

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.
De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugertilicens:

Siemens Wind Power A/S

Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Hovedresultat

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH

Forudsætninger for skyggeberegning

Maksimal afstand for påvirkning
Medtag kun hvis mere end 20 % af solen er dækket af vingen
Se venligst vindmøletabellen

Minimum solhøjde over horisont med indflydelse 3 °
Dagstep for beregning 1 dage
Tidsskridt til beregning 1 minutter

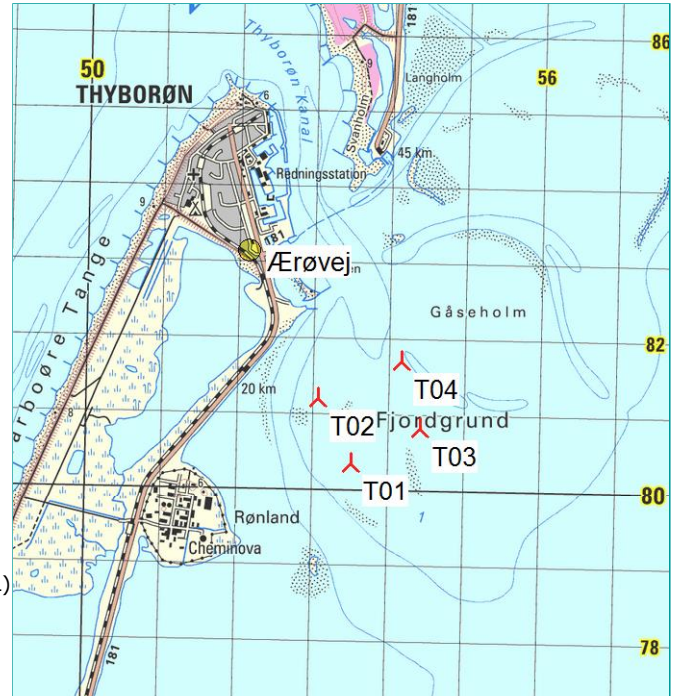
Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstimer beregnes fra de valgte vindmøller med følgende vindfordeling:
WaSP Conwx vindstatistik

Driftstid
N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNW I alt
311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581
Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

For at undgå skyggekast fra ikke synlig vindmøller laves der en ZVI beregning før skyggekastberegningen. ZVI beregningen baseres på følgende forudsætninger
Højdelinier anvendt: CONTOURLINE_ONLINEDATA_0.wpo (1)
Lægivere ikke anvendt i beregning
Betragterhøjde: 1.5 m
Netopløsning: 10.0 m

Alle koordinater er i
UTM (north)-WGS84 Område: 32



Målestok 1:100,000
Ny vindmølle Skyggemodtager

Vindmøller

| | Øst | Nord | Z | Rækkedata/Beskrivelse | Vindmølletype | | | Effekt, nominal [kW] | Rotordiameter [m] | Skyggedata | | |
|-----|---------|-----------|-----|--------------------------|---------------|----------|-------------------|----------------------|-------------------|--------------|-----------------------|-------------|
| | | | | | Aktuel | Fabrikat | Type-generator | | | Navhøjde [m] | Beregningsafstand [m] | Omdr [Omdr] |
| T01 | 453,510 | 6,280,335 | 0.0 | Siemens SWT-7.0-154 7... | Ja | Siemens | SWT-7.0-154-7,000 | 7,000 | 154.0 | 97.3 | 2,042 | 0.0 |
| T02 | 453,064 | 6,281,196 | 0.0 | Siemens SWT-7.0-154 7... | Ja | Siemens | SWT-7.0-154-7,000 | 7,000 | 154.0 | 97.3 | 2,042 | 0.0 |
| T03 | 454,407 | 6,280,817 | 0.0 | Siemens SWT-7.0-154 7... | Ja | Siemens | SWT-7.0-154-7,000 | 7,000 | 154.0 | 97.3 | 2,042 | 0.0 |
| T04 | 454,153 | 6,281,691 | 0.0 | Siemens SWT-7.0-154 7... | Ja | Siemens | SWT-7.0-154-7,000 | 7,000 | 154.0 | 97.3 | 2,042 | 0.0 |

Skyggemodtager-Inddata

| Nr. | Øst | Nord | Z | Bredde [m] | Højde [m] | Højde over jord [m] | Grader fra syd med uret [°] | Vinduets hældning [°] | Retningsmetode |
|--------|---------|-----------|-----|------------|-----------|---------------------|-----------------------------|-----------------------|-------------------|
| Ærøvej | 452,125 | 6,283,124 | 2.5 | 15.0 | 15.0 | 1.0 | 0.0 | 90.0 | "Drivhustilstand" |

Beregningsresultater

| Nr. | Skygge, worst case | | | Skygge, forventede værdier | |
|--------|---------------------------|-----------------------------|----------------------------------|----------------------------|--|
| | Skyggetimer pr. år [h/år] | Skyggedage pr. år [dage/år] | Maks. skyggetimer pr dag [h/dag] | Skyggetimer pr. år [h/år] | |
| Ærøvej | 0:00 | 0 | 0:00 | 0:00 | |

Samlet skyggekast på skyggemodtagerne fra hver enkelt vindmølle

| Nr. | Navn | Værste scenarie [h/år] | Forventet [h/år] |
|-----|--|------------------------|------------------|
| | | | |
| T01 | Siemens SWT-7.0-154 7000 154.0 !O! nav: 97.3 m (TOT:174.3 m) (263) | 0:00 | 0:00 |
| T02 | Siemens SWT-7.0-154 7000 154.0 !O! nav: 97.3 m (TOT:174.3 m) (264) | 0:00 | 0:00 |
| T03 | Siemens SWT-7.0-154 7000 154.0 !O! nav: 97.3 m (TOT:174.3 m) (265) | 0:00 | 0:00 |
| T04 | Siemens SWT-7.0-154 7000 154.0 !O! nav: 97.3 m (TOT:174.3 m) (266) | 0:00 | 0:00 |

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Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH **Skyggemodtager:** Ærøvej - Skyggemodtager: 15.0 × 15.0 Azimut: 0.0° Hældning: 90.0° (1)

Forudsætninger for skyggeberegning

Reference år for kalender

2016

Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstid

N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNV I alt

311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581

Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

| | Januar | Februar | Marts | April | Maj | Juni | Juli | August | September | Oktober | November | December |
|----------------------|--------|---------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 09:02 | 08:27 | 07:21 | 06:58 | 05:41 | 04:44 | 04:38 | 05:24 | 06:27 | 07:27 | 07:33 | 08:35 |
| | 15:55 | 16:52 | 17:57 | 20:03 | 21:06 | 22:04 | 22:20 | 21:38 | 20:24 | 19:03 | 16:45 | 15:53 |
| 2 | 09:02 | 08:25 | 07:18 | 06:55 | 05:39 | 04:43 | 04:39 | 05:26 | 06:29 | 07:29 | 07:35 | 08:37 |
| | 15:56 | 16:54 | 17:59 | 20:05 | 21:08 | 22:05 | 22:20 | 21:36 | 20:21 | 19:00 | 16:42 | 15:52 |
| 3 | 09:02 | 08:23 | 07:15 | 06:53 | 05:36 | 04:42 | 04:40 | 05:28 | 06:31 | 07:31 | 07:37 | 08:39 |
| | 15:58 | 16:56 | 18:01 | 20:07 | 21:10 | 22:07 | 22:19 | 21:34 | 20:19 | 18:58 | 16:40 | 15:51 |
| 4 | 09:01 | 08:21 | 07:13 | 06:50 | 05:34 | 04:41 | 04:41 | 05:30 | 06:33 | 07:33 | 07:40 | 08:40 |
| | 15:59 | 16:59 | 18:04 | 20:09 | 21:12 | 22:08 | 22:19 | 21:32 | 20:16 | 18:55 | 16:38 | 15:51 |
| 5 | 09:01 | 08:19 | 07:10 | 06:47 | 05:32 | 04:40 | 04:42 | 05:32 | 06:35 | 07:35 | 07:42 | 08:42 |
| | 16:00 | 17:01 | 18:06 | 20:11 | 21:14 | 22:09 | 22:18 | 21:30 | 20:13 | 18:52 | 16:36 | 15:50 |
| 6 | 09:00 | 08:17 | 07:08 | 06:45 | 05:30 | 04:39 | 04:43 | 05:34 | 06:37 | 07:37 | 07:44 | 08:43 |
| | 16:02 | 17:03 | 18:08 | 20:14 | 21:17 | 22:10 | 22:17 | 21:28 | 20:11 | 18:50 | 16:34 | 15:49 |
| 7 | 09:00 | 08:15 | 07:05 | 06:42 | 05:27 | 04:38 | 04:44 | 05:36 | 06:39 | 07:40 | 07:46 | 08:45 |
| | 16:03 | 17:05 | 18:10 | 20:16 | 21:19 | 22:12 | 22:16 | 21:26 | 20:08 | 18:47 | 16:32 | 15:48 |
| 8 | 08:59 | 08:13 | 07:02 | 06:39 | 05:25 | 04:37 | 04:45 | 05:38 | 06:41 | 07:42 | 07:48 | 08:46 |
| | 16:05 | 17:08 | 18:12 | 20:18 | 21:21 | 22:13 | 22:16 | 21:23 | 20:05 | 18:44 | 16:30 | 15:48 |
| 9 | 08:59 | 08:11 | 07:00 | 06:37 | 05:23 | 04:36 | 04:46 | 05:40 | 06:43 | 07:44 | 07:51 | 08:48 |
| | 16:06 | 17:10 | 18:14 | 20:20 | 21:23 | 22:14 | 22:15 | 21:21 | 20:03 | 18:42 | 16:28 | 15:47 |
| 10 | 08:58 | 08:09 | 06:57 | 06:34 | 05:21 | 04:36 | 04:47 | 05:42 | 06:45 | 07:46 | 07:53 | 08:49 |
| | 16:08 | 17:12 | 18:17 | 20:22 | 21:25 | 22:15 | 22:14 | 21:19 | 20:00 | 18:39 | 16:26 | 15:47 |
| 11 | 08:57 | 08:06 | 06:54 | 06:31 | 05:19 | 04:35 | 04:49 | 05:44 | 06:47 | 07:48 | 07:55 | 08:50 |
| | 16:09 | 17:14 | 18:19 | 20:24 | 21:27 | 22:16 | 22:12 | 21:17 | 19:57 | 18:36 | 16:24 | 15:47 |
| 12 | 08:56 | 08:04 | 06:52 | 06:29 | 05:17 | 04:35 | 04:50 | 05:46 | 06:49 | 07:50 | 07:57 | 08:52 |
| | 16:11 | 17:17 | 18:21 | 20:26 | 21:29 | 22:17 | 22:11 | 21:14 | 19:54 | 18:34 | 16:22 | 15:46 |
| 13 | 08:55 | 08:02 | 06:49 | 06:26 | 05:15 | 04:34 | 04:52 | 05:48 | 06:51 | 07:52 | 07:59 | 08:53 |
| | 16:13 | 17:19 | 18:23 | 20:28 | 21:31 | 22:17 | 22:10 | 21:12 | 19:52 | 18:31 | 16:20 | 15:46 |
| 14 | 08:54 | 08:00 | 06:46 | 06:23 | 05:13 | 04:34 | 04:53 | 05:50 | 06:53 | 07:54 | 08:02 | 08:54 |
| | 16:15 | 17:21 | 18:25 | 20:30 | 21:33 | 22:18 | 22:09 | 21:09 | 19:49 | 18:29 | 16:18 | 15:46 |
| 15 | 08:53 | 07:57 | 06:44 | 06:21 | 05:11 | 04:34 | 04:55 | 05:52 | 06:55 | 07:56 | 08:04 | 08:55 |
| | 16:16 | 17:23 | 18:27 | 20:32 | 21:35 | 22:19 | 22:08 | 21:07 | 19:46 | 18:26 | 16:16 | 15:46 |
| 16 | 08:52 | 07:55 | 06:41 | 06:18 | 05:09 | 04:33 | 04:56 | 05:54 | 06:57 | 07:58 | 08:06 | 08:56 |
| | 16:18 | 17:26 | 18:29 | 20:35 | 21:37 | 22:19 | 22:06 | 21:05 | 19:44 | 18:23 | 16:14 | 15:46 |
| 17 | 08:51 | 07:53 | 06:38 | 06:16 | 05:07 | 04:33 | 04:58 | 05:56 | 06:59 | 08:01 | 08:08 | 08:57 |
| | 16:20 | 17:28 | 18:31 | 20:37 | 21:38 | 22:20 | 22:05 | 21:02 | 19:41 | 18:21 | 16:13 | 15:46 |
| 18 | 08:50 | 07:50 | 06:36 | 06:13 | 05:05 | 04:33 | 04:59 | 05:58 | 07:01 | 08:03 | 08:10 | 08:58 |
| | 16:22 | 17:30 | 18:34 | 20:39 | 21:40 | 22:20 | 22:03 | 21:00 | 19:38 | 18:18 | 16:11 | 15:46 |
| 19 | 08:48 | 07:48 | 06:33 | 06:11 | 05:03 | 04:33 | 05:01 | 06:00 | 07:03 | 08:05 | 08:12 | 08:58 |
| | 16:24 | 17:32 | 18:36 | 20:41 | 21:42 | 22:21 | 22:02 | 20:57 | 19:35 | 18:16 | 16:09 | 15:46 |
| 20 | 08:47 | 07:46 | 06:30 | 06:08 | 05:02 | 04:33 | 05:02 | 06:02 | 07:05 | 08:07 | 08:14 | 08:59 |
| | 16:26 | 17:35 | 18:38 | 20:43 | 21:44 | 22:21 | 22:00 | 20:55 | 19:33 | 18:13 | 16:08 | 15:47 |
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| 23 | 08:43 | 07:38 | 06:22 | 06:00 | 04:56 | 04:34 | 05:08 | 06:08 | 07:11 | 08:13 | 08:20 | 09:01 |
| | 16:32 | 17:41 | 18:44 | 20:49 | 21:49 | 22:22 | 21:55 | 20:47 | 19:25 | 18:06 | 16:03 | 15:48 |
| 24 | 08:41 | 07:36 | 06:20 | 05:58 | 04:55 | 04:34 | 05:09 | 06:10 | 07:13 | 08:16 | 08:22 | 09:01 |
| | 16:34 | 17:44 | 18:46 | 20:51 | 21:51 | 22:22 | 21:54 | 20:45 | 19:22 | 18:03 | 16:02 | 15:49 |
| 25 | 08:39 | 07:33 | 06:17 | 05:56 | 04:53 | 04:34 | 05:11 | 06:12 | 07:15 | 08:18 | 08:24 | 09:02 |
| | 16:37 | 17:46 | 18:48 | 20:54 | 21:53 | 22:22 | 21:52 | 20:42 | 19:19 | 18:01 | 16:00 | 15:49 |
| 26 | 08:38 | 07:31 | 06:14 | 05:53 | 04:52 | 04:35 | 05:13 | 06:14 | 07:17 | 08:20 | 08:26 | 09:02 |
| | 16:39 | 17:48 | 18:50 | 20:56 | 21:55 | 22:22 | 21:50 | 20:40 | 19:16 | 17:59 | 15:59 | 15:50 |
| 27 | 08:36 | 07:28 | 06:11 | 05:51 | 04:50 | 04:35 | 05:15 | 06:16 | 07:19 | 08:22 | 08:28 | 09:02 |
| | 16:41 | 17:50 | 19:53 | 20:58 | 21:56 | 22:22 | 21:48 | 20:37 | 19:14 | 17:56 | 15:58 | 15:51 |
| 28 | 08:34 | 07:26 | 06:09 | 05:48 | 04:49 | 04:36 | 05:17 | 06:19 | 07:21 | 08:24 | 08:30 | 09:02 |
| | 16:43 | 17:53 | 19:55 | 21:00 | 21:58 | 22:21 | 21:46 | 20:34 | 19:11 | 17:54 | 15:56 | 15:52 |
| 29 | 08:33 | 07:23 | 06:06 | 05:46 | 04:48 | 04:36 | 05:19 | 06:21 | 07:23 | 08:26 | 08:32 | 09:02 |
| | 16:45 | 17:55 | 19:57 | 21:02 | 21:59 | 22:21 | 21:44 | 20:32 | 19:08 | 17:52 | 15:55 | 15:53 |
| 30 | 08:31 | | 07:03 | 05:43 | 04:46 | 04:37 | 05:20 | 06:23 | 07:25 | 08:28 | 08:34 | 09:02 |
| | 16:47 | | 19:59 | 21:04 | 22:01 | 22:21 | 21:43 | 20:29 | 19:06 | 16:49 | 15:54 | 15:54 |
| 31 | 08:29 | | 07:01 | | 04:45 | | 05:22 | 06:25 | | 07:31 | | 09:02 |
| | 16:50 | | 20:01 | | 22:02 | | 21:41 | 20:27 | | 16:47 | | 15:55 |
| Mulige solskinstimer | 233 | 274 | 366 | 427 | 509 | 530 | 530 | 470 | 385 | 323 | 246 | 215 |
| Samlet, worst case | | | | | | | | | | | | |
| Solreduktion | | | | | | | | | | | | |
| Driftsred. | | | | | | | | | | | | |
| Vindretn. red. | | | | | | | | | | | | |
| Samlet reduktion | | | | | | | | | | | | |
| Samlet, reel | | | | | | | | | | | | |

Tabellayout: For hver dag i hver måned udskrives følgende data:

Dage i måned Solopgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast (Skyggekast fra vindmølle første gang)
 Solnedgang (tt:mm) Minutter med skyggekast Sidste tidspunkt (tt:mm) med skyggekast (Skyggekast fra vindmølle sidste gang)

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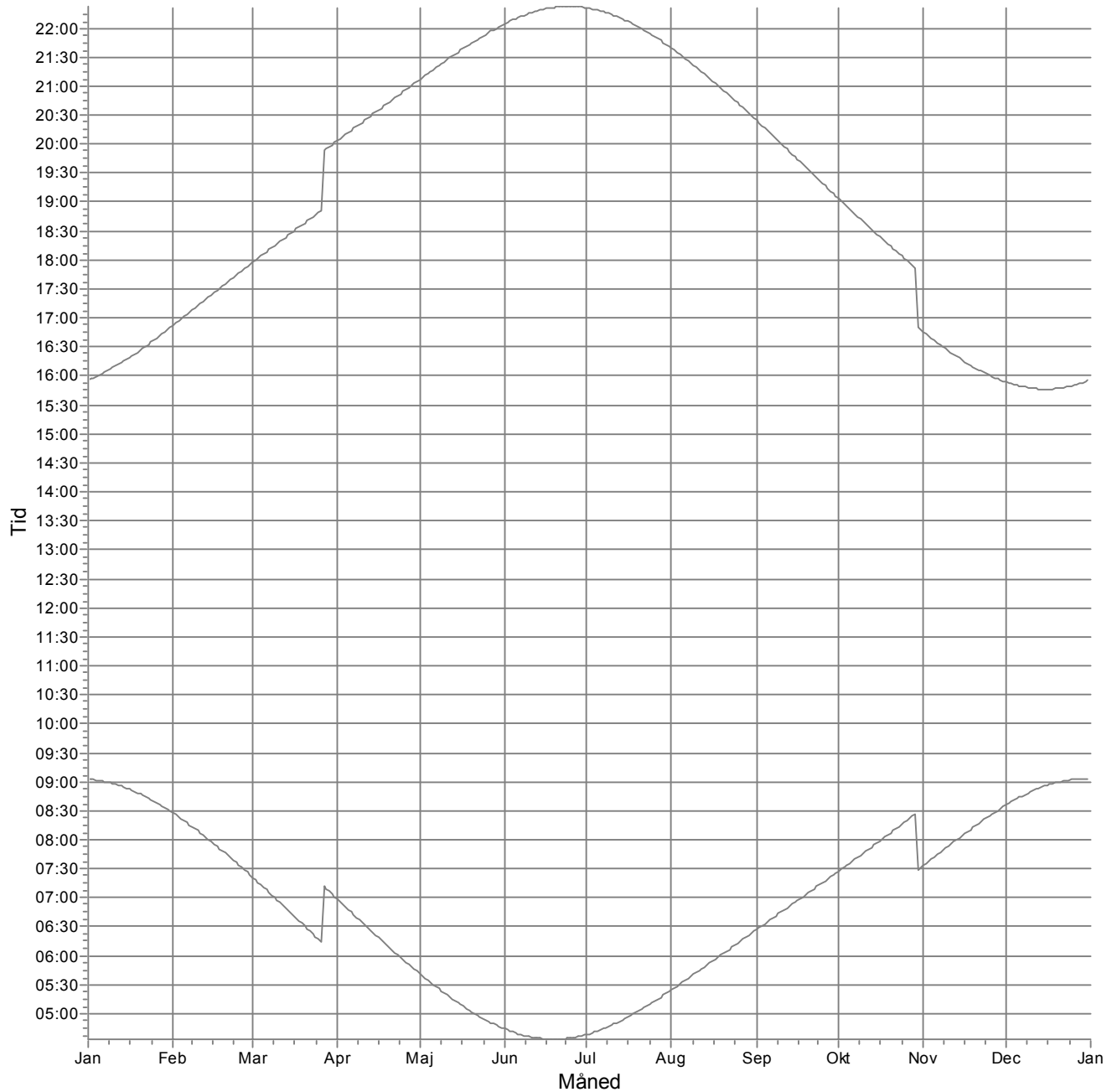
Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender, grafisk

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH**Skyggemodtager:** Ærøvej - Skyggemodtager: 15.0 × 15.0 Azimut: 0.0° Hældning: 90.0° (1)

Ærøvej: Skyggemodtager: 15.0 × 15.0 Azimut: 0.0° Hældning: 90.0° (1)



Vindmøller

Projekt:

Nr. Nissum Bredning

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Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender pr. vindmølle

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH **Vindmølle:** T01 - Siemens SWT-7.0-154 7000 154.0 IO! nav: 97.3 m (TOT:174.3 m) (263)

Forudsætninger for skyggeberegning

Reference år for kalender

2016

Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstid

N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNV I alt
311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581

Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

| | Januar | Februar | Marts | April | Maj | Juni | Juli | August | September | Oktober | November | December |
|-------------------------------|--------|---------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 09:02 | 08:27 | 07:20 | 06:58 | 05:41 | 04:44 | 04:38 | 05:24 | 06:27 | 07:27 | 07:33 | 08:35 |
| | 15:55 | 16:52 | 17:57 | 20:03 | 21:06 | 22:04 | 22:20 | 21:38 | 20:24 | 19:03 | 16:45 | 15:53 |
| 2 | 09:02 | 08:25 | 07:18 | 06:55 | 05:39 | 04:43 | 04:39 | 05:26 | 06:29 | 07:29 | 07:35 | 08:37 |
| | 15:56 | 16:54 | 17:59 | 20:05 | 21:08 | 22:05 | 22:20 | 21:36 | 20:21 | 19:00 | 16:42 | 15:52 |
| 3 | 09:01 | 08:23 | 07:15 | 06:52 | 05:36 | 04:42 | 04:40 | 05:28 | 06:31 | 07:31 | 07:37 | 08:38 |
| | 15:58 | 16:56 | 18:01 | 20:07 | 21:10 | 22:06 | 22:19 | 21:34 | 20:18 | 18:57 | 16:40 | 15:51 |
| 4 | 09:01 | 08:21 | 07:13 | 06:50 | 05:34 | 04:41 | 04:41 | 05:30 | 06:33 | 07:33 | 07:40 | 08:40 |
| | 15:59 | 16:59 | 18:03 | 20:09 | 21:12 | 22:08 | 22:18 | 21:32 | 20:16 | 18:55 | 16:38 | 15:51 |
| 5 | 09:01 | 08:19 | 07:10 | 06:47 | 05:32 | 04:40 | 04:42 | 05:32 | 06:35 | 07:35 | 07:42 | 08:42 |
| | 16:00 | 17:01 | 18:06 | 20:11 | 21:14 | 22:09 | 22:18 | 21:30 | 20:13 | 18:52 | 16:36 | 15:50 |
| 6 | 09:00 | 08:17 | 07:07 | 06:44 | 05:30 | 04:39 | 04:43 | 05:34 | 06:37 | 07:37 | 07:44 | 08:43 |
| | 16:02 | 17:03 | 18:08 | 20:13 | 21:16 | 22:10 | 22:17 | 21:28 | 20:10 | 18:49 | 16:34 | 15:49 |
| 7 | 09:00 | 08:15 | 07:05 | 06:42 | 05:27 | 04:38 | 04:44 | 05:36 | 06:39 | 07:39 | 07:46 | 08:45 |
| | 16:03 | 17:05 | 18:10 | 20:16 | 21:18 | 22:11 | 22:16 | 21:25 | 20:08 | 18:47 | 16:32 | 15:48 |
| 8 | 08:59 | 08:13 | 07:02 | 06:39 | 05:25 | 04:37 | 04:45 | 05:38 | 06:41 | 07:41 | 07:48 | 08:46 |
| | 16:05 | 17:08 | 18:12 | 20:18 | 21:20 | 22:12 | 22:15 | 21:23 | 20:05 | 18:44 | 16:30 | 15:48 |
| 9 | 08:58 | 08:11 | 07:00 | 06:37 | 05:23 | 04:37 | 04:46 | 05:40 | 06:43 | 07:44 | 07:50 | 08:48 |
| | 16:06 | 17:10 | 18:14 | 20:20 | 21:22 | 22:13 | 22:14 | 21:21 | 20:02 | 18:42 | 16:28 | 15:47 |
| 10 | 08:58 | 08:08 | 06:57 | 06:34 | 05:21 | 04:36 | 04:48 | 05:42 | 06:45 | 07:46 | 07:53 | 08:49 |
| | 16:08 | 17:12 | 18:16 | 20:22 | 21:24 | 22:14 | 22:13 | 21:19 | 20:00 | 18:39 | 16:26 | 15:47 |
| 11 | 08:57 | 08:06 | 06:54 | 06:31 | 05:19 | 04:35 | 04:49 | 05:44 | 06:47 | 07:48 | 07:55 | 08:50 |
| | 16:09 | 17:14 | 18:19 | 20:24 | 21:26 | 22:15 | 22:12 | 21:16 | 19:57 | 18:36 | 16:24 | 15:47 |
| 12 | 08:56 | 08:04 | 06:52 | 06:29 | 05:17 | 04:35 | 04:50 | 05:46 | 06:49 | 07:50 | 07:57 | 08:51 |
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| 13 | 08:55 | 08:02 | 06:49 | 06:26 | 05:15 | 04:34 | 04:52 | 05:48 | 06:51 | 07:52 | 07:59 | 08:53 |
| | 16:13 | 17:19 | 18:23 | 20:28 | 21:30 | 22:17 | 22:10 | 21:12 | 19:52 | 18:31 | 16:20 | 15:46 |
| 14 | 08:54 | 07:59 | 06:46 | 06:23 | 05:13 | 04:34 | 04:53 | 05:50 | 06:53 | 07:54 | 08:01 | 08:54 |
| | 16:15 | 17:21 | 18:25 | 20:30 | 21:32 | 22:18 | 22:09 | 21:09 | 19:49 | 18:29 | 16:18 | 15:46 |
| 15 | 08:53 | 07:57 | 06:44 | 06:21 | 05:11 | 04:34 | 04:55 | 05:52 | 06:55 | 07:56 | 08:03 | 08:55 |
| | 16:17 | 17:23 | 18:27 | 20:32 | 21:34 | 22:18 | 22:07 | 21:07 | 19:46 | 18:26 | 16:16 | 15:46 |
| 16 | 08:52 | 07:55 | 06:41 | 06:18 | 05:09 | 04:33 | 04:56 | 05:54 | 06:57 | 07:58 | 08:06 | 08:56 |
| | 16:18 | 17:26 | 18:29 | 20:34 | 21:36 | 22:19 | 22:06 | 21:04 | 19:43 | 18:23 | 16:14 | 15:46 |
| 17 | 08:51 | 07:53 | 06:38 | 06:16 | 05:07 | 04:33 | 04:58 | 05:56 | 06:59 | 08:00 | 08:08 | 08:57 |
| | 16:20 | 17:28 | 18:31 | 20:37 | 21:38 | 22:20 | 22:05 | 21:02 | 19:41 | 18:21 | 16:13 | 15:46 |
| 18 | 08:49 | 07:50 | 06:36 | 06:13 | 05:05 | 04:33 | 04:59 | 05:58 | 07:01 | 08:03 | 08:10 | 08:57 |
| | 16:22 | 17:30 | 18:34 | 20:39 | 21:40 | 22:20 | 22:03 | 21:00 | 19:38 | 18:18 | 16:11 | 15:46 |
| 19 | 08:48 | 07:48 | 06:33 | 06:11 | 05:03 | 04:33 | 05:01 | 06:00 | 07:03 | 08:05 | 08:12 | 08:58 |
| | 16:24 | 17:32 | 18:36 | 20:41 | 21:42 | 22:21 | 22:02 | 20:57 | 19:35 | 18:16 | 16:09 | 15:46 |
| 20 | 08:47 | 07:45 | 06:30 | 06:08 | 05:02 | 04:33 | 05:03 | 06:02 | 07:05 | 08:07 | 08:14 | 08:59 |
| | 16:26 | 17:35 | 18:38 | 20:43 | 21:44 | 22:21 | 22:00 | 20:55 | 19:33 | 18:13 | 16:08 | 15:47 |
| 21 | 08:45 | 07:43 | 06:28 | 06:05 | 05:00 | 04:33 | 05:04 | 06:04 | 07:07 | 08:09 | 08:16 | 08:59 |
| | 16:28 | 17:37 | 18:40 | 20:45 | 21:46 | 22:21 | 21:59 | 20:52 | 19:30 | 18:11 | 16:06 | 15:47 |
| 22 | 08:44 | 07:41 | 06:25 | 06:03 | 04:58 | 04:33 | 05:06 | 06:06 | 07:09 | 08:11 | 08:18 | 09:00 |
| | 16:30 | 17:39 | 18:42 | 20:47 | 21:47 | 22:21 | 21:57 | 20:50 | 19:27 | 18:08 | 16:05 | 15:48 |
| 23 | 08:42 | 07:38 | 06:22 | 06:00 | 04:57 | 04:34 | 05:08 | 06:08 | 07:11 | 08:13 | 08:20 | 09:00 |
| | 16:32 | 17:41 | 18:44 | 20:49 | 21:49 | 22:21 | 21:55 | 20:47 | 19:24 | 18:06 | 16:03 | 15:48 |
| 24 | 08:41 | 07:36 | 06:19 | 05:58 | 04:55 | 04:34 | 05:09 | 06:10 | 07:13 | 08:15 | 08:22 | 09:01 |
| | 16:34 | 17:44 | 18:46 | 20:51 | 21:51 | 22:22 | 21:53 | 20:45 | 19:22 | 18:03 | 16:02 | 15:49 |
| 25 | 08:39 | 07:33 | 06:17 | 05:56 | 04:53 | 04:34 | 05:11 | 06:12 | 07:15 | 08:18 | 08:24 | 09:01 |
| | 16:37 | 17:46 | 18:48 | 20:53 | 21:53 | 22:22 | 21:52 | 20:42 | 19:19 | 18:01 | 16:00 | 15:49 |
| 26 | 08:38 | 07:31 | 06:14 | 05:53 | 04:52 | 04:35 | 05:13 | 06:14 | 07:17 | 08:20 | 08:26 | 09:01 |
| | 16:39 | 17:48 | 18:50 | 20:55 | 21:54 | 22:21 | 21:50 | 20:39 | 19:16 | 17:59 | 15:59 | 15:50 |
| 27 | 08:36 | 07:28 | 07:11 | 05:51 | 04:50 | 04:35 | 05:15 | 06:16 | 07:19 | 08:22 | 08:28 | 09:02 |
| | 16:41 | 17:50 | 19:52 | 20:58 | 21:56 | 22:21 | 21:48 | 20:37 | 19:14 | 17:56 | 15:58 | 15:51 |
| 28 | 08:34 | 07:26 | 07:09 | 05:48 | 04:49 | 04:36 | 05:17 | 06:18 | 07:21 | 08:24 | 08:30 | 09:02 |
| | 16:43 | 17:52 | 19:55 | 21:00 | 21:58 | 22:21 | 21:46 | 20:34 | 19:11 | 17:54 | 15:57 | 15:52 |
| 29 | 08:32 | 07:23 | 07:06 | 05:46 | 04:48 | 04:37 | 05:19 | 06:21 | 07:23 | 08:26 | 08:31 | 09:02 |
| | 16:45 | 17:55 | 19:57 | 21:02 | 21:59 | 22:21 | 21:44 | 20:32 | 19:08 | 17:52 | 15:55 | 15:53 |
| 30 | 08:31 | | 07:03 | 05:43 | 04:46 | 04:37 | 05:20 | 06:23 | 07:25 | 07:29 | 08:33 | 09:02 |
| | 16:47 | | 19:59 | 21:04 | 22:01 | 22:20 | 21:42 | 20:29 | 19:06 | 16:49 | 15:54 | 15:54 |
| 31 | 08:29 | | 07:01 | | 04:45 | | 05:22 | 06:25 | | 07:31 | | 09:02 |
| | 16:50 | | 20:01 | | 22:02 | | 21:40 | 20:26 | | 16:47 | | 15:55 |
| Mulige solskinstimer | 233 | 274 | 366 | 427 | 509 | 530 | 530 | 470 | 385 | 323 | 246 | 215 |
| Antal minutter med skyggekast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Tabellayout: For hver dag i hver måned udskrives følgende data:

Dage i måned Solopgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast
Solnedgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.
De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugerlicens:

Siemens Wind Power A/S
Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender pr. vindmølle

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH **Vindmølle:** T02 - Siemens SWT-7.0-154 7000 154.0 IO! nav: 97.3 m (TOT:174.3 m) (264)

Forudsætninger for skyggeberegning

Reference år for kalender

2016

Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstid

N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNV I alt
311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581

Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

| | Januar | Februar | Marts | April | Maj | Juni | Juli | August | September | Oktober | November | December |
|-------------------------------|--------|---------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 09:02 | 08:27 | 07:20 | 06:58 | 05:41 | 04:44 | 04:38 | 05:24 | 06:27 | 07:27 | 07:33 | 08:35 |
| | 15:55 | 16:52 | 17:57 | 20:03 | 21:06 | 22:04 | 22:20 | 21:38 | 20:24 | 19:03 | 16:45 | 15:53 |
| 2 | 09:02 | 08:25 | 07:18 | 06:55 | 05:39 | 04:43 | 04:39 | 05:26 | 06:29 | 07:29 | 07:35 | 08:37 |
| | 15:56 | 16:54 | 17:59 | 20:05 | 21:08 | 22:05 | 22:20 | 21:36 | 20:21 | 19:00 | 16:42 | 15:52 |
| 3 | 09:01 | 08:23 | 07:15 | 06:53 | 05:36 | 04:42 | 04:40 | 05:28 | 06:31 | 07:31 | 07:37 | 08:39 |
| | 15:58 | 16:56 | 18:01 | 20:07 | 21:10 | 22:06 | 22:19 | 21:34 | 20:19 | 18:58 | 16:40 | 15:51 |
| 4 | 09:01 | 08:21 | 07:13 | 06:50 | 05:34 | 04:41 | 04:41 | 05:30 | 06:33 | 07:33 | 07:40 | 08:40 |
| | 15:59 | 16:59 | 18:03 | 20:09 | 21:12 | 22:08 | 22:18 | 21:32 | 20:16 | 18:55 | 16:38 | 15:51 |
| 5 | 09:01 | 08:19 | 07:10 | 06:47 | 05:32 | 04:40 | 04:42 | 05:32 | 06:35 | 07:35 | 07:42 | 08:42 |
| | 16:00 | 17:01 | 18:06 | 20:11 | 21:14 | 22:09 | 22:18 | 21:30 | 20:13 | 18:52 | 16:36 | 15:50 |
| 6 | 09:00 | 08:17 | 07:08 | 06:44 | 05:30 | 04:39 | 04:43 | 05:34 | 06:37 | 07:37 | 07:44 | 08:43 |
| | 16:02 | 17:03 | 18:08 | 20:13 | 21:16 | 22:10 | 22:17 | 21:28 | 20:11 | 18:50 | 16:34 | 15:49 |
| 7 | 09:00 | 08:15 | 07:05 | 06:42 | 05:27 | 04:38 | 04:44 | 05:36 | 06:39 | 07:39 | 07:46 | 08:45 |
| | 16:03 | 17:05 | 18:10 | 20:16 | 21:18 | 22:11 | 22:16 | 21:26 | 20:08 | 18:47 | 16:32 | 15:48 |
| 8 | 08:59 | 08:13 | 07:02 | 06:39 | 05:25 | 04:37 | 04:45 | 05:38 | 06:41 | 07:42 | 07:48 | 08:46 |
| | 16:05 | 17:08 | 18:12 | 20:18 | 21:20 | 22:13 | 22:15 | 21:23 | 20:05 | 18:44 | 16:30 | 15:48 |
| 9 | 08:58 | 08:11 | 07:00 | 06:37 | 05:23 | 04:37 | 04:46 | 05:40 | 06:43 | 07:44 | 07:51 | 08:48 |
| | 16:06 | 17:10 | 18:14 | 20:20 | 21:22 | 22:14 | 22:14 | 21:21 | 20:02 | 18:42 | 16:28 | 15:47 |
| 10 | 08:58 | 08:08 | 06:57 | 06:34 | 05:21 | 04:36 | 04:48 | 05:42 | 06:45 | 07:46 | 07:53 | 08:49 |
| | 16:08 | 17:12 | 18:16 | 20:22 | 21:25 | 22:15 | 22:13 | 21:19 | 20:00 | 18:39 | 16:26 | 15:47 |
| 11 | 08:57 | 08:06 | 06:54 | 06:31 | 05:19 | 04:35 | 04:49 | 05:44 | 06:47 | 07:48 | 07:55 | 08:50 |
| | 16:09 | 17:14 | 18:19 | 20:24 | 21:27 | 22:15 | 22:12 | 21:16 | 19:57 | 18:36 | 16:24 | 15:47 |
| 12 | 08:56 | 08:04 | 06:52 | 06:29 | 05:17 | 04:35 | 04:50 | 05:46 | 06:49 | 07:50 | 07:57 | 08:51 |
| | 16:11 | 17:17 | 18:21 | 20:26 | 21:29 | 22:16 | 22:11 | 21:14 | 19:54 | 18:34 | 16:22 | 15:46 |
| 13 | 08:55 | 08:02 | 06:49 | 06:26 | 05:15 | 04:34 | 04:52 | 05:48 | 06:51 | 07:52 | 07:59 | 08:53 |
| | 16:13 | 17:19 | 18:23 | 20:28 | 21:31 | 22:17 | 22:10 | 21:12 | 19:52 | 18:31 | 16:20 | 15:46 |
| 14 | 08:54 | 08:00 | 06:46 | 06:23 | 05:13 | 04:34 | 04:53 | 05:50 | 06:53 | 07:54 | 08:01 | 08:54 |
| | 16:15 | 17:21 | 18:25 | 20:30 | 21:32 | 22:18 | 22:09 | 21:09 | 19:49 | 18:29 | 16:18 | 15:46 |
| 15 | 08:53 | 07:57 | 06:44 | 06:21 | 05:11 | 04:34 | 04:55 | 05:52 | 06:55 | 07:56 | 08:03 | 08:55 |
| | 16:17 | 17:23 | 18:27 | 20:32 | 21:34 | 22:19 | 22:07 | 21:07 | 19:46 | 18:26 | 16:16 | 15:46 |
| 16 | 08:52 | 07:55 | 06:41 | 06:18 | 05:09 | 04:33 | 04:56 | 05:54 | 06:57 | 07:58 | 08:06 | 08:56 |
| | 16:18 | 17:26 | 18:29 | 20:34 | 21:36 | 22:19 | 22:06 | 21:05 | 19:44 | 18:23 | 16:14 | 15:46 |
| 17 | 08:51 | 07:53 | 06:38 | 06:16 | 05:07 | 04:33 | 04:58 | 05:56 | 06:59 | 08:00 | 08:08 | 08:57 |
| | 16:20 | 17:28 | 18:31 | 20:37 | 21:38 | 22:20 | 22:05 | 21:02 | 19:41 | 18:21 | 16:13 | 15:46 |
| 18 | 08:49 | 07:50 | 06:36 | 06:13 | 05:05 | 04:33 | 04:59 | 05:58 | 07:01 | 08:03 | 08:10 | 08:57 |
| | 16:22 | 17:30 | 18:34 | 20:39 | 21:40 | 22:20 | 22:03 | 21:00 | 19:38 | 18:18 | 16:11 | 15:46 |
| 19 | 08:48 | 07:48 | 06:33 | 06:11 | 05:03 | 04:33 | 05:01 | 06:00 | 07:03 | 08:05 | 08:12 | 08:58 |
| | 16:24 | 17:32 | 18:36 | 20:41 | 21:42 | 22:21 | 22:02 | 20:57 | 19:35 | 18:16 | 16:09 | 15:46 |
| 20 | 08:47 | 07:45 | 06:30 | 06:08 | 05:02 | 04:33 | 05:03 | 06:02 | 07:05 | 08:07 | 08:14 | 08:59 |
| | 16:26 | 17:35 | 18:38 | 20:43 | 21:44 | 22:21 | 22:00 | 20:55 | 19:33 | 18:13 | 16:08 | 15:47 |
| 21 | 08:45 | 07:43 | 06:28 | 06:05 | 05:00 | 04:33 | 05:04 | 06:04 | 07:07 | 08:09 | 08:16 | 09:00 |
| | 16:28 | 17:37 | 18:40 | 20:45 | 21:46 | 22:21 | 21:59 | 20:52 | 19:30 | 18:11 | 16:06 | 15:47 |
| 22 | 08:44 | 07:41 | 06:25 | 06:03 | 04:58 | 04:33 | 05:06 | 06:06 | 07:09 | 08:11 | 08:18 | 09:00 |
| | 16:30 | 17:39 | 18:42 | 20:47 | 21:48 | 22:21 | 21:57 | 20:50 | 19:27 | 18:08 | 16:04 | 15:48 |
| 23 | 08:42 | 07:38 | 06:22 | 06:00 | 04:57 | 04:34 | 05:08 | 06:08 | 07:11 | 08:13 | 08:20 | 09:01 |
| | 16:32 | 17:41 | 18:44 | 20:49 | 21:49 | 22:22 | 21:55 | 20:47 | 19:24 | 18:06 | 16:03 | 15:48 |
| 24 | 08:41 | 07:36 | 06:19 | 05:58 | 04:55 | 04:34 | 05:09 | 06:10 | 07:13 | 08:15 | 08:22 | 09:01 |
| | 16:34 | 17:44 | 18:46 | 20:51 | 21:51 | 22:22 | 21:54 | 20:45 | 19:22 | 18:03 | 16:02 | 15:49 |
| 25 | 08:39 | 07:33 | 06:17 | 05:56 | 04:53 | 04:34 | 05:11 | 06:12 | 07:15 | 08:18 | 08:24 | 09:01 |
| | 16:37 | 17:46 | 18:48 | 20:53 | 21:53 | 22:22 | 21:52 | 20:42 | 19:19 | 18:01 | 16:00 | 15:49 |
| 26 | 08:38 | 07:31 | 06:14 | 05:53 | 04:52 | 04:35 | 05:13 | 06:14 | 07:17 | 08:20 | 08:26 | 09:02 |
| | 16:39 | 17:48 | 18:50 | 20:56 | 21:54 | 22:22 | 21:50 | 20:39 | 19:16 | 17:59 | 15:59 | 15:50 |
| 27 | 08:36 | 07:28 | 07:11 | 05:51 | 04:50 | 04:35 | 05:15 | 06:16 | 07:19 | 08:22 | 08:28 | 09:02 |
| | 16:41 | 17:50 | 19:52 | 20:58 | 21:56 | 22:21 | 21:48 | 20:37 | 19:14 | 17:56 | 15:58 | 15:51 |
| 28 | 08:34 | 07:26 | 07:09 | 05:48 | 04:49 | 04:36 | 05:17 | 06:18 | 07:21 | 08:24 | 08:30 | 09:02 |
| | 16:43 | 17:53 | 19:55 | 21:00 | 21:58 | 22:21 | 21:46 | 20:34 | 19:11 | 17:54 | 15:56 | 15:52 |
| 29 | 08:32 | 07:23 | 07:06 | 05:46 | 04:48 | 04:37 | 05:19 | 06:21 | 07:23 | 08:26 | 08:32 | 09:02 |
| | 16:45 | 17:55 | 19:57 | 21:02 | 21:59 | 22:21 | 21:44 | 20:32 | 19:08 | 17:52 | 15:55 | 15:53 |
| 30 | 08:31 | | 07:03 | 05:43 | 04:46 | 04:37 | 05:20 | 06:23 | 07:25 | 07:29 | 08:33 | 09:02 |
| | 16:47 | | 19:59 | 21:04 | 22:01 | 22:21 | 21:42 | 20:29 | 19:06 | 16:49 | 15:54 | 15:54 |
| 31 | 08:29 | | 07:01 | | 04:45 | | 05:22 | 06:25 | | 07:31 | | 09:02 |
| | 16:50 | | 20:01 | | 22:02 | | 21:40 | 20:26 | | 16:47 | | 15:55 |
| Mulige solskinstimer | 233 | 274 | 366 | 427 | 509 | 530 | 530 | 470 | 385 | 323 | 246 | 215 |
| Antal minutter med skyggekast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Tabellayout: For hver dag i hver måned udskrives følgende data:

Dage i måned Solopgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast
Solnedgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.
De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugerlicens:

Siemens Wind Power A/S
Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender pr. vindmølle

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH **Vindmølle:** T03 - Siemens SWT-7.0-154 7000 154.0 IO! nav: 97.3 m (TOT:174.3 m) (265)

Forudsætninger for skyggeberegning

Reference år for kalender

2016

Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstid

N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNV I alt
311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581

Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

| | Januar | Februar | Marts | April | Maj | Juni | Juli | August | September | Oktober | November | December |
|-------------------------------|--------|---------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 09:02 | 08:27 | 07:20 | 06:58 | 05:41 | 04:44 | 04:38 | 05:24 | 06:26 | 07:27 | 07:33 | 08:35 |
| | 15:55 | 16:52 | 17:57 | 20:03 | 21:06 | 22:04 | 22:20 | 21:38 | 20:24 | 19:03 | 16:45 | 15:53 |
| 2 | 09:02 | 08:25 | 07:18 | 06:55 | 05:39 | 04:43 | 04:39 | 05:26 | 06:29 | 07:29 | 07:35 | 08:37 |
| | 15:56 | 16:54 | 17:59 | 20:05 | 21:08 | 22:05 | 22:20 | 21:36 | 20:21 | 19:00 | 16:42 | 15:52 |
| 3 | 09:01 | 08:23 | 07:15 | 06:52 | 05:36 | 04:42 | 04:40 | 05:28 | 06:31 | 07:31 | 07:37 | 08:38 |
| | 15:58 | 16:56 | 18:01 | 20:07 | 21:10 | 22:06 | 22:19 | 21:34 | 20:18 | 18:57 | 16:40 | 15:51 |
| 4 | 09:01 | 08:21 | 07:13 | 06:50 | 05:34 | 04:41 | 04:41 | 05:30 | 06:33 | 07:33 | 07:39 | 08:40 |
| | 15:59 | 16:58 | 18:03 | 20:09 | 21:12 | 22:08 | 22:18 | 21:32 | 20:16 | 18:55 | 16:38 | 15:51 |
| 5 | 09:01 | 08:19 | 07:10 | 06:47 | 05:32 | 04:40 | 04:42 | 05:32 | 06:35 | 07:35 | 07:42 | 08:42 |
| | 16:00 | 17:01 | 18:06 | 20:11 | 21:14 | 22:09 | 22:18 | 21:30 | 20:13 | 18:52 | 16:36 | 15:50 |
| 6 | 09:00 | 08:17 | 07:07 | 06:44 | 05:30 | 04:39 | 04:43 | 05:34 | 06:37 | 07:37 | 07:44 | 08:43 |
| | 16:02 | 17:03 | 18:08 | 20:13 | 21:16 | 22:10 | 22:17 | 21:28 | 20:10 | 18:49 | 16:34 | 15:49 |
| 7 | 09:00 | 08:15 | 07:05 | 06:42 | 05:27 | 04:38 | 04:44 | 05:36 | 06:39 | 07:39 | 07:46 | 08:45 |
| | 16:03 | 17:05 | 18:10 | 20:15 | 21:18 | 22:11 | 22:16 | 21:25 | 20:08 | 18:47 | 16:32 | 15:48 |
| 8 | 08:59 | 08:13 | 07:02 | 06:39 | 05:25 | 04:37 | 04:45 | 05:38 | 06:41 | 07:41 | 07:48 | 08:46 |
| | 16:05 | 17:07 | 18:12 | 20:18 | 21:20 | 22:12 | 22:15 | 21:23 | 20:05 | 18:44 | 16:30 | 15:48 |
| 9 | 08:58 | 08:11 | 07:00 | 06:36 | 05:23 | 04:36 | 04:46 | 05:40 | 06:43 | 07:44 | 07:50 | 08:47 |
| | 16:06 | 17:10 | 18:14 | 20:20 | 21:22 | 22:13 | 22:14 | 21:21 | 20:02 | 18:41 | 16:27 | 15:47 |
| 10 | 08:57 | 08:08 | 06:57 | 06:34 | 05:21 | 04:36 | 04:47 | 05:42 | 06:45 | 07:46 | 07:53 | 08:49 |
| | 16:08 | 17:12 | 18:16 | 20:22 | 21:24 | 22:14 | 22:13 | 21:19 | 20:00 | 18:39 | 16:25 | 15:47 |
| 11 | 08:57 | 08:06 | 06:54 | 06:31 | 05:19 | 04:35 | 04:49 | 05:44 | 06:47 | 07:48 | 07:55 | 08:50 |
| | 16:09 | 17:14 | 18:19 | 20:24 | 21:26 | 22:15 | 22:12 | 21:16 | 19:57 | 18:36 | 16:24 | 15:47 |
| 12 | 08:56 | 08:04 | 06:52 | 06:29 | 05:17 | 04:35 | 04:50 | 05:46 | 06:49 | 07:50 | 07:57 | 08:51 |
| | 16:11 | 17:17 | 18:21 | 20:26 | 21:28 | 22:16 | 22:11 | 21:14 | 19:54 | 18:34 | 16:22 | 15:46 |
| 13 | 08:55 | 08:02 | 06:49 | 06:26 | 05:15 | 04:34 | 04:52 | 05:48 | 06:51 | 07:52 | 07:59 | 08:52 |
| | 16:13 | 17:19 | 18:23 | 20:28 | 21:30 | 22:17 | 22:10 | 21:12 | 19:52 | 18:31 | 16:20 | 15:46 |
| 14 | 08:54 | 07:59 | 06:46 | 06:23 | 05:13 | 04:34 | 04:53 | 05:50 | 06:53 | 07:54 | 08:01 | 08:54 |
| | 16:15 | 17:21 | 18:25 | 20:30 | 21:32 | 22:18 | 22:09 | 21:09 | 19:49 | 18:28 | 16:18 | 15:46 |
| 15 | 08:53 | 07:57 | 06:44 | 06:21 | 05:11 | 04:34 | 04:54 | 05:52 | 06:55 | 07:56 | 08:03 | 08:55 |
| | 16:16 | 17:23 | 18:27 | 20:32 | 21:34 | 22:18 | 22:07 | 21:07 | 19:46 | 18:26 | 16:16 | 15:46 |
| 16 | 08:52 | 07:55 | 06:41 | 06:18 | 05:09 | 04:33 | 04:56 | 05:54 | 06:57 | 07:58 | 08:06 | 08:56 |
| | 16:18 | 17:26 | 18:29 | 20:34 | 21:36 | 22:19 | 22:06 | 21:04 | 19:43 | 18:23 | 16:14 | 15:46 |
| 17 | 08:51 | 07:52 | 06:38 | 06:16 | 05:07 | 04:33 | 04:58 | 05:56 | 06:59 | 08:00 | 08:08 | 08:56 |
| | 16:20 | 17:28 | 18:31 | 20:36 | 21:38 | 22:20 | 22:05 | 21:02 | 19:41 | 18:21 | 16:12 | 15:46 |
| 18 | 08:49 | 07:50 | 06:36 | 06:13 | 05:05 | 04:33 | 04:59 | 05:58 | 07:01 | 08:02 | 08:10 | 08:57 |
| | 16:22 | 17:30 | 18:33 | 20:39 | 21:40 | 22:20 | 22:03 | 21:00 | 19:38 | 18:18 | 16:11 | 15:46 |
| 19 | 08:48 | 07:48 | 06:33 | 06:10 | 05:03 | 04:33 | 05:01 | 06:00 | 07:03 | 08:05 | 08:12 | 08:58 |
| | 16:24 | 17:32 | 18:36 | 20:41 | 21:42 | 22:21 | 22:02 | 20:57 | 19:35 | 18:16 | 16:09 | 15:46 |
| 20 | 08:47 | 07:45 | 06:30 | 06:08 | 05:02 | 04:33 | 05:02 | 06:02 | 07:05 | 08:07 | 08:14 | 08:59 |
| | 16:26 | 17:35 | 18:38 | 20:43 | 21:44 | 22:21 | 22:00 | 20:55 | 19:33 | 18:13 | 16:07 | 15:47 |
| 21 | 08:45 | 07:43 | 06:27 | 06:05 | 05:00 | 04:33 | 05:04 | 06:04 | 07:07 | 08:09 | 08:16 | 08:59 |
| | 16:28 | 17:37 | 18:40 | 20:45 | 21:46 | 22:21 | 21:59 | 20:52 | 19:30 | 18:11 | 16:06 | 15:47 |
| 22 | 08:44 | 07:40 | 06:25 | 06:03 | 04:58 | 04:33 | 05:06 | 06:06 | 07:09 | 08:11 | 08:18 | 09:00 |
| | 16:30 | 17:39 | 18:42 | 20:47 | 21:47 | 22:21 | 21:57 | 20:50 | 19:27 | 18:08 | 16:04 | 15:48 |
| 23 | 08:42 | 07:38 | 06:22 | 06:00 | 04:56 | 04:34 | 05:08 | 06:08 | 07:11 | 08:13 | 08:20 | 09:00 |
| | 16:32 | 17:41 | 18:44 | 20:49 | 21:49 | 22:21 | 21:55 | 20:47 | 19:24 | 18:06 | 16:03 | 15:48 |
| 24 | 08:41 | 07:36 | 06:19 | 05:58 | 04:55 | 04:34 | 05:09 | 06:10 | 07:13 | 08:15 | 08:22 | 09:01 |
| | 16:34 | 17:44 | 18:46 | 20:51 | 21:51 | 22:22 | 21:53 | 20:44 | 19:22 | 18:03 | 16:02 | 15:49 |
| 25 | 08:39 | 07:33 | 06:17 | 05:55 | 04:53 | 04:34 | 05:11 | 06:12 | 07:15 | 08:18 | 08:24 | 09:01 |
| | 16:36 | 17:46 | 18:48 | 20:53 | 21:53 | 22:22 | 21:52 | 20:42 | 19:19 | 18:01 | 16:00 | 15:49 |
| 26 | 08:38 | 07:31 | 06:14 | 05:53 | 04:52 | 04:35 | 05:13 | 06:14 | 07:17 | 08:20 | 08:26 | 09:01 |
| | 16:39 | 17:48 | 18:50 | 20:55 | 21:54 | 22:21 | 21:50 | 20:39 | 19:16 | 17:59 | 15:59 | 15:50 |
| 27 | 08:36 | 07:28 | 07:11 | 05:51 | 04:50 | 04:35 | 05:15 | 06:16 | 07:19 | 08:22 | 08:28 | 09:02 |
| | 16:41 | 17:50 | 19:52 | 20:58 | 21:56 | 22:21 | 21:48 | 20:37 | 19:14 | 17:56 | 15:58 | 15:51 |
| 28 | 08:34 | 07:25 | 07:09 | 05:48 | 04:49 | 04:36 | 05:17 | 06:18 | 07:21 | 08:24 | 08:30 | 09:02 |
| | 16:43 | 17:52 | 19:54 | 21:00 | 21:58 | 22:21 | 21:46 | 20:34 | 19:11 | 17:54 | 15:56 | 15:52 |
| 29 | 08:32 | 07:23 | 07:06 | 05:46 | 04:48 | 04:37 | 05:19 | 06:20 | 07:23 | 08:26 | 08:31 | 09:02 |
| | 16:45 | 17:55 | 19:57 | 21:02 | 21:59 | 22:21 | 21:44 | 20:32 | 19:08 | 17:51 | 15:55 | 15:53 |
| 30 | 08:31 | | 07:03 | 05:43 | 04:46 | 04:37 | 05:20 | 06:22 | 07:25 | 07:28 | 08:33 | 09:02 |
| | 16:47 | | 19:59 | 21:04 | 22:01 | 22:20 | 21:42 | 20:29 | 19:05 | 16:49 | 15:54 | 15:54 |
| 31 | 08:29 | | 07:00 | | 04:45 | | 05:22 | 06:24 | | 07:31 | | 09:02 |
| | 16:50 | | 20:01 | | 22:02 | | 21:40 | 20:26 | | 16:47 | | 15:55 |
| Mulige solskinstimer | 233 | 274 | 366 | 427 | 509 | 530 | 530 | 470 | 385 | 323 | 246 | 215 |
| Antal minutter med skyggekast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Tabellayout: For hver dag i hver måned udskrives følgende data:

Dage i måned Solopgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast
Solnedgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.
De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugerlicens:

Siemens Wind Power A/S
Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kalender pr. vindmølle

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH **Vindmølle:** T04 - Siemens SWT-7.0-154 7000 154.0 IO! nav: 97.3 m (TOT:174.3 m) (266)

Forudsætninger for skyggeberegning

Reference år for kalender

2016

Solskinssandsynlighed S (Gennemsnitligt antal solskinstimer om dagen) []

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1.52 2.54 4.71 6.60 7.58 7.97 7.48 6.32 5.40 3.58 1.93 1.45

Driftstid

N NNØ ØNØ Ø ØSØ SSØ S SSV VSV V VNV NNV I alt
311 345 497 696 675 502 583 947 1,065 1,122 1,206 633 8,581

Tomgang start vindhastighed: Opstartsvindhastighed fra effektkurve

| | Januar | Februar | Marts | April | Maj | Juni | Juli | August | September | Oktober | November | December |
|-------------------------------|--------|---------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 09:02 | 08:27 | 07:20 | 06:58 | 05:41 | 04:44 | 04:38 | 05:24 | 06:26 | 07:27 | 07:33 | 08:35 |
| | 15:55 | 16:52 | 17:57 | 20:03 | 21:06 | 22:04 | 22:20 | 21:38 | 20:24 | 19:03 | 16:45 | 15:53 |
| 2 | 09:02 | 08:25 | 07:18 | 06:55 | 05:39 | 04:43 | 04:39 | 05:26 | 06:29 | 07:29 | 07:35 | 08:37 |
| | 15:56 | 16:54 | 17:59 | 20:05 | 21:08 | 22:05 | 22:20 | 21:36 | 20:21 | 19:00 | 16:42 | 15:52 |
| 3 | 09:01 | 08:23 | 07:15 | 06:52 | 05:36 | 04:42 | 04:40 | 05:28 | 06:31 | 07:31 | 07:37 | 08:38 |
| | 15:58 | 16:56 | 18:01 | 20:07 | 21:10 | 22:06 | 22:19 | 21:34 | 20:18 | 18:57 | 16:40 | 15:51 |
| 4 | 09:01 | 08:21 | 07:13 | 06:50 | 05:34 | 04:41 | 04:41 | 05:30 | 06:33 | 07:33 | 07:40 | 08:40 |
| | 15:59 | 16:58 | 18:03 | 20:09 | 21:12 | 22:08 | 22:18 | 21:32 | 20:16 | 18:55 | 16:38 | 15:50 |
| 5 | 09:01 | 08:19 | 07:10 | 06:47 | 05:32 | 04:40 | 04:42 | 05:32 | 06:35 | 07:35 | 07:42 | 08:42 |
| | 16:00 | 17:01 | 18:06 | 20:11 | 21:14 | 22:09 | 22:18 | 21:30 | 20:13 | 18:52 | 16:36 | 15:50 |
| 6 | 09:00 | 08:17 | 07:07 | 06:44 | 05:30 | 04:39 | 04:43 | 05:34 | 06:37 | 07:37 | 07:44 | 08:43 |
| | 16:02 | 17:03 | 18:08 | 20:13 | 21:16 | 22:10 | 22:17 | 21:28 | 20:10 | 18:49 | 16:34 | 15:49 |
| 7 | 09:00 | 08:15 | 07:05 | 06:42 | 05:27 | 04:38 | 04:44 | 05:36 | 06:39 | 07:39 | 07:46 | 08:45 |
| | 16:03 | 17:05 | 18:10 | 20:15 | 21:18 | 22:11 | 22:16 | 21:25 | 20:08 | 18:47 | 16:32 | 15:48 |
| 8 | 08:59 | 08:13 | 07:02 | 06:39 | 05:25 | 04:37 | 04:45 | 05:38 | 06:41 | 07:41 | 07:48 | 08:46 |
| | 16:05 | 17:07 | 18:12 | 20:18 | 21:20 | 22:12 | 22:15 | 21:23 | 20:05 | 18:44 | 16:30 | 15:48 |
| 9 | 08:58 | 08:11 | 07:00 | 06:36 | 05:23 | 04:36 | 04:46 | 05:40 | 06:43 | 07:44 | 07:50 | 08:48 |
| | 16:06 | 17:10 | 18:14 | 20:20 | 21:22 | 22:14 | 22:14 | 21:21 | 20:02 | 18:41 | 16:27 | 15:47 |
| 10 | 08:58 | 08:08 | 06:57 | 06:34 | 05:21 | 04:36 | 04:47 | 05:42 | 06:45 | 07:46 | 07:53 | 08:49 |
| | 16:08 | 17:12 | 18:16 | 20:22 | 21:24 | 22:15 | 22:13 | 21:19 | 20:00 | 18:39 | 16:25 | 15:47 |
| 11 | 08:57 | 08:06 | 06:54 | 06:31 | 05:19 | 04:35 | 04:49 | 05:44 | 06:47 | 07:48 | 07:55 | 08:50 |
| | 16:09 | 17:14 | 18:19 | 20:24 | 21:26 | 22:15 | 22:12 | 21:16 | 19:57 | 18:36 | 16:23 | 15:47 |
| 12 | 08:56 | 08:04 | 06:52 | 06:29 | 05:17 | 04:35 | 04:50 | 05:46 | 06:49 | 07:50 | 07:57 | 08:51 |
| | 16:11 | 17:17 | 18:21 | 20:26 | 21:28 | 22:16 | 22:11 | 21:14 | 19:54 | 18:34 | 16:22 | 15:46 |
| 13 | 08:55 | 08:02 | 06:49 | 06:26 | 05:15 | 04:34 | 04:52 | 05:48 | 06:51 | 07:52 | 07:59 | 08:53 |
| | 16:13 | 17:19 | 18:23 | 20:28 | 21:30 | 22:17 | 22:10 | 21:12 | 19:52 | 18:31 | 16:20 | 15:46 |
| 14 | 08:54 | 07:59 | 06:46 | 06:23 | 05:13 | 04:34 | 04:53 | 05:50 | 06:53 | 07:54 | 08:01 | 08:54 |
| | 16:15 | 17:21 | 18:25 | 20:30 | 21:32 | 22:18 | 22:09 | 21:09 | 19:49 | 18:28 | 16:18 | 15:46 |
| 15 | 08:53 | 07:57 | 06:44 | 06:21 | 05:11 | 04:34 | 04:54 | 05:52 | 06:55 | 07:56 | 08:03 | 08:55 |
| | 16:16 | 17:23 | 18:27 | 20:32 | 21:34 | 22:19 | 22:07 | 21:07 | 19:46 | 18:26 | 16:16 | 15:46 |
| 16 | 08:52 | 07:55 | 06:41 | 06:18 | 05:09 | 04:33 | 04:56 | 05:54 | 06:57 | 07:58 | 08:06 | 08:56 |
| | 16:18 | 17:26 | 18:29 | 20:34 | 21:36 | 22:19 | 22:06 | 21:04 | 19:43 | 18:23 | 16:14 | 15:46 |
| 17 | 08:51 | 07:53 | 06:38 | 06:16 | 05:07 | 04:33 | 04:58 | 05:56 | 06:59 | 08:00 | 08:08 | 08:57 |
| | 16:20 | 17:28 | 18:31 | 20:37 | 21:38 | 22:20 | 22:05 | 21:02 | 19:41 | 18:21 | 16:12 | 15:46 |
| 18 | 08:49 | 07:50 | 06:36 | 06:13 | 05:05 | 04:33 | 04:59 | 05:58 | 07:01 | 08:03 | 08:10 | 08:57 |
| | 16:22 | 17:30 | 18:33 | 20:39 | 21:40 | 22:20 | 22:03 | 21:00 | 19:38 | 18:18 | 16:11 | 15:46 |
| 19 | 08:48 | 07:48 | 06:33 | 06:10 | 05:03 | 04:33 | 05:01 | 06:00 | 07:03 | 08:05 | 08:12 | 08:58 |
| | 16:24 | 17:32 | 18:36 | 20:41 | 21:42 | 22:21 | 22:02 | 20:57 | 19:35 | 18:16 | 16:09 | 15:46 |
| 20 | 08:47 | 07:45 | 06:30 | 06:08 | 05:02 | 04:33 | 05:02 | 06:02 | 07:05 | 08:07 | 08:14 | 08:59 |
| | 16:26 | 17:35 | 18:38 | 20:43 | 21:44 | 22:21 | 22:00 | 20:55 | 19:33 | 18:13 | 16:07 | 15:47 |
| 21 | 08:45 | 07:43 | 06:27 | 06:05 | 05:00 | 04:33 | 05:04 | 06:04 | 07:07 | 08:09 | 08:16 | 08:59 |
| | 16:28 | 17:37 | 18:40 | 20:45 | 21:46 | 22:21 | 21:59 | 20:52 | 19:30 | 18:11 | 16:06 | 15:47 |
| 22 | 08:44 | 07:41 | 06:25 | 06:03 | 04:58 | 04:33 | 05:06 | 06:06 | 07:09 | 08:11 | 08:18 | 09:00 |
| | 16:30 | 17:39 | 18:42 | 20:47 | 21:47 | 22:21 | 21:57 | 20:50 | 19:27 | 18:08 | 16:04 | 15:47 |
| 23 | 08:42 | 07:38 | 06:22 | 06:00 | 04:56 | 04:34 | 05:08 | 06:08 | 07:11 | 08:13 | 08:20 | 09:01 |
| | 16:32 | 17:41 | 18:44 | 20:49 | 21:49 | 22:22 | 21:55 | 20:47 | 19:24 | 18:06 | 16:03 | 15:48 |
| 24 | 08:41 | 07:36 | 06:19 | 05:58 | 04:55 | 04:34 | 05:09 | 06:10 | 07:13 | 08:15 | 08:22 | 09:01 |
| | 16:34 | 17:44 | 18:46 | 20:51 | 21:51 | 22:22 | 21:54 | 20:45 | 19:22 | 18:03 | 16:02 | 15:49 |
| 25 | 08:39 | 07:33 | 06:17 | 05:55 | 04:53 | 04:34 | 05:11 | 06:12 | 07:15 | 08:18 | 08:24 | 09:01 |
| | 16:36 | 17:46 | 18:48 | 20:53 | 21:53 | 22:22 | 21:52 | 20:42 | 19:19 | 18:01 | 16:00 | 15:49 |
| 26 | 08:38 | 07:31 | 06:14 | 05:53 | 04:52 | 04:35 | 05:13 | 06:14 | 07:17 | 08:20 | 08:26 | 09:02 |
| | 16:39 | 17:48 | 18:50 | 20:55 | 21:54 | 22:22 | 21:50 | 20:39 | 19:16 | 17:59 | 15:59 | 15:50 |
| 27 | 08:36 | 07:28 | 07:11 | 05:51 | 04:50 | 04:35 | 05:15 | 06:16 | 07:19 | 08:22 | 08:28 | 09:02 |
| | 16:41 | 17:50 | 19:52 | 20:58 | 21:56 | 22:21 | 21:48 | 20:37 | 19:14 | 17:56 | 15:58 | 15:51 |
| 28 | 08:34 | 07:26 | 07:09 | 05:48 | 04:49 | 04:36 | 05:17 | 06:18 | 07:21 | 08:24 | 08:30 | 09:02 |
| | 16:43 | 17:52 | 19:55 | 21:00 | 21:58 | 22:21 | 21:46 | 20:34 | 19:11 | 17:54 | 15:56 | 15:52 |
| 29 | 08:32 | 07:23 | 07:06 | 05:46 | 04:48 | 04:36 | 05:18 | 06:20 | 07:23 | 08:26 | 08:31 | 09:02 |
| | 16:45 | 17:55 | 19:57 | 21:02 | 21:59 | 22:21 | 21:44 | 20:32 | 19:08 | 17:51 | 15:55 | 15:53 |
| 30 | 08:31 | | 07:03 | 05:43 | 04:46 | 04:37 | 05:20 | 06:22 | 07:25 | 07:29 | 08:33 | 09:02 |
| | 16:47 | | 19:59 | 21:04 | 22:01 | 22:21 | 21:42 | 20:29 | 19:05 | 16:49 | 15:54 | 15:54 |
| 31 | 08:29 | | 07:00 | | 04:45 | | 05:22 | 06:24 | | 07:31 | | 09:02 |
| | 16:50 | | 20:01 | | 22:02 | | 21:40 | 20:26 | | 16:47 | | 15:55 |
| Mulige solskinstimer | 233 | 274 | 366 | 427 | 509 | 530 | 530 | 470 | 385 | 323 | 246 | 215 |
| Antal minutter med skyggekast | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Tabellayout: For hver dag i hver måned udskrives følgende data:

Dage i måned Solopgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast
Solnedgang (tt:mm) Første tidspunkt (tt:mm) med skyggekast-Sidste tidspunkt (tt:mm) med skyggekast/Minutter med skyggekast

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.
De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugerlicens:

Siemens Wind Power A/S

Finsensvej 1
DK-7430 Ikast

Ann Danielsen / ann.danielsen@siemens.com

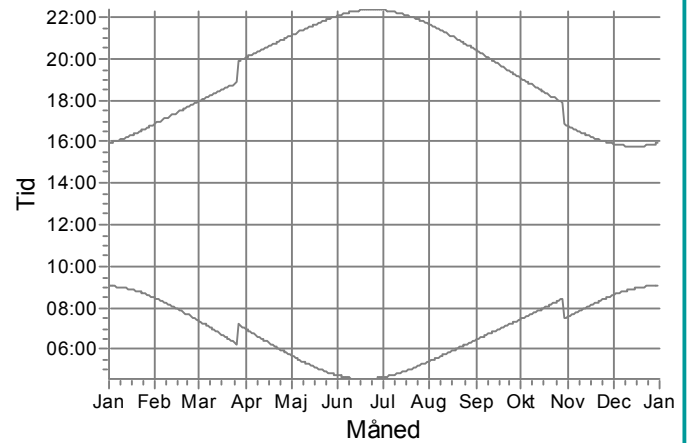
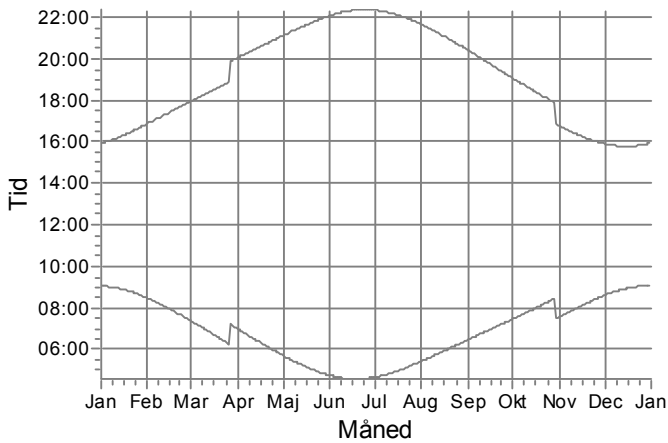
Beregnet:

16-08-2016 10:38/3.0.654

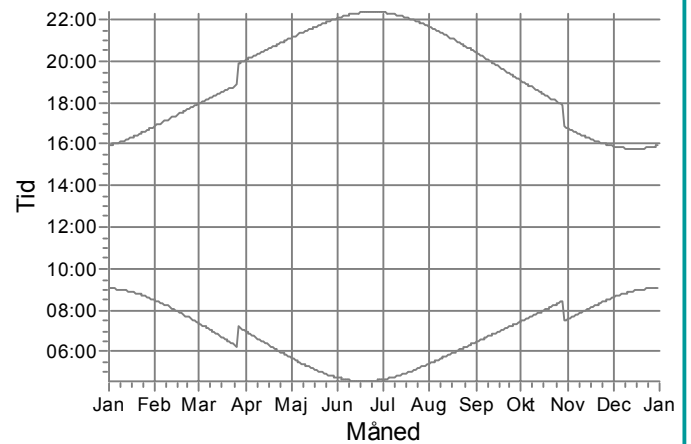
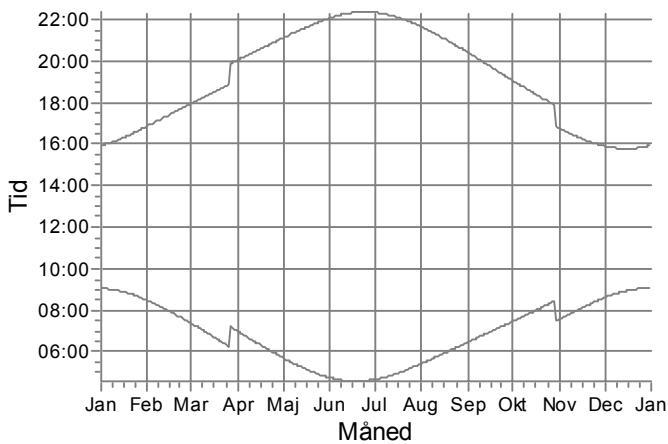
SHADOW - Kalender pr. vindmølle, grafisk

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH

T01: Siemens SWT-7.0-154 7000 154.0 IO! nav. 97.3 m (TOT:174.3 m) (264) Siemens SWT-7.0-154 7000 154.0 IO! nav. 97.3 m (TOT:174.3 m) (264)



T03: Siemens SWT-7.0-154 7000 154.0 IO! nav. 97.3 m (TOT:174.3 m) (264) Siemens SWT-7.0-154 7000 154.0 IO! nav. 97.3 m (TOT:174.3 m) (266)



Skygge modtagere

Projekt:

Nr. Nissum Bredning

Beskrivelse:

Nærværende beregning er vejledende, og der tages forbehold for evt. fejl og mangler i program og udskrift samt for de anvendte forudsætninger.

De i beregningen anvendte koordinater for udendørs opholdsareal er modtaget fra kunden.

Brugerlicens:

Siemens Wind Power A/S

Finsensvej 1
DK-7430 Ikast

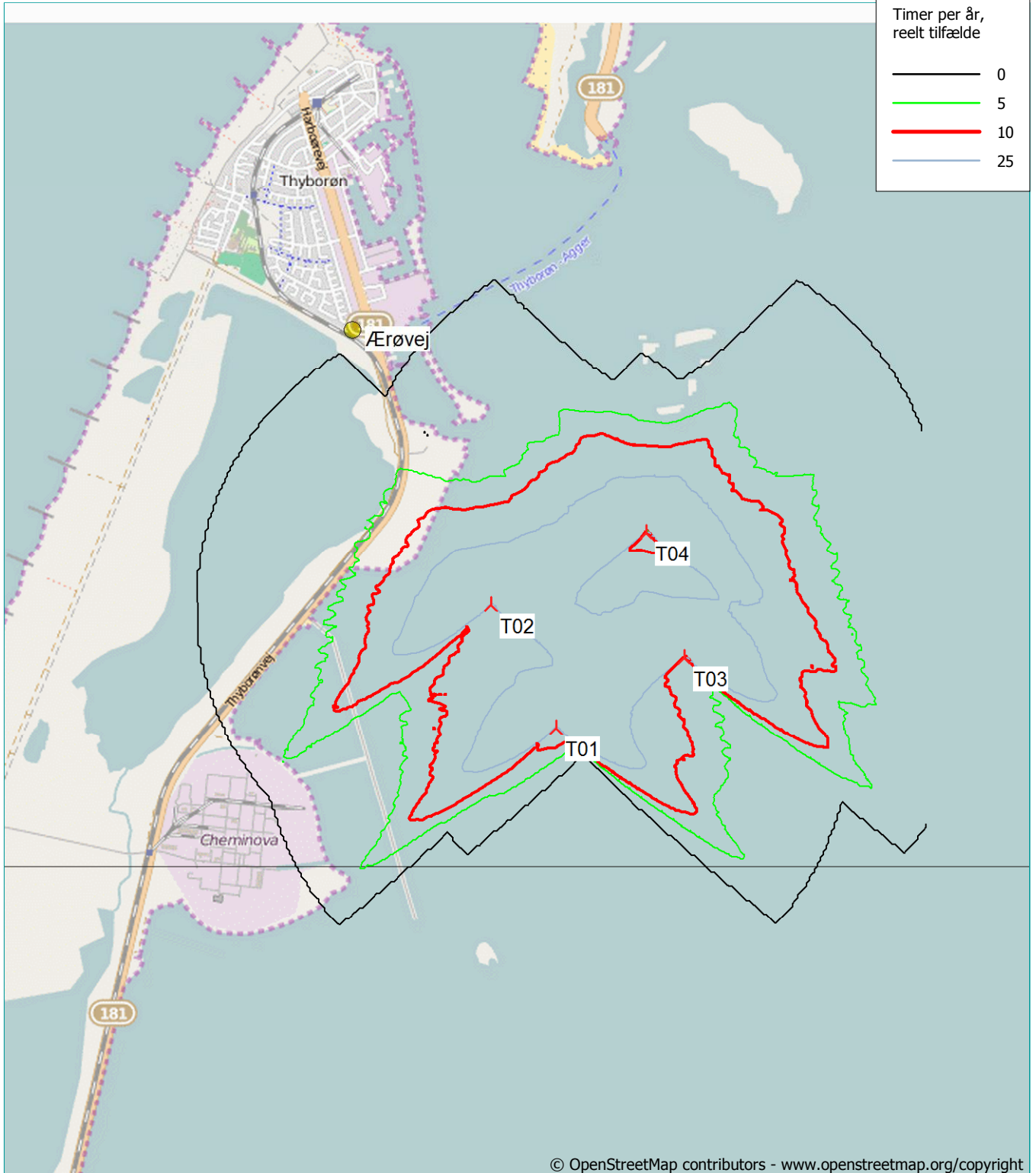
Ann Danielsen / ann.danielsen@siemens.com

Beregnet:

16-08-2016 10:38/3.0.654

SHADOW - Kort

Beregning: Udendørs 15x15_C8 4 stk. SWT-7.0-154_97.3NH



0 500 1000 1500 2000 m

Kort: Open Street Map 001 , Udskriftsmålestok 1:40,000, Kortcentrum UTM (north)-WGS84 Zone: 32 Øst: 453,280 Nord: 6,281,360



Ny vindmølle



Skyggemodtager

Skygge kort niveau: Højdekonturer: CONTOURLINE_ONLINEDATA_0.wpo (1)