 18:16	06:15 20:09	05:19 20:58	05:57-06:04/7 21:32	04:53 21:23	05:56 20:34	19:43-19:54/11 19:26	06:46 18:18	07:36 16:21	07:30 16:02
17	08:10 16:33	07:24 18:18	06:23 18:18	06:13 20:11	05:17 20:59	06:00-06:02/2 21:32	04:53 21:22	05:58 20:32	19:41-19:54/13 19:24	06:48 18:16	07:38 16:20	07:32 16:02
18	08:10 16:35	07:22 18:20	06:21 18:20	06:11 20:12	05:16 21:01	19:39-19:45/6 21:33	04:53 21:21	06:00 20:30	19:41-19:55/14 19:21	06:50 18:14	07:39 16:19	07:34 16:02
19	08:09 16:36	07:20 18:21	06:19 18:21	06:09 20:14	05:14 21:02	19:37-19:47/10 21:33	04:53 21:20	06:01 20:28	19:40-19:55/15 19:19	06:51 18:11	07:41 16:17	07:36 16:02
20	08:07 16:38	07:18 18:23	06:16 18:23	06:07 20:16	05:13 21:04	19:36-19:49/13 21:33	04:53 21:19	06:03 20:26	19:40-19:55/15 19:17	06:53 18:09	07:43 16:16	07:37 16:03
21	08:06 16:40	07:16 18:25	06:14 18:25	06:05 20:17	05:12 21:05	19:35-19:49/14 21:33	04:53 21:18	06:04 20:24	19:39-19:54/15 19:14	06:54 18:07	07:45 16:15	07:39 16:03
22	08:05 16:41	07:14 18:27	06:12 18:27	06:03 20:19	05:10 21:07	19:34-19:50/16 21:34	04:53 21:16	06:06 20:22	19:40-19:54/14 19:12	06:56 18:05	07:46 16:14	07:41 16:04
23	08:04 16:43	07:12 18:28	06:10 18:28	06:01 20:21	05:09 21:08	19:34-19:49/15 21:34	04:53 21:15	06:08 20:20	19:40-19:52/12 19:10	06:58 18:03	07:48 16:13	07:42 16:04
24	08:03 16:45	07:10 18:30	06:07 18:30	05:58 20:22	05:08 21:09	19:34-19:49/15 21:34	04:53 21:14	06:09 20:18	19:41-19:50/9 19:07	06:59 18:01	07:50 16:12	07:44 16:05
25	08:02 16:46	07:08 18:32	06:05 18:32	05:56 20:24	05:07 21:11	19:34-19:48/14 21:34	04:54 21:12	06:11 20:16	19:42-19:48/6 19:05	07:01 16:59	06:52 16:11	07:45 16:05
26	08:00 16:48	07:05 18:33	06:03 18:33	05:54 20:26	05:06 21:12	19:35-19:47/12 21:34	04:54 21:11	06:13 20:13	07:02 19:03	06:53 16:57	07:47 16:10	07:48 16:06
27	07:59 16:50	07:03 18:35	06:00 18:35	05:52 20:27	05:05 21:13	19:36-19:46/10 21:34	04:55 21:09	06:14 20:11	07:04 19:00	06:55 16:55	07:49 16:09	07:50 16:07
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31	07:53 16:57	07:00 19:42	05:51 19:42	05:42 20:32	05:01 21:18	19:42-19:48/6 21:33	04:56 21:03	06:21 20:02	07:02 16:48	07:02 16:48	07:53 16:10	07:53 16:10
Sonnenscheinstunden	260	278	367	416	484	498	501	453	381	332	267	245
Anzahl Minuten mit Schatten	0	0	0	132	197	0	46	286	0	0	0	0

Tabellen-Layout: Die Daten für jeden Tag sind in folgender Matrix wiedergegeben (Sommerzeit wie Bezugsjahr):

Tag im Monat	Sonnenaufgang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten
	Sonnenuntergang (SS:MM)	Zeitpunkt (SS:MM)	Schattenanfang-Zeitpunkt (SS:MM)	Schattenende/Minuten mit Schatten

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

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DE-41517 Grevenbroich

+49 2181 2278 0

Florian Schmidt

Berechnet:

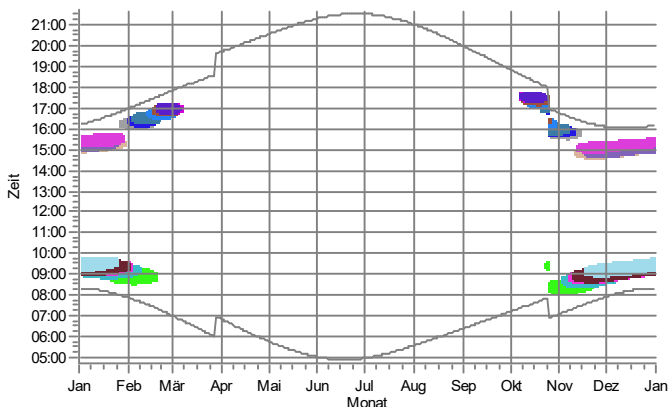
14.10.2025 14:42/4.1.273



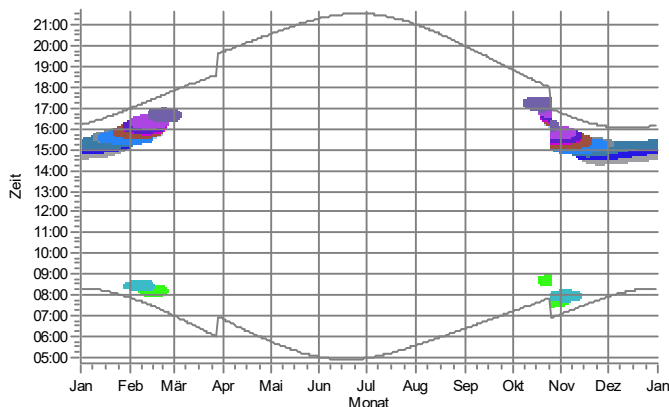
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

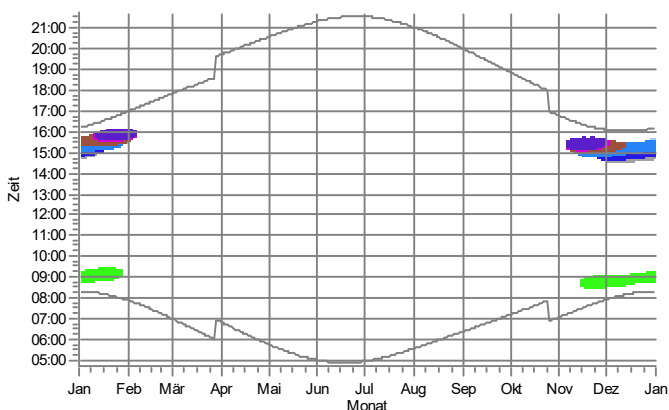
WEA01: ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0



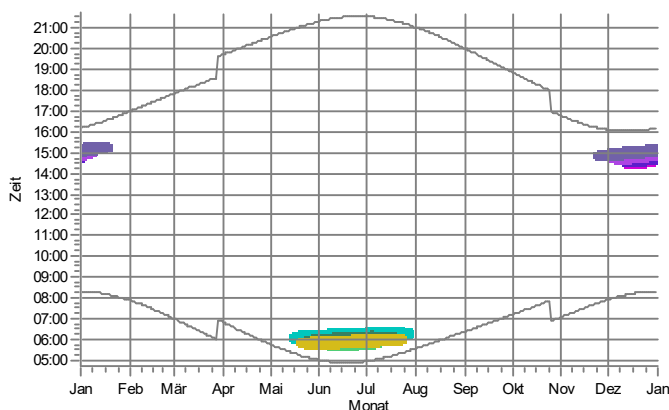
WEA02: ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (2)



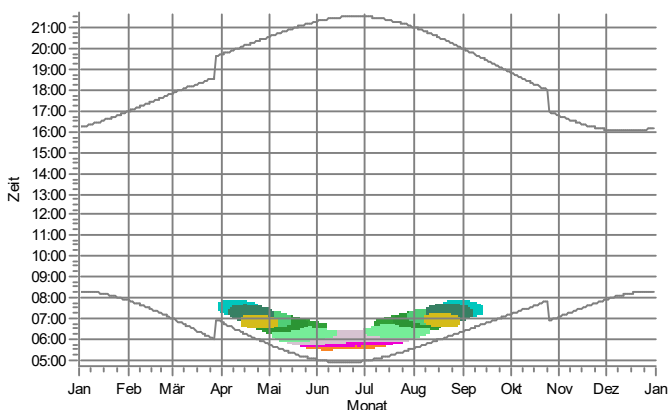
WEA03: ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0



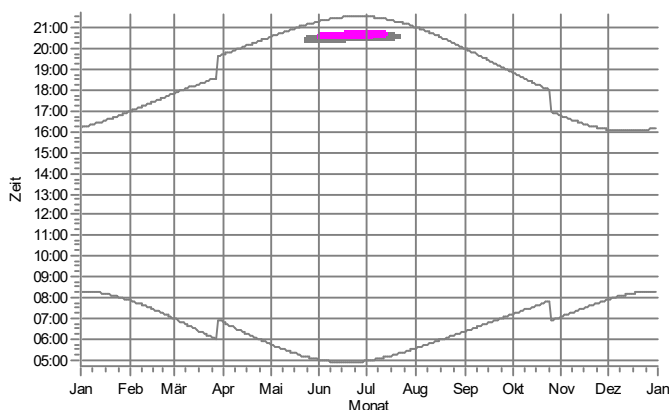
WEA04: ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0 m) (4)



WEA05: ENERCON E-175 EP5 E2 7000 175.0 !O! NH: 174,5 m (Ges:262,0



WEA06: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (206)



Schattenrezeptoren

IP04: Siebenhausen 14, 06766 Bitterfeld-Wolfen
IP05: Siebenhausen 15, 06766 Bitterfeld-Wolfen
IP15: Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz
IP16: Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz
IP17: Kleinleipziger Str. 12A, 06779 Raguhn-Jeßnitz
IP18: Am Sportplatz 8, 06779 Raguhn-Jeßnitz
IP19: Vor d. Heide 10, 06779 Raguhn-Jeßnitz
IP20: Am Sandberg 11, 06780 Zörbig

IP21: Am Sandberg 24, 06780 Zörbig
IP23: Hallesche Straße 10, 06780 Zörbig
IP24: Hallesche Straße 13, 06780 Zörbig
IP25: Hallesche Straße 15, 06780 Zörbig
IP26: Hallesche Straße 18, 06780 Zörbig
IP27: Am Sandberg 14, 06780 Zörbig
IP28: Am Sandberg 18, 06780 Zörbig
IP29: Am Sandberg 20, 06780 Zörbig

IP30: Am Sportpl. 15, 06780 Zörbig
IP31: Vor d. Heide 6, 06779 Raguhn-Jeßnitz
IP32: Vor d. Heide 4, 06779 Raguhn-Jeßnitz
IP33: Am Trappenberg 2, 06779 Raguhn-Jeßnitz
IP34: Kleinleipziger Str. 7, 06779 Raguhn-Jeßnitz
IP35: Kleinleipziger Str. 3, 06779 Raguhn-Jeßnitz
IP36: Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz
IP37: Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz

IP38: Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz
IP39: Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz
IP40: Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz
IP41: Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz
IP42: Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz
IP43: Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz
IP44: Am Dorfe 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

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Florian Schmidt

Berechnet:

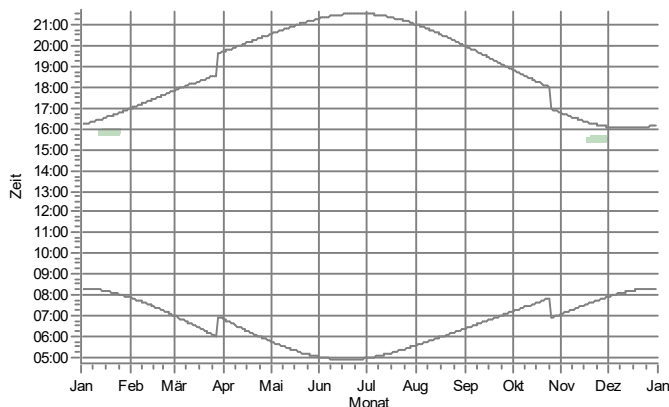
14.10.2025 14:42/4.1.273



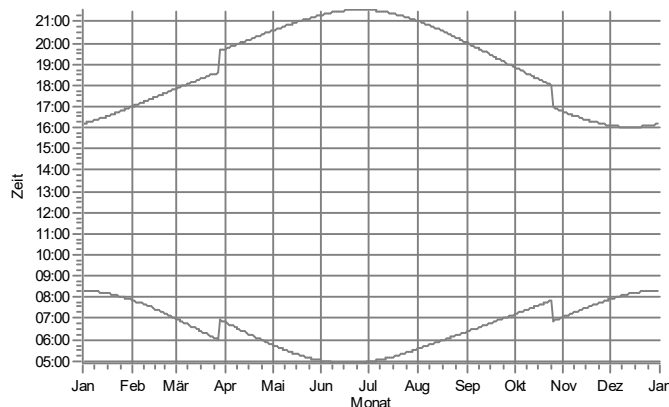
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

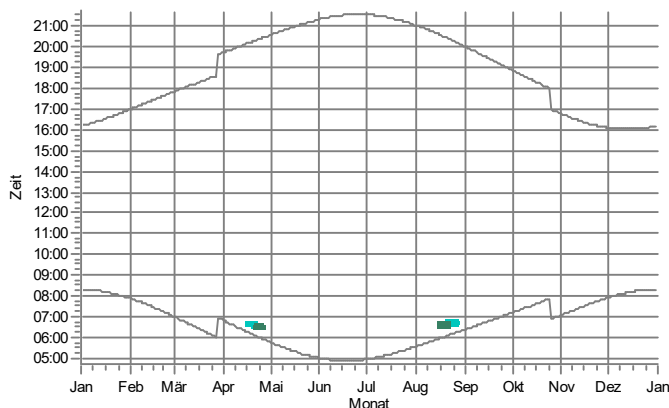
WEA07: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (20)



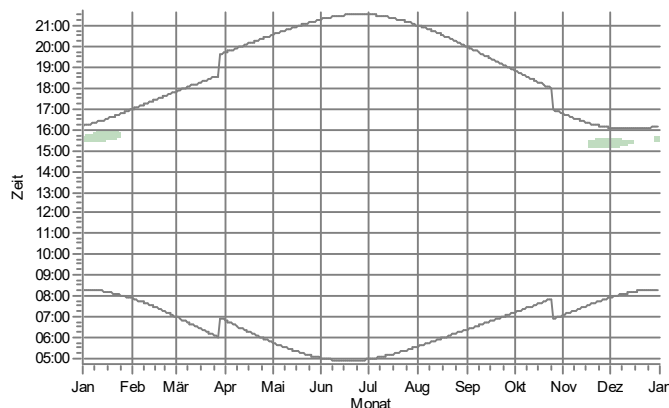
WEA08: ENERCON E-66/20.70 2000 70.0 !-! NH: 93,8 m (Ges:128,8 m) (208)



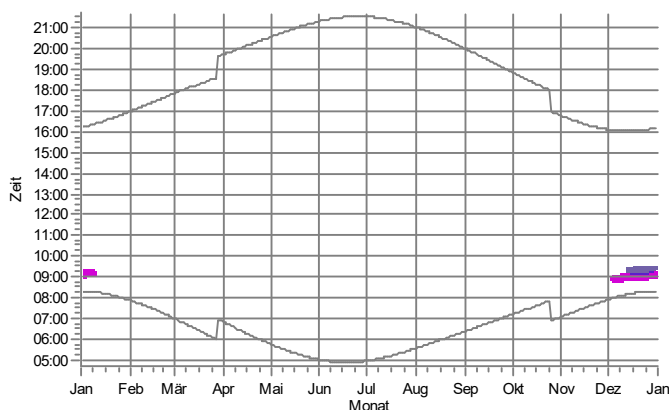
WEA09: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (20)



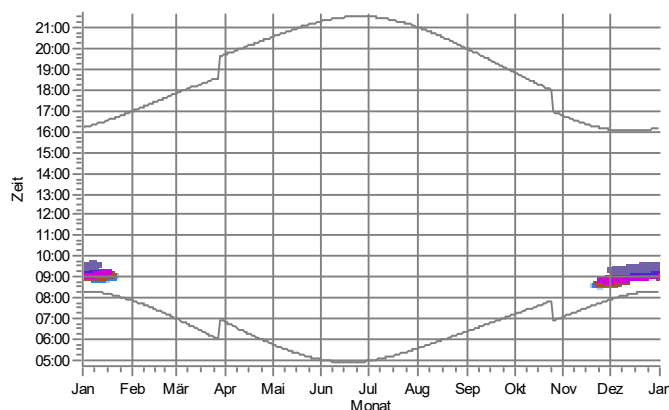
WEA10: ENERCON E-82 E2 2300 82.0 !O! NH: 85,0 m (Ges:126,0 m) (210)



WEA11: ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (212)



WEA12: ENERCON E-70 E4 2000 71.0 !O! NH: 114,1 m (Ges:149,6 m) (212)



Schattenrezeptoren

IP14: Holländer Mühle 1, 06779 Raguhn-Jeßnitz

IP21: Am Sandberg 24, 06780 Zörbig

IP39: Thurländer Dorfstraße 24A, 06779 Raguhn-Jeßnitz

IP42: Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz

IP15: Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz

IP29: Am Sandberg 20, 06780 Zörbig

IP40: Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz

IP43: Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz

IP16: Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz

IP36: Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz

IP41: Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz

IP44: Am Dorfe 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

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Florian Schmidt

Berechnet:

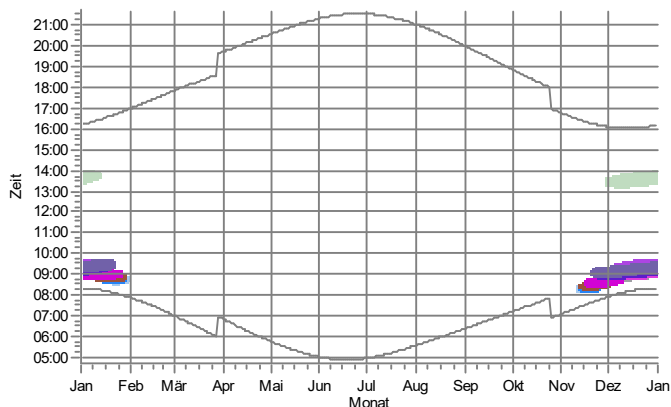
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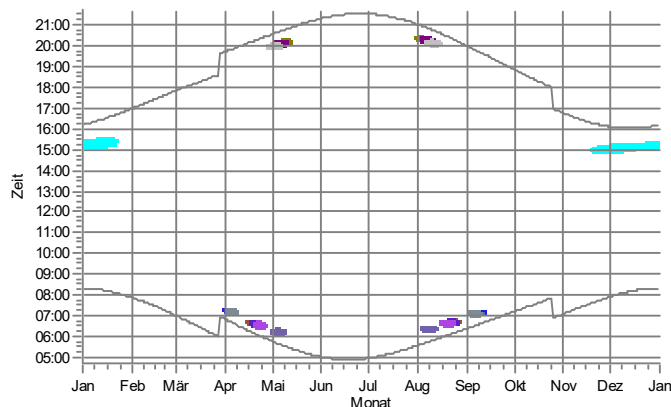
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

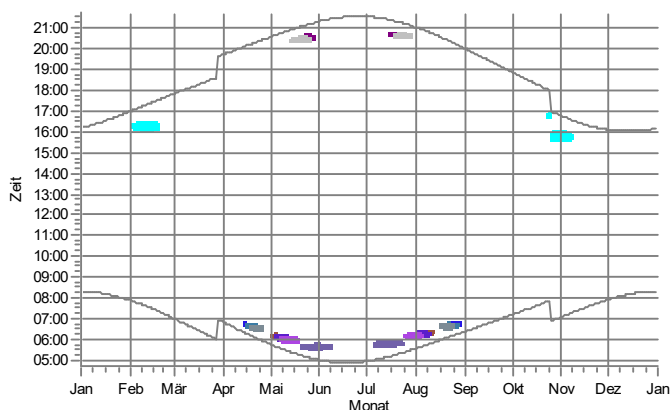
WEA 13: ENERCON E-70 E4 2000 71.0 !O! NH: 85,0 m (Ges:120,5 m) (213)



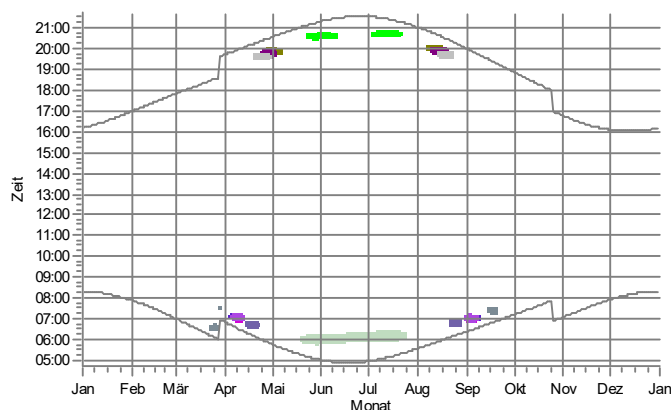
WEA 14: ENERCON E-70 E4 2000 71.0 !O! NH: 98,8 m (Ges:134,3 m) (214)



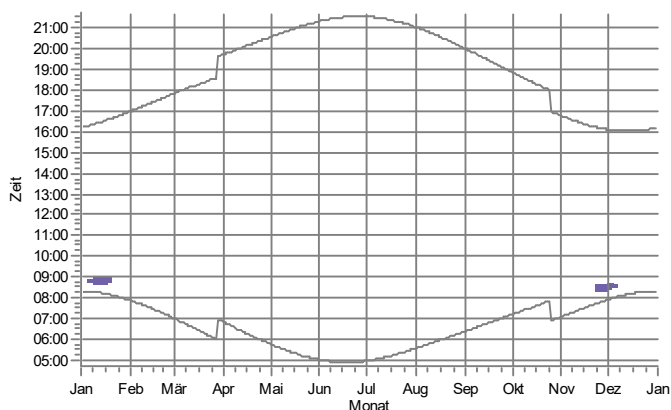
WEA 15: ENERCON E-70 E4 2000 71.0 !O! NH: 98,2 m (Ges:133,7 m) (215)



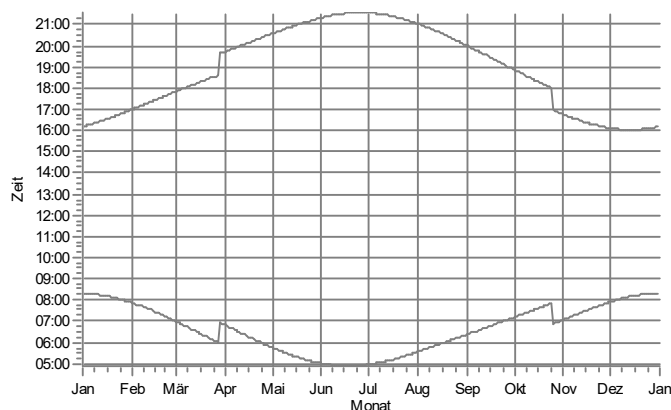
WEA 16: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (216)



WEA 17: ENERCON E-70 E4 2000 71.0 !O! NH: 100,0 m (Ges:135,5 m) (217)



WEA 18: ENERCON E-70 E4 2000 71.0 !O! NH: 98,0 m (Ges:133,5 m) (218)



Schattenrezeptoren

IP09: Thurländer Str. 1, 06779 Raguhn-Jeßnitz
IP10: Thurländer Str. 24, 06779 Raguhn-Jeßnitz
IP11: Thurländer Str. 28, 06779 Raguhn-Jeßnitz
IP12: Zerbster Str. 17, 06779 Raguhn-Jeßnitz
IP13: Dorfstraße 30, 06779 Raguhn-Jeßnitz

IP14: Holländer Mühle 1, 06779 Raguhn-Jeßnitz
IP15: Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz
IP16: Thurländer Lindenstrasse 15, 06779 Raguhn-Jeßnitz
IP35: Kleinspitzer Str. 3, 06779 Raguhn-Jeßnitz
IP36: Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz

IP37: Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz
IP38: Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz
IP39: Thurländer Dorfstraße 24a, 06779 Raguhn-Jeßnitz
IP40: Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz
IP41: Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz

IP42: Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz
IP43: Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz
IP44: Am Dorfe 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

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Florian Schmidt

Berechnet:

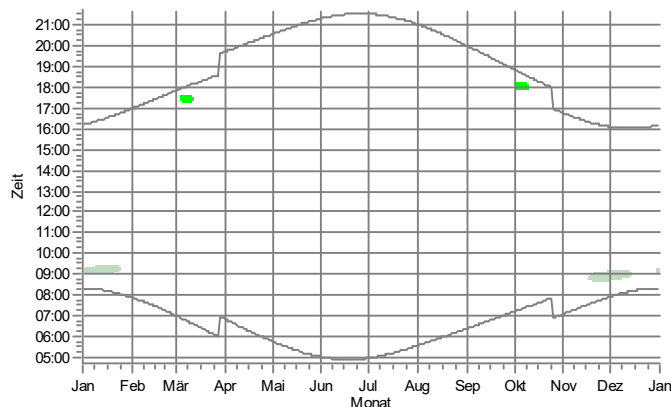
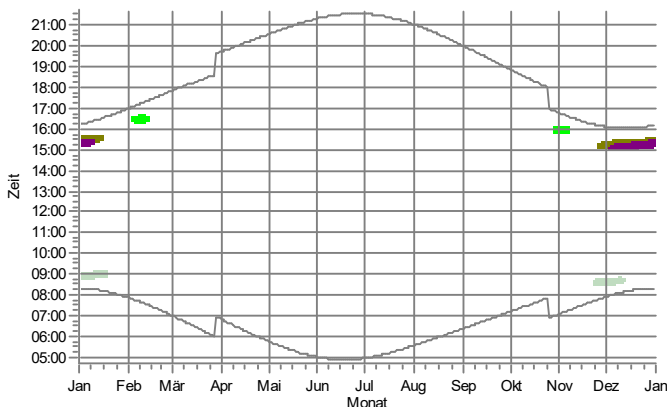
14.10.2025 14:42/4.1.273



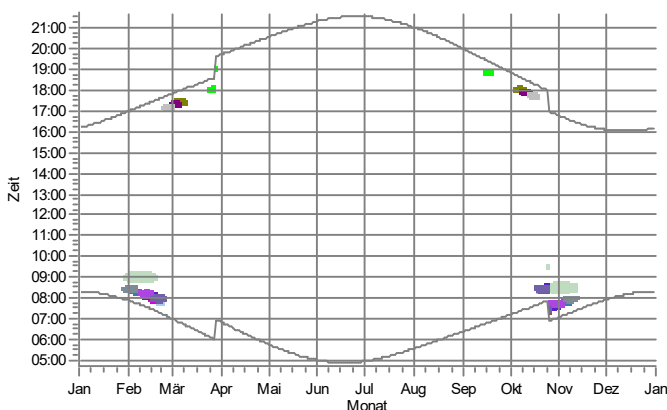
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

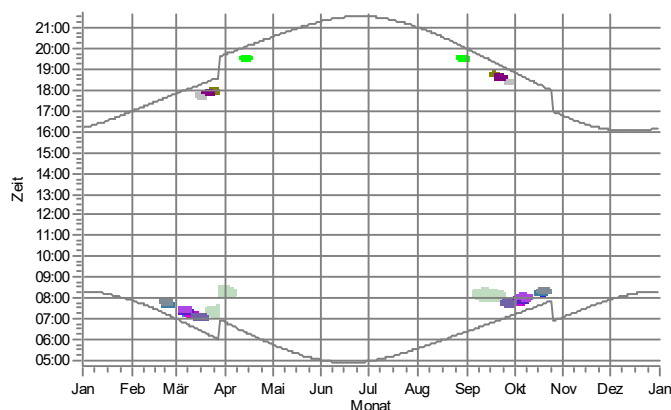
WEA 19: ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (220) WEA20: ENERCON E-66/20.70 2000 70.0 !-! NH: 114,1 m (Ges:149,1 m) (220)



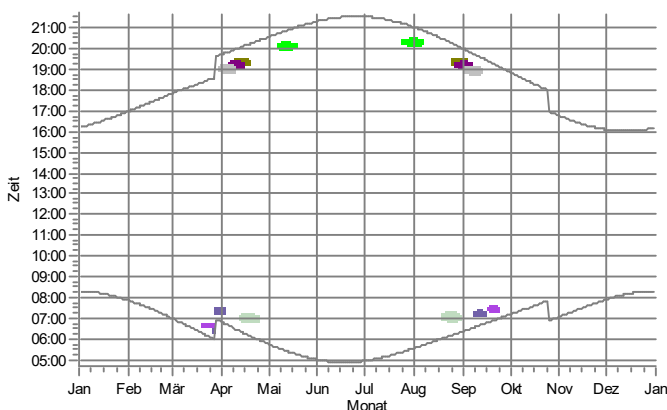
WEA21: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (22)



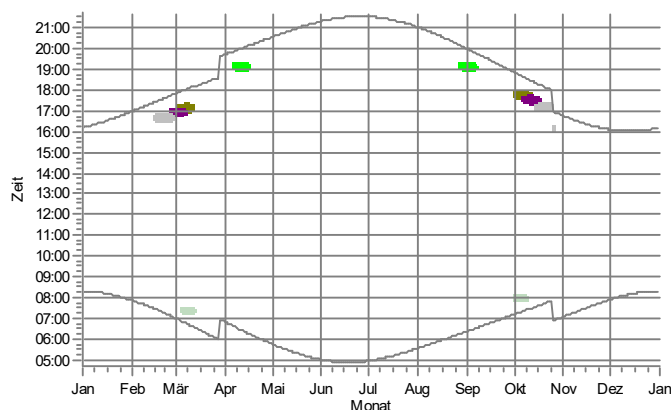
WEA22: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (222)



WEA23: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (22)



WEA24: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (224)



Schattenrezeptoren

IP09: Thurländer Str. 1, 06779 Raguhn-Jeßnitz
IP10: Thurländer Str. 24, 06779 Raguhn-Jeßnitz
IP11: Thurländer Str. 28, 06779 Raguhn-Jeßnitz
IP12: Zerbster Str. 17, 06779 Raguhn-Jeßnitz

IP14: Holländer Mühle 1, 06779 Raguhn-Jeßnitz
IP15: Thurländer Dorfstraße 23, 06779 Raguhn-Jeßnitz
IP36: Thurländer Lindenstrasse 10, 06779 Raguhn-Jeßnitz
IP37: Thurländer Lindenstrasse 8a, 06779 Raguhn-Jeßnitz

IP38: Thurländer Lindenstrasse 3, 06779 Raguhn-Jeßnitz
IP39: Thurländer Dorfstraße 24a, 06779 Raguhn-Jeßnitz
IP40: Thurländer Dorfstraße 21, 06779 Raguhn-Jeßnitz
IP41: Thurländer Dorfstraße 19, 06779 Raguhn-Jeßnitz

IP42: Thurländer Dorfstraße 17, 06779 Raguhn-Jeßnitz
IP43: Thurländer Dorfstraße 12, 06779 Raguhn-Jeßnitz
IP44: Am Dorfe 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurkapelle

Lizenziierter Anwender:

windtest grevenbroich gmbh

Frimmersdorfer Straße 73a

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Florian Schmidt

Berechnet:

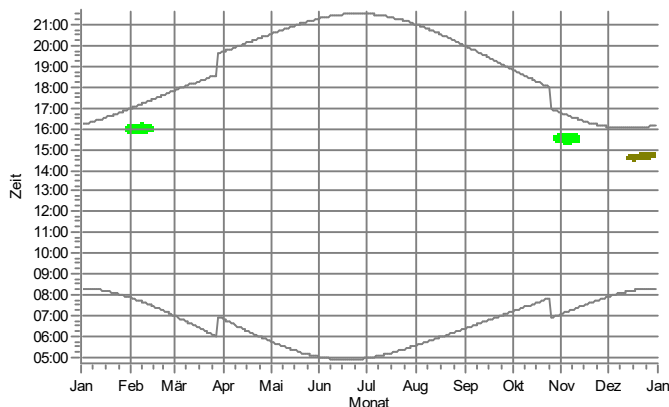
14.10.2025 14:42/4.1.273



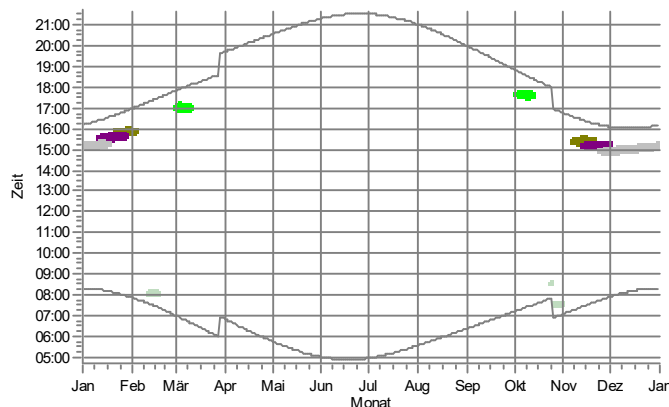
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

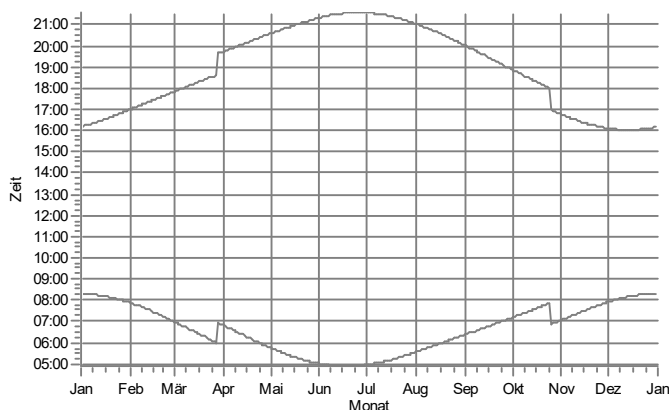
WEA25: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (22)



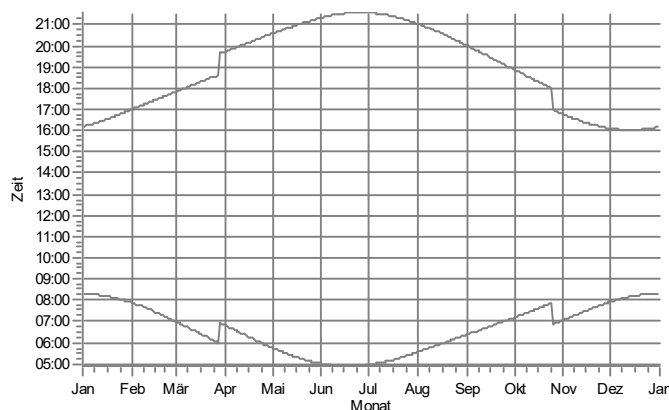
WEA26: ENERCON E-70 E4 2000 71.0 !O! NH: 113,5 m (Ges:149,0 m) (226)



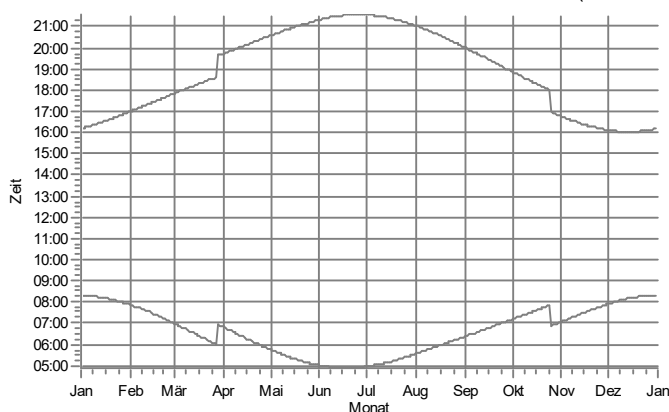
WEA27: GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5



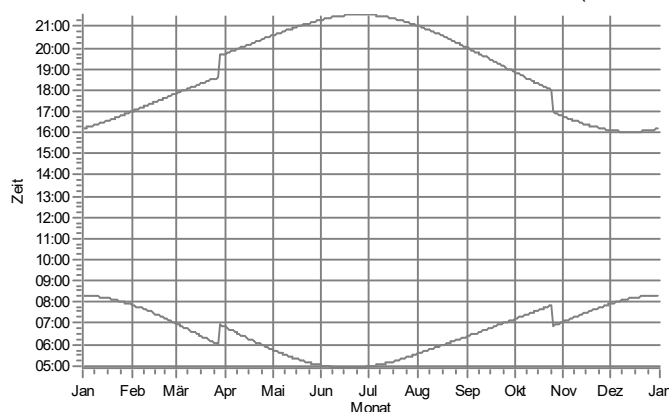
WEA28: GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (228)



WEA29: GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5



WEA30: GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5 m) (230)



Schattenrezeptoren

IP09: Thurländer Str. 1, 06779 Raguhn-Jeßnitz
IP10: Thurländer Str. 24, 06779 Raguhn-Jeßnitz

IP11: Thurländer Str. 28, 06779 Raguhn-Jeßnitz
IP12: Zerbster Str. 17, 06779 Raguhn-Jeßnitz

IP14: Holländer Mühle 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurkapelle

Lizenzierter Anwender:

windtest grevenbroich gmbh

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Berechnet:

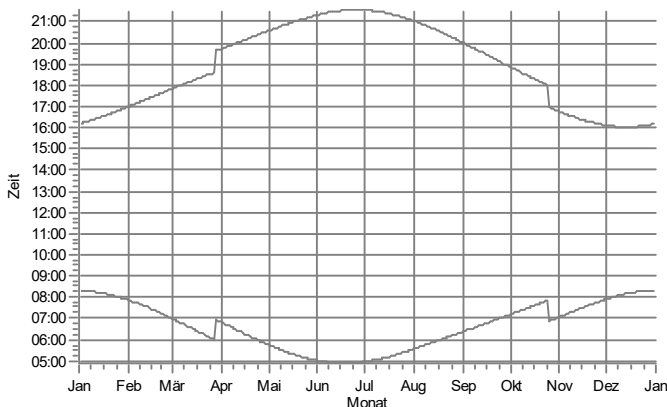
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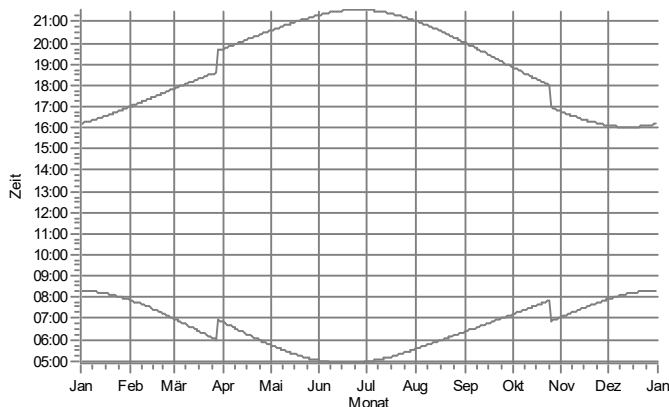
SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurkapelle Gesamtbelastung

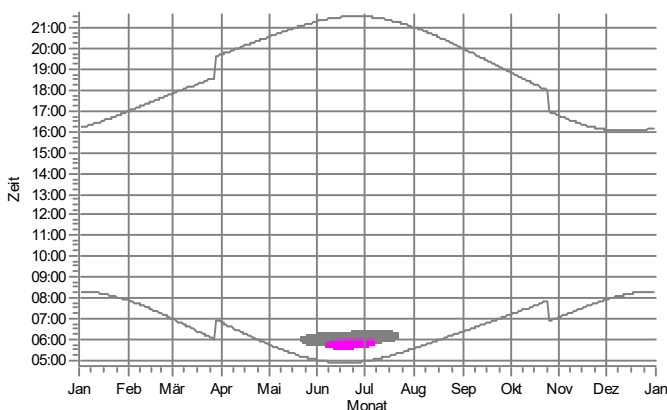
WEA31: GE WIND ENERGY GE 1.5sl 1500 77.0 !O! NH: 96,0 m (Ges:134,5



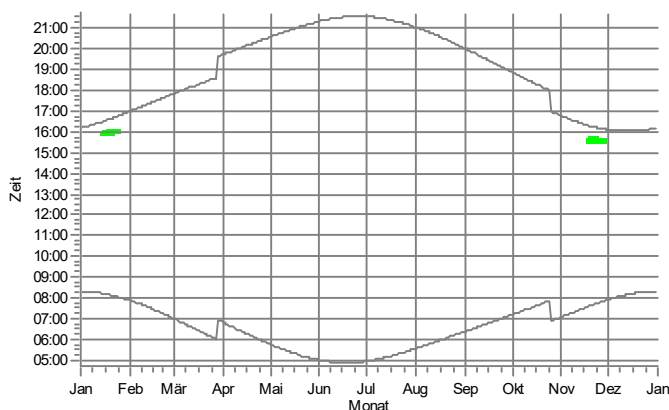
WEA32: ENERCON E-70 E4 2,3 MW 2300 71.0 !O! NH: 114,0 m (Ges:149,5 m) (234



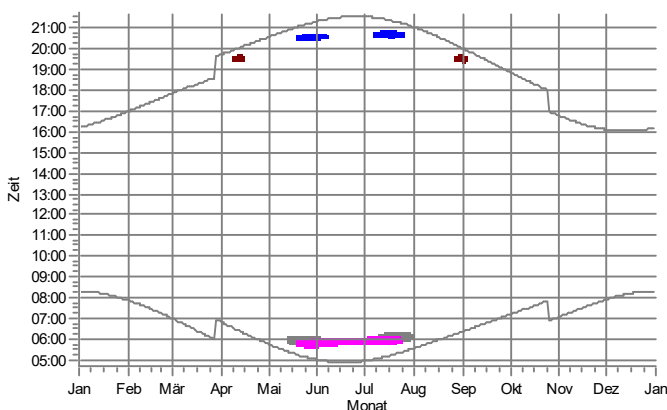
WEA33: DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (234



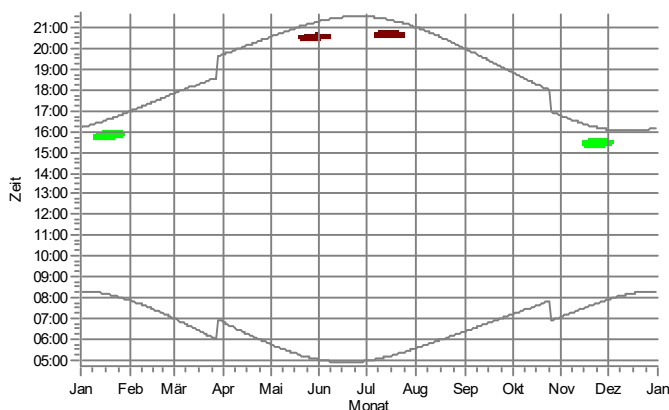
WEA34: DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (234



WEA35: DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (234



WEA36: DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (236



Schattenrezeptoren

IP03: Siebenhausen Str. 8, 06766 Bitterfeld-Wolfen
IP04: Siebenhausen 14, 06766 Bitterfeld-Wolfen

IP05: Siebenhausen 15, 06766 Bitterfeld-Wolfen
IP08: Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)

IP09: Thurländer Str. 1, 06779 Raguhn-Jeßnitz

Projekt:

SW25034 Salzfurtkapelle

Lizenziierter Anwender:

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Berechnet:

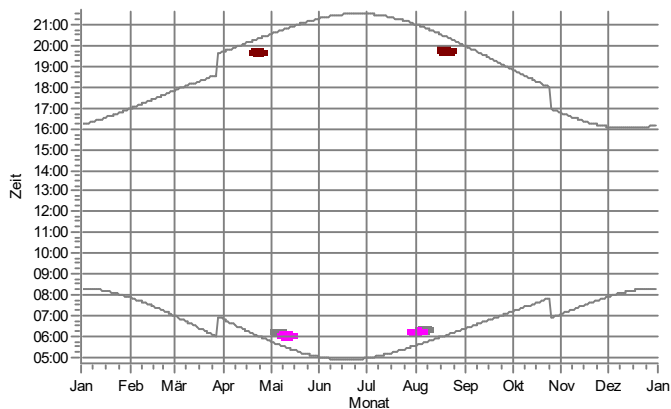
14.10.2025 14:42/4.1.273



SHADOW - Grafischer Kalender pro WEA

Berechnung: SW25034 Salzfurtkapelle Gesamtbelastung

WEA37: DEWIND D8/80-2MW 2000 80.0 !O! NH: 100,0 m (Ges:140,0 m) (237)



Schattenrezeptoren

IP04: Siebenhausen 14, 06766 Bitterfeld-Wolfen

IP05: Siebenhausen 15, 06766 Bitterfeld-Wolfen

IP08: Feldrain 20, 06766 Bitterfeld-Wolfen (Gemengelage)