

AUTORIZZAZIONE UNICA EX D. LGS. N. 387/2003



PROGETTO DEFINITIVO PARCO EOLICO TURSI SANT'ARCANGELO

Titolo elaborato:

STUDIO SUGLI EFFETTI DELLO SHADOW FLICKERING

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1. PREMESSA

Nella presente trattazione si descrive l'evoluzione giornaliera delle ombre generate dalle pale eoliche facenti parte dell'impianto eolico denominato "Tursi Sant'Arcangelo" con lo scopo di verificare che l'alternanza ciclica dell'ombra su di un possibile ricettore non arrechi a questo danni alla salute.

2. DESCRIZIONE DEL PROGETTO

L'impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

L'impianto interessa prevalentemente i Comuni di Tursi, ove ricadono 8 aerogeneratori, il Comune di Sant'Arcangelo, ove ricadono 3 aerogeneratori, il BESS e la sottostazione elettrica di trasformazione 150/33 kV, il Comune di Roccanova, ove ricade un tratto di linea elettrica da 150 kV interrata, e il Comune di Aliano, ove ricade la stazione elettrica condivisa e la stazione elettrica di trasformazione della RTN Terna 380/150 kV, ove verrà realizzato un nuovo stallo AT 150 kV (**Figura 2.1**).

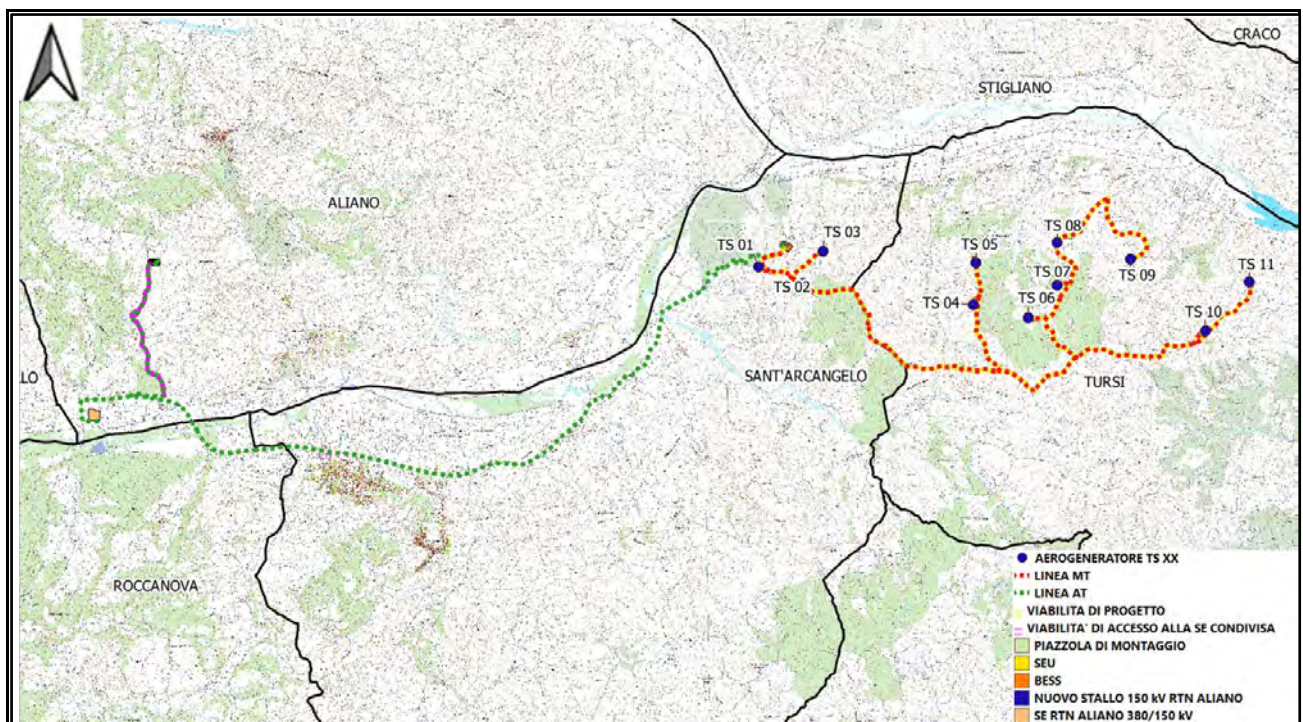


Figura 2.1: Inquadramento territoriale - Limiti amministrativi comuni interessati

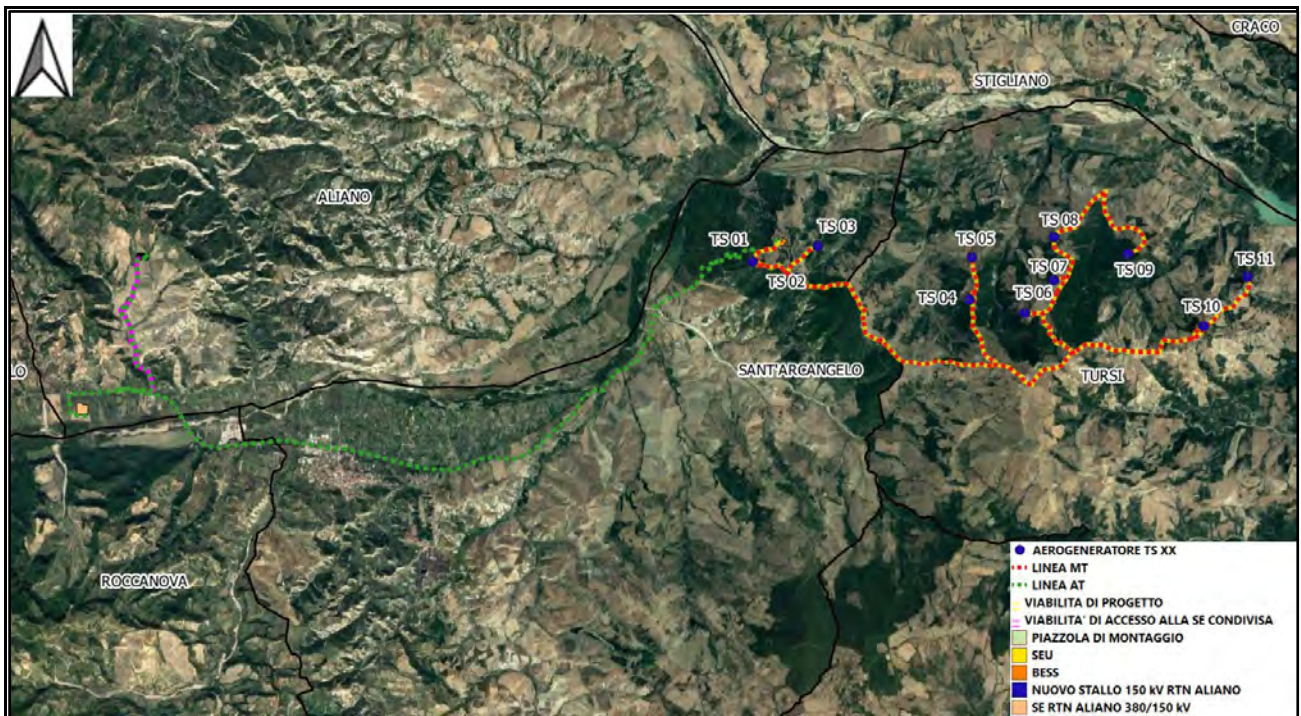


Figura 2.2: Layout d'impianto su ortofoto

Il Parco eolico si può intendere suddiviso in due parti, quella ricadente a Nord – Ovest del territorio del Comune di Tursi (Zona 1 – rettangolo rosso), costituita da 8 aerogeneratori, e quella ricadente a Nord – Est del territorio del Comune di Sant'Arcangelo (Zona 2 – rettangolo azzurro), costituito da 3 aerogeneratori, la sottostazione di trasformazione 150/33 kV (SEU) e il BESS (**Figura 2.3**).

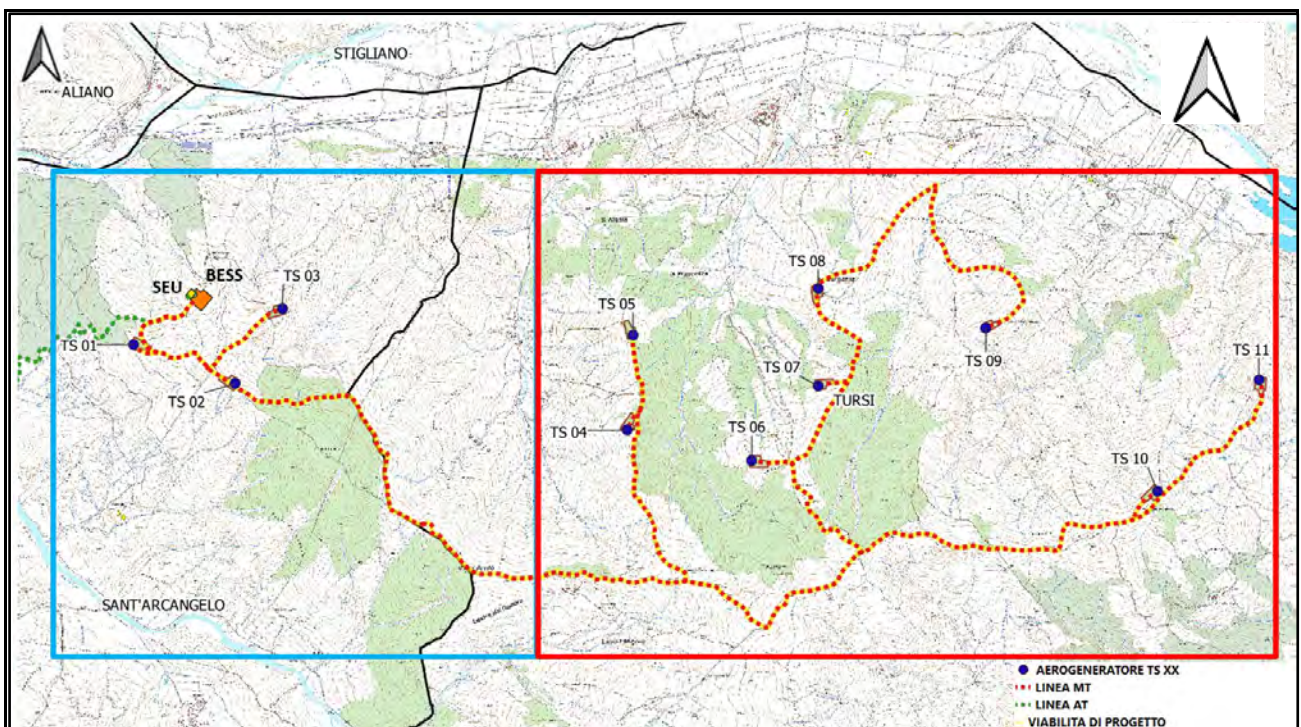


Figura 2.3: Layout d'impianto suddiviso in zone su CTR: Zona 1 (rettangolo rosso) e Zona 2 (rettangolo azzurro)

La soluzione di connessione (soluzione tecnica minima generale STMG - codice pratica del preventivo di connessione C.P. 202100990), prevede che l'impianto eolico venga collegato in antenna a 150 kV su un nuovo stallo della Stazione Elettrica di Trasformazione (SE) a 380/150 kV denominata "Aliano".

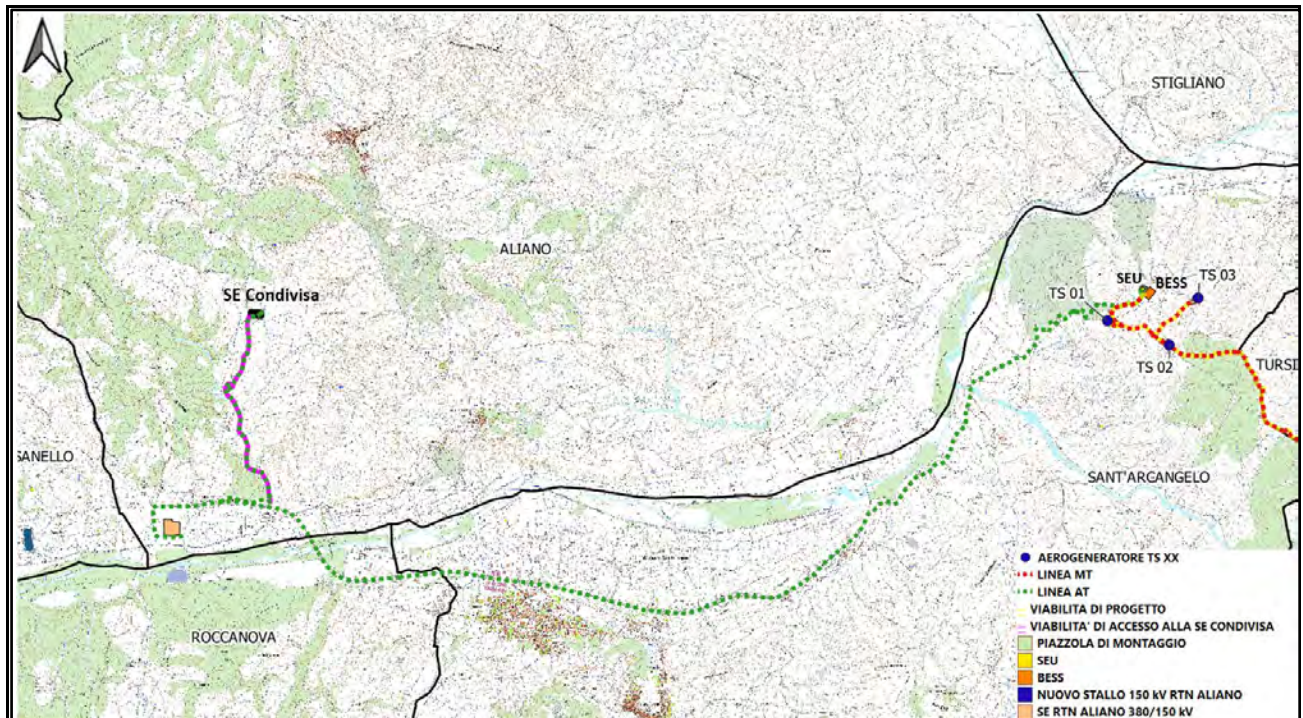


Figura 2.4: Soluzione di connessione alla RTN in corrispondenza della SSE RTN Terna 380/150 kV Aliano

Il Gestore ha inoltre prescritto che lo stallo che sarà occupato dall'impianto dovrà essere condiviso con altri produttori e al fine verrà realizzata una stazione elettrica condivisa con altri produttori.

La connessione a 150kV della Sottostazione elettrica utente (SEU) alla suddetta stazione RTN sarà realizzata tramite la costruzione di una stazione elettrica condivisa con altri produttori e mediante la posa in opera, su strade esistenti o da realizzarsi per lo scopo, di linee AT interrate per una lunghezza complessiva di circa 26 km.

Le turbine eoliche e il BESS verranno collegate attraverso un sistema di linee elettriche interrate di media tensione da 33 kV allocate prevalentemente in corrispondenza del sistema di viabilità interna che servirà per la costruzione e la gestione futura dell'impianto. Tale sistema di viabilità verrà realizzato prevalentemente adeguando il sistema viario esistente e realizzando nuovi tratti di raccordo per consentire il transito dei mezzi eccezionali.

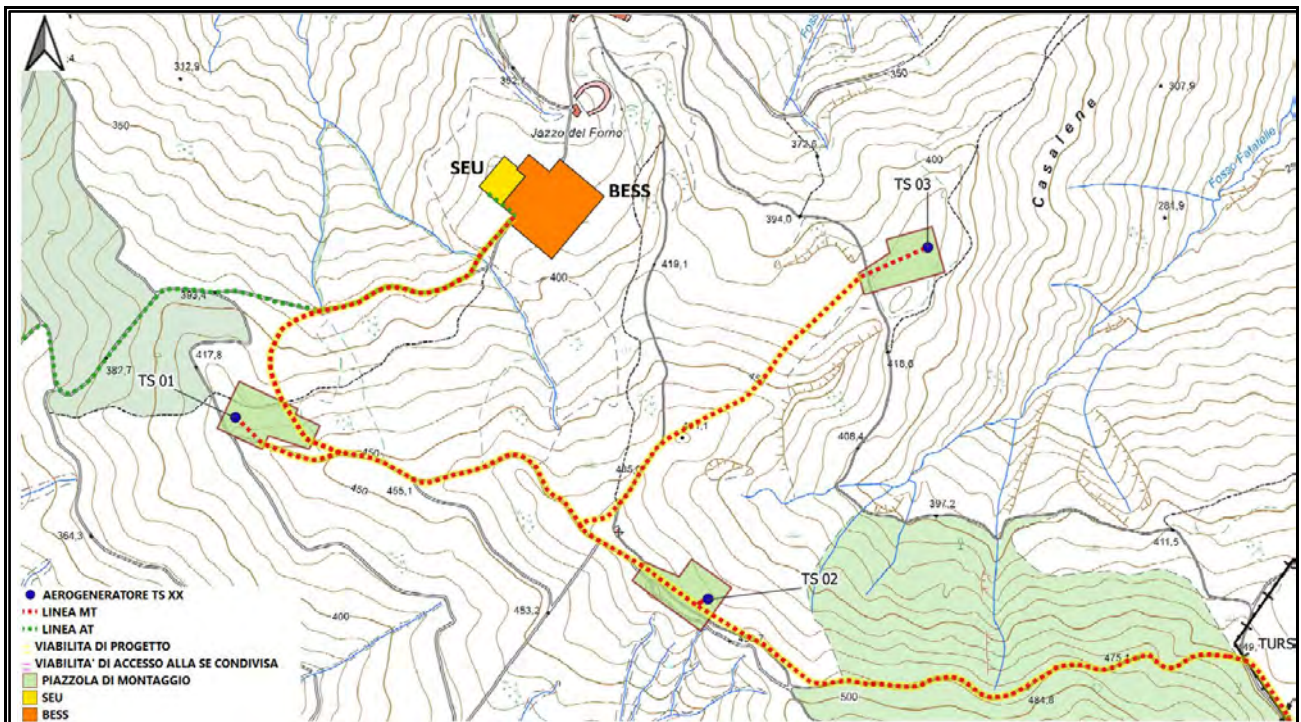


Figura 2.5: Area SEU 150/33 kV e BESS 35 MW

L'area di progetto (Figura 2.6) è servita dalla SS 598 (Val d'Agri) e da un sistema di viabilità esistente, opportunamente adeguato e migliorato per il transito dei mezzi eccezionali da utilizzare per consegnare in sito i componenti degli aerogeneratori, da cui si dirameranno nuovi tratti di viabilità per giungere alle posizioni degli aerogeneratori, necessari per la costruzione e la manutenzione dell'impianto eolico.



Figura 2.6: Layout d'impianto con viabilità di accesso su immagine satellitare

3. CARATTERISTICHE PRINCIPALI DEL PARCO EOLICO

L'impianto eolico sarà costituito essenzialmente da 11 aerogeneratori la cui posizione è stata stabilita a seguito di valutazioni che riguardano diversi aspetti quali l'esposizione a tutti i settori della rosa dei venti, la morfologia del territorio, la distanza da fabbricati e strade esistenti ed utilizzate da un elevato numero di veicoli, distanza dal centro abitato e da beni monumentali presenti nell'area oltre agli aspetti legati alla sicurezza e volti a minimizzare l'impatto sull'ambiente:

- ottemperare alle previsioni della normativa vigente e delle linee guida sia nazionali che regionali;
- minimizzare l'impatto visivo;
- migliorare in sistema viario esistente al fine di migliorare l'accessibilità ai terreni per lo sviluppo dell'agricoltura e dell'allevamento di animali;
- disposizione delle macchine ad una distanza reciproca minima pari ad almeno 450 m, atta a minimizzare l'effetto scia, l'effetto selva e l'impatto sull'avifauna;
- condizioni di massima sicurezza, sia in fase di installazione che di esercizio.

La disposizione finale del parco è stata verificata e confermata a seguito di uno studio di fattibilità condotto sulla base delle informazioni sugli aspetti vincolistici dal punto di vista ambientale e paesaggistico e sulla base dei sopralluoghi svolti sul posto per verificare le interferenze presenti in sito e la fattibilità di realizzazione delle opere.

Si riportano di seguito le coordinate delle posizioni scelte per l'installazione degli aerogeneratori:

WTG	Comune	D rotore	H tot	Hhub	Coordinate UTM-WGS84 T33	
		m	m	m	E[m]	N[m]
TS-01	Sant'Arcangelo	170	220	135	614275.00	4460969.92
TS-02	Sant'Arcangelo	170	220	135	615077.67	4460662.41
TS-03	Sant'Arcangelo	170	220	135	615449.32	4461256.63
TS-04	Tursi	170	220	135	618173.63	4460295.12
TS-05	Tursi	170	220	135	618222.87	4461044.08
TS-06	Tursi	170	220	135	619168.00	4460053.00
TS-07	Tursi	170	220	135	619689.70	4460644.16
TS-08	Tursi	170	220	135	619692.57	4461411.50
TS-09	Tursi	170	220	135	621018.16	4461104.27
TS-10	Tursi	170	220	135	622371.24	4459813.51
TS-11	Tursi	170	220	135	623174.00	4460692.00

Tabella 3.1: Localizzazione planimetrica degli aerogeneratori di progetto

Il progetto prevede l'adeguamento di tratti di strada esistenti, in particolare strade comunali, e la realizzazione di una nuova viabilità a servizio degli aerogeneratori di progetto, ossia di una rete viaria interna al parco che si snoderà seguendo lo sviluppo degli esistenti tratturi non vincolati dalla Soprintendenza.

La disponibilità delle aree, necessaria per l'installazione degli aerogeneratori e le relative opere connesse, è garantita grazie alla Dichiarazione di Pubblica utilità ai sensi degli artt. 52-quater "Disposizioni generali in materia di conformità urbanistica, apposizione del vincolo preordinato all'esproprio e pubblica utilità" e 52-quinquies "Disposizioni particolari per le infrastrutture lineari energetiche facenti parte delle reti energetiche nazionali" D.P.R. 327/2001 a conclusione del procedimento autorizzatorio di cui all'art.12, d.lgs. 387/2003 e gli effetti dell'Autorizzazione Unica ottenuta dopo opportuna conferenza di servizi.

Tutte le aree oggetto interessate dal progetto sono riportate nello specifico elaborato di progetto "TSEG011 Piano Particolare di esproprio descrittivo".

4. CARATTERISTICHE TECNICHE DELL'AEROGENERATORE

L'aerogeneratore è una macchina rotante che trasforma l'energia cinetica del vento in energia elettrica ed è essenzialmente costituito da una torre (suddivisa in più parti), dalla navicella, dal Drive Train, dall'Hub e tre pale che costituiscono il rotore.

Per il presente progetto una delle possibili macchine che potrebbe essere installata è il modello Siemens Gamesa SG 170, di potenza nominale pari a 6.0 MW, altezza torre all'hub pari a 135 m e diametro del rotore 170 m (**Figura 4.1**).

Oltre ai componenti su elencati, vi è un sistema di controllo che esegue, il controllo della potenza ruotando le pale intorno al loro asse principale, ed il controllo dell'orientamento della navicella, detto controllo dell'imbardata, che permette l'allineamento della macchina rispetto alla direzione del vento.

Il rotore è a passo variabile in resina epossidica rinforzata con fibra di vetro di diametro pari a 170 m, posto sopravvento al sostegno, con mozzo rigido in acciaio. Altre caratteristiche principali sono riassunte nella **Tabella 4.1**.

Le caratteristiche dell'aerogeneratore su descritto sono quelle ritenute idonee in base a quanto disponibile oggi sul mercato, in futuro potrà essere possibile cambiare il modello dell'aerogeneratore senza modificare in maniera sostanziale l'impatto ambientale e i limiti di sicurezza previsti.

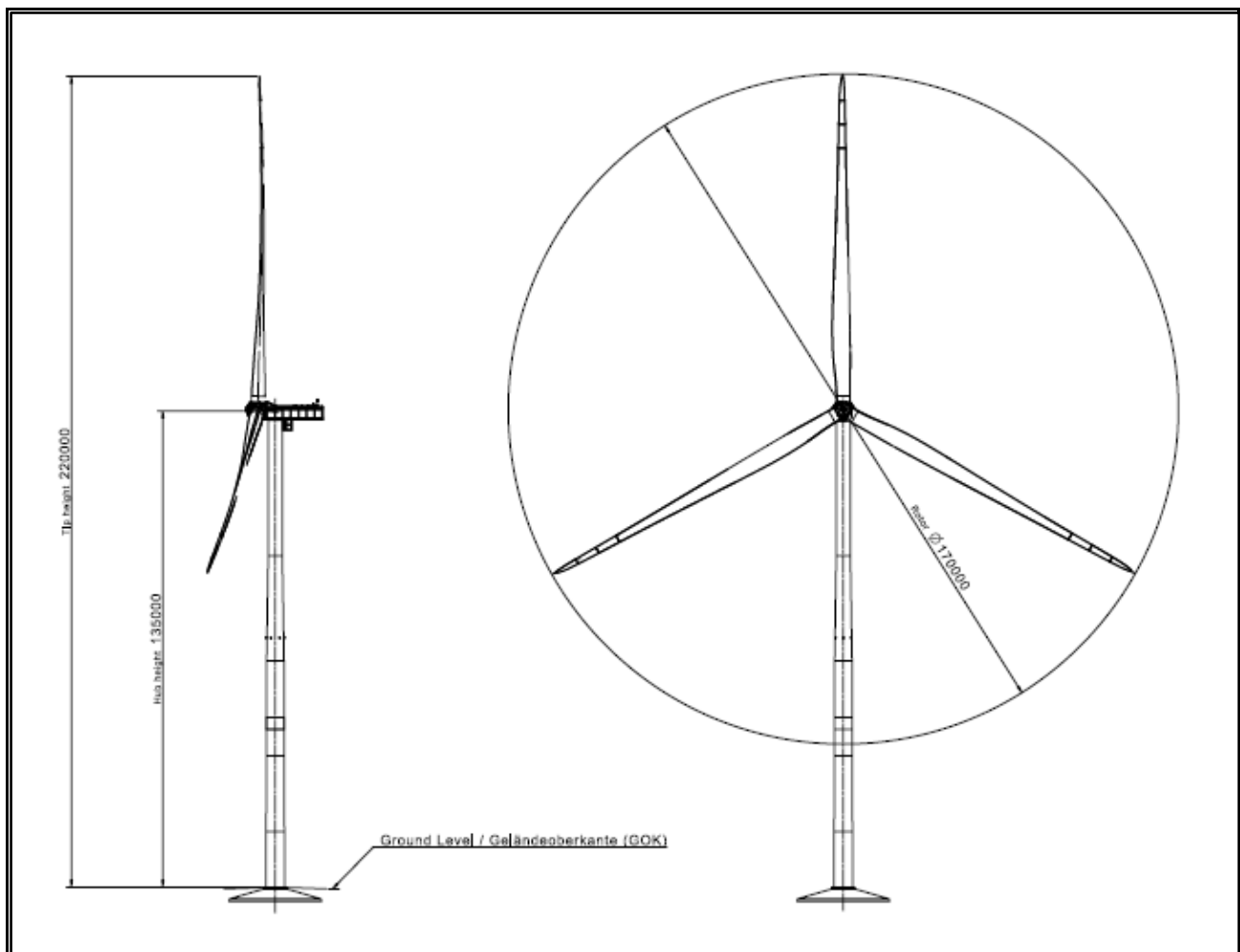


Figura 4.1: Profilo aerogeneratore SG170 – 6 MW

Technical Specifications	
Rotor	Generator
Type 3-bladed, horizontal axis	Type Asynchronous, DFIG
Position Upwind	
Diameter 170 m	Grid Terminals (LV)
Swept area 22,698 m ²	Baseline nominal power 6.0 MW / 6.2 MW
Power regulation Pitch & torque regulation with variable speed	Voltage 690 V
Rotor tilt 6 degrees	Frequency 50 Hz or 60 Hz
Blade	Yaw System
Type Self-supporting	Type Active
Blade length 83.5 m	Yaw bearing Externally geared
Max chord 4.5 m	Yaw drive Electric gear motors
Aerodynamic profile Siemens Gamesa proprietary airfoils	Yaw brake Active friction brake
Material G (Glassfiber) – CRP (Carbon Reinforced Plastic)	Controller
Surface gloss Semi-gloss, < 30 / ISO2813	Type Siemens Integrated Control System (SICS)
Surface color Light grey, RAL 7035 or White, RAL 9018	SCADA system SGRE SCADA
Aerodynamic Brake	Tower
Type Full span pitching	Type Tubular steel / Hybrid
Activation Active, hydraulic	Hub height 100 m to 165 m and site-specific
Load-Supporting Parts	Corrosion protection Painted
Hub Nodular cast iron	Surface gloss Semi-gloss, <30 / ISO-2813
Main shaft Nodular cast iron	Color Light grey, RAL 7035 or White, RAL 9018
Nacelle bed frame Nodular cast iron	Operational Data
Mechanical Brake	Cut-in wind speed 3 m/s
Type Hydraulic disc brake	Rated wind speed 11.0 m/s (steady wind without turbulence, as defined by IEC61400-1)
Position Gearbox rear end	Cut-out wind speed 25 m/s
Nacelle Cover	Restart wind speed 22 m/s
Type Totally enclosed	Weight
Surface gloss Semi-gloss, <30 / ISO2813	Modular approach Different modules depending on restriction
Color Light Grey, RAL 7035 or White, RAL 9018	

Tabella 4.1: Specifiche tecniche aerogeneratore

5. FENOMENO DI SHADOW FLIKERING

La presenza delle turbine eoliche provoca la proiezione dell'ombra sulle aree ad esse adiacenti in presenza di luce solare diretta.

Il fenomeno causa effetti quasi statici dovuti alla presenza della torre fissa ed effetti dinamici legati alla rotazione del rotore delle tre pale della turbina.

Gli effetti statici possono aumentare, nelle prime ed ultime ore del giorno, la probabilità di formazione di ghiaccio su eventuali strade asfaltate soggette a traffico.

Gli effetti dinamici si traducono in una variazione alternata di intensità luminosa che, a lungo andare, può provocare fastidio agli occupanti le abitazioni le cui finestre risultano esposte al fenomeno stesso.

Lo “**shadow flickering**” descrive appunto l'effetto stroboscopico delle ombre proiettate dalle pale rotanti degli aerogeneratori allorquando il sole si trova alle loro spalle, come si evince dalla **Figura 5.1**.



Figura 5.1: Ombre proiettate dalle pale in rotazione di una turbina

Il conseguente effetto sugli individui è simile a quello che si sperimenterebbe in seguito alle variazioni di intensità luminosa di una lampada ad incandescenza a causa di continui sbalzi della tensione della rete di alimentazione elettrica.

Lo shadow flickering risulta assente nei casi di presenza di nuvole e nebbia che oscurano il sole e nei casi in cui le pale dell'aerogeneratore sono a riposo (per esempio in assenza del vento).

Per effettuare l'analisi del fenomeno vengono considerati alcuni parametri che ne influenzano la rilevanza.

Il primo di essi da tenere in conto è la frequenza di rotazione delle pale; in particolare, le frequenze che possono provocare un senso di fastidio sono comprese tra i 2,5 ed i 20 Hz.

Solitamente gli aerogeneratori tripala operano ad una velocità di rotazione inferiore ai 35 giri al minuto, corrispondente ad una frequenza di passaggio delle pale sulla verticale inferiore a 1,75 Hz, minore, quindi, della frequenza critica di 2,5 Hz.

Inoltre, i generatori di grande potenza (dal MW in su) raramente superano la velocità di rotazione di 20 giri al minuto, corrispondente a frequenze di passaggio delle pale ampiamente minori di quelle ritenute fastidiose per la maggioranza degli individui.

Un ulteriore aspetto da considerare per l'analisi della durata del fenomeno è la relazione spaziale tra un aerogeneratore ed un ricettore (abitazione), così come la direzione del vento.

Per distanze dell'ordine dei 300 m il fenomeno è più rilevante all'alba oppure al tramonto, ovvero in quelle ore in cui le ombre risultano molto lunghe per effetto della piccola elevazione solare. Al di là di una certa distanza l'effetto delle ombre è meno consistente perché il diametro del sole risulta essere di gran lunga superiore rispetto allo spessore della singola pala.

In questo scenario la condizione più penalizzante corrisponde al caso in cui il piano del rotore risulta essere ortogonale alla congiungente tra sole e ricevitore; infatti, in tali condizioni, l'ombra proiettata darà origine ad un cerchio di diametro pari al rotore dell'aerogeneratore.

L'effetto dello shadow flickering risulta evidente e fastidioso in quegli ambienti con finestrate rivolte verso le ombre.

In linea di massima, si può ritenere che l'area soggetta al fenomeno in questione non si estenda oltre i $500 \div 1000$ m dall'aerogeneratore e le zone a maggiore impatto ricadono entro i 300 m di distanza dalle turbine.

Al fine di analizzare qualitativamente e quantitativamente il fenomeno, risulta necessario individuare la posizione occupata dal sole in maniera univoca tramite due coordinate angolari, azimuth ed altezza.

L'azimut per convenzione è l'angolo valutato sul piano orizzontale ed in senso orario, a partire dal nord geografico fino alla proiezione della congiungente (origine del sistema) - sole sul piano orizzontale stesso, ovvero il punto direttamente sotto al sole.

L'altezza o elevazione è misurata sul piano verticale, partendo da tale punto sino ad arrivare in corrispondenza del sole.

Tali coordinate variano con continuità grazie al moto della Terra intorno al sole e la traiettoria descritta nel cielo dal sole è assimilabile ad un arco; ogni giorno si caratterizza per un proprio arco, il quale si discosta, se pur di poco, da quello del giorno immediatamente precedente e successivo.

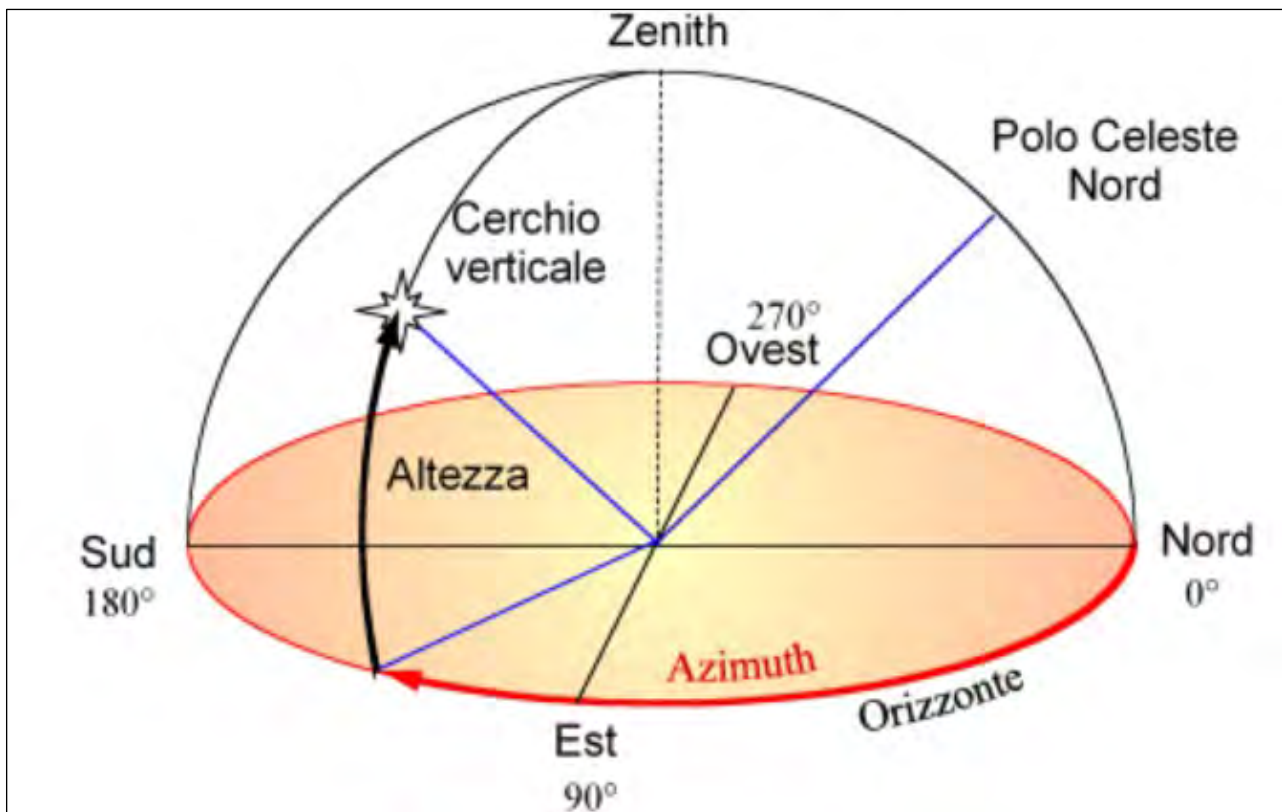


Figura 5.2: Coordinate azimuth ed altezza per identificare la posizione del sole

La durata del giorno non coincide con la durata della luce naturale in quanto prima dell'alba e dopo il tramonto sono individuabili due periodi, detti crepuscolo (rispettivamente crepuscolo mattutino e crepuscolo serale o serotino), durante i quali giunge a terra una luce diffusa naturale fornita dai livelli più esterni dell'atmosfera, i quali, trovandosi a quote più elevate, ricevono luce solare diretta per un tempo più lungo riflettendola in parte verso la terra.

Pertanto, la durata dell'illuminazione del sole è pari alla somma della durata del giorno e della durata del crepuscolo mattutino e serale.

6. RIFERIMENTI NORMATIVI

L'effetto Shadow – Flickering è più pronunciato alle latitudini settentrionali durante i mesi invernali; infatti, soprattutto nel Nord Europa, l'effetto della minore altezza del sole all'orizzonte è più rilevante. Pertanto, alcuni paesi hanno adottato dei limiti di legge relativi all'esposizione all'effetto in questione. In Italia non esistono specifiche norme o linee guida che regolamentino il fenomeno e definiscano i limiti di esposizione in termini di ore o giorni all'anno.

Tuttavia, al fine di fornire una valutazione dell'impatto del fenomeno anche in termini quantitativi, si è cercato di mantenere l'esposizione allo shadow – flickering di ogni ricevitore al di sotto delle 30 ore annue, parametro considerato di qualità a livello internazionale.

In particolare, la seguente trattazione fa riferimento alle norme e linee guida tedesche, in base alle quali il fenomeno in questione deve essere valutato nei casi seguenti:

- Fino alle distanze in corrispondenza delle quali il rotore dell'aerogeneratore copre il 20 % del disco solare (per distanze superiori a quella menzionata lo shadow-flickering arreca danni considerati trascurabili);
- per angoli del sole sull'orizzonte superiori a 3° ;
- ad un'altezza di 2 m dal suolo.

Inoltre, come anticipato, le linee guida tedesche stabiliscono i limiti di esposizione al fenomeno di:

- 30 ore all'anno;
- 30 minuti al giorno.

7. IPOTESI E METODO DI CALCOLO

L'obiettivo della trattazione è la stima quantitativa dell'effetto shadow flickering prodotto dall'impianto eolico, fenomeno per cui si genera una intermittenza dell'ombra a seguito del movimento del rotore dell'aerogeneratore quando in esercizio (in particolare quando il piano del rotore risulta perpendicolare alla congiungente tra l'osservatore e il sole) e che potrebbe risultare fastidioso per un osservatore.

Nell'analisi condotta sono stati considerati 11 aerogeneratori di nuova realizzazione e relativi al progetto del Parco Eolico Tursi Sant'Arcangelo e 53 aerogeneratori esistenti.

Gli aerogeneratori di progetto hanno un'altezza al mozzo di 135 m, diametro del rotore di 170 m, potenza nominale di 6 MWp e 8,8 giri al minuto (RPM).

Nel file **allegato 1** alla relazione sono esplicitati anche i modelli delle 53 turbine eoliche esistenti e le relative coordinate, in quanto contribuiscono agli effetti provocati dal fenomeno shadow flickering così come quelle di nuova installazione, essendo prossime alle stesse.

La verifica è stata effettuata in corrispondenza di 5 ricettori, rappresentativi di fabbricati di "civile abitazione", riportati nella **Tabella 7.1**, sui quali l'effetto trattato potrebbe avere una certa rilevanza:

Ricettore	Coordinate UTM WGS 84, 33°		Comune	WTG più vicina	Distanza WTG più vicina	Foglio	Particella	Stato accatastamento
CAP_01	40.291523°	16.379813°	Tursi	TS-05	930	2	171	A/2
CAP_02	40.304551°	16.409944°	Tursi	TS-08	1100	5	110	A/4
CAP_03	40.270061°	16.427541°	Tursi	TS-10	1400	30	160	A/3
CAP_04	40.272464°	16.408960°	Tursi	TS-02	1200	31	127	A/4

Ricettore	Coordinate UTM WGS 84, 33°		Comune	WTG più vicina	Distanza WTG più vicina	Foglio	Particella	Stato accatastamento
CAP_05	40.274291°	16.452784°	Tursi	TS-10	1400	12	143	A/3

Tabella 7.1: Ricettori oggetto di verifica

La distribuzione dei suddetti ricettori rispetto agli aerogeneratori è riportata nella figura seguente:

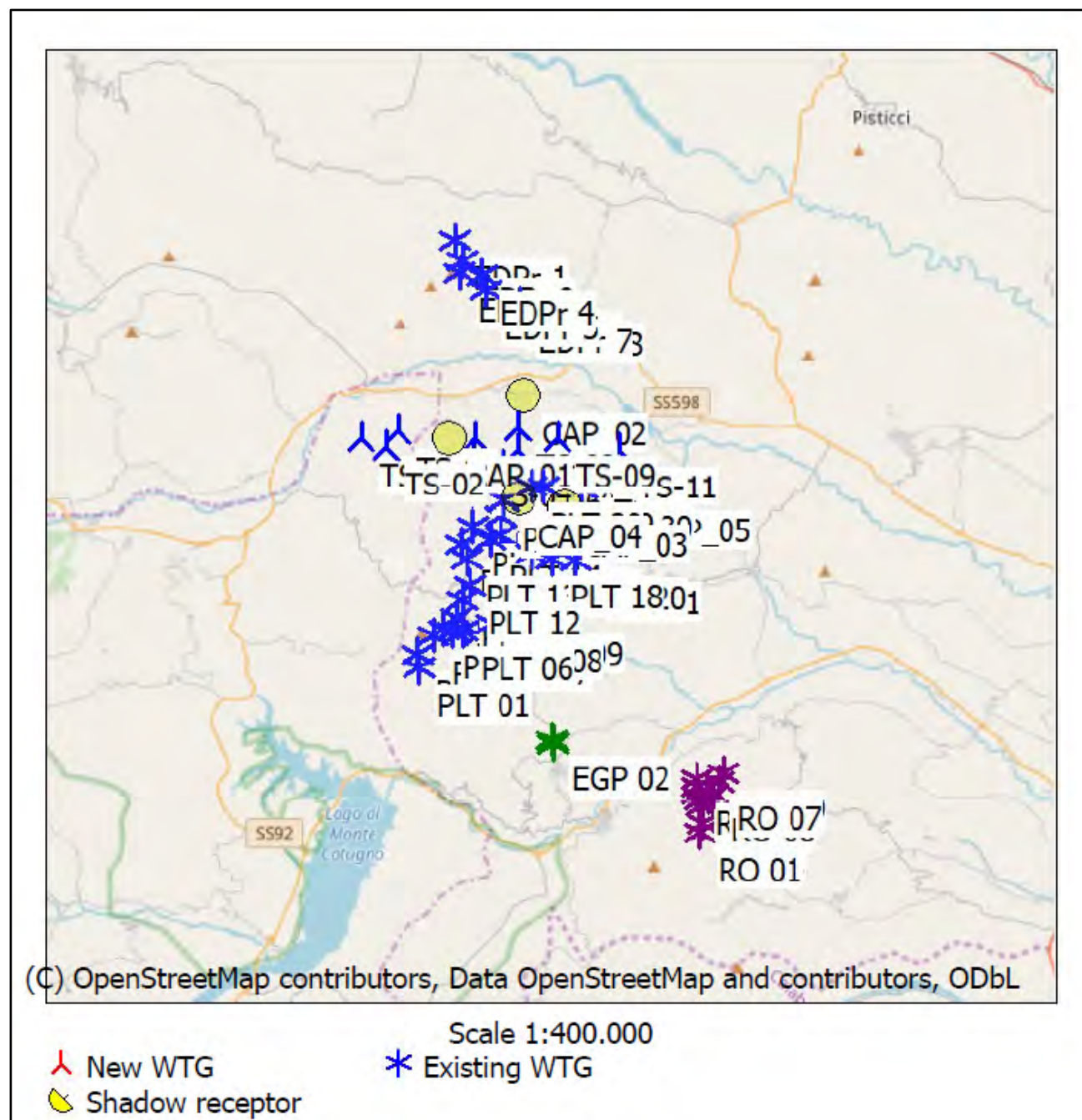


Figura 7.1: Localizzazione dei ricettori rispetto agli aerogeneratori

Il software impiegato per effettuare la verifica di sicurezza all'effetto shadow flickering è il WindPRO versione 3.4.

Tale software esegue la valutazione di zone di influenza degli aerogeneratori (ZVI), considerando l'orografia del terreno e altezza dell'osservatore (nel caso specifico altezza della finestra di un'abitazione) pari a 2 m, prima di effettuare il calcolo flicker in modo da escludere il contributo di quegli aerogeneratori che non sono visibili dal ricettore.

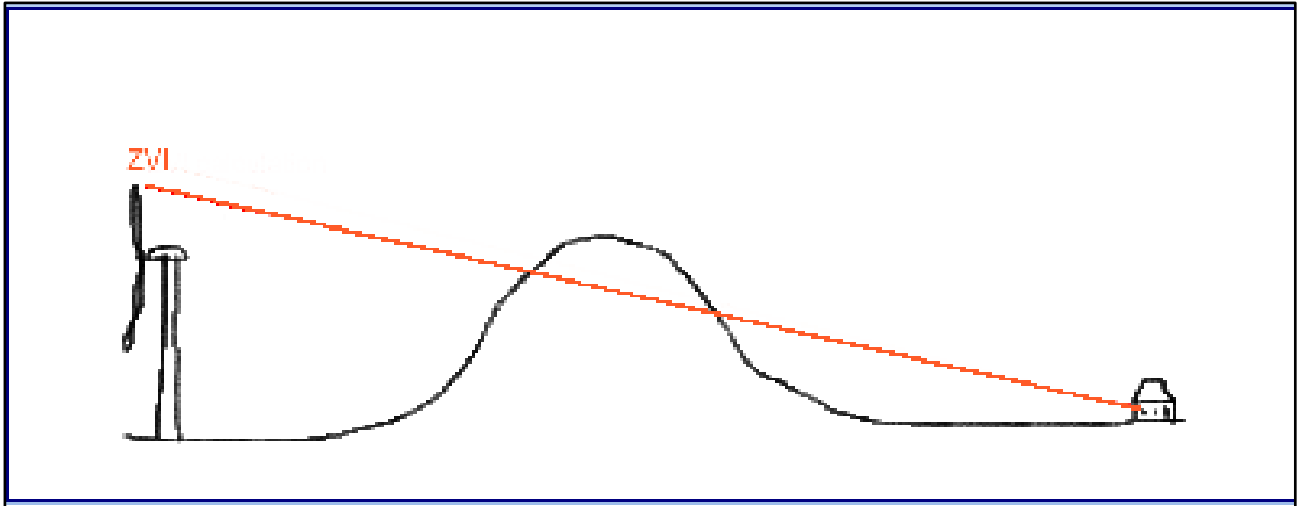


Figura 7.2: Impatto della ZVI, l'orografia del territorio può rendere non visibile l'aerogeneratore al ricettore

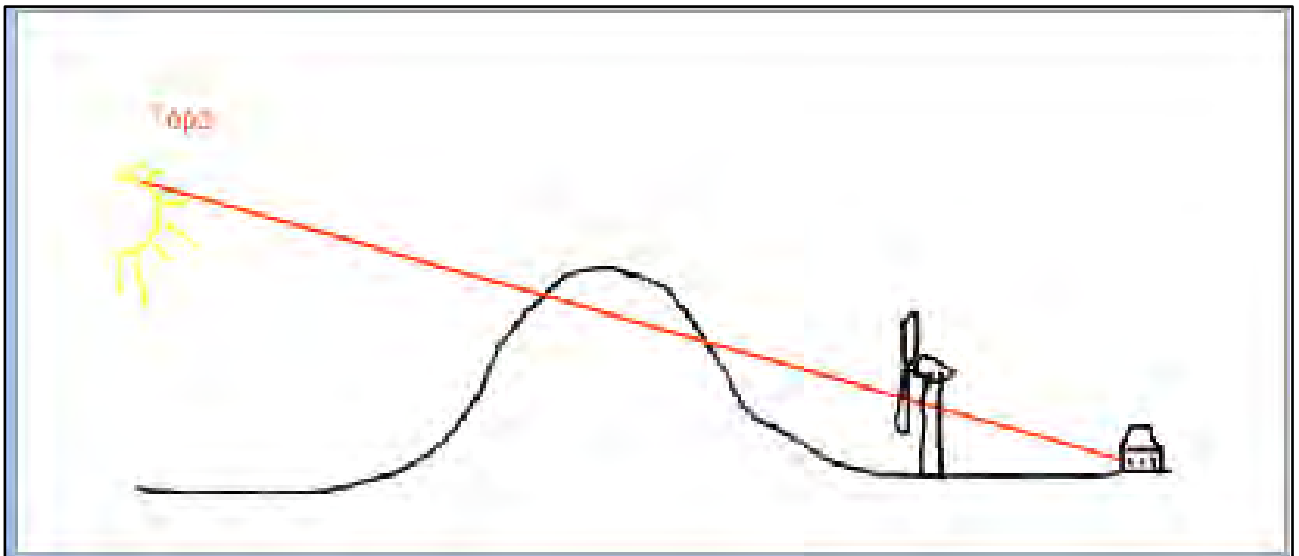


Figura 7.3: Impatto dell'orografia del territorio sull'ombreggiamento

Nella stima effettuata si assumono le seguenti ipotesi restrittive:

- l'impianto eolico sempre in funzione durante le ore di sole;
- altezza minima del sole sull'orizzonte pari a 3° ;
- piano del rotore sempre ortogonale alla congiungente tra l'osservatore e il sole;
- totale assenza di ostacoli o schermi vegetazionali presenti negli spazi circostanti i possibili ricettori e che potrebbero inficiare il fenomeno;

- ricettori in modalità “green house”, ovvero le finestre delle abitazioni attenzionate non orientate in una particolare direzione ma omnidirezionali.

Inoltre, allo scopo di pervenire a valori più realistici di impatto (**expected values**), si è impiegato il valore di eliofania, che tiene in conto del numero medio di ore di cielo libero da nubi durante il giorno, e le ore di funzionamento degli aerogeneratori in presenza del sole.

Per l'area in esame, con riferimento all'anno 2021 ed alla zona di Palinuro, i valori delle probabilità medie di eliofania per ognuno dei mesi e le ore di funzionamento degli aerogeneratori in presenza del sole in funzione della direzione del vento sono riportati nelle tabelle seguenti:

MESE	gen	feb	mar	apr	mag	giu	lug	ago	set	ott	nov	dic
GIORNI	31	28	31	30	31	30	31	31	30	31	30	31
PROB. MEDIA ELIOFANIA	4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Tabella 7.2: Probabilità medie di eliofania e ore di funzionamento aerogeneratori in presenza del sole

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Somma
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

Tabella 7.3: Ore di funzionamento degli aerogeneratori in presenza del sole in funzione della direzione del vento (ipotesi di funzione dell'impianto 80% del totale ore annue)

Il modello numerico utilizzato, al pari degli altri presenti sul mercato, produce statisticamente un output relativo al valore atteso delle ore d'ombra per anno relativo ai ricettori.

8. CONCLUSIONI

Nella **Figura 8.1** sono rappresentati i ricettori attenzionati rispetto alle posizioni degli aerogeneratori di progetto e quelli già esistenti.

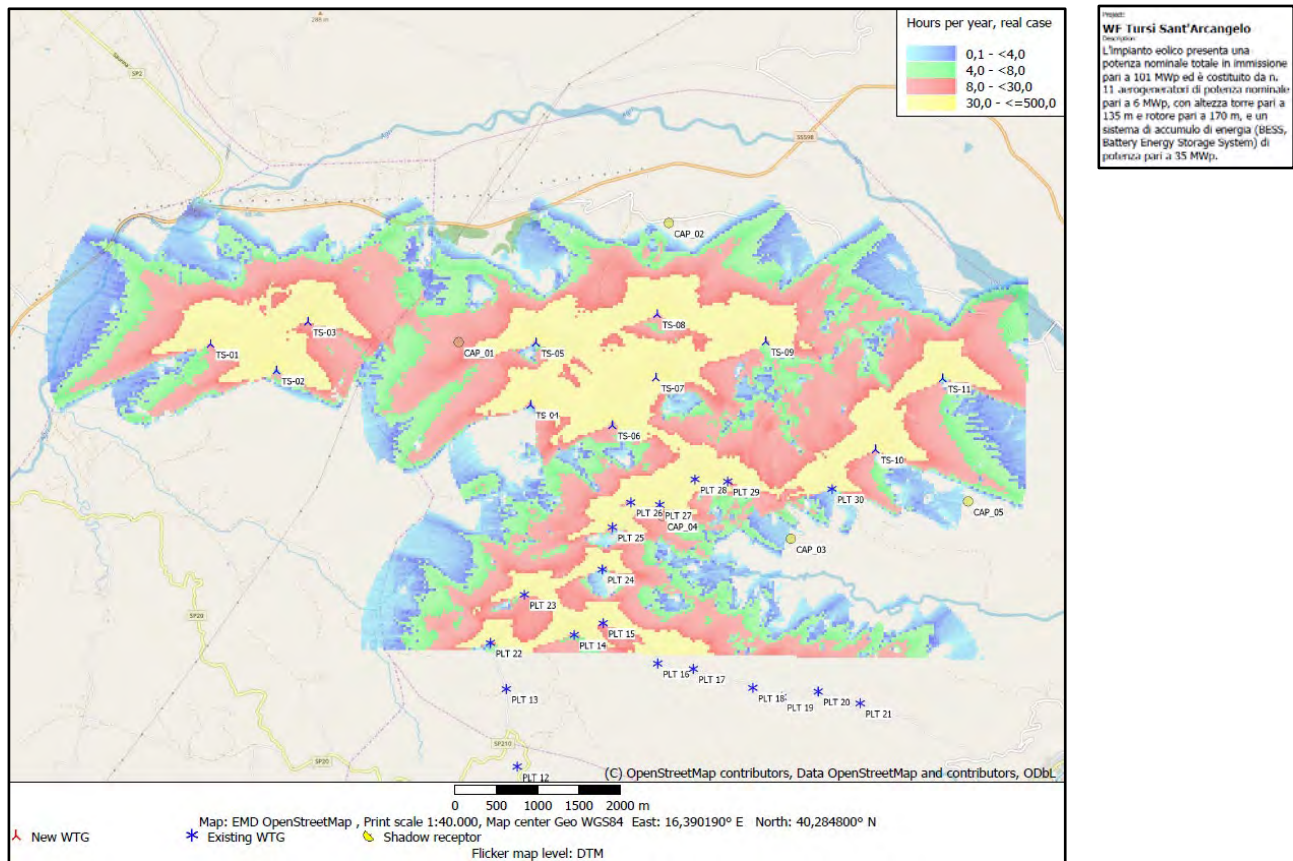


Figura 8.1: Localizzazione dei ricettori attenzionati rispetto agli aerogeneratori di progetto ed esistenti

Nella **Tabella 8.1** si riportano i valori attesi delle ore d'ombra intermittente per anno relativamente ai ricettori considerati nelle ipotesi precedentemente indicate:

Ricettore	ORE/ANNO
CAP_01	15:22
CAP_02	0:00
CAP_03	0:00
CAP_04	14:18
CAP_05	0:00

Tabella 8.1: Ore d'ombra intermittente per anno sui ricettori

Dai risultati riportati nella **Tabella 8.1** si evince che, nelle ipotesi precedentemente elencate, per i ricettori attenzionati, il valore atteso delle ore d'ombra intermittente per anno è inferiore al valore di 30 ore/anno, parametro considerato di qualità a livello internazionale.

In particolare, per i ricettori CAP_02, CAP_03 e CAP_05 la stima delle ore d'ombra intermittente per anno è addirittura nulla, mentre per i ricettori CAP_01 e CAP_04 è circa la metà del valore di qualità di 30 ore/anno.

Inoltre, nell'analisi condotta sono state adottate ipotesi molto restrittive, tra le quali quella secondo cui l'impianto sia sempre in funzione durante le ore di sole, il piano del rotore sempre ortogonale alla congiungente tra l'osservatore e il sole e ci sia totale assenza di ostacoli o schermi vegetazionali presenti negli spazi circostanti i possibili ricettori e che potrebbero attenuare il fenomeno.

Nella stima effettuata è stata considerata l'ulteriore ipotesi conservativa secondo la quale i ricettori siano in modalità "green house", ovvero le finestre delle abitazioni attenzionate siano omnidirezionali, situazione non sempre verificata nella realtà.

Nello scenario reale ci si aspetta che il fenomeno, quindi, risulti ulteriormente meno rilevante di quello a cui ha condotto la stima effettuata.

Pertanto, si può ragionevolmente affermare che l'effetto shadow flickering non abbia un impatto negativo sul territorio circostante, in particolare sui fabbricati adibiti a "civile abitazione".

9. ALLEGATO 1: SHADOW – MAIN RESULT – ELABORAZIONE MEDIANTE IL SOFTWARE WINDPRO 3.4

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Main Result

Assumptions for shadow calculations

Maximum distance for influence

Calculate only when more than 20 % of sun is covered by the blade

Please look in WTG table

Minimum sun height over horizon for influence

3 °

Day step for calculation

1 days

Time step for calculation

1 minutes

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:

Height contours used: DTM

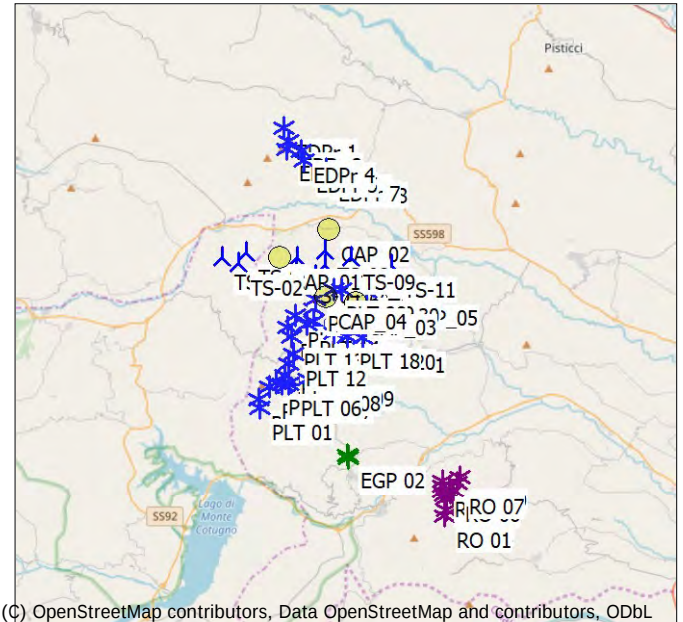
Obstacles used in calculation

Receptor grid resolution: 1,0 m

Topographic shadow included in calculation

All coordinates are in

Geo [deg]-WGS84



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

Scale 1:400.000

New WTG
Shadow receptor

Existing WTG

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM [RPM]
			[m]									
EDPr 1	16,381922° E	40,352807° N	305,7	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 2	16,385445° E	40,346594° N	323,5	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 3	16,383953° E	40,342702° N	371,5	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 4	16,392679° E	40,341624° N	309,7	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 5	16,395259° E	40,337719° N	284,9	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 6	16,404164° E	40,336251° N	292,7	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 7	16,408737° E	40,333673° N	298,9	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EDPr 8	16,413686° E	40,332216° N	275,0	NORDEX N149/4.0-4.5...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	105,0	1.823	10,7
EGP 01	16,422643° E	40,196204° N	770,2	VESTAS V52 850 52.0 ...	No	VESTAS	V52-850	850	52,0	65,0	969	26,0
EGP 02	16,422423° E	40,197181° N	777,0	VESTAS V52 850 52.0 ...	No	VESTAS	V52-850	850	52,0	65,0	969	26,0
EGP 03	16,421677° E	40,198008° N	783,7	VESTAS V52 850 52.0 ...	No	VESTAS	V52-850	850	52,0	65,0	969	26,0
PLT 01	16,367466° E	40,220373° N	790,4	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 02	16,367007° E	40,224005° N	809,8	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 03	16,372942° E	40,230284° N	786,2	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 04	16,377062° E	40,231594° N	764,4	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 05	16,381285° E	40,231198° N	752,5	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 06	16,385319° E	40,231112° N	718,6	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 07	16,392357° E	40,230425° N	695,9	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 08	16,397164° E	40,233776° N	646,6	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 09	16,405232° E	40,236095° N	578,1	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 10	16,382401° E	40,235666° N	698,9	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 11	16,385319° E	40,241250° N	656,0	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 12	16,388237° E	40,245288° N	629,3	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 13	16,386710° E	40,253719° N	561,7	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 14	16,396409° E	40,259647° N	593,0	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 15	16,400528° E	40,260935° N	625,6	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 16	16,408339° E	40,256554° N	585,9	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 17	16,413403° E	40,255952° N	574,8	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 18	16,421900° E	40,253891° N	552,4	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 19	16,426020° E	40,252860° N	532,7	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 20	16,431256° E	40,253461° N	493,2	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 21	16,437264° E	40,252172° N	494,1	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 22	16,384427° E	40,258768° N	566,1	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 23	16,389276° E	40,264005° N	550,6	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 24	16,400383° E	40,266748° N	606,0	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 25	16,401816° E	40,271413° N	623,8	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 26	16,404477° E	40,274076° N	656,6	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 27	16,408597° E	40,273819° N	597,3	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9

To be continued on next page...

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Main Result

...continued from previous page

	Longitude	Latitude	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM
			[m]									
PLT 28	16,413661° E	40,276568° N	546,4	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 29	16,418295° E	40,276396° N	553,5	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
PLT 30	16,433230° E	40,275537° N	557,8	REpower MM 100 2000...	No	REpower	MM 100-2.000	2.000	100,0	100,0	1.625	13,9
RO 01	16,482136° E	40,168473° N	452,0	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 02	16,483338° E	40,170749° N	856,0	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 03	16,482780° E	40,176720° N	420,2	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 04	16,482179° E	40,178567° N	391,4	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 05	16,485441° E	40,179470° N	374,7	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 06	16,488016° E	40,180973° N	368,9	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 07	16,490119° E	40,184408° N	329,4	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 08	16,492136° E	40,187501° N	294,5	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 09	16,492136° E	40,187501° N	714,5	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 10	16,480935° E	40,185267° N	325,9	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 11	16,480763° E	40,182861° N	349,3	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
RO 12	16,480548° E	40,180542° N	376,7	NORDEX S77 1500 77....	Yes	NORDEX	S77-1.500	1.500	77,0	85,0	1.503	17,3
TS-01	16,344459° E	40,291420° N	423,7	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-02	16,353845° E	40,288540° N	479,9	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-03	16,358323° E	40,293841° N	431,6	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-04	16,390190° E	40,284800° N	436,9	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-05	16,390907° E	40,291539° N	384,7	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-06	16,401847° E	40,282483° N	477,9	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-07	16,408085° E	40,287728° N	384,9	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-08	16,408262° E	40,294639° N	327,0	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-09	16,423796° E	40,291681° N	366,1	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-10	16,439464° E	40,279859° N	508,3	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8
TS-11	16,449083° E	40,287661° N	357,5	Siemens Gamesa SG 6....	Yes	Siemens Gamesa	SG 6.0-170-6.200	6.200	170,0	135,0	2.040	8,8

Shadow receptor-Input

No.	Name	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
				[m]	[m]	[m]	[m]	[°]		[m]
CAP_01	CAP_1	16,379918° E	40,291584° N	199,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CAP_02	CAP_2	16,409944° E	40,304551° N	162,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CAP_03	CAP_3	16,427371° E	40,270109° N	429,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CAP_04	CAP_4	16,408939° E	40,272589° N	577,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CAP_05	CAP_5	16,452701° E	40,274177° N	325,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0

Calculation Results

Shadow receptor

Shadow, expected values

No.	Name	Shadow hours per year [h/year]
CAP_01	CAP_1	15:22
CAP_02	CAP_2	0:00
CAP_03	CAP_3	0:00
CAP_04	CAP_4	14:18
CAP_05	CAP_5	0:00

Total amount of flickering on the shadow receptors caused by each WTG

No.	Name	Expected [h/year]
EDPr 1	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (46)	0:00
EDPr 2	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (47)	0:00
EDPr 3	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (48)	0:00
EDPr 4	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (49)	0:00
EDPr 5	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (50)	0:00
EDPr 6	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (51)	0:00
EDPr 7	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (52)	0:00
EDPr 8	NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (53)	0:00
EGP 01	VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (31)	0:00
EGP 02	VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (32)	0:00
EGP 03	VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (33)	0:00

To be continued on next page...

SHADOW - Main Result

...continued from previous page

No.	Name	Expected [h/year]
PLT 01	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1)	0:00
PLT 02	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (2)	0:00
PLT 03	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (3)	0:00
PLT 04	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (4)	0:00
PLT 05	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (5)	0:00
PLT 06	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (6)	0:00
PLT 07	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (7)	0:00
PLT 08	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (8)	0:00
PLT 09	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (9)	0:00
PLT 10	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (10)	0:00
PLT 11	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (11)	0:00
PLT 12	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (12)	0:00
PLT 13	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (13)	0:00
PLT 14	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (14)	0:00
PLT 15	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (15)	0:00
PLT 16	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (16)	0:00
PLT 17	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (17)	0:00
PLT 18	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (18)	0:00
PLT 19	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (19)	0:00
PLT 20	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (20)	0:00
PLT 21	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (21)	0:00
PLT 22	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (22)	0:00
PLT 23	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (23)	0:00
PLT 24	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (24)	2:56
PLT 25	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (25)	6:20
PLT 26	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (26)	0:00
PLT 27	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (27)	0:00
PLT 28	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (28)	0:00
PLT 29	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (29)	5:01
PLT 30	REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (30)	0:00
RO 01	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (34)	0:00
RO 02	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (35)	0:00
RO 03	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (36)	0:00
RO 04	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (37)	0:00
RO 05	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (38)	0:00
RO 06	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (39)	0:00
RO 07	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (40)	0:00
RO 08	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (41)	0:00
RO 09	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (42)	0:00
RO 10	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (43)	0:00
RO 11	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (44)	0:00
RO 12	NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (45)	0:00
TS-01	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (2)	0:00
TS-02	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (3)	0:00
TS-03	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (4)	0:44
TS-04	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (5)	5:05
TS-05	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (6)	9:38
TS-06	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (7)	0:00
TS-07	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (8)	0:00
TS-08	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (9)	0:00
TS-09	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (10)	0:00
TS-10	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (11)	0:00
TS-11	Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (12)	0:00

Total times in Receptor wise and WTG wise tables can differ, as a WTG can lead to flicker at 2 or more receptors simultaneously and/or receptors may receive flicker from 2 or more WTGs simultaneously.

The calculation of the total expected values for a given receptor assumes a weighted average directional reduction for all WTGs contributing to shadow flicker within the same day. In the case where shadow flicker from different WTGs is not concurrent within the day, the total expected time at a given receptor may deviate marginally from the individual flicker time caused by each turbine separately.

SHADOW - Calendar

Shadow receptor: CAP_01 - CAP_1

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

January		February		March		April		May		June	
1	07:18	07:05	08:37 (TS-04)	06:30	06:41			05:56		07:35 (TS-05)	05:28
	16:39	17:12	32 09:09 (TS-04)	17:46	19:19			19:49	38	18:39 (TS-03)	20:18
2	07:18	07:04	08:37 (TS-04)	06:29	06:39			05:55		07:36 (TS-05)	05:27
	16:40	17:14	32 09:09 (TS-04)	17:47	19:20			19:50	34	18:40 (TS-03)	20:19
3	07:18	07:03	08:37 (TS-04)	06:27	06:37			05:53		07:36 (TS-05)	05:27
	16:41	17:15	33 09:10 (TS-04)	17:48	19:21			19:51	26	18:37 (TS-03)	20:19
4	07:18	07:02	08:37 (TS-04)	06:26	06:36			05:52		07:38 (TS-05)	05:27
	16:41	17:16	33 09:10 (TS-04)	17:49	19:22			19:52	20	07:58 (TS-05)	20:20
5	07:18	07:01	08:37 (TS-04)	06:24	06:34			05:51		07:40 (TS-05)	05:26
	16:42	17:17	33 09:10 (TS-04)	17:50	19:23			19:53	16	07:56 (TS-05)	20:21
6	07:18	07:00	08:37 (TS-04)	06:23	06:32			05:50		07:43 (TS-05)	05:26
	16:43	17:19	33 09:10 (TS-04)	17:51	19:24			19:54	10	07:53 (TS-05)	20:21
7	07:18	06:59	08:38 (TS-04)	06:21	06:31			05:48			05:26
	16:44	17:20	32 09:10 (TS-04)	17:52	19:25			19:55			20:22
8	07:18	06:58	08:37 (TS-04)	06:19	06:29		07:50 (TS-05)	05:47			05:25
	16:45	17:21	32 09:09 (TS-04)	17:53	19:26	13	08:03 (TS-05)	19:56			20:23
9	07:18	06:57	08:38 (TS-04)	06:18	06:28		07:46 (TS-05)	05:46			05:25
	16:46	17:22	30 09:08 (TS-04)	17:54	19:27	19	08:05 (TS-05)	19:57			20:23
10	07:18	06:56	08:38 (TS-04)	06:16	06:26		07:43 (TS-05)	05:45			05:25
	16:47	17:23	30 09:08 (TS-04)	17:55	19:28	24	08:07 (TS-05)	19:58			20:24
11	07:17	06:55	08:39 (TS-04)	06:15	06:25		07:41 (TS-05)	05:44			05:25
	16:48	17:25	28 09:07 (TS-04)	17:57	19:29	28	08:09 (TS-05)	19:59			20:24
12	07:17	06:53	08:41 (TS-04)	06:13	06:23		07:39 (TS-05)	05:43			05:25
	16:49	17:26	26 09:07 (TS-04)	17:58	19:30	30	08:09 (TS-05)	20:00			20:25
13	07:17	06:52	08:41 (TS-04)	06:11	06:21		07:38 (TS-05)	05:42			05:25
	16:50	17:27	24 09:05 (TS-04)	17:59	19:31	33	08:11 (TS-05)	20:01			20:25
14	07:17	06:51	08:43 (TS-04)	06:10	06:20		07:36 (TS-05)	05:41			05:25
	16:51	17:28	20 09:03 (TS-04)	18:00	19:32	35	08:11 (TS-05)	20:02			20:26
15	07:16	06:50	08:45 (TS-04)	06:08	06:18		07:36 (TS-05)	05:40			05:25
	16:53	17:29	16 09:01 (TS-04)	18:01	19:33	36	08:12 (TS-05)	20:03			20:26
16	07:16	06:48	08:47 (TS-04)	06:07	06:17		07:34 (TS-05)	05:39			05:25
	16:54	17:31	10 08:57 (TS-04)	18:02	19:34	37	08:11 (TS-05)	20:04			20:27
17	07:15	06:47		06:05	06:15		07:34 (TS-05)	05:38			05:25
	16:55	17:32		18:03	19:35	38	08:12 (TS-05)	20:05			20:27
18	07:15	06:46		06:03	06:14		07:33 (TS-05)	05:37			05:25
	16:56	17:33		18:04	19:36	39	08:12 (TS-05)	20:06			20:27
19	07:15	06:44		06:02	06:12		07:33 (TS-05)	05:36			05:25
	16:57	17:34		18:05	19:37	39	08:12 (TS-05)	20:07			20:28
20	07:14	06:43		06:00	06:11		07:32 (TS-05)	05:36			05:25
	16:58	17:35		18:06	19:38	39	08:11 (TS-05)	20:08			20:28
21	07:13	06:42		05:58	06:09		07:32 (TS-05)	05:35			05:25
	16:59	7 08:54 (TS-04)	17:36	18:07	19:39	39	08:11 (TS-05)	20:09			20:28
22	07:13	08:44 (TS-04)	06:40	05:57	06:08		07:32 (TS-05)	05:34			05:25
	17:00	13 08:57 (TS-04)	17:38	18:08	19:40	41	18:30 (TS-03)	20:10			20:28
23	07:12	08:43 (TS-04)	06:39	05:55	06:07		07:31 (TS-05)	05:33			05:26
	17:02	17 09:00 (TS-04)	17:39	18:09	19:41	42	18:30 (TS-03)	20:11			20:28
24	07:12	08:42 (TS-04)	06:37	05:54	06:05		07:32 (TS-05)	05:32			05:26
	17:03	20 09:02 (TS-04)	17:40	18:10	19:42	42	18:31 (TS-03)	20:12			20:29
25	07:11	08:40 (TS-04)	06:36	05:52	06:04		07:32 (TS-05)	05:32			05:26
	17:04	23 09:03 (TS-04)	17:41	18:11	19:43	43	18:32 (TS-03)	20:12			20:29
26	07:10	08:39 (TS-04)	06:35	05:50	06:02		07:32 (TS-05)	05:31			05:26
	17:05	25 09:04 (TS-04)	17:42	18:12	19:44	42	18:33 (TS-03)	20:13			20:29
27	07:09	08:38 (TS-04)	06:33	05:49	06:01		07:32 (TS-05)	05:30			05:27
	17:06	27 09:05 (TS-04)	17:43	18:13	19:45	43	18:34 (TS-03)	20:14			20:29
28	07:09	08:39 (TS-04)	06:32	05:47	06:00		07:33 (TS-05)	05:30			05:27
	17:08	28 09:07 (TS-04)	17:44	18:14	19:46	41	18:35 (TS-03)	20:15			20:29
29	07:08	08:38 (TS-04)		06:45	05:58		07:33 (TS-05)	05:29			05:28
	17:09	29 09:07 (TS-04)		19:15	19:47	40	18:36 (TS-03)	20:16			20:29
30	07:07	08:38 (TS-04)		06:44	05:57		07:34 (TS-05)	05:29			05:28
	17:10	30 09:08 (TS-04)		19:16	19:48	39	18:37 (TS-03)	20:16			20:29
31	07:06	08:37 (TS-04)		06:42				05:28			
	17:11	32 09:09 (TS-04)		19:17				20:17			
Potential sun hours	299		298	370	398		446			450	
Total, worst case	251		444			822		144			
Sun reduction	0,43		0,45			0,50		0,57			
Oper. time red.	0,82		0,82			0,82		0,82			
Wind dir. red.	0,56		0,56			0,63		0,63			
Total reduction	0,19		0,20			0,26		0,29			
Total, real	49		90			210		42			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L ' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Calendar

Shadow receptor: CAP_01 - CAP_1

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

		July	August	September	October	November	December
1	05:28	05:52		06:21	07:40 (TS-05)	06:50	06:23
	20:29	20:10		19:28	08:08 (TS-05)	18:39	16:53
2	05:29	05:53		06:22	07:42 (TS-05)	06:51	06:25
	20:29	20:09		19:27	08:06 (TS-05)	18:37	16:52
3	05:29	05:54		06:23	07:44 (TS-05)	06:52	06:26
	20:29	20:08		19:25	08:03 (TS-05)	18:36	16:51
4	05:30	05:54		06:24	07:47 (TS-05)	06:53	06:27
	20:28	20:07		19:24	08:00 (TS-05)	18:34	16:50
5	05:30	05:55		06:25		06:54	06:28
	20:28	20:06		19:22		18:32	16:49
6	05:31	05:56		06:26		06:55	06:29
	20:28	20:05		19:20		18:31	16:48
7	05:32	05:57	07:52 (TS-05)	06:27		06:56	06:30
	20:28	20:04	12 08:04 (TS-05)	19:19		18:29	16:46
8	05:32	05:58	07:49 (TS-05)	06:28		06:57	06:32
	20:27	20:03	18 08:07 (TS-05)	19:17		18:28	16:45
9	05:33	05:59	07:47 (TS-05)	06:29		06:58	06:33
	20:27	20:01	22 08:09 (TS-05)	19:15		18:26	16:44
10	05:34	06:00	07:46 (TS-05)	06:30		06:59	06:34
	20:27	20:00	29 18:48 (TS-03)	19:14		18:24	16:43
11	05:34	06:01	07:44 (TS-05)	06:31		07:01	06:35
	20:26	19:59	36 18:49 (TS-03)	19:12		18:23	16:42
12	05:35	06:02	07:43 (TS-05)	06:32		07:02	06:36
	20:26	19:58	39 18:47 (TS-03)	19:10		18:21	16:41
13	05:36	06:03	07:41 (TS-05)	06:33		07:03	06:37
	20:25	19:56	41 18:45 (TS-03)	19:09		18:20	16:41
14	05:36	06:04	07:40 (TS-05)	06:34		07:04	06:39
	20:25	19:55	41 18:43 (TS-03)	19:07		18:18	16:40
15	05:37	06:05	07:40 (TS-05)	06:35		07:05	06:40
	20:24	19:54	42 18:42 (TS-03)	19:06		18:17	16:39
16	05:38	06:06	07:39 (TS-05)	06:36		07:06	06:41
	20:24	19:52	43 18:41 (TS-03)	19:04		18:15	16:38
17	05:39	06:07	07:38 (TS-05)	06:37		07:07	06:42
	20:23	19:51	43 18:39 (TS-03)	19:02		18:14	16:37
18	05:39	06:08	07:38 (TS-05)	06:38		07:08	06:43
	20:22	19:49	43 18:38 (TS-03)	19:00		18:12	16:36
19	05:40	06:09	07:37 (TS-05)	06:39		07:09	06:44
	20:22	19:48	43 18:37 (TS-03)	18:59		18:11	16:36
20	05:41	06:10	07:37 (TS-05)	06:40		07:10	06:45
	20:21	19:47	41 18:35 (TS-03)	18:57		18:09	16:35
21	05:42	06:11	07:37 (TS-05)	06:41		07:11	06:47
	20:20	19:45	40 18:34 (TS-03)	18:55		18:08	16:34
22	05:43	06:12	07:37 (TS-05)	06:42		07:12	06:48
	20:20	19:44	39 08:16 (TS-05)	18:54		18:06	16:34
23	05:44	06:13	07:37 (TS-05)	06:42		07:13	06:49
	20:19	19:42	39 08:16 (TS-05)	18:52		18:05	16:33
24	05:44	06:14	07:37 (TS-05)	06:43		07:14	06:50
	20:18	19:41	39 08:16 (TS-05)	18:50		18:04	16:33
25	05:45	06:15	07:37 (TS-05)	06:44		06:16	06:51
	20:17	19:39	38 08:15 (TS-05)	18:49		17:02	16:32
26	05:46	06:16	07:36 (TS-05)	06:45		06:17	06:52
	20:16	19:38	38 08:14 (TS-05)	18:47	12 08:28 (TS-04)	16:32	16:34
27	05:47	06:17	07:36 (TS-05)	06:46		06:18	06:53
	20:15	19:36	37 08:13 (TS-05)	18:45	18 08:32 (TS-04)	16:31	16:35
28	05:48	06:18	07:37 (TS-05)	06:47		06:19	06:54
	20:14	19:35	36 08:13 (TS-05)	18:44	21 08:33 (TS-04)	16:31	16:36
29	05:49	06:19	07:37 (TS-05)	06:48		06:20	06:55
	20:13	19:33	35 08:12 (TS-05)	18:42	25 08:35 (TS-04)	16:30	16:36
30	05:50	06:20	07:38 (TS-05)	06:49		06:21	06:56
	20:12	19:32	33 08:11 (TS-05)	18:41	27 08:36 (TS-04)	16:30	16:37
31	05:51	06:20	07:39 (TS-05)			06:22	06:57
	20:11	19:30	30 08:09 (TS-05)		28 08:37 (TS-04)		16:38
Potential sun hours	457	426	375		346	300	290
Total, worst case			897	84	131	572	
Sun reduction			0,74	0,67	0,56	0,50	
Oper. time red.			0,82	0,82	0,82	0,82	
Wind dir. red.			0,63	0,63	0,56	0,56	
Total reduction			0,38	0,34	0,25	0,23	
Total, real			338	29	33	131	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Calendar

Shadow receptor: CAP_02 - CAP_2

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:29	20:18	19:41	18:50	18:04	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:15	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:16	06:46	06:18	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:19	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar

Shadow receptor: CAP_03 - CAP_3

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:29	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:52 20:09	06:22 19:27	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:40	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:26 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:21	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	05:26 20:21	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:25 20:22	05:32 20:27	05:57 20:03	06:27 19:19	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:18 16:46	06:57 17:22	06:18 17:54	06:28 19:27	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:33 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:28	05:45 19:58	05:25 20:24	05:33 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:59	06:31 19:12	07:00 18:23	06:35 16:42	07:07 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	05:43 20:00	05:25 20:25	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:24 20:25	05:36 20:25	06:04 19:55	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:10 16:29
16	07:16 16:53	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:24 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:06 18:15	06:41 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:24 20:27	05:39 20:23	06:07 19:51	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:46 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:22	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:28	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:13 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:10	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:19	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:15 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:29	05:46 20:16	06:16 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:29	05:47 20:15	06:16 19:36	06:46 18:45	06:18 16:59	06:53 16:31	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:15	05:27 20:29	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	07:08 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:29	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar

Shadow receptor: CAP_04 - CAP_4

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

January			February March			April			May			June		
1	07:18	15:26 (PLT 24)	07:05	06:30		06:40	05:56		05:28		05:49 (PLT 29)			
	16:39	20 15:46 (PLT 24)	17:12	17:45		19:18	19:49		20:18	12	06:01 (PLT 29)			
2	07:18	15:26 (PLT 24)	07:04	06:29		06:39	05:54		05:27		05:48 (PLT 29)			
	16:40	20 15:46 (PLT 24)	17:14	17:47		19:19	19:50		20:19	13	06:01 (PLT 29)			
3	07:18	15:27 (PLT 24)	07:03	06:27		06:37	05:53		05:27		05:48 (PLT 29)			
	16:41	19 15:46 (PLT 24)	17:15	17:48		19:20	19:51		20:19	14	06:02 (PLT 29)			
4	07:18	15:28 (PLT 24)	07:02	06:25		06:36	05:52		05:26		05:48 (PLT 29)			
	16:41	18 15:46 (PLT 24)	17:16	17:49		19:21	19:52		20:20	15	06:03 (PLT 29)			
5	07:18	15:29 (PLT 24)	07:01	06:24		06:34	05:51		05:26		05:47 (PLT 29)			
	16:42	17 15:46 (PLT 24)	17:17	17:50		19:22	19:53		20:21	15	06:02 (PLT 29)			
6	07:18	15:30 (PLT 24)	07:00	06:22		06:32	05:50		05:26		05:47 (PLT 29)			
	16:43	16 15:46 (PLT 24)	17:18	17:51		19:24	19:54		20:21	16	06:03 (PLT 29)			
7	07:18	15:31 (PLT 24)	06:59	06:21		06:31	05:48		05:26		05:47 (PLT 29)			
	16:44	14 15:45 (PLT 24)	17:20	17:52		19:25	19:55		20:22	17	06:04 (PLT 29)			
8	07:18	15:32 (PLT 24)	06:58	06:19		16:49 (PLT 25)	06:29	05:47	05:25		05:47 (PLT 29)			
	16:45	12 15:44 (PLT 24)	17:21	17:53	10	16:59 (PLT 25)	19:26	19:56	20:22	17	06:04 (PLT 29)			
9	07:18	15:34 (PLT 24)	06:57	06:18		16:45 (PLT 25)	06:28	05:46	05:25		05:47 (PLT 29)			
	16:46	10 15:44 (PLT 24)	17:22	17:54	17	17:02 (PLT 25)	19:27	19:57	20:23	18	06:05 (PLT 29)			
10	07:17	15:37 (PLT 24)	06:56	06:16		16:43 (PLT 25)	06:26	05:45	05:25		05:47 (PLT 29)			
	16:47	5 15:42 (PLT 24)	17:23	17:55	22	17:05 (PLT 25)	19:28	19:58	20:24	18	06:05 (PLT 29)			
11	07:17		06:54	06:15		16:40 (PLT 25)	06:24	05:44	05:25		05:46 (PLT 29)			
	16:48		17:25	17:56	26	17:06 (PLT 25)	19:29	19:59	20:24	19	06:05 (PLT 29)			
12	07:17		06:53	06:13		16:38 (PLT 25)	06:23	05:43	05:25		05:46 (PLT 29)			
	16:49		17:26	17:58	29	17:07 (PLT 25)	19:30	20:00	20:25	19	06:05 (PLT 29)			
13	07:17		06:52	06:11		16:37 (PLT 25)	06:21	05:42	05:25		05:46 (PLT 29)			
	16:50		17:27	17:59	31	17:08 (PLT 25)	19:31	20:01	20:25	20	06:06 (PLT 29)			
14	07:16		06:51	06:10		16:36 (PLT 25)	06:20	05:41	05:25		05:46 (PLT 29)			
	16:51		17:28	18:00	32	17:08 (PLT 25)	19:32	20:02	20:26	20	06:06 (PLT 29)			
15	07:16		06:49	06:08		16:36 (PLT 25)	06:18	05:40	05:25		05:46 (PLT 29)			
	16:52		17:29	18:01	33	17:09 (PLT 25)	19:33	20:03	20:26	20	06:06 (PLT 29)			
16	07:16		06:48	06:07		16:35 (PLT 25)	06:17	05:39	05:25		05:46 (PLT 29)			
	16:54		17:31	18:02	34	17:09 (PLT 25)	19:34	20:04	20:26	20	06:06 (PLT 29)			
17	07:15		06:47	06:05		16:34 (PLT 25)	06:15	05:38	05:25		05:46 (PLT 29)			
	16:55		17:32	18:03	35	17:09 (PLT 25)	19:35	20:05	20:27	20	06:06 (PLT 29)			
18	07:15		06:46	06:03		16:34 (PLT 25)	06:14	05:37	05:25		05:47 (PLT 29)			
	16:56		17:33	18:04	36	17:10 (PLT 25)	19:36	20:06	20:27	21	06:08 (PLT 29)			
19	07:14		06:44	06:02		16:33 (PLT 25)	06:12	05:36	05:25		05:47 (PLT 29)			
	16:57		17:34	18:05	36	17:09 (PLT 25)	19:37	20:07	20:27	21	06:08 (PLT 29)			
20	07:14		06:43	06:00		16:33 (PLT 25)	06:11	05:35	05:25		05:47 (PLT 29)			
	16:58		17:35	18:06	35	17:08 (PLT 25)	19:38	20:08	20:28	21	06:08 (PLT 29)			
21	07:13		06:42	05:58		16:33 (PLT 25)	06:09	05:35	05:25		05:47 (PLT 29)			
	16:59		17:36	18:07	36	17:09 (PLT 25)	19:39	20:09	20:28	21	06:08 (PLT 29)			
22	07:13		06:40	05:57		16:33 (PLT 25)	06:08	05:34	05:25		05:47 (PLT 29)			
	17:00		17:38	18:08	35	17:08 (PLT 25)	19:40	20:10	20:28	21	06:08 (PLT 29)			
23	07:12		06:39	05:55		16:33 (PLT 25)	06:07	05:33	05:25		05:48 (PLT 29)			
	17:02		17:39	18:09	33	17:06 (PLT 25)	19:41	20:10	20:28	21	06:09 (PLT 29)			
24	07:11		06:37	05:53		16:34 (PLT 25)	06:05	05:32	05:26		05:48 (PLT 29)			
	17:03		17:40	18:10	32	17:06 (PLT 25)	19:42	20:11	20:28	21	06:09 (PLT 29)			
25	07:11		06:36	05:52		16:34 (PLT 25)	06:04	05:32	05:26		05:48 (PLT 29)			
	17:04		17:41	18:11	31	17:05 (PLT 25)	19:43	20:12	20:29	21	06:09 (PLT 29)			
26	07:10		06:34	05:50		16:35 (PLT 25)	06:02	05:31	05:26		05:49 (PLT 29)			
	17:05		17:42	18:12	28	17:03 (PLT 25)	19:44	20:13	20:29	20	06:09 (PLT 29)			
27	07:09		06:33	05:49		16:37 (PLT 25)	06:01	05:30	05:27		05:49 (PLT 29)			
	17:06		17:43	18:13	25	17:02 (PLT 25)	19:45	20:14	4 05:55 (PLT 29)	20:29	06:09 (PLT 29)			
28	07:08		06:32	05:47		16:38 (PLT 25)	06:00	05:30	05:51 (PLT 29)	05:27	05:49 (PLT 29)			
	17:08		17:44	18:14	22	17:00 (PLT 25)	19:46	20:15	6 05:57 (PLT 29)	20:29	06:09 (PLT 29)			
29	07:08			06:45		17:40 (PLT 25)	05:58	05:29	05:50 (PLT 29)	05:27	05:50 (PLT 29)			
	17:09			19:15	18	17:58 (PLT 25)	19:47	20:15	8 05:58 (PLT 29)	20:29	06:10 (PLT 29)			
30	07:07			06:44		17:43 (PLT 25)	05:57	05:29	05:50 (PLT 29)	05:28	05:50 (PLT 29)			
	17:10			19:16	11	17:54 (PLT 25)	19:48	20:16	9 05:59 (PLT 29)	20:29	06:09 (PLT 29)			
31	07:06			06:42				05:28	05:49 (PLT 29)					
	17:11			19:17				20:17	11 06:00 (PLT 29)					
Potential sun hours	300		298	370		398	446		450					
Total, worst case	151			647			40		560					
Sun reduction	0,43			0,46			0,57		0,65					
Oper. time red.	0,82			0,82			0,82		0,82					
Wind dir. red.	0,67			0,64			0,67		0,67					
Total reduction	0,24			0,24			0,32		0,36					
Total, real	36			156			13		200					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar

Shadow receptor: CAP_04 - CAP_4

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

July		August		September		October		November		December	
1	05:28	05:51 (PLT 29)	05:52	06:21		06:50	17:17 (PLT 25)	06:23	06:57		
	20:29	19 06:10 (PLT 29)	20:10	19:28		18:39	30 17:47 (PLT 25)	16:53	16:30		
2	05:29	05:51 (PLT 29)	05:53	06:22		06:51	17:18 (PLT 25)	06:24	06:58		15:20 (PLT 24)
	20:28	19 06:10 (PLT 29)	20:09	19:27		18:37	27 17:45 (PLT 25)	16:52	16:29	5	15:25 (PLT 24)
3	05:29	05:52 (PLT 29)	05:53	06:23		06:52	17:19 (PLT 25)	06:26	06:59		15:18 (PLT 24)
	20:28	18 06:10 (PLT 29)	20:08	19:25		18:36	24 17:43 (PLT 25)	16:51	16:29	10	15:28 (PLT 24)
4	05:30	05:52 (PLT 29)	05:54	06:24		06:53	17:21 (PLT 25)	06:27	07:00		15:17 (PLT 24)
	20:28	18 06:10 (PLT 29)	20:07	19:23		18:34	20 17:41 (PLT 25)	16:50	16:29	12	15:29 (PLT 24)
5	05:30	05:53 (PLT 29)	05:55	06:25		06:54	17:24 (PLT 25)	06:28	07:01		15:17 (PLT 24)
	20:28	17 06:10 (PLT 29)	20:06	19:22		18:32	14 17:38 (PLT 25)	16:49	16:29	14	15:31 (PLT 24)
6	05:31	05:53 (PLT 29)	05:56	06:26		06:55		06:29	07:02		15:16 (PLT 24)
	20:28	16 06:09 (PLT 29)	20:05	19:20		18:31		16:47	16:29	16	15:32 (PLT 24)
7	05:32	05:54 (PLT 29)	05:57	06:27		06:56		06:30	07:03		15:15 (PLT 24)
	20:27	16 06:10 (PLT 29)	20:04	19:19		18:29		16:46	16:29	17	15:32 (PLT 24)
8	05:32	05:54 (PLT 29)	05:58	06:28		06:57		06:31	07:04		15:15 (PLT 24)
	20:27	15 06:09 (PLT 29)	20:02	19:17		18:27		16:45	16:29	18	15:33 (PLT 24)
9	05:33	05:55 (PLT 29)	05:59	06:29		06:58		06:33	07:05		15:15 (PLT 24)
	20:27	14 06:09 (PLT 29)	20:01	19:15		18:26		16:44	16:29	19	15:34 (PLT 24)
10	05:33	05:56 (PLT 29)	06:00	06:30		06:59		06:34	07:06		15:16 (PLT 24)
	20:26	13 06:09 (PLT 29)	20:00	19:14		18:24		16:43	16:29	19	15:35 (PLT 24)
11	05:34	05:56 (PLT 29)	06:01	06:31		07:00		06:35	07:07		15:16 (PLT 24)
	20:26	12 06:08 (PLT 29)	19:59	19:12		18:23		16:42	16:29	20	15:36 (PLT 24)
12	05:35	05:57 (PLT 29)	06:02	06:32		07:01		06:36	07:07		15:16 (PLT 24)
	20:26	11 06:08 (PLT 29)	19:57	19:10		18:21		16:41	16:29	21	15:37 (PLT 24)
13	05:36	05:58 (PLT 29)	06:03	06:33		17:35 (PLT 25)	07:02	06:37	07:08		15:17 (PLT 24)
	20:25	10 06:08 (PLT 29)	19:56	19:09	9	17:44 (PLT 25)	18:20	16:40	16:29	21	15:38 (PLT 24)
14	05:36	05:58 (PLT 29)	06:04	06:34		17:31 (PLT 25)	07:04	06:38	07:09		15:16 (PLT 24)
	20:25	9 06:07 (PLT 29)	19:55	19:07	17	17:48 (PLT 25)	18:18	16:40	16:29	22	15:38 (PLT 24)
15	05:37	05:59 (PLT 29)	06:05	06:35		17:28 (PLT 25)	07:05	06:40	07:10		15:17 (PLT 24)
	20:24	7 06:06 (PLT 29)	19:53	19:05	22	17:50 (PLT 25)	18:17	16:39	16:29	21	15:38 (PLT 24)
16	05:38	06:00 (PLT 29)	06:06	06:36		17:26 (PLT 25)	07:06	06:41	07:10		15:17 (PLT 24)
	20:23	5 06:05 (PLT 29)	19:52	19:04	25	17:51 (PLT 25)	18:15	16:38	16:30	22	15:39 (PLT 24)
17	05:39	06:01 (PLT 29)	06:07	06:37		17:24 (PLT 25)	07:07	06:42	07:11		15:17 (PLT 24)
	20:23	3 06:04 (PLT 29)	19:51	19:02	28	17:52 (PLT 25)	18:14	16:37	16:30	22	15:39 (PLT 24)
18	05:39		06:08	06:38		17:22 (PLT 25)	07:08	06:43	07:12		15:18 (PLT 24)
	20:22		19:49	19:00	30	17:52 (PLT 25)	18:12	16:36	16:30	22	15:40 (PLT 24)
19	05:40		06:09	06:39		17:21 (PLT 25)	07:09	06:44	07:12		15:18 (PLT 24)
	20:22		19:48	18:59	31	17:52 (PLT 25)	18:11	16:36	16:31	22	15:40 (PLT 24)
20	05:41		06:10	06:39		17:19 (PLT 25)	07:10	06:45	07:13		15:18 (PLT 24)
	20:21		19:46	18:57	34	17:53 (PLT 25)	18:09	16:35	16:31	23	15:41 (PLT 24)
21	05:42		06:11	06:40		17:18 (PLT 25)	07:11	06:46	07:14		15:19 (PLT 24)
	20:20		19:45	18:55	35	17:53 (PLT 25)	18:08	16:34	16:32	23	15:42 (PLT 24)
22	05:43		06:12	06:41		17:18 (PLT 25)	07:12	06:48	07:14		15:19 (PLT 24)
	20:19		19:44	18:54	35	17:53 (PLT 25)	18:06	16:34	16:32	23	15:42 (PLT 24)
23	05:44		06:13	06:42		17:17 (PLT 25)	07:13	06:49	07:15		15:19 (PLT 24)
	20:19		19:42	18:52	36	17:53 (PLT 25)	18:05	16:33	16:33	23	15:42 (PLT 24)
24	05:44		06:14	06:43		17:17 (PLT 25)	07:14	06:50	07:15		15:21 (PLT 24)
	20:18		19:41	18:50	36	17:53 (PLT 25)	18:04	16:33	16:33	22	15:43 (PLT 24)
25	05:45		06:15	06:44		17:16 (PLT 25)	06:15	06:51	07:15		15:21 (PLT 24)
	20:17		19:39	18:49	36	17:52 (PLT 25)	17:02	16:32	16:34	22	15:43 (PLT 24)
26	05:46		06:16	06:45		17:16 (PLT 25)	06:17	06:52	07:16		15:22 (PLT 24)
	20:16		19:38	18:47	36	17:52 (PLT 25)	17:01	16:32	16:34	22	15:44 (PLT 24)
27	05:47		06:17	06:46		17:16 (PLT 25)	06:18	06:53	07:16		15:22 (PLT 24)
	20:15		19:36	18:45	35	17:51 (PLT 25)	17:00	16:31	16:35	22	15:44 (PLT 24)
28	05:48		06:17	06:47		17:16 (PLT 25)	06:19	06:54	07:17		15:23 (PLT 24)
	20:14		19:34	18:44	34	17:50 (PLT 25)	16:58	16:31	16:36	21	15:44 (PLT 24)
29	05:49		06:18	06:48		17:16 (PLT 25)	06:20	06:55	07:17		15:23 (PLT 24)
	20:13		19:33	18:42	33	17:49 (PLT 25)	16:57	16:30	16:36	21	15:44 (PLT 24)
30	05:50		06:19	06:49		17:17 (PLT 25)	06:21	06:56	07:17		15:23 (PLT 24)
	20:12		19:31	18:40	31	17:48 (PLT 25)	16:56	16:30	16:37	22	15:45 (PLT 24)
31	05:51		06:20						07:17		15:25 (PLT 24)
	20:11		19:30			16:54			16:38	21	15:46 (PLT 24)
Potential sun hours	457		426	375		346		300	290		
Total, worst case		222		543		115				588	
Sun reduction		0,72		0,67		0,56				0,43	
Oper. time red.		0,82		0,82		0,82				0,82	
Wind dir. red.		0,67		0,64		0,64				0,67	
Total reduction		0,40		0,35		0,29				0,24	
Total, real		89		191		34				141	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar

Shadow receptor: CAP_05 - CAP_5

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:51 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:13	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:40	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	05:26 20:21	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:30	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:25 20:22	05:31 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:28
9	07:17 16:46	06:57 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:28
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:24 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:58	06:21 19:31	05:42 20:01	05:24 20:25	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:19	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:24 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 18:18	06:38 16:39	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:10 16:29
16	07:16 16:53	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:24 20:26	05:38 20:23	06:06 19:52	06:35 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	07:15 16:54	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:24 20:27	05:38 20:23	06:07 19:50	06:36 19:02	07:07 18:13	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:24 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:10	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:34 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:31
22	07:13 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:42 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:01	06:39 17:38	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:14 16:32
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:13 19:40	06:43 18:50	07:14 18:03	06:50 16:32	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:14 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:31	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:29	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	05:59 19:46	05:30 20:15	05:27 20:29	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:35
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:43 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:55	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:50 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

WF Tursi Sant'Arcangelo

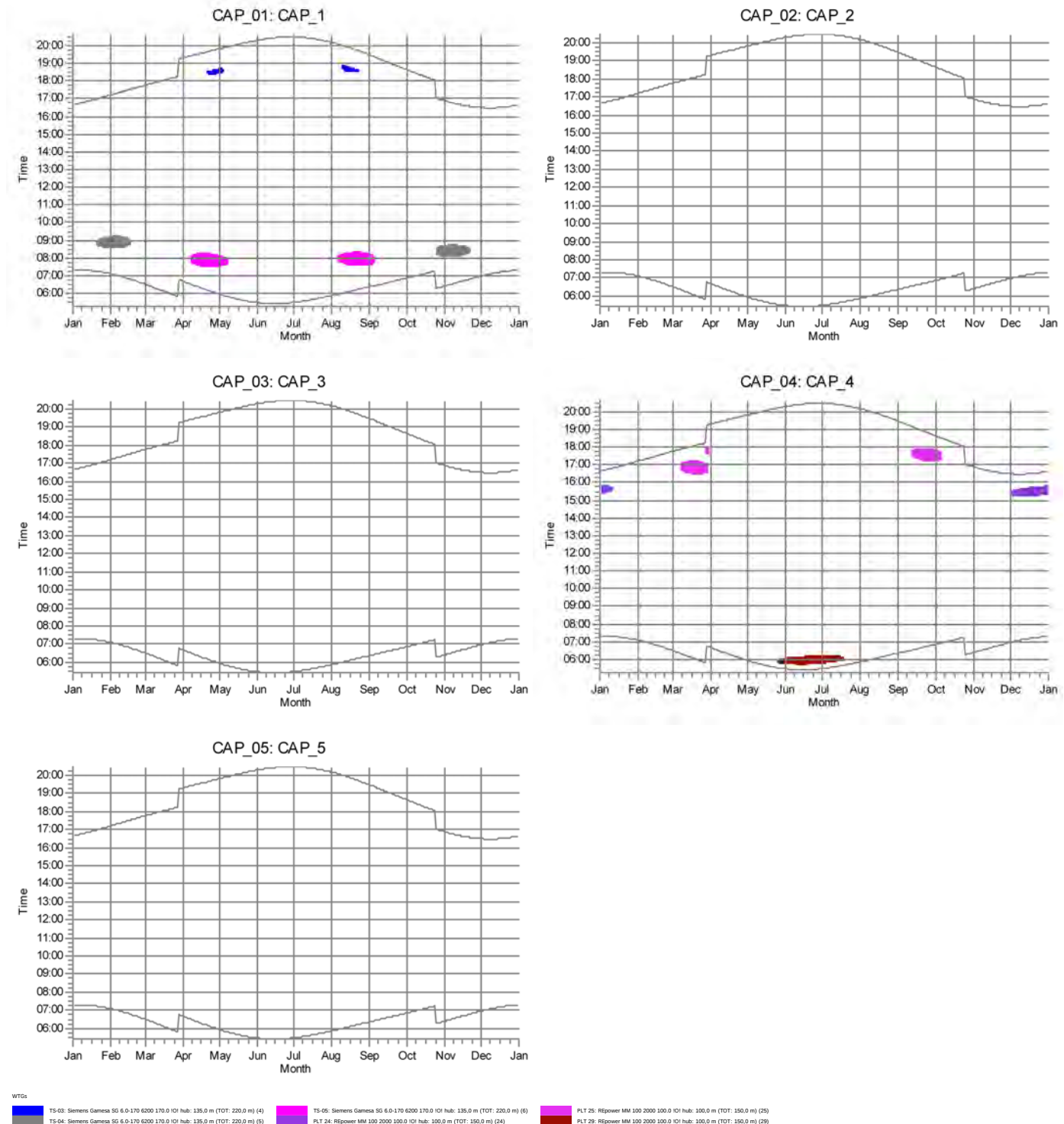
Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar, graphical



Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

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SHADOW - Calendar per WTG

WTG: TS-01 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (2)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:24	06:58
	16:39	17:13	17:46	19:19	19:49	20:18	20:29	20:11	19:29	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:23	06:51	06:25	06:59
	16:40	17:14	17:47	19:20	19:50	20:19	20:29	20:10	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	07:00
	16:41	17:15	17:48	19:21	19:51	20:20	20:29	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:01
	16:42	17:16	17:49	19:22	19:53	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:55	06:28	07:02
	16:43	17:17	17:50	19:23	19:54	20:21	20:28	20:06	19:22	18:33	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:56	06:29	07:03
	16:43	17:19	17:51	19:24	19:55	20:22	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:57	06:31	07:03
	16:44	17:20	17:52	19:25	19:56	20:22	20:28	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:20	06:29	05:47	05:26	05:32	05:58	06:28	06:58	06:32	07:04
	16:45	17:21	17:53	19:26	19:57	20:23	20:27	20:03	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:59	06:33	07:05
	16:46	17:22	17:55	19:27	19:58	20:23	20:27	20:01	19:16	18:26	16:45	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	07:00	06:34	07:06
	16:47	17:24	17:56	19:28	19:59	20:24	20:27	20:00	19:14	18:25	16:44	16:29
11	07:18	06:55	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:25	17:57	19:29	20:00	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:08
	16:49	17:26	17:58	19:30	20:01	20:25	20:26	19:58	19:11	18:21	16:42	16:29
13	07:17	06:52	06:12	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:38	07:09
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:39	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:19	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:54	19:06	18:17	16:39	16:30
16	07:16	06:49	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:16	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:04	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:23	19:50	19:01	18:12	16:37	16:31
19	07:15	06:45	06:02	06:13	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:46	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:14	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:56	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:33
24	07:12	06:38	05:54	06:05	05:33	05:26	05:45	06:14	06:44	07:15	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:51	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:45	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:13	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:46	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:10	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:47	06:18	06:53	07:17
	17:07	17:43	18:14	19:45	20:14	20:29	20:15	19:36	18:46	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:48	06:19	06:54	07:17
	17:08	17:45	18:15	19:46	20:15	20:29	20:15	19:35	18:44	16:58	16:31	16:36
29	07:08		06:46	05:59	05:29	05:28	05:49	06:19	06:49	06:20	06:56	07:17
	17:09		19:16	19:47	20:16	20:29	20:14	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:50	06:21	06:57	07:17
	17:10		19:17	19:48	20:17	20:29	20:13	19:32	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:18
	17:11		19:18		20:17		20:12	19:30		16:55		16:38
Potential sun hours	299	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

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SHADOW - Calendar per WTG

WTG: TS-02 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:24	06:58
	16:39	17:13	17:46	19:19	19:49	20:18	20:29	20:11	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:23	06:51	06:25	06:59
	16:40	17:14	17:47	19:20	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	07:00
	16:41	17:15	17:48	19:21	19:51	20:20	20:29	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:01
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:02
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:03
	16:43	17:19	17:51	19:24	19:54	20:22	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:31	07:03
	16:44	17:20	17:52	19:25	19:56	20:22	20:28	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:20	06:29	05:47	05:25	05:32	05:58	06:28	06:58	06:32	07:04
	16:45	17:21	17:53	19:26	19:57	20:23	20:27	20:03	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:59	06:33	07:05
	16:46	17:22	17:55	19:27	19:58	20:23	20:27	20:01	19:16	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	07:00	06:34	07:06
	16:47	17:24	17:56	19:28	19:59	20:24	20:27	20:00	19:14	18:25	16:44	16:29
11	07:18	06:55	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:58	19:11	18:21	16:42	16:29
13	07:17	06:52	06:12	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:09
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:39	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:54	19:06	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:16	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:23	19:50	19:01	18:12	16:37	16:31
19	07:15	06:45	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:46	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:14	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:56	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:33
24	07:12	06:38	05:54	06:05	05:33	05:26	05:45	06:14	06:44	07:15	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:51	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:45	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:46	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:47	06:18	06:53	07:17
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:46	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:15	19:35	18:44	16:58	16:31	16:36
29	07:08		06:46	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:56	07:17
	17:09		19:16	19:47	20:16	20:29	20:14	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:57	07:17
	17:10		19:17	19:48	20:17	20:29	20:13	19:32	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:18
	17:11		19:18		20:17		20:12	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Calendar per WTG

WTG: TS-03 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (4)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18 16:39	07:05 17:13	06:30 17:46	06:41 19:19	05:56 19:49	18:30-18:39/9 20:18	05:28 20:29	05:52 20:11	06:22 19:28	06:50 18:39	06:24 16:53	06:58 16:30
2	07:18 16:40	07:04 17:14	06:29 17:47	06:39 19:20	05:55 19:50	18:32-18:40/8 20:19	05:27 20:29	05:53 20:09	06:22 19:27	06:51 18:37	06:25 16:52	06:59 16:30
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:21	05:53 19:51	18:35-18:37/2 20:20	05:27 20:29	05:54 20:08	06:23 19:25	06:52 18:36	06:26 16:51	07:00 16:29
4	07:18 16:42	07:02 17:16	06:26 17:49	06:36 19:22	05:52 19:52	05:27 20:20	05:30 20:28	05:55 20:07	06:24 19:24	06:53 18:34	06:27 16:50	07:01 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:23	05:51 19:53	05:26 20:21	05:31 20:28	05:56 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:02 16:29
6	07:18 16:43	07:00 17:19	06:23 17:51	06:33 19:24	05:50 19:54	05:26 20:22	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:48	07:03 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:25	05:49 19:55	05:26 20:22	05:32 20:28	05:57 20:04	06:27 19:19	06:56 18:29	06:31 16:47	07:03 16:29
8	07:18 16:45	06:58 17:21	06:20 17:53	06:29 19:26	05:47 19:57	05:25 20:23	05:32 20:27	05:58 20:03	06:28 19:17	06:58 18:28	06:32 16:45	07:04 16:29
9	07:18 16:46	06:57 17:22	06:18 17:55	06:28 19:27	05:46 19:58	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:16	06:59 18:26	06:33 16:44	07:05 16:29
10	07:18 16:47	06:56 17:23	06:16 17:56	06:26 19:28	05:45 19:58	05:25 20:24	05:34 20:27	06:00 20:00	18:43-18:48/5 19:14	07:00 18:24	06:34 16:43	07:06 16:29
11	07:18 16:48	06:55 17:25	06:15 17:57	06:25 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:59	18:40-18:49/9 19:12	07:01 18:23	06:35 16:43	07:07 16:29
12	07:17 16:49	06:53 17:26	06:13 17:58	06:23 19:30	05:43 20:00	05:25 20:25	05:35 20:26	06:02 19:58	18:38-18:47/9 19:11	07:02 18:21	06:36 16:42	07:08 16:29
13	07:17 16:50	06:52 17:27	06:12 17:59	06:22 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	18:36-18:45/9 19:09	07:03 18:20	06:37 16:41	07:09 16:29
14	07:17 16:52	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:26	05:36 20:25	06:04 19:55	18:35-18:43/8 19:07	07:04 18:18	06:39 16:40	07:09 16:29
15	07:16 16:53	06:50 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:54	18:34-18:42/8 19:06	07:05 18:17	06:40 16:39	07:10 16:30
16	07:16 16:54	06:48 17:31	06:07 18:02	06:17 19:34	05:39 20:04	05:25 20:27	05:38 20:24	06:06 19:52	18:34-18:41/7 19:04	07:06 18:15	06:41 16:38	07:11 16:30
17	07:16 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:27	05:39 20:23	06:07 19:51	18:33-18:39/6 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:46 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:40 20:23	06:08 19:49	18:33-18:38/5 19:01	07:08 18:12	06:43 16:37	07:12 16:30
19	07:15 16:57	06:45 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:28	05:40 20:22	06:09 19:48	18:33-18:37/4 18:59	07:09 18:11	06:44 16:36	07:13 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:36 20:08	05:25 20:28	05:41 20:21	06:10 19:47	18:33-18:35/2 18:57	07:10 18:09	06:46 16:35	07:13 16:31
21	07:14 16:59	06:42 17:37	05:59 18:07	06:10 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	18:33-18:34/1 18:56	07:11 18:08	06:47 16:34	07:14 16:32
22	07:13 17:01	06:40 17:38	05:57 18:08	06:08 19:40	05:34 20:10	05:25 20:28	05:43 20:20	06:12 19:44	06:42 18:54	07:12 18:07	06:48 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:07 19:41	05:33 20:11	05:26 20:29	05:44 20:19	06:13 19:42	06:43 18:52	07:13 18:05	06:49 16:33	07:15 16:33
24	07:12 17:03	06:38 17:40	05:54 18:10	06:05 19:42	05:33 20:12	05:26 20:29	05:45 20:18	06:14 19:41	06:44 18:51	07:15 18:04	06:50 16:33	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:29	05:45 20:17	06:15 19:39	06:45 18:49	06:16 17:02	06:51 16:32	07:16 16:34
26	07:10 17:05	06:35 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:29	05:46 20:16	06:16 19:38	06:46 18:47	06:17 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	05:31 20:14	05:27 20:29	05:47 20:15	06:17 19:36	06:46 18:46	06:18 17:00	06:53 16:31	07:17 16:35
28	07:09 17:08	06:32 17:45	05:47 18:14	06:00 19:46	05:30 20:15	05:27 20:29	05:48 20:15	06:18 19:35	06:47 18:44	06:19 16:58	06:54 16:31	07:17 16:36
29	07:08 17:09		06:45 19:16	05:58 19:47	05:29 20:16	05:28 20:29	05:49 20:14	06:19 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:17	05:57 19:48	05:29 20:17	05:28 20:29	05:50 20:13	06:20 19:32	06:49 18:41	06:21 16:56	06:57 16:30	07:17 16:37
31	07:06 17:11		06:42 19:18		05:28 20:17		05:51 20:12	06:21 19:30		06:22 16:55		07:18 16:38
Potential sun hours	299	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	50	19	0	0	73	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: TS-04 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05 08:37-09:09/32	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23 08:08-08:38/30	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04 08:37-09:09/32	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:25 08:07-08:38/31	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03 08:37-09:10/33	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26 08:07-08:39/32	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02 08:37-09:10/33	06:26	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27 08:06-08:39/33	07:00
	16:41	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01 08:37-09:10/33	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28 08:07-08:40/33	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00 08:37-09:10/33	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29 08:07-08:40/33	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59 08:38-09:10/32	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30 08:07-08:40/33	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58 08:37-09:09/32	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32 08:07-08:40/33	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57 08:38-09:08/30	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33 08:08-08:40/32	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56 08:38-09:08/30	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34 08:08-08:40/32	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54 08:39-09:07/28	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35 08:08-08:39/31	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53 08:41-09:07/26	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36 08:09-08:39/30	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52 08:41-09:05/24	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37 08:10-08:39/29	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51 08:43-09:03/20	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38 08:11-08:39/28	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50 08:45-09:01/16	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40 08:11-08:38/27	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48 08:47-08:57/10	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41 08:12-08:37/25	07:11
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42 08:14-08:37/23	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43 08:16-08:36/20	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44 08:17-08:34/17	07:13
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:45 08:19-08:32/13	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:13 08:47-08:54/7	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:47 08:22-08:29/7	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13 08:44-08:57/13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12 08:43-09:00/17	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11 08:42-09:02/20	06:37	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:29	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11 08:40-09:03/23	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	07:15	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10 08:39-09:04/25	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	07:16	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09 08:38-09:05/27	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	07:17	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:09 08:39-09:07/28	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	07:18	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08 08:38-09:07/29		06:45	05:58	05:29	05:27	05:49	06:19	06:48	07:19	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07 08:38-09:08/30		06:44	05:57	05:29	05:28	05:50	06:19	06:49	07:20	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06 08:37-09:09/32		06:42		05:28		05:51	06:20		07:21		16:37
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	251	444	0	0	0	0	0	0	0	131	572	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: TS-05 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56 07:35-08:04/29	05:28	05:28	05:52	06:21 07:40-08:08/28	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54 07:36-08:02/26	05:27	05:29	05:53	06:22 07:42-08:06/24	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53 07:36-08:00/24	05:27	05:29	05:54	06:23 07:44-08:03/19	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52 07:38-07:58/20	05:27	05:30	05:54	06:24 07:47-08:00/13	06:53	06:27	07:00
	16:41	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51 07:40-07:56/16	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50 07:43-07:53/10	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57 07:52-08:04/12	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29 07:50-08:03/13	05:47	05:25	05:32	05:58 07:49-08:07/18	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28 07:46-08:05/19	05:46	05:25	05:33	05:59 07:47-08:09/22	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26 07:43-08:07/24	05:45	05:25	05:33	06:00 07:46-08:10/24	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:17	06:55	06:15	06:25 07:41-08:09/28	05:44	05:25	05:34	06:01 07:44-08:11/27	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23 07:39-08:09/30	05:43	05:25	05:35	06:02 07:43-08:13/30	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21 07:38-08:11/33	05:42	05:25	05:36	06:03 07:41-08:13/32	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20 07:36-08:11/35	05:41	05:25	05:36	06:04 07:40-08:13/33	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18 07:36-08:12/36	05:40	05:25	05:37	06:05 07:40-08:14/34	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17 07:34-08:11/37	05:39	05:25	05:38	06:06 07:39-08:15/36	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15 07:34-08:12/38	05:38	05:25	05:39	06:07 07:38-08:15/37	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14 07:33-08:12/39	05:37	05:25	05:39	06:08 07:38-08:16/38	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12 07:33-08:12/39	05:36	05:25	05:40	06:09 07:37-08:16/39	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11 07:32-08:11/39	05:35	05:25	05:41	06:10 07:37-08:16/39	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09 07:32-08:11/39	05:35	05:25	05:42	06:11 07:37-08:16/39	06:41	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08 07:32-08:11/39	05:34	05:25	05:43	06:12 07:37-08:16/39	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07 07:31-08:10/39	05:33	05:25	05:44	06:13 07:37-08:16/39	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:12	06:37	05:54	06:05 07:32-08:10/38	05:32	05:26	05:44	06:14 07:37-08:16/39	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:29	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04 07:32-08:10/38	05:32	05:26	05:45	06:15 07:37-08:15/38	06:44	07:15	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02 07:32-08:08/36	05:31	05:26	05:46	06:16 07:36-08:14/38	06:45	07:16	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01 07:32-08:08/36	05:30	05:27	05:47	06:17 07:36-08:13/37	06:46	07:17	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00 07:33-08:07/34	05:30	05:27	05:48	06:18 07:37-08:13/36	06:47	07:18	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58 07:33-08:05/32	05:29	05:27	05:49	06:19 07:37-08:12/35	06:48	07:19	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57 07:34-08:05/31	05:29	05:28	05:50	06:19 07:38-08:11/33	06:49	07:20	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:58	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20 07:39-08:09/30		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	772	125	0	0	824	84	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: TS-06 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:25	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:51	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:18	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: TS-07 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (8)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:30	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: TS-08 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (9)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: TS-09 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:16	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:10
	16:53	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:13	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:51	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:16	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:18	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:19	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: TS-10 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:25	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:39	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:16	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:10
	16:53	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:36	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:13	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:24	05:39	06:08	06:37	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:34	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:14
	17:01	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:51	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:16	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:18	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:19	06:54	07:16
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:35
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: TS-11 - Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 220,0 m) (12)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:30	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:28
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:28
9	07:18	06:57	06:18	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:28
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:28
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:28	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:24	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:25	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:31	20:01	20:25	20:25	19:56	19:09	18:19	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:39	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:16	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:35	07:05	06:41	07:10
	16:53	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:36	07:07	06:42	07:11
	16:54	17:31	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:13	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:24	05:39	06:08	06:37	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:10	16:35	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:34	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:42	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:12	06:42	07:13	06:49	07:14
	17:01	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:32
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:31	05:26	05:45	06:14	06:44	06:51	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:52	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:26	05:47	06:16	06:46	06:53	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:54	06:54	07:16
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:35
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:55	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:43	05:57	05:28	05:28	05:50	06:19	06:49	06:56	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:55	16:30	16:37
31	07:06		06:42		05:28		05:50	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 1 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (46)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:24	06:58
	16:39	17:12	17:46	19:19	19:49	20:18	20:29	20:11	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:59
	16:40	17:14	17:47	19:20	19:50	20:19	20:29	20:10	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	07:00
	16:40	17:15	17:48	19:21	19:51	20:20	20:29	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:01
	16:41	17:16	17:49	19:22	19:52	20:20	20:29	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:02
	16:42	17:17	17:50	19:23	19:54	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:03
	16:43	17:18	17:51	19:24	19:55	20:22	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:31	07:04
	16:44	17:20	17:52	19:25	19:56	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:57	20:23	20:28	20:03	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:58	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	07:00	06:34	07:06
	16:47	17:23	17:55	19:28	19:59	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:18	06:55	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:25	17:57	19:29	20:00	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:08
	16:49	17:26	17:58	19:30	20:01	20:25	20:26	19:58	19:11	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:03	06:38	07:09
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:54	19:06	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:16	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:12
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:24	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:23	19:49	19:01	18:12	16:36	16:30
19	07:15	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:46	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:14	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:38	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:15	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:04	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:13	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:18	06:53	07:17
	17:06	17:43	18:13	19:45	20:14	20:29	20:16	19:36	18:45	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:55	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:15	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:56	07:17
	17:09		19:15	19:47	20:16	20:29	20:14	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:57	07:17
	17:10		19:16	19:48	20:17	20:29	20:13	19:32	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:18
	17:11		19:18		20:17		20:12	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 2 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (47)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:24	06:58
	16:39	17:12	17:46	19:19	19:49	20:18	20:29	20:11	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:59
	16:40	17:14	17:47	19:20	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	07:00
	16:40	17:15	17:48	19:21	19:51	20:20	20:29	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:01
	16:41	17:16	17:49	19:22	19:52	20:20	20:29	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:02
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:03
	16:43	17:18	17:51	19:24	19:54	20:22	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:56	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:57	20:23	20:27	20:03	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:58	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:59	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:18	06:55	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:24	17:57	19:29	20:00	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:58	19:11	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:03	06:37	07:09
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:54	19:06	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:16	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:24	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:23	19:49	19:00	18:12	16:36	16:30
19	07:15	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:46	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:14	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:38	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:04	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:13	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:18	06:53	07:17
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:19	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:15	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:56	07:17
	17:09		19:15	19:47	20:16	20:29	20:14	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:57	07:17
	17:10		19:16	19:48	20:17	20:29	20:13	19:32	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:18
	17:11		19:17		20:17		20:12	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 3 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (48)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:24	06:58
	16:39	17:12	17:46	19:19	19:49	20:18	20:29	20:11	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:59
	16:40	17:14	17:47	19:20	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	07:00
	16:40	17:15	17:48	19:21	19:51	20:20	20:29	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:01
	16:41	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:02
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:03
	16:43	17:18	17:51	19:24	19:54	20:22	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:56	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:57	20:23	20:27	20:03	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:58	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:59	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:18	06:55	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:25	17:57	19:29	20:00	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:58	19:11	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:03	06:37	07:09
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:54	19:06	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:16	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:23	19:49	19:00	18:12	16:36	16:30
19	07:15	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:46	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:14	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:38	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:04	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:13	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:18	06:53	07:17
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:15	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:56	07:17
	17:09		19:15	19:47	20:16	20:29	20:14	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:57	07:17
	17:10		19:16	19:48	20:17	20:29	20:13	19:32	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:18
	17:11		19:17		20:17		20:12	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: EDPr 4 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (49)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:29	05:52 20:11	06:21 19:28	06:50 18:39	06:24 16:53	06:58 16:30
2	07:18 16:40	07:04 17:14	06:29 17:47	06:39 19:20	05:54 19:50	05:27 20:19	05:29 20:29	05:52 20:09	06:22 19:27	06:51 18:37	06:25 16:52	06:59 16:29
3	07:18 16:40	07:03 17:15	06:27 17:48	06:37 19:21	05:53 19:51	05:27 20:20	05:29 20:29	05:53 20:08	06:23 19:25	06:52 18:36	06:26 16:51	07:00 16:29
4	07:18 16:41	07:02 17:16	06:26 17:49	06:36 19:22	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:24	06:53 18:34	06:27 16:50	07:01 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:23	05:51 19:53	05:26 20:21	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:02 16:29
6	07:18 16:43	07:00 17:18	06:23 17:51	06:32 19:24	05:49 19:54	05:26 20:22	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:03 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:25	05:48 19:55	05:25 20:22	05:31 20:28	05:57 20:04	06:27 19:19	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:26	05:47 19:56	05:25 20:23	05:32 20:27	05:58 20:03	06:28 19:17	06:57 18:27	06:32 16:45	07:04 16:29
9	07:18 16:46	06:57 17:22	06:18 17:54	06:28 19:27	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:33 16:44	07:05 16:29
10	07:18 16:47	06:56 17:23	06:16 17:55	06:26 19:28	05:45 19:58	05:25 20:24	05:33 20:27	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:18 16:48	06:55 17:24	06:15 17:57	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:59	06:31 19:12	07:00 18:23	06:35 16:42	07:07 16:29
12	07:17 16:49	06:53 17:26	06:13 17:58	06:23 19:30	05:43 20:00	05:24 20:25	05:35 20:26	06:02 19:58	06:32 19:10	07:02 18:21	06:36 16:41	07:08 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:24 20:25	05:35 20:25	06:03 19:56	06:33 19:09	07:03 18:20	06:37 16:40	07:09 16:29
14	07:17 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:24 20:26	05:36 20:25	06:04 19:55	06:34 19:07	07:04 18:18	06:39 16:40	07:09 16:29
15	07:16 16:52	06:50 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:54	06:35 19:05	07:05 18:17	06:40 16:39	07:10 16:29
16	07:16 16:53	06:48 17:30	06:07 18:02	06:17 19:34	05:39 20:04	05:24 20:27	05:38 20:24	06:06 19:52	06:36 19:04	07:06 18:15	06:41 16:38	07:11 16:30
17	07:16 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:24 20:27	05:38 20:23	06:07 19:51	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:46 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:24 20:27	05:39 20:23	06:08 19:49	06:38 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:15 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:28	05:40 20:22	06:09 19:48	06:39 18:59	07:09 18:11	06:44 16:36	07:13 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:28	05:41 20:21	06:10 19:47	06:40 18:57	07:10 18:09	06:46 16:35	07:13 16:31
21	07:14 16:59	06:42 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:41 18:55	07:11 18:08	06:47 16:34	07:14 16:31
22	07:13 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:10	05:25 20:28	05:43 20:20	06:12 19:44	06:41 18:54	07:12 18:06	06:48 16:34	07:14 16:32
23	07:12 17:01	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:11	05:25 20:29	05:43 20:19	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:15 16:32
24	07:12 17:03	06:37 17:40	05:54 18:10	06:05 19:42	05:32 20:12	05:26 20:29	05:44 20:18	06:14 19:41	06:43 18:50	07:14 18:04	06:50 16:32	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:29	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:16 16:34
26	07:10 17:05	06:35 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:29	05:46 20:16	06:16 19:38	06:45 18:47	07:16 17:01	06:52 16:31	07:16 16:34
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	05:30 20:14	05:27 20:29	05:47 20:15	06:17 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:17 16:35
28	07:09 17:07	06:32 17:44	05:47 18:14	06:00 19:46	05:30 20:15	05:27 20:29	05:48 20:15	06:17 19:35	06:47 18:44	07:17 16:58	06:54 16:31	07:17 16:35
29	07:08 17:09		06:45 19:15	05:58 19:47	05:29 20:16	05:27 20:29	05:49 20:14	06:18 19:33	06:48 18:42	07:18 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:17	05:28 20:29	05:50 20:13	06:19 19:32	06:49 18:40	07:19 16:56	06:57 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:12	06:20 19:30		06:22 16:54		07:18 16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 5 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (50)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:29	05:51 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:58 16:30
2	07:18 16:40	07:04 17:14	06:29 17:47	06:39 19:20	05:54 19:50	05:27 20:19	05:29 20:29	05:52 20:09	06:22 19:27	06:51 18:37	06:25 16:52	06:59 16:29
3	07:18 16:40	07:03 17:15	06:27 17:48	06:37 19:21	05:53 19:51	05:27 20:19	05:29 20:29	05:53 20:08	06:23 19:25	06:52 18:36	06:26 16:51	07:00 16:29
4	07:18 16:41	07:02 17:16	06:26 17:49	06:36 19:22	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:24	06:53 18:34	06:27 16:50	07:01 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:23	05:51 19:53	05:26 20:21	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:02 16:29
6	07:18 16:43	07:00 17:18	06:23 17:51	06:32 19:24	05:49 19:54	05:26 20:22	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:25	05:48 19:55	05:25 20:22	05:31 20:28	05:57 20:04	06:27 19:19	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:26	05:47 19:56	05:25 20:23	05:32 20:27	05:58 20:03	06:28 19:17	06:57 18:27	06:32 16:45	07:04 16:29
9	07:18 16:46	06:57 17:22	06:18 17:54	06:28 19:27	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:33 16:44	07:05 16:29
10	07:18 16:47	06:56 17:23	06:16 17:55	06:26 19:28	05:45 19:58	05:25 20:24	05:33 20:27	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:18 16:48	06:55 17:24	06:15 17:56	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:59	06:31 19:12	07:00 18:23	06:35 16:42	07:07 16:29
12	07:17 16:49	06:53 17:26	06:13 17:58	06:23 19:30	05:43 20:00	05:24 20:25	05:35 20:26	06:02 19:58	06:32 19:10	07:02 18:21	06:36 16:41	07:08 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:24 20:25	05:35 20:25	06:03 19:56	06:33 19:09	07:03 18:20	06:37 16:40	07:09 16:29
14	07:17 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:24 20:26	05:36 20:25	06:04 19:55	06:34 19:07	07:04 18:18	06:39 16:40	07:09 16:29
15	07:16 16:52	06:50 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:54	06:35 19:05	07:05 18:17	06:40 16:39	07:10 16:29
16	07:16 16:53	06:48 17:30	06:07 18:02	06:17 19:34	05:39 20:04	05:24 20:27	05:38 20:24	06:06 19:52	06:36 19:04	07:06 18:15	06:41 16:38	07:11 16:30
17	07:16 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:24 20:27	05:38 20:23	06:07 19:51	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:46 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:24 20:27	05:39 20:22	06:08 19:49	06:38 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:15 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:28	05:40 20:22	06:09 19:48	06:39 18:59	07:09 18:11	06:44 16:36	07:13 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:28	05:41 20:21	06:10 19:47	06:40 18:57	07:10 18:09	06:46 16:35	07:13 16:31
21	07:13 16:59	06:42 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:47 16:34	07:14 16:31
22	07:13 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:10	05:25 20:28	05:43 20:20	06:12 19:44	06:41 18:54	07:12 18:06	06:48 16:34	07:14 16:32
23	07:12 17:01	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:11	05:25 20:29	05:43 20:19	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:15 16:32
24	07:12 17:03	06:37 17:40	05:54 18:10	06:05 19:42	05:32 20:12	05:26 20:29	05:44 20:18	06:14 19:41	06:43 18:50	07:14 18:04	06:50 16:32	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:29	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:16 16:34
26	07:10 17:05	06:35 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:29	05:46 20:16	06:16 19:38	06:45 18:47	07:16 17:01	06:52 16:31	07:16 16:34
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	05:30 20:14	05:27 20:29	05:47 20:15	06:17 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:17 16:35
28	07:09 17:07	06:32 17:44	05:47 18:14	06:00 19:46	05:30 20:15	05:27 20:29	05:48 20:14	06:17 19:35	06:47 18:44	07:17 16:58	06:54 16:31	07:17 16:35
29	07:08 17:09		06:45 19:15	05:58 19:47	05:29 20:16	05:27 20:29	05:49 20:14	06:18 19:33	06:48 18:42	07:18 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:17	05:28 20:29	05:50 20:13	06:19 19:32	06:49 18:40	07:19 16:56	06:57 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:12	06:20 19:30		06:22 16:54		07:18 16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 6 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (51)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:58
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:59
	16:40	17:13	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	07:00
	16:40	17:15	17:48	19:20	19:51	20:19	20:29	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:01
	16:41	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:03	19:17	18:27	16:45	16:28
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:28
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:17	06:55	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:24	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:58	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:39	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:54	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:24	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:15	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:34	05:25	05:42	06:11	06:40	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:42	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:29	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:26	05:47	06:16	06:46	06:18	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:19	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:35
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:13	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:18
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 7 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (52)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:59
	16:40	17:13	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	07:00
	16:40	17:15	17:48	19:20	19:51	20:19	20:29	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:01
	16:41	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:03	19:17	18:27	16:45	16:28
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:28
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:29
11	07:17	06:55	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:24	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:39	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:54	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:24	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:15	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:34	05:25	05:42	06:11	06:40	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:42	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:26	05:47	06:16	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:09	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:35
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:18
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EDPr 8 - NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m) (53)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:25	06:58
	16:40	17:13	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:29	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:26	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:32	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:27	16:45	16:28
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:28
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:27	20:00	19:14	18:24	16:43	16:28
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:24	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:17	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:04	06:39	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:39	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:11
	16:53	17:30	18:02	19:34	20:04	20:27	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:54	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:13	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:24	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:13
	16:57	17:34	18:05	19:37	20:07	20:28	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:34	05:25	05:42	06:11	06:40	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:42	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:20	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:12	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:12	20:29	20:18	19:41	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:31	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:31	16:34
27	07:09	06:33	05:49	06:01	05:30	05:26	05:47	06:16	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:09	06:32	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:35
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:28	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	299	298	370	398	446	450	457	427	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EGP 01 - VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (31)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:25	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:23	19:54	20:21	20:27	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:06
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:24	20:25	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	06:39	07:09
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:05	06:40	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:26	20:23	19:50	19:02	18:14	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:27	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:08	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:01	17:38	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:48	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:04	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:28	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: EGP 02 - VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (32)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:25	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:23	19:54	20:21	20:27	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:06
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:24	20:25	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	06:39	07:09
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:05	06:40	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:26	20:23	19:50	19:02	18:14	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:27	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:08	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:01	17:38	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:48	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:04	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:28	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: EGP 03 - VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (33)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:25	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:23	19:54	20:21	20:27	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:06
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:24	20:25	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	06:39	07:09
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:05	06:40	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:26	20:23	19:50	19:02	18:14	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:27	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:08	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:01	17:38	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:48	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:04	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:28	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: PLT 01 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:23	06:57
	16:39	17:13	17:46	19:19	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:28	05:29	05:53	06:23	06:51	06:25	06:58
	16:40	17:14	17:47	19:20	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:30
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:18	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:44	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:58	06:27	06:56	06:30	07:03
	16:45	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:48	05:26	05:33	05:59	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:45	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:24	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:44	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:49	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:07
	16:50	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:11	18:21	16:42	16:29
13	07:17	06:52	06:12	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:51	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:30
15	07:16	06:50	06:08	06:19	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:53	19:06	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
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	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:01	18:12	16:37	16:31
19	07:14	06:44	06:02	06:13	05:37	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	17:00	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:56	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:26	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:44	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:51	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:46	06:15	06:44	06:16	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:18	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:46	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:59	05:30	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:29		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 02 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (2)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:23	06:57
	16:39	17:13	17:46	19:19	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:28	05:29	05:53	06:23	06:51	06:25	06:58
	16:40	17:14	17:47	19:20	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:30
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:18	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:44	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:58	06:27	06:56	06:30	07:03
	16:45	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:48	05:26	05:33	05:59	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:45	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:24	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:44	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:01	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:07
	16:50	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:11	18:21	16:42	16:29
13	07:17	06:52	06:12	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:51	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:30
15	07:16	06:50	06:08	06:19	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:53	19:06	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:01	18:12	16:37	16:31
19	07:14	06:44	06:02	06:13	05:37	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:47	18:57	18:09	16:35	16:31
21	07:13	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	17:00	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:56	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:26	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:44	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:51	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:46	06:15	06:44	06:16	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:45	06:17	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:18	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:46	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:59	05:30	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: PLT 03 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:23	06:57
	16:39	17:13	17:46	19:19	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:28	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:20	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:44	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:58	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:45	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:24	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:44	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:51	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:30
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:53	19:06	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
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18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:01	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:37	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:26	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:44	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:46	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:46	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
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	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 04 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (4)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:22	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:28	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:20	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:23	06:33	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:44	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:45	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:24	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:44	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:02	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:51	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:37	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:59	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:26	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:43	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: PLT 05 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:28	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:45	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:24	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:44	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:22	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:51	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:07	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:03	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:45	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: PLT 06 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 07 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
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25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
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29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Calendar per WTG

WTG: PLT 08 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (8)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:16
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Calendar per WTG

WTG: PLT 09 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (9)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:25	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:39	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 10 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:57	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:46	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:56	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:37	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:37	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:58	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 11 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:30	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:26	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:43	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:10	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:35	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:35
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:07	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:21		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 12 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (12)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:29	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:43	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:27	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:31	16:37
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 13 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (13)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:56	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:52	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:31
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 14 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (14)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 15 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (15)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 16 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (16)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 17 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (17)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 18 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (18)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:25	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:44	06:13	06:42	07:13	06:49	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 19 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (19)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:27	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:56	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

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L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 20 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (20)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:28	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:23	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:27	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:03	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:51	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:52	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:53	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:16
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 21 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (21)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:52 20:09	06:22 19:27	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	05:26 20:21	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:57 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:24 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:10 16:29
16	07:16 16:53	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:24 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:27	05:39 20:23	06:07 19:51	06:37 19:02	07:07 18:13	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:13 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:01	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:29	05:47 20:15	06:16 19:36	06:46 18:45	07:17 18:59	06:53 16:31	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:15	05:27 20:29	05:48 20:14	06:17 19:34	06:47 18:44	07:18 18:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:29	05:49 20:13	06:18 19:33	06:48 18:42	07:19 18:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 18:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 22 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (22)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:41	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:13	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:49	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:47	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:40	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:47	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:42	07:12	06:48	07:14
	17:01	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:33	05:26	05:45	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:31	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:41	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 23 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (23)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:55	05:27	05:29	05:53	06:22	06:51	06:25	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:30
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:21	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:55	06:24	06:53	06:27	07:00
	16:42	17:16	17:49	19:22	19:52	20:20	20:28	20:07	19:24	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:31	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:28	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:23	20:27	20:02	19:17	18:28	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:25	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:08
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:42	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:03	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:17	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:53	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:11
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:37	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:36	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:41	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:35	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:20	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:55		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 24 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (24)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January		February		March	April	May	June	July	August	September	October	November	December
1	07:18	15:26-15:46/20	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57	
	16:39		17:12	17:46	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30	
2	07:18	15:26-15:46/20	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58	15:20-15:25/5
	16:40		17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29	
3	07:18	15:27-15:46/19	07:03	06:27	06:37	05:53	05:27	05:29	05:54	06:23	06:52	06:26	06:59	15:18-15:28/10
	16:41		17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29	
4	07:18	15:28-15:46/18	07:02	06:26	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27	07:00	15:17-15:29/12
	16:41		17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29	
5	07:18	15:29-15:46/17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01	15:17-15:31/14
	16:42		17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29	
6	07:18	15:30-15:46/16	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02	15:16-15:32/16
	16:43		17:19	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:48	16:29	
7	07:18	15:31-15:45/14	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03	15:15-15:32/17
	16:44		17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29	
8	07:18	15:32-15:44/12	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04	15:15-15:33/18
	16:45		17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29	
9	07:18	15:34-15:44/10	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05	15:15-15:34/19
	16:46		17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29	
10	07:18	15:37-15:42/5	06:56	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:34	07:06	15:16-15:35/19
	16:47		17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29	
11	07:17		06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07	15:16-15:36/20
	16:48		17:25	17:57	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29	
12	07:17		06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07	15:16-15:37/21
	16:49		17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29	
13	07:17		06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08	15:17-15:38/21
	16:50		17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29	
14	07:16		06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09	15:16-15:38/22
	16:51		17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29	
15	07:16		06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10	15:17-15:38/21
	16:53		17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:30	
16	07:16		06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10	15:17-15:39/22
	16:54		17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30	
17	07:15		06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11	15:17-15:39/22
	16:55		17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30	
18	07:15		06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12	15:18-15:40/22
	16:56		17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30	
19	07:14		06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12	15:18-15:40/22
	16:57		17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31	
20	07:14		06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:45	07:13	15:18-15:41/23
	16:58		17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31	
21	07:13		06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14	15:19-15:42/23
	16:59		17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32	
22	07:13		06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14	15:19-15:42/23
	17:00		17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32	
23	07:12		06:39	05:55	06:07	05:33	05:26	05:44	06:13	06:42	07:13	06:49	07:15	15:19-15:42/23
	17:02		17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33	
24	07:11		06:37	05:54	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15	15:21-15:43/22
	17:03		17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33	
25	07:11		06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:15	06:51	07:16	15:21-15:43/22
	17:04		17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34	
26	07:10		06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:17	06:52	07:16	15:22-15:44/22
	17:05		17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34	
27	07:09		06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:18	06:53	07:16	15:22-15:44/22
	17:06		17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35	
28	07:08		06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:19	06:54	07:17	15:23-15:44/21
	17:08		17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36	
29	07:08			06:45	05:58	05:29	05:28	05:49	06:19	06:48	06:20	06:55	07:17	15:23-15:44/21
	17:09			19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36	
30	07:07			06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17	15:23-15:45/22
	17:10			19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37	
31	07:06			06:42		05:28		05:51	06:20		06:22		07:17	15:25-15:46/21
	17:11			19:17		20:17		20:11	19:30		16:54		16:38	
Potential sun hours	300		298	370	398	446	450	457	426	375	346	300	290	588
Sum of minutes with flicker	151		0	0	0	0	0	0	0	0	0	0	0	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 25 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (25)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January			February	March		April	May	June	July	August	September		October		November	December
1	07:18	07:05	06:30				06:40	05:56	05:28	05:28	05:52	06:21		06:50	17:17-17:47/30	06:23	06:57
	16:39	17:12	17:46				19:18	19:49	20:18	20:29	20:10	19:28		18:39		16:53	16:30
2	07:18	07:04	06:29				06:39	05:54	05:27	05:29	05:53	06:22		06:51	17:18-17:45/27	06:25	06:58
	16:40	17:14	17:47				19:19	19:50	20:19	20:29	20:09	19:27		18:37		16:52	16:29
3	07:18	07:03	06:27				06:37	05:53	05:27	05:29	05:54	06:23		06:52	17:19-17:43/24	06:26	06:59
	16:41	17:15	17:48				19:20	19:51	20:19	20:28	20:08	19:25		18:36		16:51	16:29
4	07:18	07:02	06:26				06:36	05:52	05:27	05:30	05:54	06:24		06:53	17:21-17:41/20	06:27	07:00
	16:41	17:16	17:49				19:21	19:52	20:20	20:28	20:07	19:23		18:34		16:50	16:29
5	07:18	07:01	06:24				06:34	05:51	05:26	05:30	05:55	06:25		06:54	17:24-17:38/14	06:28	07:01
	16:42	17:17	17:50				19:23	19:53	20:21	20:28	20:06	19:22		18:32		16:49	16:29
6	07:18	07:00	06:22				06:32	05:50	05:26	05:31	05:56	06:26		06:55		06:29	07:02
	16:43	17:19	17:51				19:24	19:54	20:21	20:28	20:05	19:20		18:31		16:47	16:29
7	07:18	06:59	06:21				06:31	05:48	05:26	05:32	05:57	06:27		06:56		06:30	07:03
	16:44	17:20	17:52				19:25	19:55	20:22	20:27	20:04	19:19		18:29		16:46	16:29
8	07:18	06:58	06:19	16:49-16:59/10			06:29	05:47	05:25	05:32	05:58	06:28		06:57		06:31	07:04
	16:45	17:21	17:53				19:26	19:56	20:22	20:27	20:02	19:17		18:27		16:45	16:29
9	07:18	06:57	06:18	16:45-17:02/17			06:28	05:46	05:25	05:33	05:59	06:29		06:58		06:33	07:05
	16:46	17:22	17:54				19:27	19:57	20:23	20:27	20:01	19:15		18:26		16:44	16:29
10	07:18	06:56	06:16	16:43-17:05/22			06:26	05:45	05:25	05:34	06:00	06:30		06:59		06:34	07:06
	16:47	17:23	17:55				19:28	19:58	20:24	20:26	20:00	19:14		18:24		16:43	16:29
11	07:17	06:54	06:15	16:40-17:06/26			06:24	05:44	05:25	05:34	06:01	06:31		07:00		06:35	07:07
	16:48	17:25	17:56				19:29	19:59	20:24	20:26	19:59	19:12		18:23		16:42	16:29
12	07:17	06:53	06:13	16:38-17:07/29			06:23	05:43	05:25	05:35	06:02	06:32		07:01		06:36	07:07
	16:49	17:26	17:58				19:30	20:00	20:25	20:26	19:57	19:10		18:21		16:41	16:29
13	07:17	06:52	06:11	16:37-17:08/31			06:21	05:42	05:25	05:36	06:03	06:33	17:35-17:44/9	07:02		06:37	07:08
	16:50	17:27	17:59				19:31	20:01	20:25	20:25	19:56	19:09		18:20		16:41	16:29
14	07:16	06:51	06:10	16:36-17:08/32			06:20	05:41	05:25	05:36	06:04	06:34	17:31-17:48/17	07:04		06:38	07:09
	16:51	17:28	18:00				19:32	20:02	20:26	20:25	19:55	19:07		18:18		16:40	16:29
15	07:16	06:50	06:08	16:36-17:09/33			06:18	05:40	05:25	05:37	06:05	06:35	17:28-17:50/22	07:05		06:40	07:10
	16:52	17:29	18:01				19:33	20:03	20:26	20:24	19:53	19:05		18:17		16:39	16:29
16	07:16	06:48	06:07	16:35-17:09/34			06:17	05:39	05:25	05:38	06:06	06:36	17:26-17:51/25	07:06		06:41	07:10
	16:54	17:31	18:02				19:34	20:04	20:26	20:24	19:52	19:04		18:15		16:38	16:30
17	07:15	06:47	06:05	16:34-17:09/35			06:15	05:38	05:25	05:39	06:07	06:37	17:24-17:52/28	07:07		06:42	07:11
	16:55	17:32	18:03				19:35	20:05	20:27	20:23	19:51	19:02		18:14		16:37	16:30
18	07:15	06:46	06:03	16:34-17:10/36			06:14	05:37	05:25	05:39	06:08	06:38	17:22-17:52/30	07:08		06:43	07:12
	16:56	17:33	18:04				19:36	20:06	20:27	20:22	19:49	19:00		18:12		16:36	16:30
19	07:14	06:44	06:02	16:33-17:09/36			06:12	05:36	05:25	05:40	06:09	06:39	17:21-17:52/31	07:09		06:44	07:12
	16:57	17:34	18:05				19:37	20:07	20:27	20:22	19:48	18:59		18:11		16:36	16:31
20	07:14	06:43	06:00	16:33-17:08/35			06:11	05:35	05:25	05:41	06:10	06:40	17:19-17:53/34	07:10		06:45	07:13
	16:58	17:35	18:06				19:38	20:08	20:28	20:21	19:46	18:57		18:09		16:35	16:31
21	07:13	06:42	05:58	16:33-17:09/36			06:09	05:35	05:25	05:42	06:11	06:40	17:18-17:53/35	07:11		06:46	07:14
	16:59	17:36	18:07				19:39	20:09	20:28	20:20	19:45	18:55		18:08		16:34	16:32
22	07:13	06:40	05:57	16:33-17:08/35			06:08	05:34	05:25	05:43	06:12	06:41	17:18-17:53/35	07:12		06:48	07:14
	17:00	17:38	18:08				19:40	20:10	20:28	20:19	19:44	18:54		18:06		16:34	16:32
23	07:12	06:39	05:55	16:33-17:06/33			06:07	05:33	05:26	05:44	06:13	06:42	17:17-17:53/36	07:13		06:49	07:15
	17:02	17:39	18:09				19:41	20:11	20:28	20:19	19:42	18:52		18:05		16:33	16:33
24	07:11	06:37	05:53	16:34-17:06/32			06:05	05:32	05:26	05:44	06:14	06:43	17:17-17:53/36	07:14		06:50	07:15
	17:03	17:40	18:10				19:42	20:11	20:28	20:18	19:41	18:50		18:04		16:33	16:33
25	07:11	06:36	05:52	16:34-17:05/31			06:04	05:32	05:26	05:45	06:15	06:44	17:16-17:52/36	06:15		06:51	07:16
	17:04	17:41	18:11				19:43	20:12	20:29	20:17	19:39	18:49		17:02		16:32	16:34
26	07:10	06:34	05:50	16:35-17:03/28			06:02	05:31	05:26	05:46	06:16	06:45	17:16-17:52/36	06:17		06:52	07:16
	17:05	17:42	18:12				19:44	20:13	20:29	20:16	19:38	18:47		17:01		16:32	16:34
27	07:09	06:33	05:49	16:37-17:02/25			06:01	05:30	05:27	05:47	06:17	06:46	17:16-17:51/35	06:18		06:53	07:16
	17:06	17:43	18:13				19:45	20:14	20:29	20:15	19:36	18:45		17:00		16:31	16:35
28	07:08	06:32	05:47	16:38-17:00/22			06:00	05:30	05:27	05:48	06:18	06:47	17:16-17:50/34	06:19		06:54	07:17
	17:08	17:44	18:14				19:46	20:15	20:29	20:14	19:35	18:44		16:58		16:31	16:36
29	07:08		06:45	17:40-17:58/18			05:58	05:29	05:27	05:49	06:18	06:48	17:16-17:49/33	06:20		06:55	07:17
	17:09		19:15				19:47	20:16	20:29	20:13	19:33	18:42		16:57		16:30	16:36
30	07:07		06:44	17:43-17:54/11			05:57	05:29	05:28	05:50	06:19	06:49	17:17-17:48/31	06:21		06:56	07:17
	17:10		19:16				19:48	20:16	20:29	20:12	19:31	18:40		16:56		16:30	16:37
31	07:06		06:42					05:28		05:51	06:20			06:22			07:17
	17:11		19:17					20:17		20:11	19:30			16:54			16:38
Potential sun hours	300	298	370				398	446	450	457	426	375		346		300	290
Sum of minutes with flicker	0	0	647				0	0	0	0	0	543		115		0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 26 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (26)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:29	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:26	06:36	05:52	05:27	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:23	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:18	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:41	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:24	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:40	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:25	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:11	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:16
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:18	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:35	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 27 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (27)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:36	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:24	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:04	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:50	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:25	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:31	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:38	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:07	05:33	05:25	05:44	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:32	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:16	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 28 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (28)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:29	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:19	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:36	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:49	16:29
6	07:18	07:00	06:22	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:04	19:19	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	06:33	07:05
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:56	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:15	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:25	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:05	06:40	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:17	16:39	16:29
16	07:16	06:48	06:07	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:10
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:14	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:38	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:39	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:14
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:32
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:48	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	19:44	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:41	18:50	18:04	16:33	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:55	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:16	06:45	06:57	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:38	18:47	17:01	16:32	16:34
27	07:09	06:33	05:49	06:01	05:30	05:27	05:47	06:17	06:46	06:58	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	17:00	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:59	06:54	07:17
	17:08	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 29 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (29)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January		February		March	April		May	June		July		August		September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:49-06:01/12	05:28	05:51-06:10/19	05:52	06:21	06:50	06:23	06:57				
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:29	20:10	20:10	19:28	18:39	16:53	16:30				
2	07:18	07:04	06:28	06:39	05:54	05:27	05:48-06:01/13	05:29	05:51-06:10/19	05:52	06:22	06:51	06:24	06:58				
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:28	20:09	20:09	19:27	18:37	16:52	16:29				
3	07:18	07:03	06:27	06:37	05:53	05:27	05:48-06:02/14	05:29	05:52-06:10/18	05:53	06:23	06:52	06:26	06:59				
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:28	20:08	20:08	19:25	18:35	16:51	16:29				
4	07:18	07:02	06:25	06:36	05:52	05:26	05:48-06:03/15	05:30	05:52-06:10/18	05:54	06:24	06:53	06:27	07:00				
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:28	20:07	20:07	19:23	18:34	16:50	16:29				
5	07:18	07:01	06:24	06:34	05:51	05:26	05:47-06:02/15	05:30	05:53-06:10/17	05:55	06:25	06:54	06:28	07:01				
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:28	20:06	20:06	19:22	18:32	16:49	16:29				
6	07:18	07:00	06:22	06:32	05:50	05:26	05:47-06:03/16	05:31	05:53-06:09/16	05:56	06:26	06:55	06:29	07:02				
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:28	20:05	20:05	19:20	18:31	16:47	16:29				
7	07:18	06:59	06:21	06:31	05:48	05:26	05:47-06:04/17	05:32	05:54-06:10/16	05:57	06:27	06:56	06:30	07:03				
	16:44	17:20	17:52	19:25	19:55	20:22	20:27	20:27	20:04	20:04	19:19	18:29	16:46	16:29				
8	07:18	06:58	06:19	06:29	05:47	05:25	05:47-06:04/17	05:32	05:54-06:09/15	05:58	06:28	06:57	06:31	07:04				
	16:45	17:21	17:53	19:26	19:56	20:22	20:27	20:27	20:02	20:02	19:17	18:27	16:45	16:29				
9	07:18	06:57	06:18	06:28	05:46	05:25	05:47-06:05/18	05:33	05:55-06:09/14	05:59	06:29	06:58	06:33	07:05				
	16:46	17:22	17:54	19:27	19:57	20:23	20:27	20:27	20:01	20:01	19:15	18:26	16:44	16:29				
10	07:17	06:56	06:16	06:26	05:45	05:25	05:47-06:05/18	05:33	05:56-06:09/13	06:00	06:30	06:59	06:34	07:06				
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:26	20:00	20:00	19:14	18:24	16:43	16:29				
11	07:17	06:54	06:15	06:24	05:44	05:25	05:46-06:05/19	05:34	05:56-06:08/12	06:01	06:31	07:00	06:35	07:07				
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	20:26	19:59	19:59	19:12	18:23	16:42	16:29				
12	07:17	06:53	06:13	06:23	05:43	05:25	05:46-06:05/19	05:35	05:57-06:08/11	06:02	06:32	07:01	06:36	07:07				
	16:49	17:26	17:58	19:30	20:00	20:25	20:26	20:26	19:57	19:57	19:10	18:21	16:41	16:29				
13	07:17	06:52	06:11	06:21	05:42	05:25	05:46-06:06/20	05:36	05:58-06:08/10	06:03	06:33	07:02	06:37	07:08				
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	20:25	19:56	19:56	19:09	18:20	16:40	16:29				
14	07:16	06:51	06:10	06:20	05:41	05:24	05:46-06:06/20	05:36	05:58-06:07/9	06:04	06:34	07:03	06:38	07:09				
	16:51	17:28	18:00	19:32	20:02	20:26	20:25	20:25	19:55	19:55	19:07	18:18	16:40	16:29				
15	07:16	06:49	06:08	06:18	05:40	05:24	05:46-06:06/20	05:37	05:59-06:06/7	06:05	06:35	07:05	06:40	07:10				
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	20:24	19:53	19:53	19:05	18:17	16:39	16:29				
16	07:16	06:48	06:06	06:17	05:39	05:24	05:46-06:06/20	05:38	06:00-06:05/5	06:06	06:36	07:06	06:41	07:10				
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	20:23	19:52	19:52	19:04	18:15	16:38	16:30				
17	07:15	06:47	06:05	06:15	05:38	05:25	05:46-06:06/20	05:39	06:01-06:04/3	06:07	06:37	07:07	06:42	07:11				
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	20:23	19:51	19:51	19:02	18:14	16:37	16:30				
18	07:15	06:46	06:03	06:14	05:37	05:25	05:47-06:08/21	05:39		06:08	06:38	07:08	06:43	07:12				
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	20:22	19:49	19:49	19:00	18:12	16:36	16:30				
19	07:14	06:44	06:02	06:12	05:36	05:25	05:47-06:08/21	05:40		06:09	06:38	07:09	06:44	07:12				
	16:57	17:34	18:05	19:37	20:07	20:27	20:22	20:22	19:48	19:48	18:59	18:11	16:36	16:31				
20	07:14	06:43	06:00	06:11	05:35	05:25	05:47-06:08/21	05:41		06:10	06:39	07:10	06:45	07:13				
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	20:21	19:46	19:46	18:57	18:09	16:35	16:31				
21	07:13	06:42	05:58	06:09	05:35	05:25	05:47-06:08/21	05:42		06:11	06:40	07:11	06:46	07:14				
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	20:20	19:45	19:45	18:55	18:08	16:34	16:32				
22	07:13	06:40	05:57	06:08	05:34	05:25	05:47-06:08/21	05:43		06:12	06:41	07:12	06:48	07:14				
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	20:19	19:43	19:43	18:54	18:06	16:34	16:32				
23	07:12	06:39	05:55	06:06	05:33	05:25	05:48-06:09/21	05:43		06:13	06:42	07:13	06:49	07:15				
	17:02	17:39	18:09	19:41	20:10	20:28	20:19	20:19	19:42	19:42	18:52	18:05	16:33	16:33				
24	07:11	06:37	05:53	06:05	05:32	05:26	05:48-06:09/21	05:44		06:14	06:43	07:14	06:50	07:15				
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	20:18	19:41	19:41	18:50	18:04	16:33	16:33				
25	07:11	06:36	05:52	06:04	05:32	05:26	05:48-06:09/21	05:45		06:15	06:44	07:15	06:51	07:15				
	17:04	17:41	18:11	19:43	20:12	20:29	20:17	20:17	19:39	19:39	18:49	17:02	16:32	16:34				
26	07:10	06:34	05:50	06:02	05:31	05:26	05:49-06:09/20	05:46		06:16	06:45	07:16	06:52	07:16				
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	20:16	19:38	19:38	18:47	17:01	16:32	16:34				
27	07:09	06:33	05:49	06:01	05:30	05:27	05:49-06:09/20	05:47		06:16	06:46	07:18	06:53	07:16				
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	20:15	19:36	19:36	18:45	16:59	16:31	16:35				
28	07:08	06:31	05:47	06:00	05:30	05:27	05:49-06:09/20	05:48		06:17	06:47	07:19	06:54	07:17				
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	20:14	19:34	19:34	18:44	16:58	16:31	16:36				
29	07:08		06:45	05:58	05:29	05:27	05:50-06:10/20	05:49		06:18	06:48	07:20	06:55	07:17				
	17:09		19:15	19:47	20:15	20:29	20:13	20:13	19:33	19:33	18:42	16:57	16:30	16:36				
30	07:07		06:44	05:57	05:29	05:28	05:50-06:09/19	05:50		06:19	06:49	07:21	06:56	07:17				
	17:10		19:16	19:48	20:16	20:29	20:12	20:12	19:31	19:31	18:40	16:56	16:30	16:37				
31	07:06		06:42		05:28	05:28	05:49-06:00/11			06:20		06:22		07:17				
	17:11		19:17		20:17		20:11			19:30		16:54		16:38				
Potential sun hours	300	298	370	398	446	450	560	222	426	375	346	300	290	0				
Sum of minutes with flicker	0	0	0	0	40	560	222	0	0	0	0	0	0	0				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker</
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Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: PLT 30 - REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (30)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:18	07:05	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:18	20:29	20:10	19:28	18:39	16:53	16:30
2	07:18	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:27	18:37	16:52	16:29
3	07:18	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:26	06:59
	16:40	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:18	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:27	07:00
	16:44	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50	16:29
5	07:18	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01
	16:42	17:17	17:50	19:22	19:53	20:21	20:28	20:06	19:22	18:32	16:48	16:29
6	07:18	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:28	20:05	19:20	18:31	16:47	16:29
7	07:18	06:59	06:21	06:31	05:48	05:25	05:31	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46	16:29
8	07:18	06:58	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:18	06:57	06:18	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05
	16:46	17:22	17:54	19:26	19:57	20:23	20:27	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:34	07:06
	16:47	17:23	17:55	19:28	19:58	20:24	20:26	20:00	19:14	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:07
	16:48	17:24	17:56	19:29	19:59	20:24	20:26	19:59	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:30	20:00	20:25	20:25	19:57	19:10	18:21	16:41	16:29
13	07:17	06:52	06:11	06:21	05:42	05:24	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:59	19:31	20:01	20:25	20:25	19:56	19:09	18:20	16:40	16:29
14	07:16	06:51	06:10	06:20	05:41	05:24	05:36	06:04	06:34	07:03	06:38	07:09
	16:51	17:28	18:00	19:32	20:02	20:25	20:25	19:55	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:10
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:16	16:39	16:29
16	07:16	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:36	07:06	06:41	07:10
	16:53	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:24	05:38	06:07	06:37	07:07	06:42	07:11
	16:55	17:32	18:03	19:35	20:05	20:27	20:23	19:51	19:02	18:13	16:37	16:30
18	07:15	06:46	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:08	06:43	07:12
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36	16:31
20	07:14	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:08	20:28	20:21	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:09	20:28	20:20	19:45	18:55	18:08	16:34	16:31
22	07:13	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:10	20:28	20:19	19:43	18:54	18:06	16:34	16:32
23	07:12	06:39	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:49	07:15
	17:01	17:39	18:09	19:41	20:10	20:28	20:19	19:42	18:52	18:05	16:33	16:32
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:50	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:18	19:40	18:50	18:03	16:32	16:33
25	07:11	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	06:51	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32	16:34
26	07:10	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:52	06:52	07:16
	17:05	17:42	18:12	19:44	20:13	20:29	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:53	06:53	07:16
	17:06	17:43	18:13	19:45	20:14	20:29	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:54	06:54	07:16
	17:07	17:44	18:14	19:46	20:15	20:29	20:14	19:34	18:44	16:58	16:31	16:36
29	07:08		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:55	06:55	07:17
	17:09		19:15	19:47	20:15	20:29	20:13	19:33	18:42	16:57	16:30	16:36
30	07:07		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:56	06:56	07:17
	17:10		19:16	19:48	20:16	20:29	20:12	19:31	18:40	16:56	16:30	16:37
31	07:06		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:17		20:11	19:30		16:54		16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 01 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (34)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:27	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:23	20:25	19:58	19:12	18:23	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:24	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:13
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:11	06:38	05:55	06:06	05:33	05:26	05:44	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:28	05:49	06:18	06:48	06:59	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 02 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (35)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:27	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:23	20:25	19:58	19:12	18:23	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:24	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:13
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:11	06:38	05:55	06:06	05:33	05:26	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	06:00	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: RO 03 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (36)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:23	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 04 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (37)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:23	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
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	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
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18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:56	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 05 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (38)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:38	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:22	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:33	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:01	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: RO 06 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (39)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:38	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:22	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:33	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:31	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:13
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:01	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:32	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 07 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (40)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:38	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:22	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:24	05:36	06:04	06:33	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:39	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:31	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:12	06:42	07:13	06:48	07:14
	17:01	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:32	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:56	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:55	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 08 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (41)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:38	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:40	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:30	05:48	05:25	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:22	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:24	05:36	06:04	06:33	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:39	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:38	06:07	06:36	07:06	06:41	07:11
	16:55	17:31	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:12	06:42	07:13	06:48	07:14
	17:01	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:32	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:55	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 09 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:51	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:38	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:40	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:20	06:30	05:48	05:25	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:03
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:22	16:42	16:29
12	07:16	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:35	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:24	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:24	05:36	06:04	06:33	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:39	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:24	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:01	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:46	06:05	06:15	05:38	05:25	05:38	06:07	06:36	07:06	06:41	07:11
	16:55	17:31	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:42	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:42	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:09	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:12	06:42	07:13	06:48	07:14
	17:01	17:38	18:09	19:40	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:32	16:33
25	07:10	06:35	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:15	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:16	06:51	07:15
	17:05	17:42	18:12	19:44	20:12	20:28	20:16	19:37	18:47	17:01	16:31	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:17	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:18	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:19	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:55	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: RO 10 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (43)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:13	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:25	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:24	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:24	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:53	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:05	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:43	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:56	06:51	07:15
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 11 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (44)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:47	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:25	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:24	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:43	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:28	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:51	06:51	07:15
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:52	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:53	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:54	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:55	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

WF Tursi Sant'Arcangelo

Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

Licensed user:

Ge.co.Dor srl

SHADOW - Calendar per WTG

WTG: RO 12 - NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [PALINURO C.]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4,14	4,76	5,47	6,61	8,23	9,68	10,62	10,12	8,36	6,25	5,04	4,06

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
811	214	142	374	499	111	189	1.076	1.889	407	466	1.031	7.209

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:04	06:30	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12	17:45	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30
2	07:17	07:04	06:28	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58
	16:40	17:14	17:46	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29
3	07:17	07:03	06:27	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29
4	07:17	07:02	06:25	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00
	16:41	17:16	17:49	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29
5	07:17	07:01	06:24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:27	07:01
	16:42	17:17	17:50	19:22	19:53	20:20	20:27	20:05	19:21	18:32	16:48	16:29
6	07:17	07:00	06:22	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29
7	07:17	06:58	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:04
	16:46	17:22	17:54	19:26	19:57	20:22	20:26	20:01	19:15	18:26	16:44	16:29
10	07:17	06:55	06:16	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	19:59	19:13	18:24	16:43	16:29
11	07:17	06:54	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:34	07:06
	16:48	17:24	17:56	19:28	19:59	20:24	20:25	19:58	19:12	18:23	16:42	16:29
12	07:17	06:53	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29
13	07:16	06:52	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08
	16:50	17:27	17:58	19:30	20:01	20:25	20:25	19:56	19:08	18:19	16:40	16:29
14	07:16	06:50	06:09	06:20	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:08
	16:51	17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29
15	07:16	06:49	06:08	06:18	05:40	05:25	05:37	06:05	06:34	07:04	06:39	07:09
	16:52	17:29	18:00	19:32	20:03	20:25	20:23	19:53	19:05	18:16	16:39	16:29
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:04	20:26	20:22	19:50	19:02	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	06:43	07:11
	16:56	17:33	18:04	19:35	20:05	20:26	20:22	19:49	19:00	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:08	06:44	07:12
	16:57	17:34	18:05	19:36	20:06	20:27	20:21	19:47	18:58	18:10	16:36	16:31
20	07:13	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:12
	16:58	17:35	18:06	19:37	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:38	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32
22	07:12	06:40	05:56	06:08	05:34	05:25	05:43	06:12	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:39	20:09	20:27	20:19	19:43	18:53	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:25	05:43	06:13	06:42	07:13	06:48	07:14
	17:02	17:38	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:13	06:43	07:14	06:49	07:14
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:14	06:44	06:50	06:50	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:16	19:39	18:48	17:02	16:32	16:34
26	07:09	06:34	05:50	06:02	05:31	05:26	05:46	06:15	06:45	06:56	06:51	07:15
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34
27	07:09	06:33	05:48	06:01	05:30	05:27	05:47	06:16	06:46	06:57	06:53	07:16
	17:06	17:43	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35
28	07:08	06:31	05:47	05:59	05:30	05:27	05:48	06:17	06:47	06:58	06:54	07:16
	17:07	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36
29	07:07		06:45	05:58	05:29	05:27	05:49	06:18	06:48	06:59	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37
31	07:05		06:42		05:28		05:51	06:20		06:22		07:17
	17:11		19:17		20:16		20:11	19:29		16:54		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

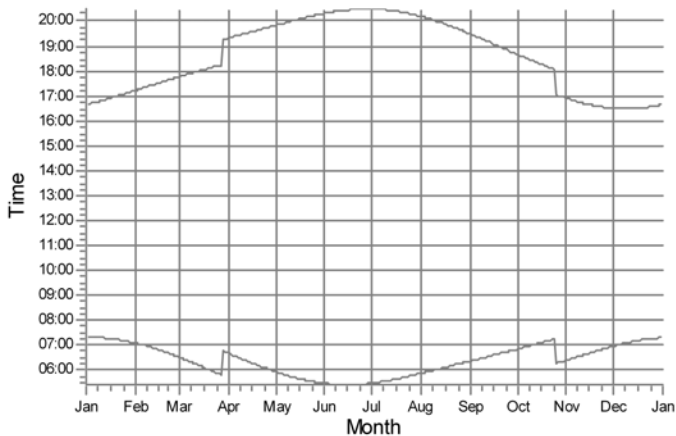
Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

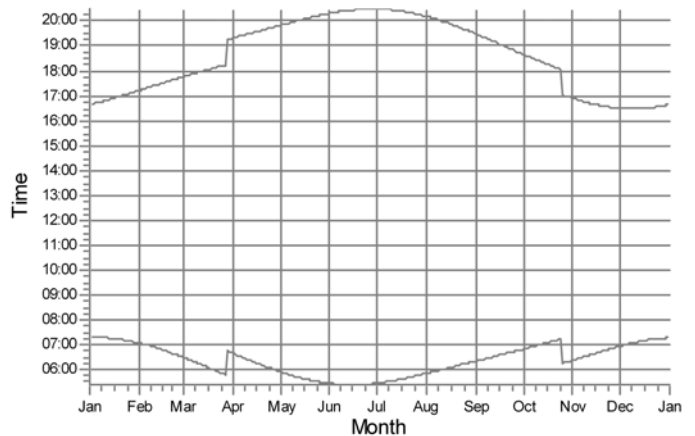
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

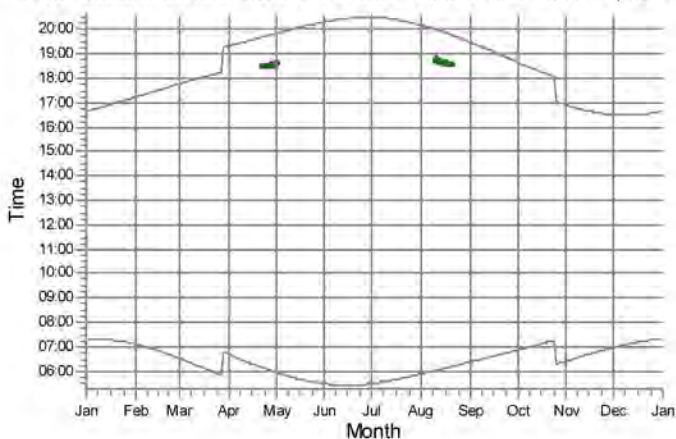
TS-01: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



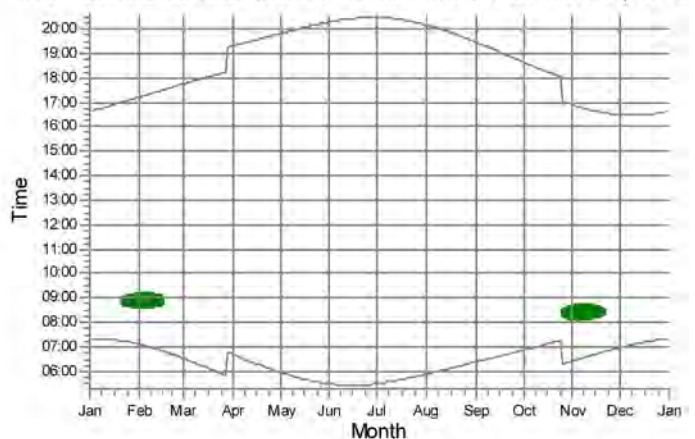
TS-02: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



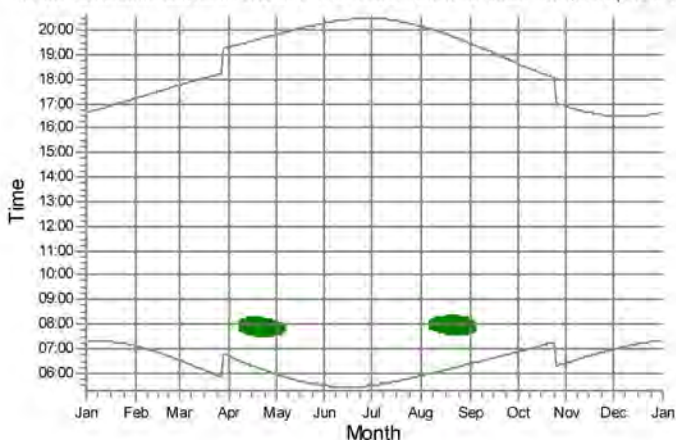
TS-03: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



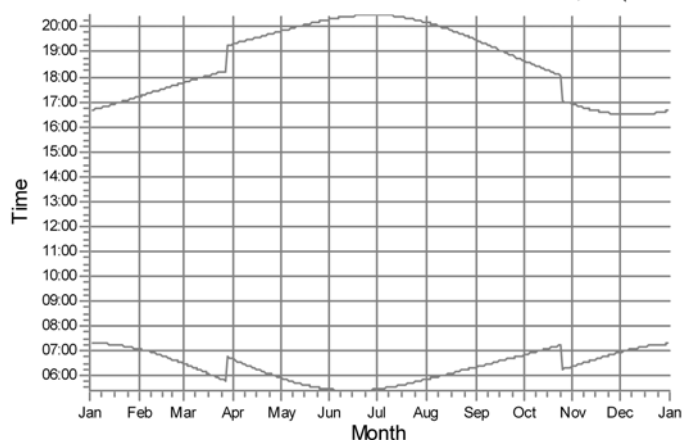
TS-04: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



TS-05: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



TS-06: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



Shadow receptors

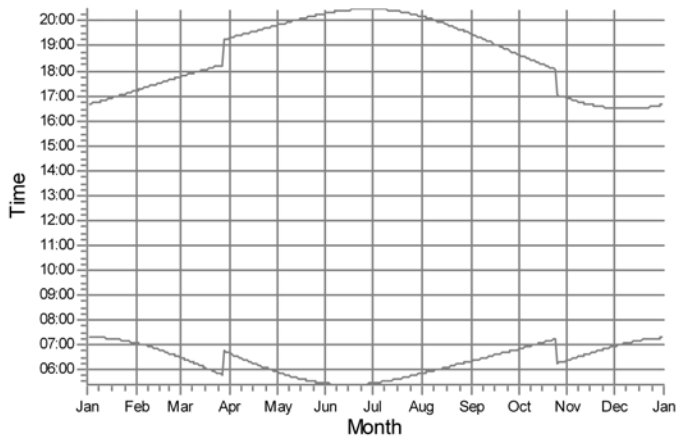


CAP_01: CAP_1

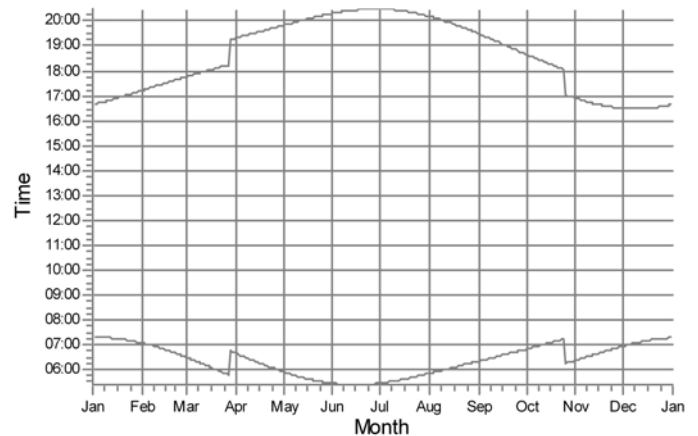
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

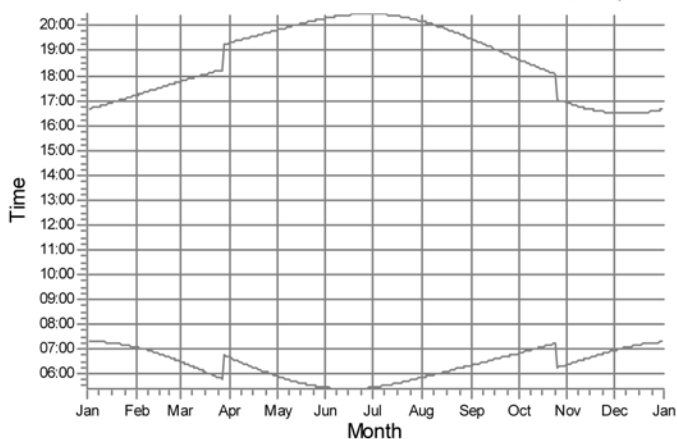
TS-07: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



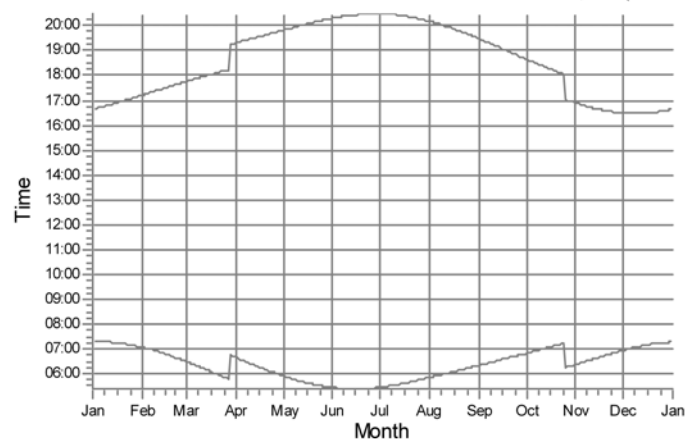
TS-08: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



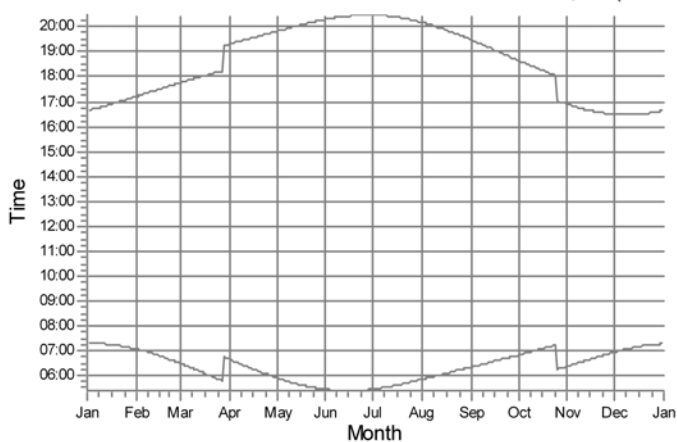
TS-09: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



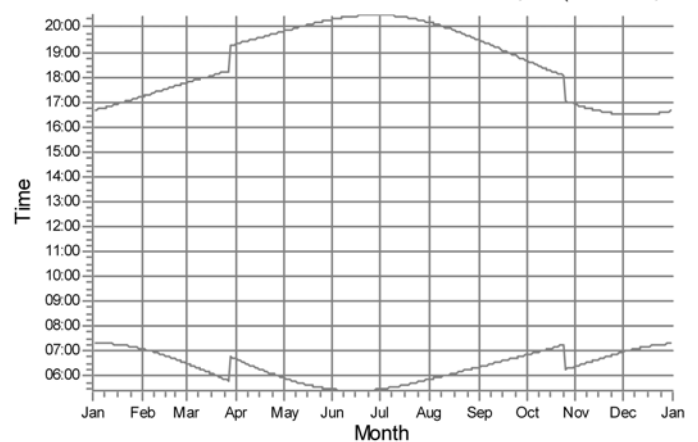
TS-10: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



TS-11: Siemens Gamesa SG 6.0-170 6200 170.0 !O! hub: 135,0 m (TOT: 2



EDPr 1: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m

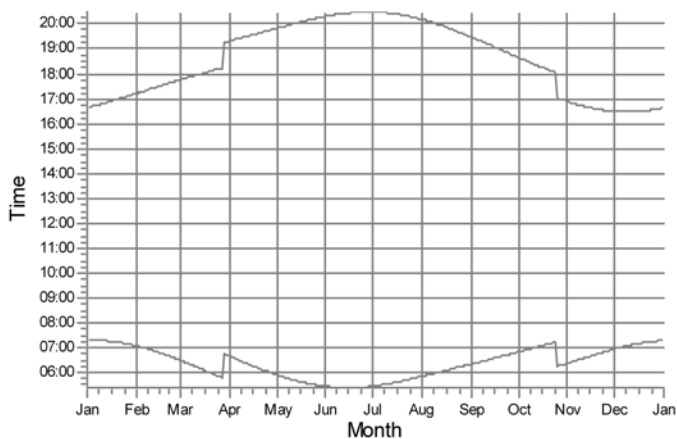


Shadow receptors

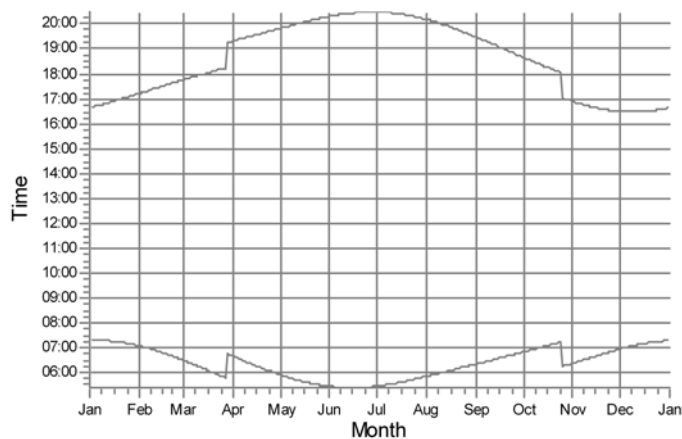
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

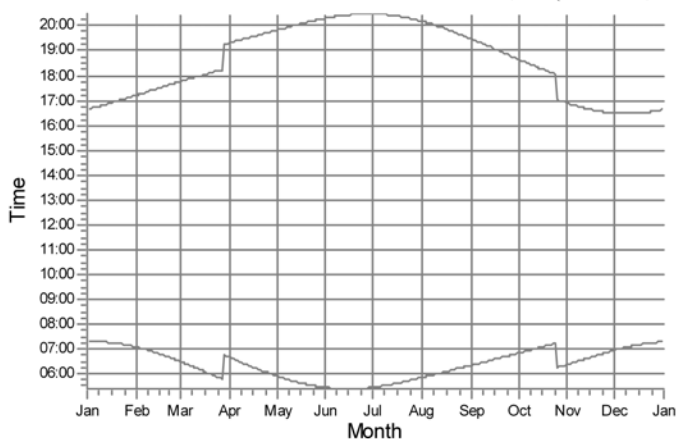
EDPr 2: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



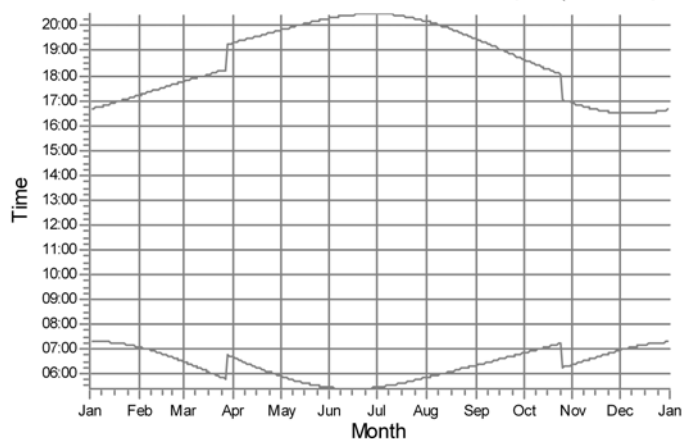
EDPr 3: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



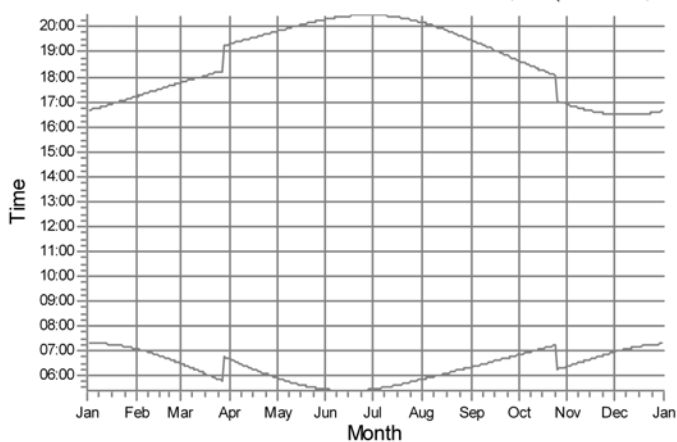
EDPr 4: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



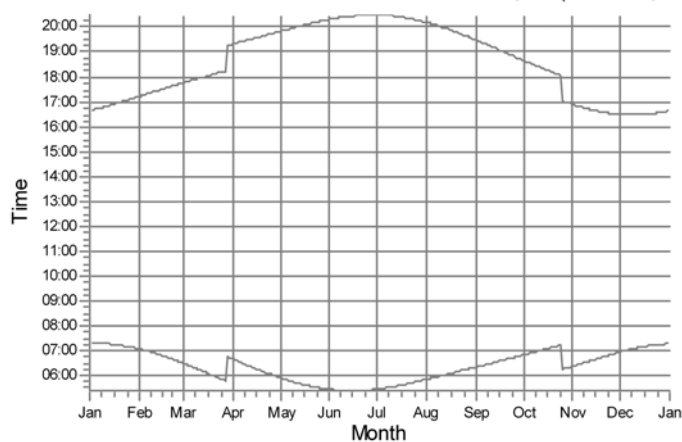
EDPr 5: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



EDPr 6: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



EDPr 7: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)

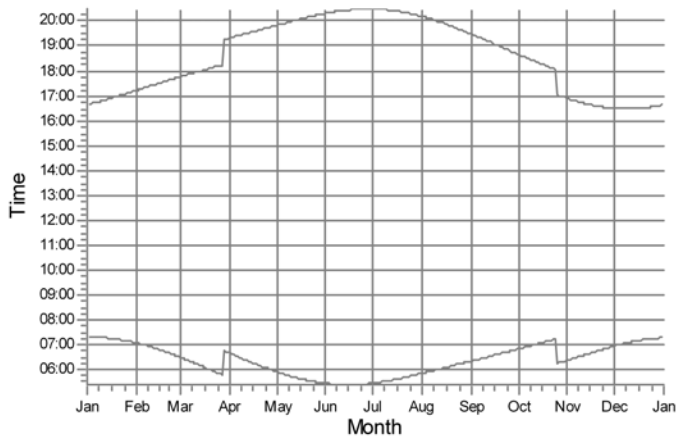


Shadow receptors

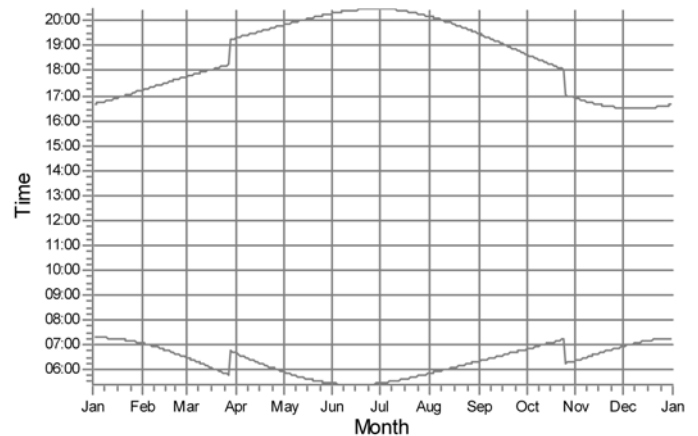
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

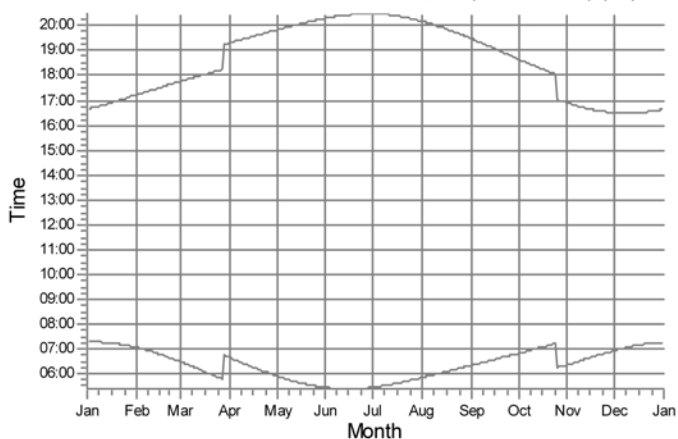
EDPr 8: NORDEX N149/4.0-4.5 4500 149.0 !O! hub: 105,0 m (TOT: 179,5 m)



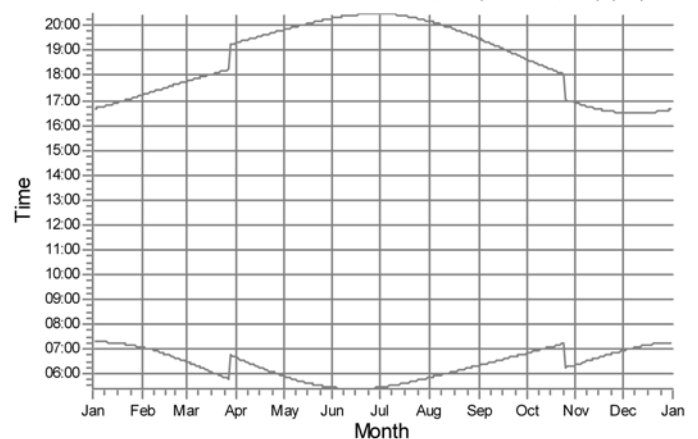
EGP 01: VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (31)



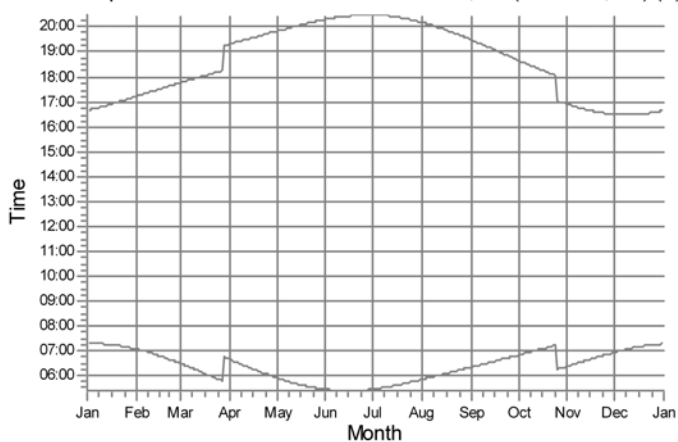
EGP 02: VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (32)



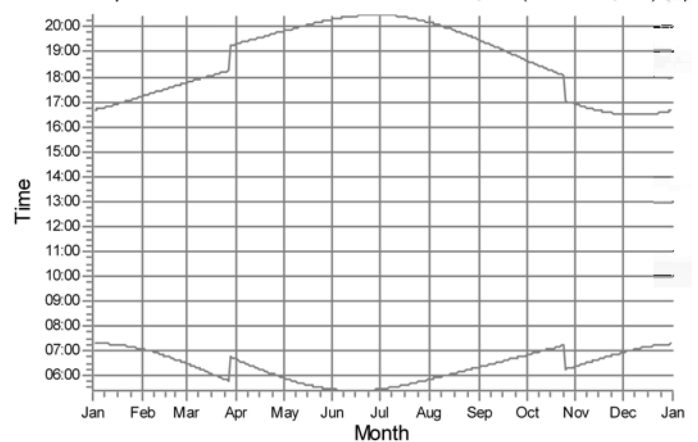
EGP 03: VESTAS V52 850 52.0 !O! hub: 65,0 m (TOT: 91,0 m) (33)



PLT 01: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1)



PLT 02: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (2)

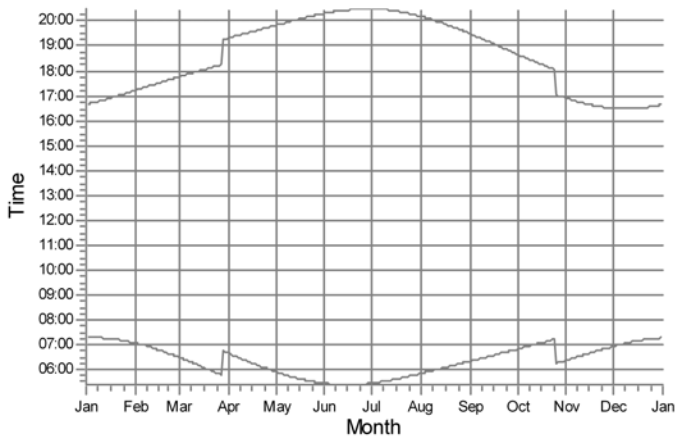


Shadow receptors

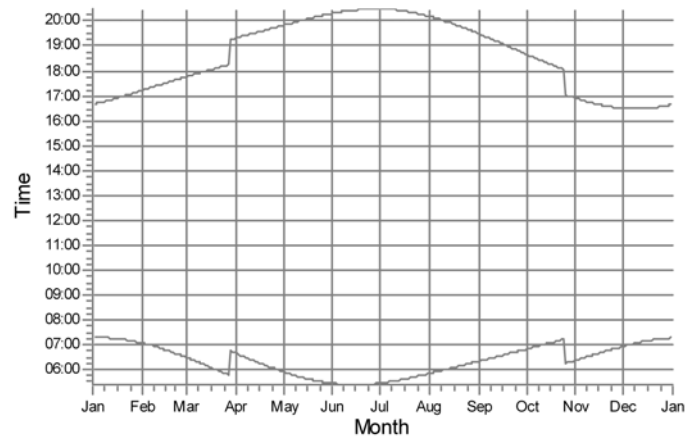
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

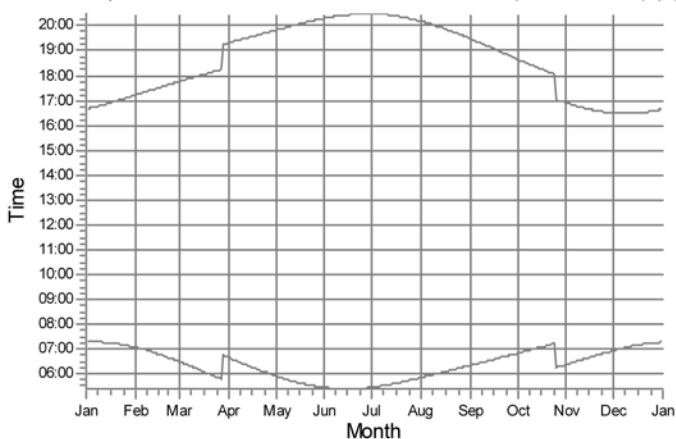
PLT 03: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (3)



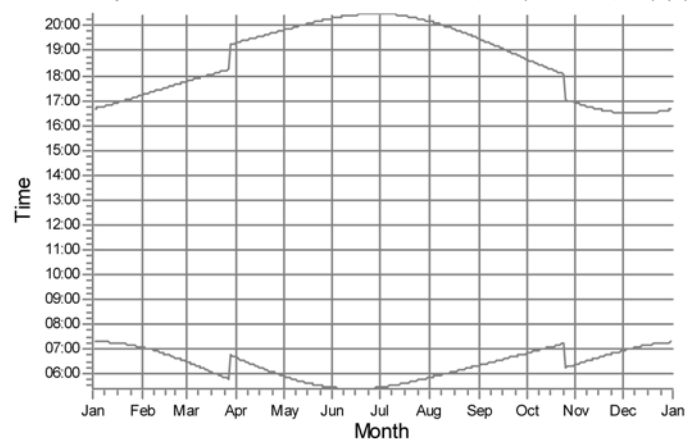
PLT 04: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (4)



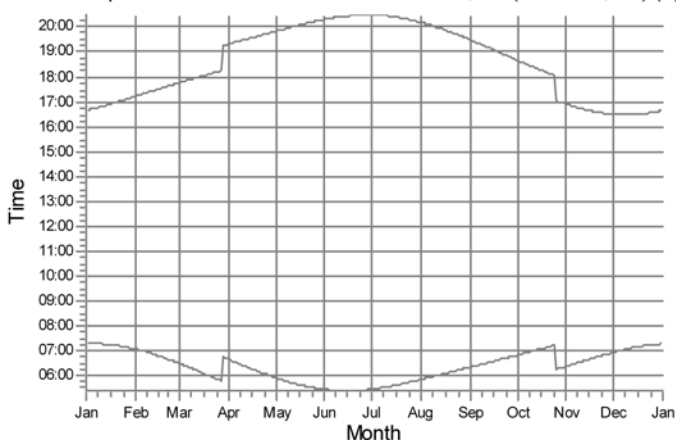
PLT 05: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (5)



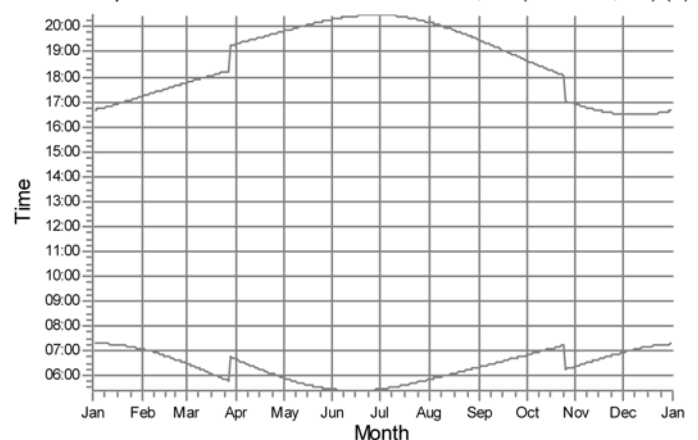
PLT 06: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (6)



PLT 07: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (7)



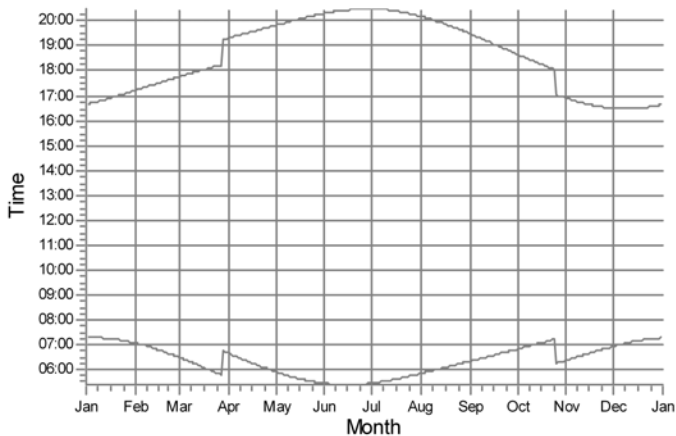
PLT 08: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (8)



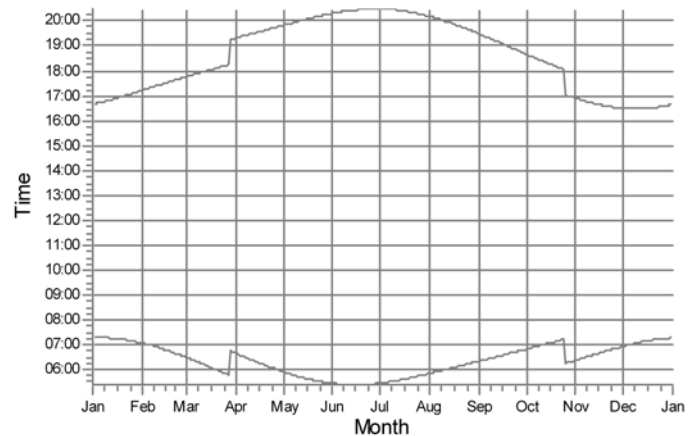
Shadow receptors

SHADOW - Calendar per WTG, graphical

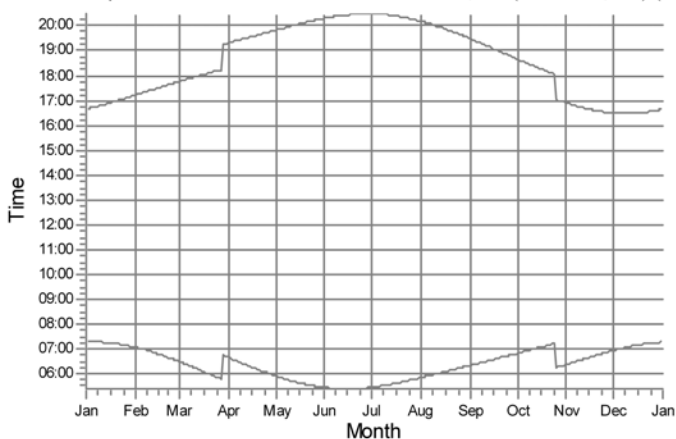
PLT 09: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (9)



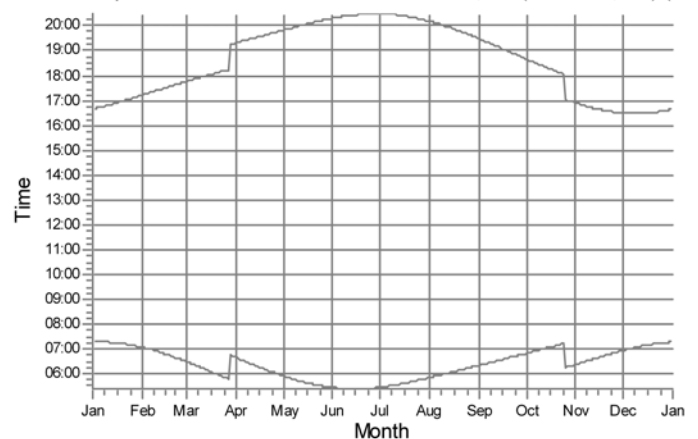
PLT 10: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (10)



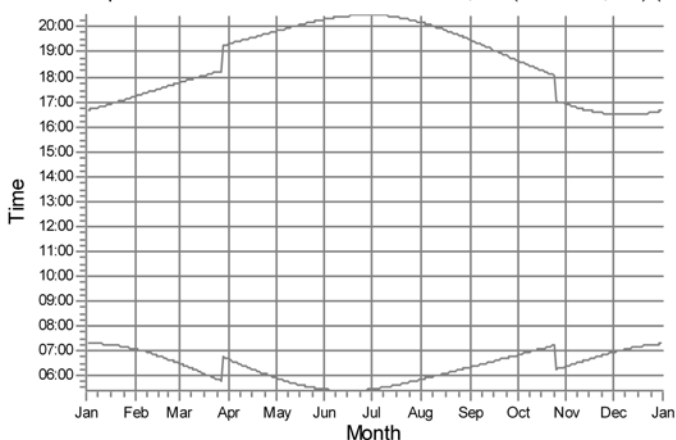
PLT 11: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (11)



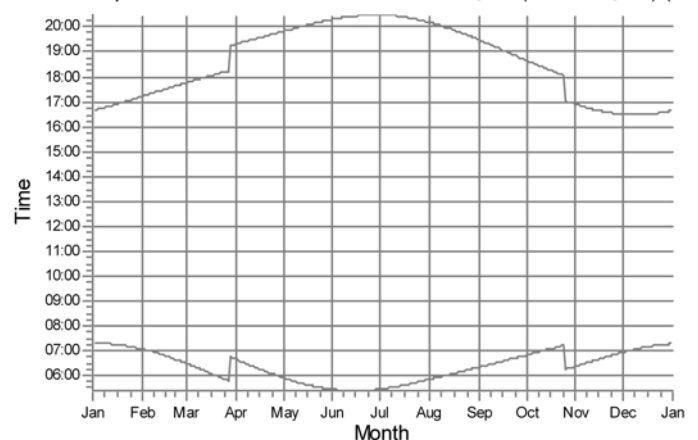
PLT 12: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (12)



PLT 13: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (13)



PLT 14: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (14)

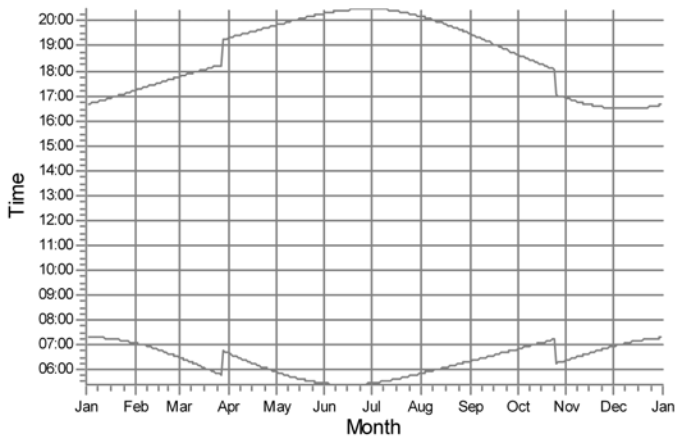


Shadow receptors

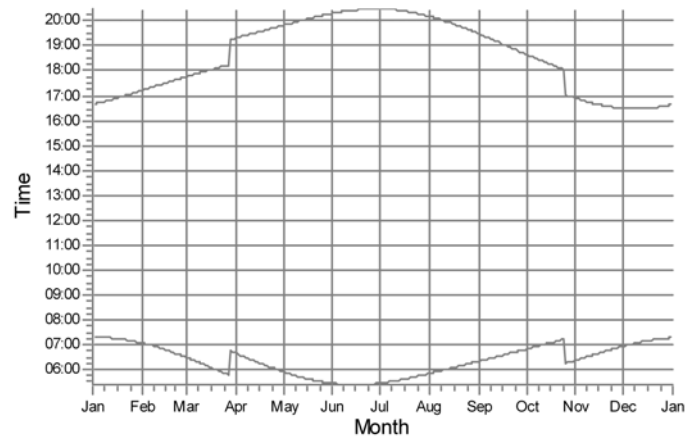
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

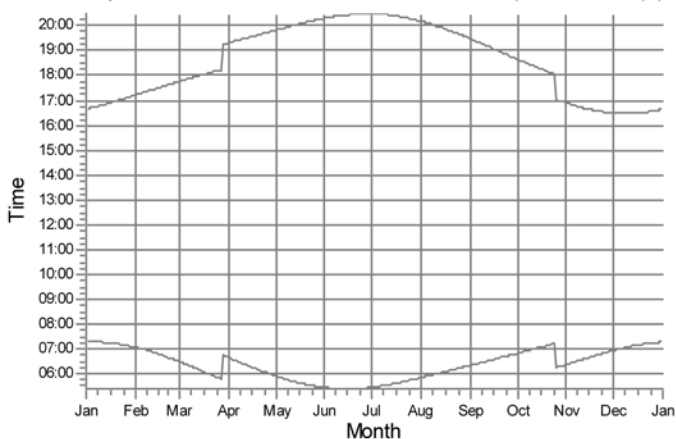
PLT 15: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1E



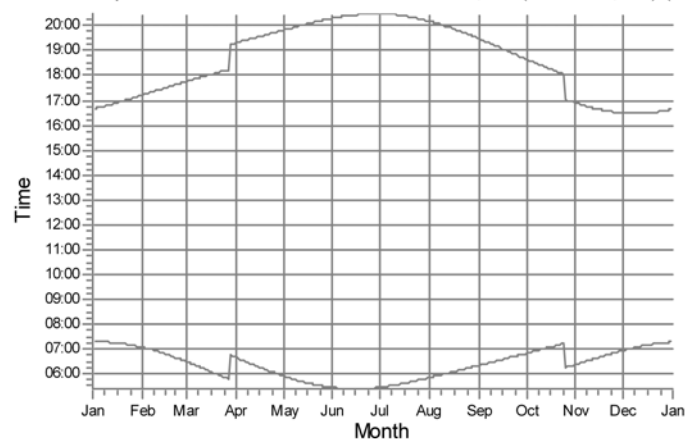
PLT 16: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1E



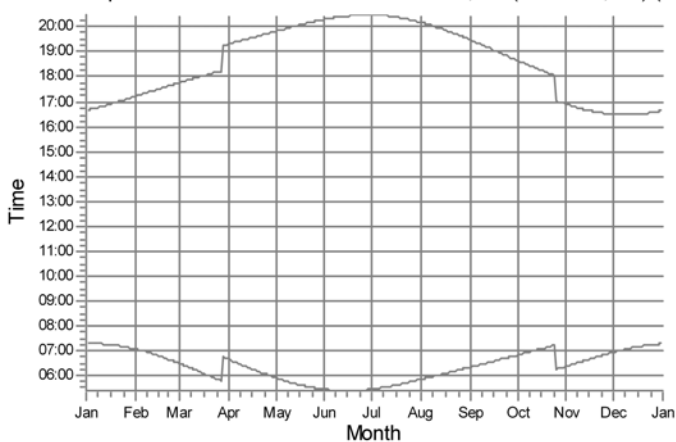
PLT 17: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1E



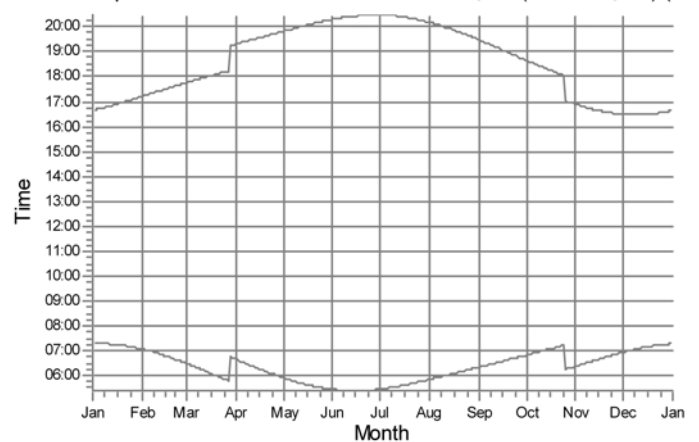
PLT 18: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1E



PLT 19: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (1E



PLT 20: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (2C

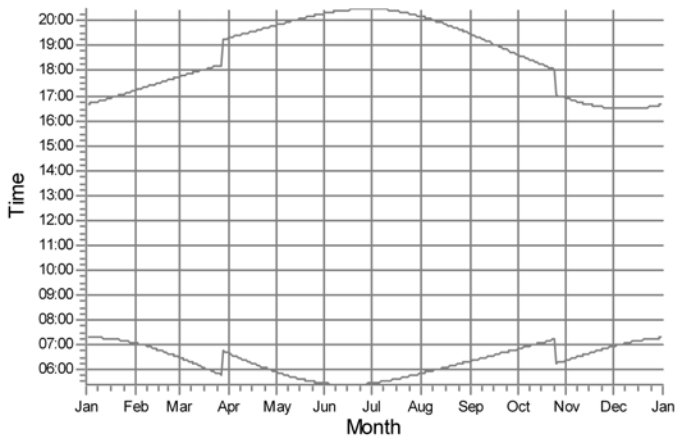


Shadow receptors

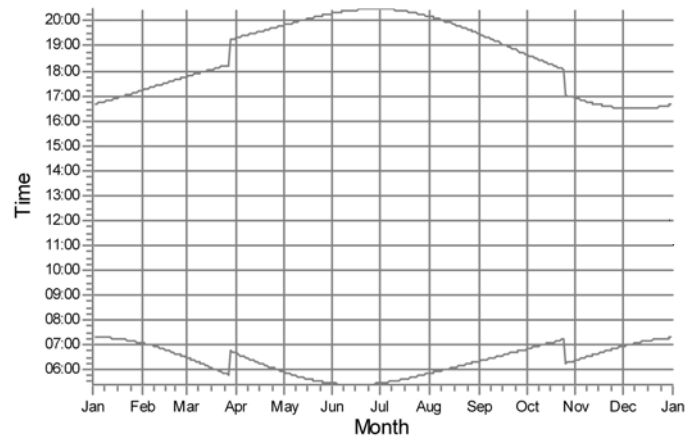
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

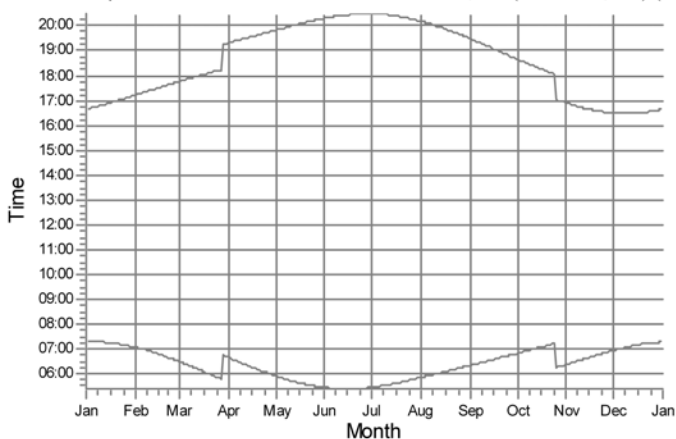
PLT 21: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (21)



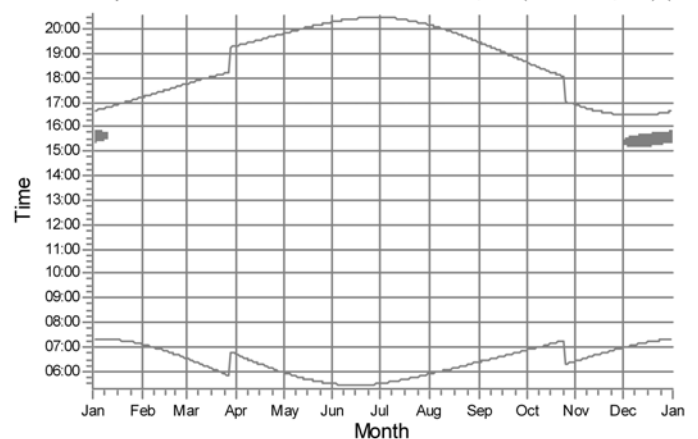
PLT 22: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (22)



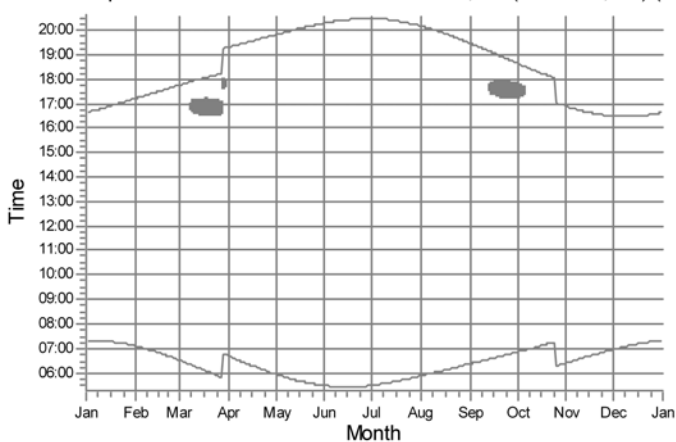
PLT 23: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (23)



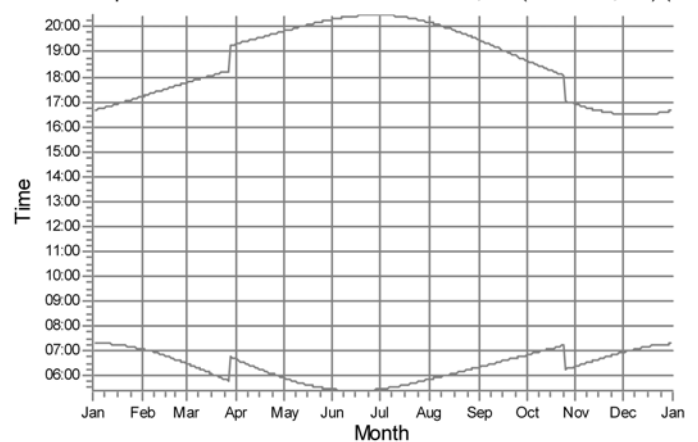
PLT 24: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (24)



PLT 25: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (25)



PLT 26: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (26)



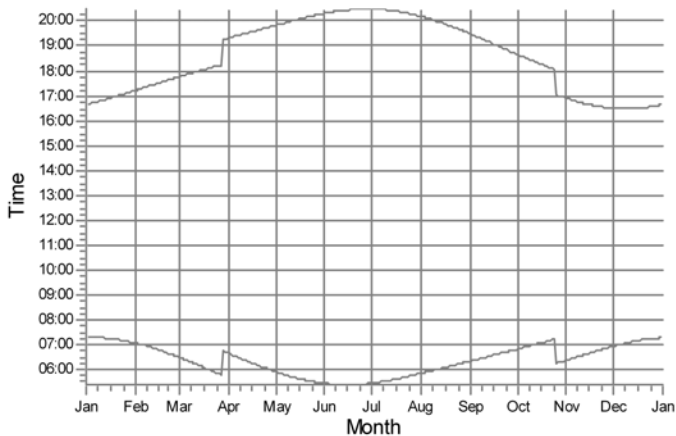
Shadow receptors



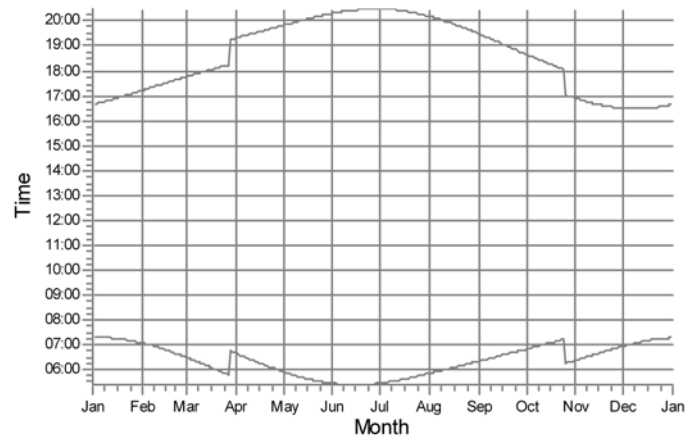
CAP_04: CAP_4

SHADOW - Calendar per WTG, graphical

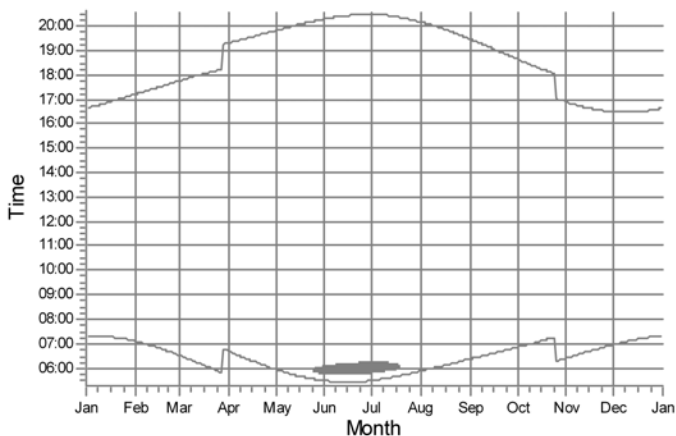
PLT 27: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (27)



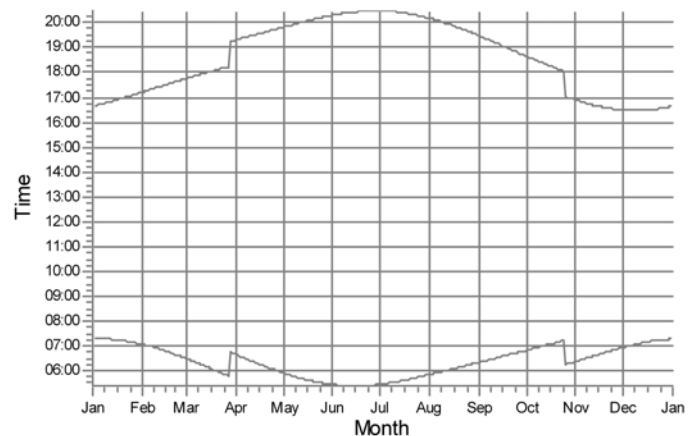
PLT 28: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (28)



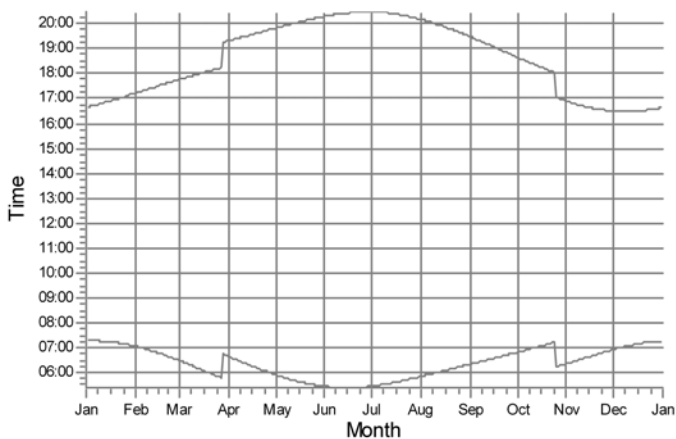
PLT 29: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (29)



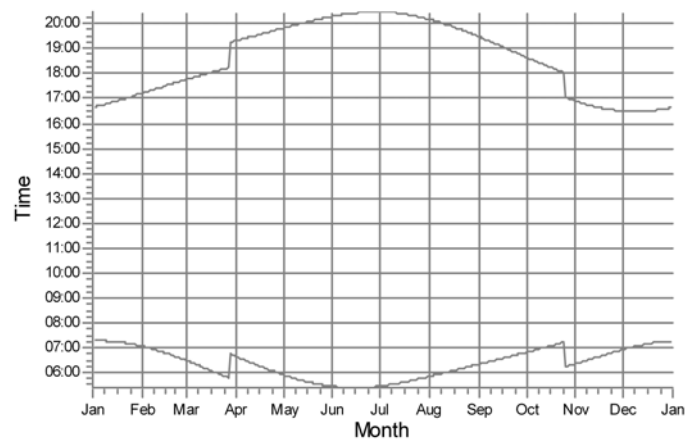
PLT 30: REpower MM 100 2000 100.0 !O! hub: 100,0 m (TOT: 150,0 m) (30)



RO 01: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (34)



RO 02: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (35)



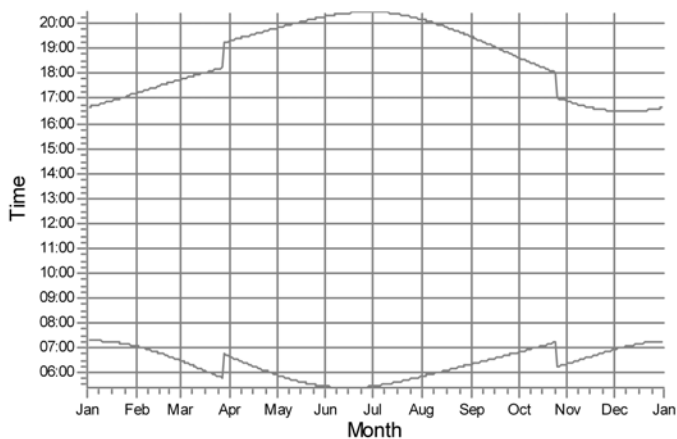
Shadow receptors

CAP_04: CAP_4

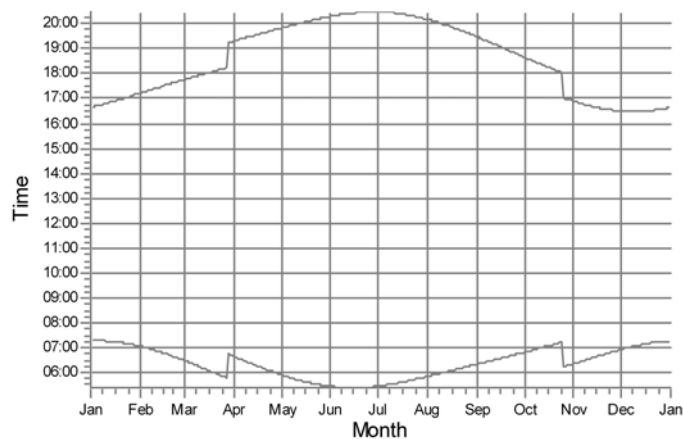
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

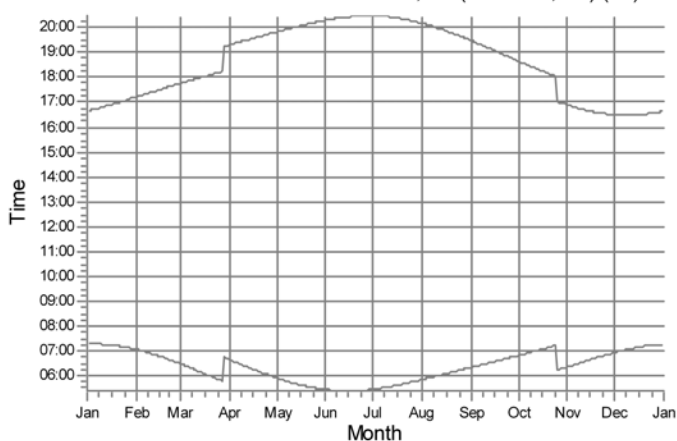
RO 03: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (36)



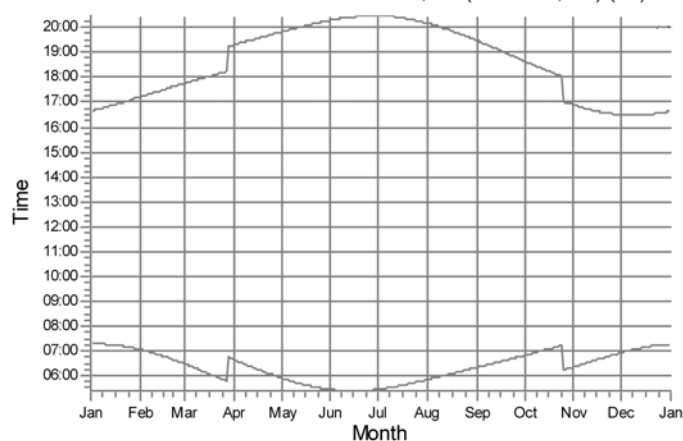
RO 04: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (37)



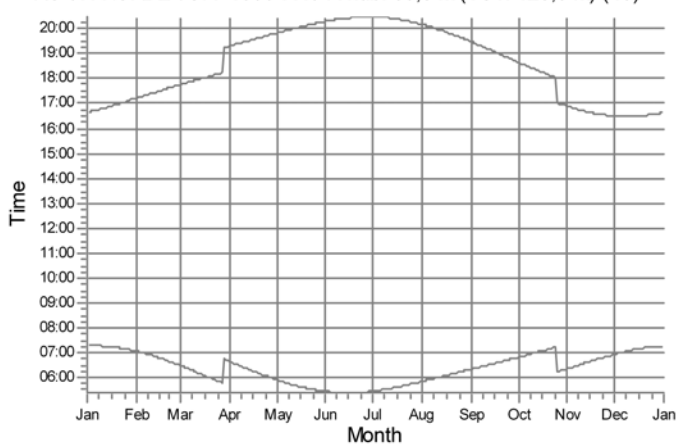
RO 05: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (38)



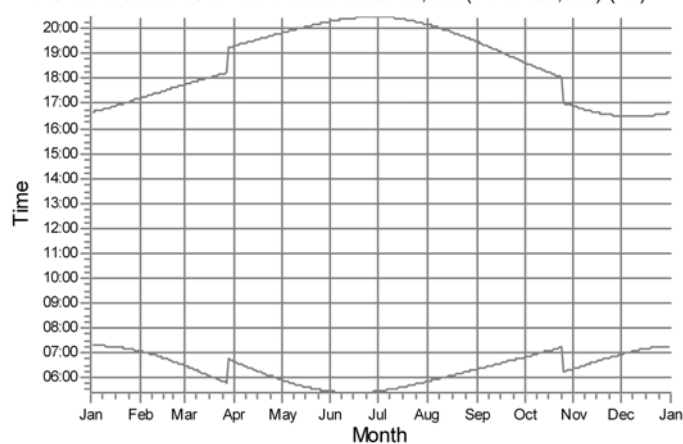
RO 06: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (39)



RO 07: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (40)



RO 08: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (41)

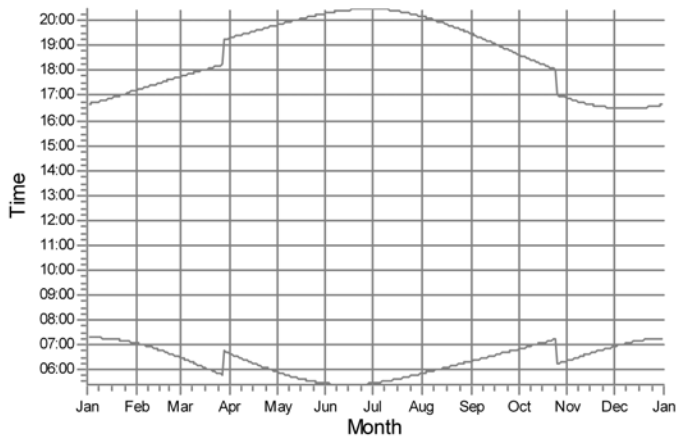


Shadow receptors

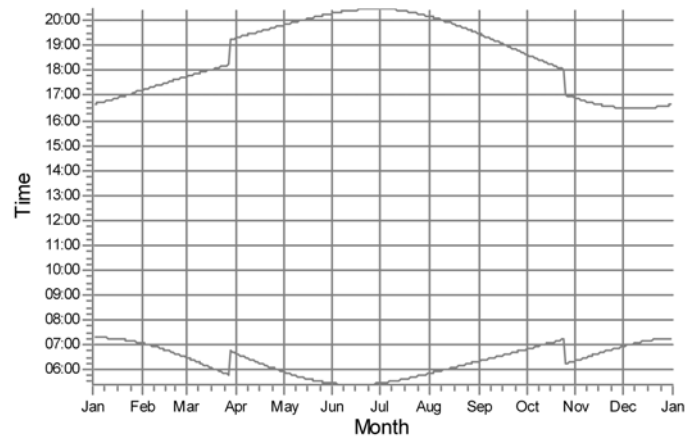
L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

SHADOW - Calendar per WTG, graphical

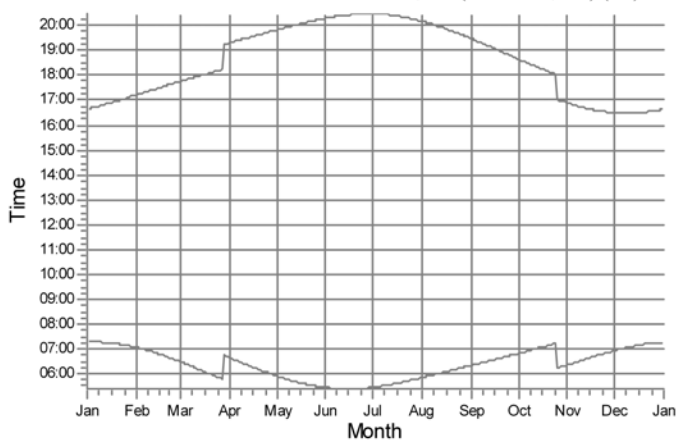
RO 09: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (42)



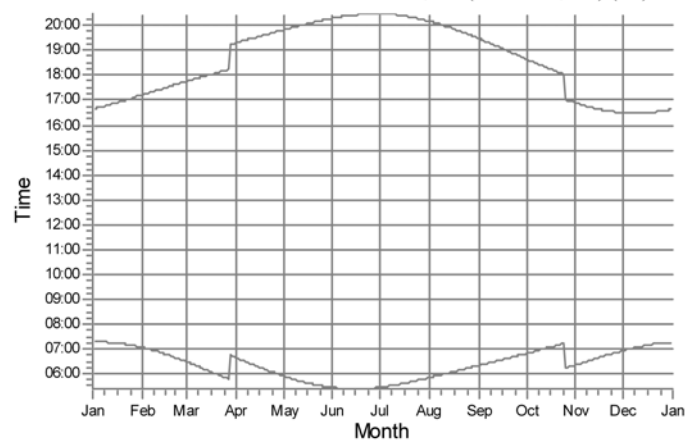
RO 10: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (43)



RO 11: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (44)



RO 12: NORDEX S77 1500 77.0 !-! hub: 85,0 m (TOT: 123,5 m) (45)



Shadow receptors

Project:

WF Tursi Sant'Arcangelo

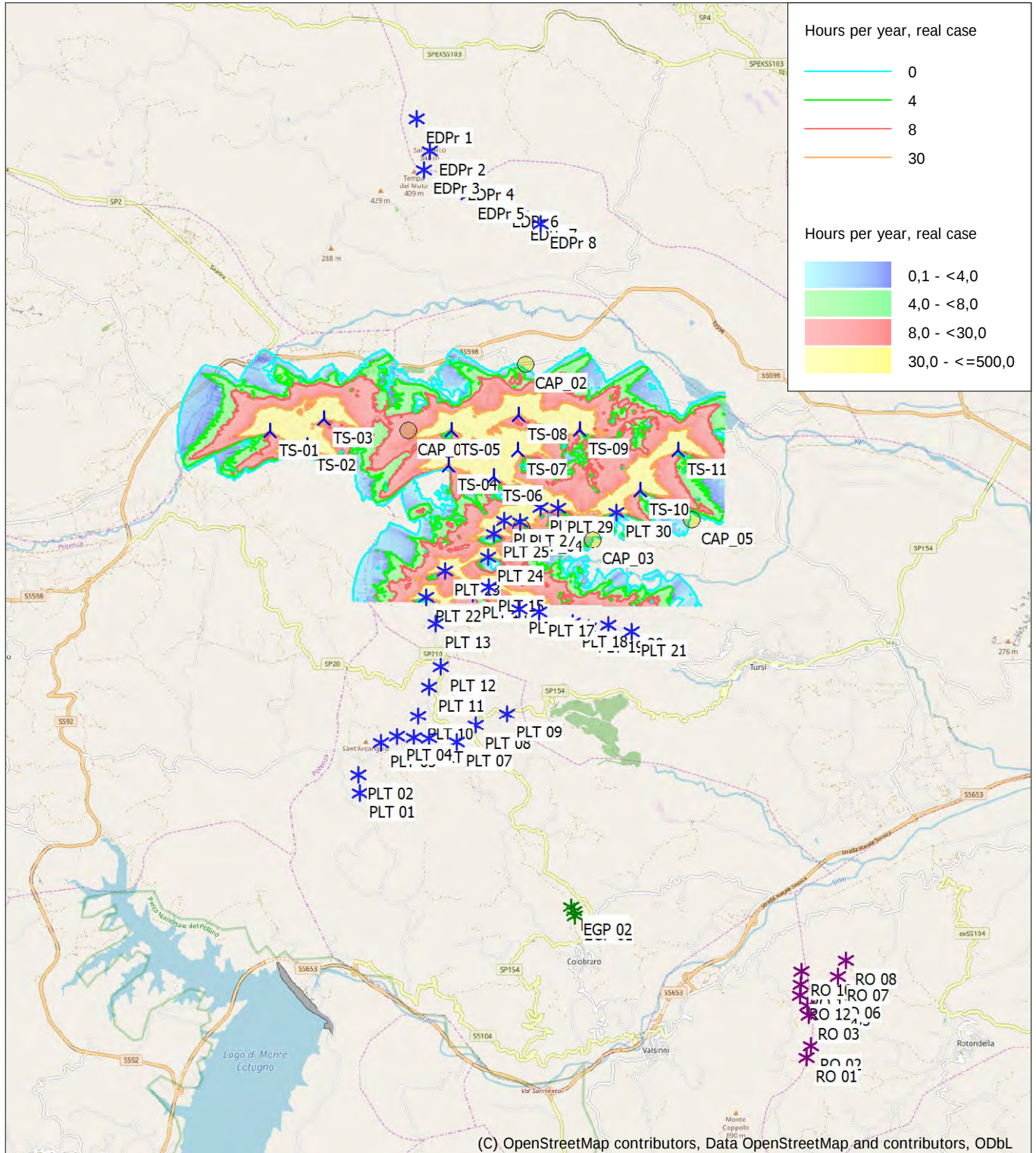
Description:

L' impianto eolico presenta una potenza nominale totale in immissione pari a 101 MWp ed è costituito da n. 11 aerogeneratori di potenza nominale pari a 6 MWp, con altezza torre pari a 135 m e rotore pari a 170 m, e un sistema di accumulo di energia (BESS, Battery Energy Storage System) di potenza pari a 35 MWp.

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SHADOW - Map



0 2,5 5 7,5 10km

Map: EMD OpenStreetMap, Print scale 1:125.000, Map center Geo WGS84 East: 16,405656° E North: 40,260640° N
 New WTG Existing WTG Shadow receptor
 Flicker map level: DTM
 Time step: 4 minutes, Day step: 14 days, Map resolution: 30 m, Visibility resolution: 15 m, Eye height: 1,5 m