

19_18_EO_ENE_AU_RE_23	LUGLIO 2020	CALCOLI PRELIMINARI DELLE STRUTTURE	Dott. Egidio De Padova	Arch. Paola Pastore	Ing. Leonardo Filotico
N. ELABORATO	DATA EMISSIONE	DESCRIZIONE	ESEGUITO	CONTROLLATO	APPROVATO

**OGGETTO:**  
 Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

**TITOLO:**  
**BCT90A2\_CalcoliPrelStrutture**

**COMMITTENTE:**  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 29001:2017  
 Certificate No. Q28 Certificate No. E81 Certificate No. T21

P.IVA: 02658050733

**ORDINE DEGLI INGEGNERI**  
 della Provincia di **TABARNO**  
 Dott. Ing.  
**FILOTICO Leonardo**  
 N. 1812

**NOME**  
 19\_18\_EO\_ENE\_AU\_RE\_22

SOSTITUISCE:  
 SOSTITUITO DA:  
 CARTA: A4

**SCALA:** **ELAB.**

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## 1 PREMESSA

Questo documento ha lo scopo di illustrare il progetto definitivo delle strutture di fondazione per l'impianto di generazione da fonte eolica, sito nei Comuni di Avetrana (TA), Manduria (TA), Torre Santa Susanna (BR) ed Erchie (BR). Il progetto del parco eolico in *Contrada Sparpagliata, Donne Masi e Tostini*, prevede la realizzazione di 19 aerogeneratori, ciascuno avente un rotore di 170 m collegati a generatori elettrici della potenza nominale cadauno di 6,00 MW con altezza mozzo di 115 m misurata dal piano campagna all'asse del rotore.

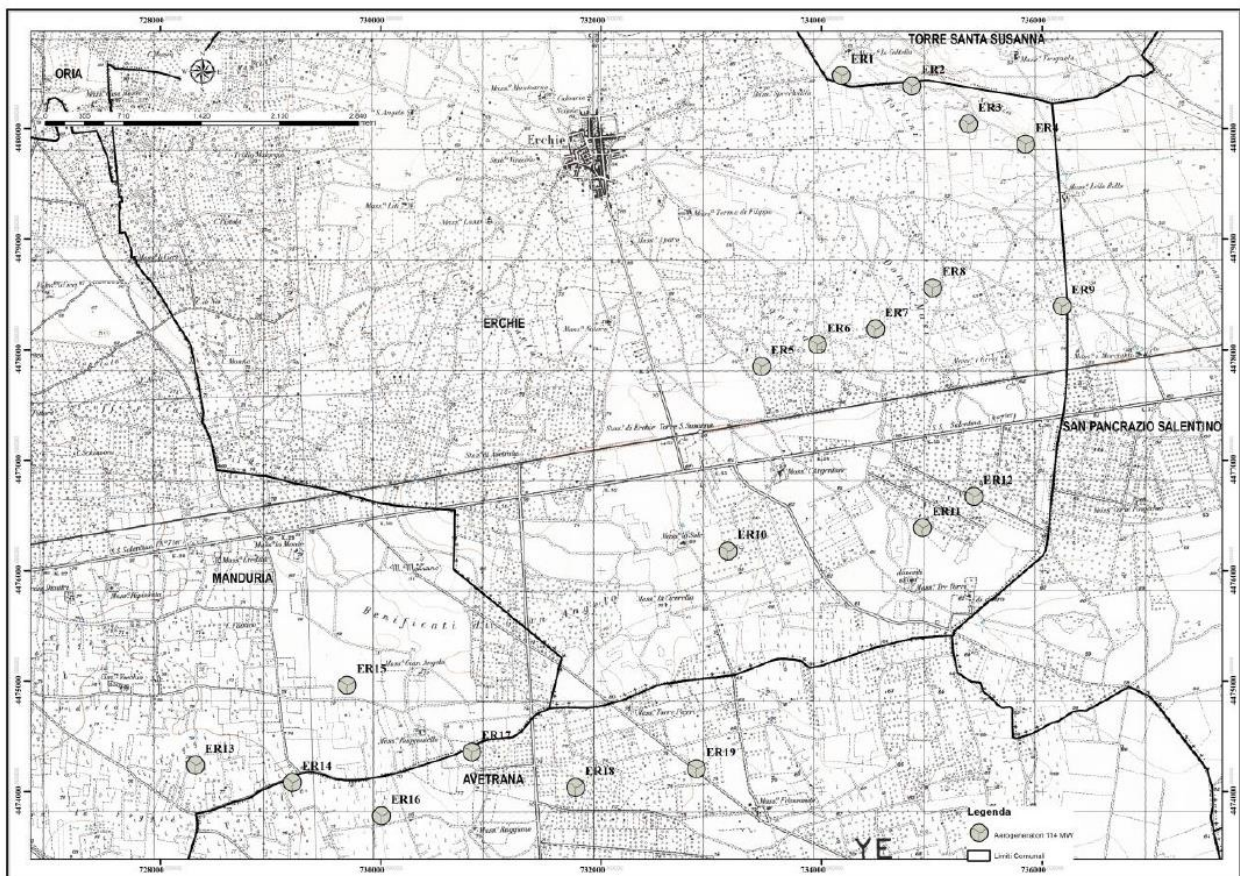


Figura 1. Inquadramento su IGM 1:25000 del Layout

**Si precisa preliminarmente che i carichi riguardanti il peso della navicella e l'azione del vento su di essa sono determinati sulla base dell'esperienza di macchine simili già installate e di un modello preso come riferimento: in fase esecutiva le analisi dovranno tener conto delle attrezzature che effettivamente saranno installate (modello delle macchine e relative azioni passive [peso] e attive [vento]).**

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

## 2 DATI DI INPUT

Viene di seguito illustrato il sistema di riferimento e alcune specifiche tecniche della testa dell'aerogeneratore utilizzato per la determinazione e la descrizione delle azione agenti sull'aerogeneratore.

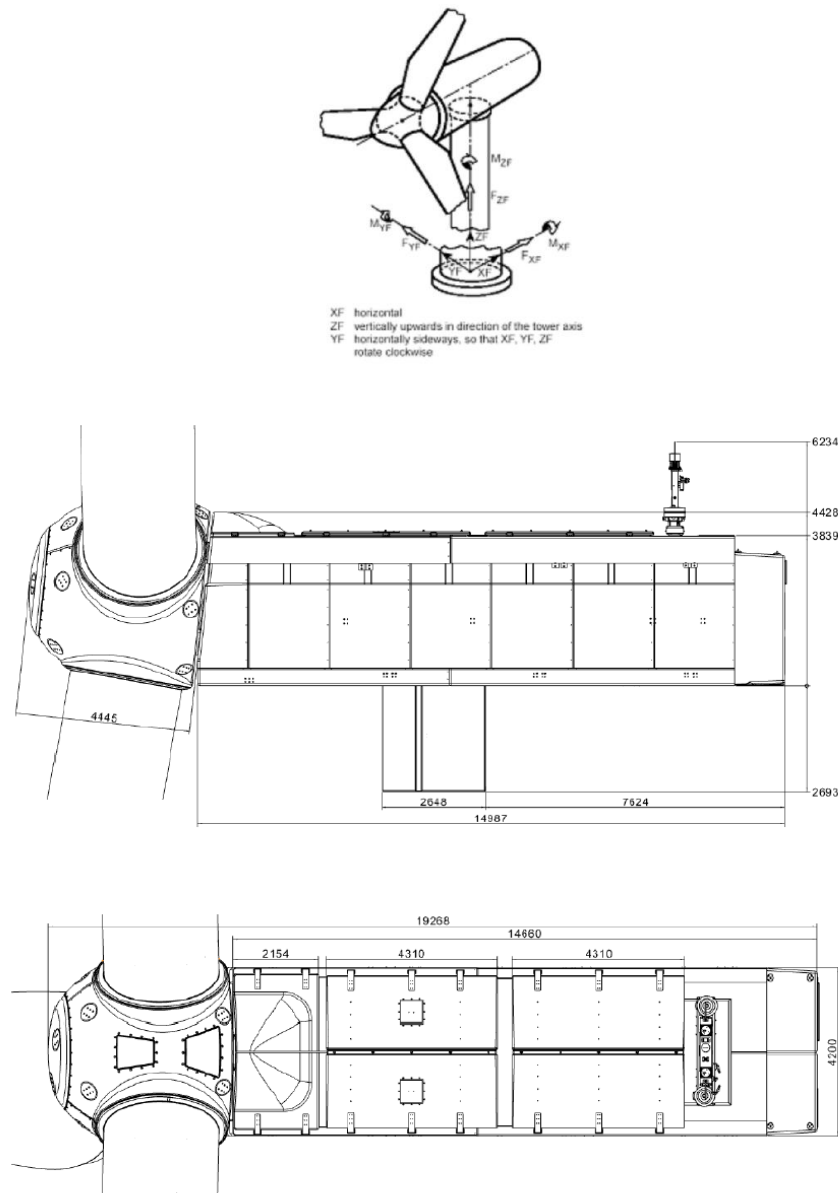


Figura 2. Sistema di riferimento e specifiche navicella

Tabella 1. Dati geometrici della torre

	Tronco 1	Tronco 2	Tronco 3	Tronco 4	Tronco 5
Diametro esterno superiore (m)	4.700	4.436	4.427	4.021	3.503
Diametro esterno inferiore (m)	4.700	4.700	4.436	4.427	4.021
Altezza tronco (m)	13.564	18.200	23.800	26.880	29.970
Peso totale (T)	84,958	84,328	84,548	71,771	63,863
Volume (CBM)	228	363	470	584	498

In accordo con le caratteristiche del territorio saranno valutati i carichi estremi per l'analisi preliminare delle azioni in fondazione.

**Si sottolinea che tali valori saranno oggetto di revisione nei successivi e più approfonditi livelli di progettazione.**

## 2.1 CARICHI

### 2.1.1 AZIONE DEL VENTO SULLA TORRE

L'azione dominante per questa tipologia di costruzione è rappresentata dalla spinta del vento. Il calcolo è stato effettuato in accordo a quanto specificato dalle Norme tecniche per le costruzioni del D.M. 17 gennaio 2018.

#### VENTO:

Si riportano i dati inerenti il calcolo dell'azione del vento

- Zona vento = 3
- Velocità base della zona,  $V_{b.o} = 27$  m/s (Tab. 3.3.I)
- Altezza base della zona,  $A_o = 500$  m (Tab. 3.3.I)
- Altezza del sito,  $A_s = 68$  m
- Velocità di riferimento,  $V_b = 27,00$  m/s ( $V_b = V_{b.o}$  per  $A_s \leq A_o$ )
- Periodo di ritorno,  $T_r = 50$  anni

- $Cr = 1$  per  $Tr = 50$  anni
- Velocità riferita al periodo di ritorno di progetto,  $V_r = V_b Cr = 27,00$  m/s
- Classe di rugosità del terreno: B
- [Aree urbane (non di classe A), suburbane, industriali e boschive]
- Esposizione: Cat. III - Entroterra fino a 30 km dal mare
- ( $K_r = 0,20$ ;  $Z_o = 0,10$  m;  $Z_{min} = 5$  m)
- Pressione cinetica di riferimento,  $q_b = 46$  daN/mq

Tabella 2. Sintesi di calcolo delle azioni agenti in corrispondenza dei conci della torre

<b>VENTO ERCHIE (BR)-MANDURIA (TA)-AVETRANA (TA)-T.S.SUSANNA (BR)</b>						
ELEMENTO	H	z	d	Ce(z)	p [daN/mq]	Fyi [daN]
TRONCO 1	0		4,7	1,71	78	<b>0</b>
TRONCO 1	13,564	13,564	4,7	2,34	107	<b>6821,3356</b>
TRONCO 2	18,2	0	4,7	2,54	116	<b>9922,64</b>
TRONCO 3	23,8	0	4,436	2,73	124	<b>13091,5232</b>
TRONCO 4	26,88	0	4,427	2,82	128	<b>15231,71328</b>
TRONCO 5	29,97	0	4,021	2,9	132	<b>15907,23684</b>

Le azioni  $F_{yi}$  saranno applicate ad ogni singolo elemento concio nel modello generale di calcolo adottato per la definizione delle azioni alla base.

### 2.1.2 AZIONE DELLA NEVE

Il carico risultante considerato sulla navicella dovuto alla neve risulta essere di **26,48 KN**.

Normativa di riferimento: D.M. 17 gennaio 2018 - NORME TECNICHE PER LE COSTRUZIONI  
Cap. 3 - AZIONI SULLE COSTRUZIONI - Par. 3.3 e 3.4

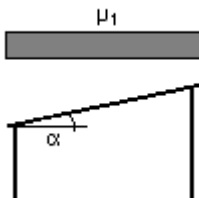


**NEVE:**

Si riportano i dati necessari per il calcolo dell'azione della neve

- Zona Neve = III
- Periodo di ritorno,  $T_r = 50$  anni
- $C_{tr} = 1$  per  $T_r = 50$  anni
- $C_e$  (coeff. di esposizione al vento) = 0,90
- Valore caratteristico del carico al suolo =  $q_{sk} C_e C_{tr} = 54$  daN/mq
- Copertura ad una falda:
- Angolo di inclinazione della falda  $\alpha = 0,0^\circ$
- Copertura piana  $W = 10.0$  m,  $L = 50.0$  m  $\Rightarrow L_c = 18.0$ ,  $C_{ef} = 1.000$
- $\gamma_1 = 0,80 \Rightarrow Q_1 = 43$  daN/mq

Schema di carico:



NEVE				
ELEMENTO	L	P	p [daN/mq]	Fz [daN]
NAVICELLA	14,66	4,2	43	2647,596

### 2.1.3 CARATTERIZZAZIONE SISMICA

Il territorio che interessa l'impianto eolico rientra nella "Zone sismica 4" "Rischio minimo". Di seguito si fornisce un quadro dettagliato con la definizione degli spettri e dei parametri sismici che caratterizzano la zona.

#### COMUNE DI ERCHIE (BR)

**Pericolosità sismica** ✕

Tipo costruzione (Art. 2.4.1)  Classe d'uso (Art. 2.4.2)

Vita Nominale di progetto Vn (anni):

Periodo di riferimento per l'azione sismica: VR= Vn\*Cu= 100.00\*2.00= 200.00 anni

SLO	81.00
SLD	63.00
SLV	10.00
SLC	5.00

SLO	120.43
SLD	201.16
SLV	1898.24
SLC	2475.00

Posizione del sito  
 Comune:   
 Longitudine   
 Latitudine   
  
 Isola:

Nodi intorno al sito

ID	Longitudine	Latitudine	Dist. sito (Km)
34586	17.7610	40.4540	2.8321
34585	17.6960	40.4560	3.8633
34807	17.6920	40.4060	5.0951
34808	17.7580	40.4040	4.2565

Parametri di pericolosità sismica

	ag (g/10)	F0 (adim)	TC*(sec)
SLO	0.33042551	2.42785570	0.35063498
SLD	0.39023403	2.52193081	0.38757396
SLV	0.68824598	2.95219974	0.51594270
SLC	0.72952206	3.00926638	0.52563707

N.B. Dal valore tabellato, per ottenere ag in (g), dividerlo per 10; per ottenerlo in m/sec<sup>2</sup>, moltiplicarlo per 0.9806

Figura 3. Pericolosità sismica

**Parametri sismici**

Categoria di sottosuolo (Art. 3.2.2)  Categoria topografica (Art. 3.2.2)

Rapporto h/H altezza pendio:  Coeff. amplif. topografica St:

Coeff. smorzamento (%)  $\xi$ :  =>  $\eta = 1.000$

Parametri spettri orizzontali e Fv

	S	TB	TC	TD	Fv	Cc	Ss
SLO	1.800	0.247	0.740	1.732	0.596	2.111	1.800
SLD	1.800	0.259	0.778	1.756	0.673	2.008	1.800
SLV	1.800	0.299	0.898	1.875	1.046	1.740	1.800
SLC	1.800	0.302	0.906	1.892	1.097	1.724	1.800

Ricalcola =>

Parametri spettri verticali

Ss	TB	TC	TD
1.000	0.050	0.150	1.000

Tipo comportamento  
 Non dissipativo  
 Dissipativo

Classe di duttilità  
 Alta (CD'A')  
 Media (CD'B')

Fattori di comportamento q (par. 7.3 NTC)

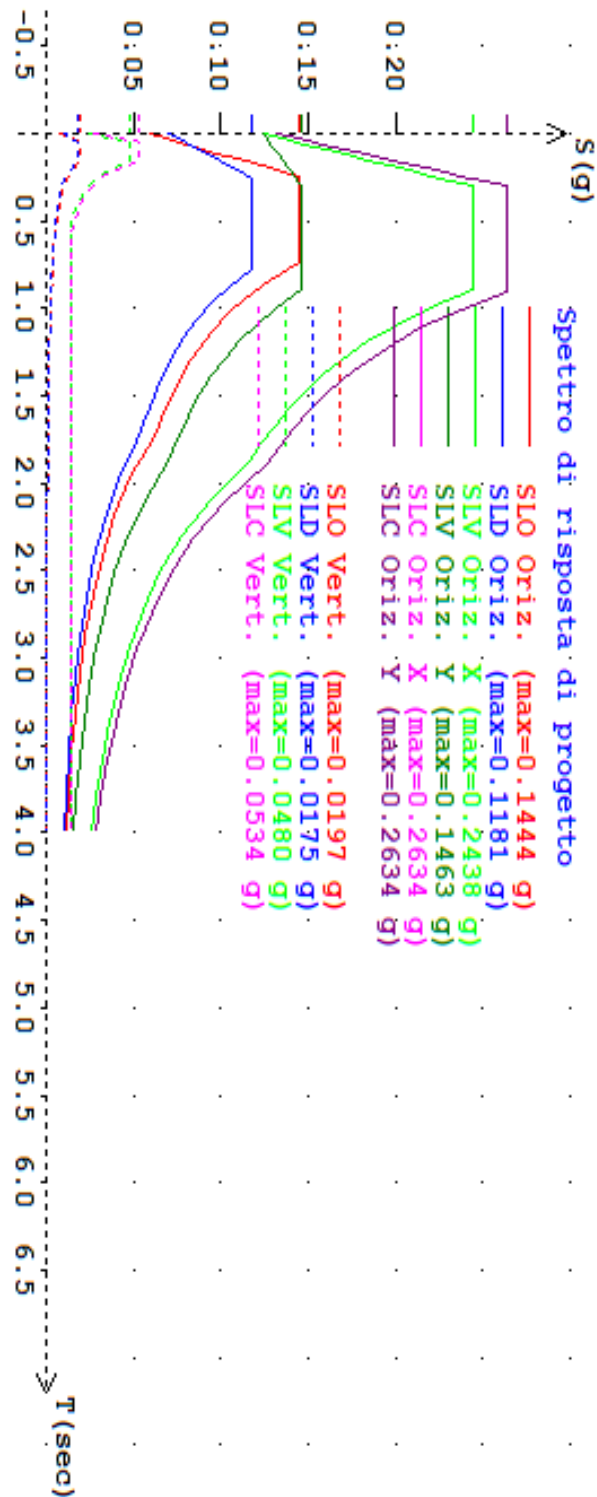
	SLO	SLD	SLV	SLC
Direz. X1	1.000	1.500	1.500	1.500
Direz. Y1	1.000	1.500	2.500	1.500
Direz. Z	1.000	1.500	1.500	1.500

Regolarità edificio  
 In pianta  
 In altezza

Calcola q per SLV

Calcola q per SLV

Figura 4. Parametri sismici



**COMUNE DI TORRE SANTA SUSANNA (BR)**

**Pericolosità sismica** ✕

Tipo costruzione (Art. 2.4.1)  Classe d'uso (Art. 2.4.2)

Vita Nominale di progetto Vn (anni):

Periodo di riferimento per l'azione sismica: VR= Vn\*Cu= 100.00\*2.00= 200.00 anni

SLO	81.00
SLD	63.00
SLV	10.00
SLC	5.00

SLO	120.43
SLD	201.16
SLV	1898.24
SLC	2475.00

Posizione del sito

Comune:

Longitudine

Latitudine

Isola:

Nodi intorno al sito

ID	Longitudine	Latitudine	Dist. sito (Km)
34364	17.7640	40.5040	4.5551
34363	17.6990	40.5060	5.6109
34585	17.6960	40.4560	4.0025
34586	17.7610	40.4540	2.2275

	ag (g/10)	F0 (adim)	TC*(sec)
SLO	0.32734152	2.41945593	0.34967520
SLD	0.38672311	2.51600725	0.38414903
SLV	0.67873445	2.94575564	0.51631272
SLC	0.71892336	3.00513484	0.52609613

N.B. Dal valore tabellato, per ottenere ag in (g), dividerlo per 10; per ottenerlo in m/sec<sup>2</sup>, moltipicarlo per 0.9806

Figura 5. Pericolosità sismica

### Parametri sismici

Categoria di sottosuolo (Art. 3.2.2)  Categoria topografica (Art. 3.2.2)

Rapporto h/H altezza pendio:  Coeff. amplif. topografica St:

Coeff. smorzamento (%)  $\xi$ :  =>  $\eta = 1.000$

Parametri spettri orizzontali e Fv

	S	TB	TC	TD	Fv	Cc	Ss
SLO	1.800	0.246	0.739	1.731	0.591	2.114	1.800
SLD	1.800	0.258	0.775	1.755	0.668	2.017	1.800
SLV	1.800	0.299	0.898	1.871	1.036	1.740	1.800
SLC	1.800	0.302	0.906	1.888	1.088	1.723	1.800

Ricalcola =>

Parametri spettri verticali

Ss	TB	TC	TD
1.000	0.050	0.150	1.000

Tipo comportamento  
 Non dissipativo  
 Dissipativo

Classe di duttilità  
 Alta (CD'A')  
 Media (CD'B')

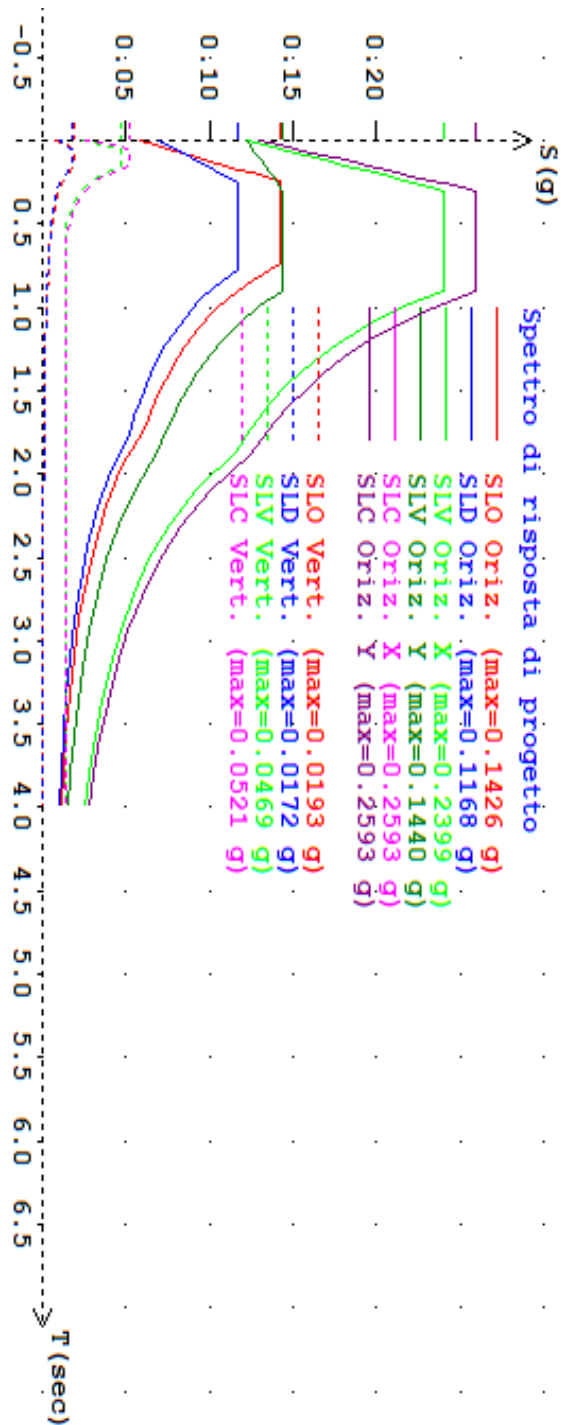
Fattori di comportamento q (par. 7.3 NTC)

	SLO	SLD	SLV	SLC
Direz. X1	1.000	1.500	1.500	1.500
Direz. Y1	1.000	1.500	2.500	1.500
Direz. Z	1.000	1.500	1.500	1.500

Regolarità edificio  
 In pianta  
 In altezza

Calcola q per SLV  
 Calcola q per SLV

Figura 6. Parametri sismici



## COMUNE DI MANDURIA (TA)

**Pericolosità sismica** ✕

Tipo costruzione (Art. 2.4.1)  Classe d'uso (Art. 2.4.2)

Vita Nominale di progetto Vn (anni):

Periodo di riferimento per l'azione sismica:  $VR = Vn * Cu = 100.00 * 2.00 = 200.00$  anni

Pvr % (Art. 3.2.1)

SLD	81.00
SLD	63.00
SLV	10.00
SLC	5.00

Periodo di ritorno Tr (anni)

SLD	120.43
SLD	201.16
SLV	1898.24
SLC	2475.00

Posizione del sito

Comune:

Longitudine

Latitudine

Isola:

Nodi intorno al sito

ID	Longitudine	Latitudine	Dist. sito (Km)
34806	17.6270	40.4090	1.0328
35028	17.6240	40.3590	4.8759
35029	17.6890	40.3560	6.8683
34807	17.6920	40.4060	4.8514

Parametri di pericolosità sismica

	ag (g/10)	F0 (adim)	TC*(sec)
SLD	0.34690606	2.48824967	0.35063498
SLD	0.40697163	2.57996054	0.38465554
SLV	0.69445198	3.06133710	0.50423819
SLC	0.73360324	3.12154962	0.52095470

N.B. Dal valore tabellato, per ottenere ag in (g), dividerlo per 10; per ottenerlo in m/sec<sup>2</sup>, moltiplicarlo per 0.9806

Figura 7. Pericolosità sismica



### Parametri sismici

Categoria di sottosuolo (Art. 3.2.2)  Categoria topografica (Art. 3.2.2)

Rapporto h/H altezza pendio:  Coeff. amplif. topografica St:

Coeff. smorzamento (%)  $\xi$ :  =>  $\eta = 1.000$

Parametri spettri orizzontali e Fv

	S	TB	TC	TD	Fv	Cc	Ss
SLO	1.800	0.247	0.740	1.739	0.626	2.111	1.800
SLD	1.800	0.258	0.775	1.763	0.703	2.015	1.800
SLV	1.800	0.296	0.887	1.878	1.089	1.760	1.800
SLC	1.800	0.301	0.902	1.893	1.141	1.732	1.800

Ricalcola =>

Parametri spettri verticali

Ss	TB	TC	TD
1.000	0.050	0.150	1.000

Tipo comportamento  
 Non dissipativo  
 Dissipativo

Classe di duttilità  
 Alta (CD'A')  
 Media (CD'B')

Fattori di comportamento q (par. 7.3 NTC)

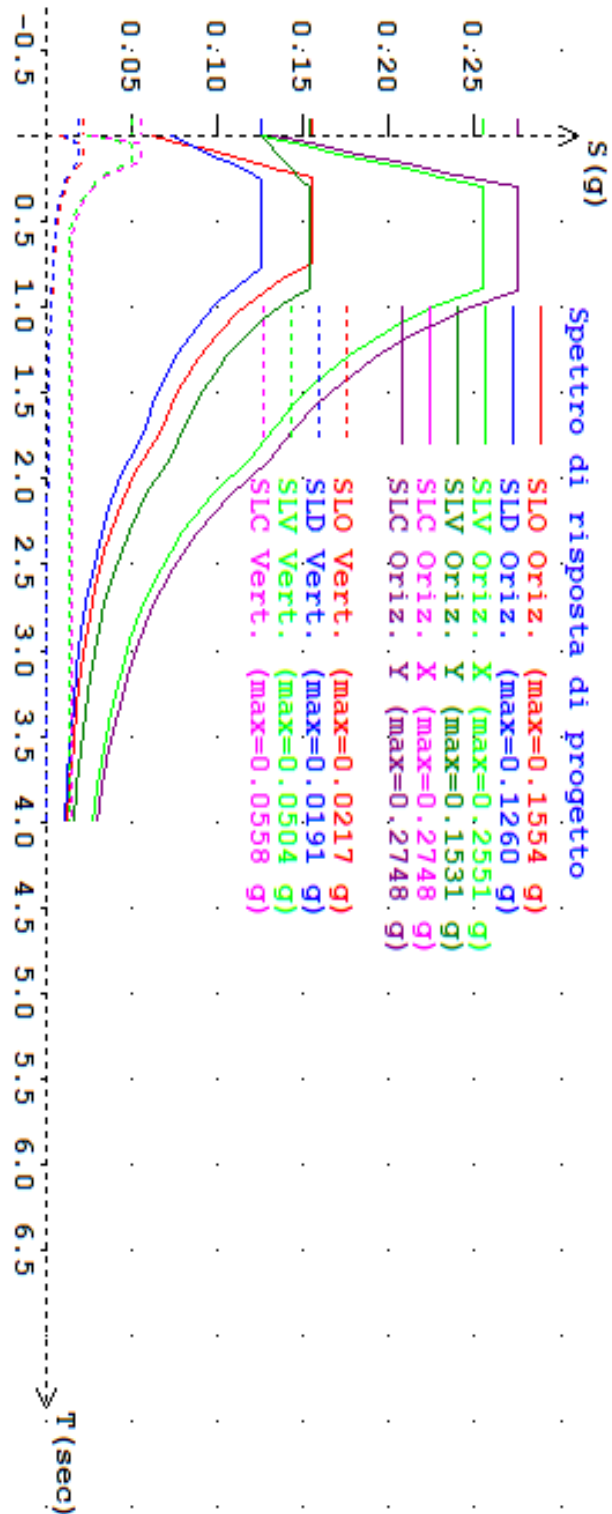
	SLD	SLD	SLV	SLC
Direz. X1	1.000	1.500	1.500	1.500
Direz. Y1	1.000	1.500	2.500	1.500
Direz. Z	1.000	1.500	1.500	1.500

Regolarità edificio  
 In pianta  
 In altezza

Calcola q per SLV

Calcola q per SLV

Figura 8. Parametri sismici



**COMUNE DI AVETRANA (TA)**

**Pericolosità sismica**

Tipo costruzione (Art. 2.4.1) **Tipo 3 (Vn >=100 anni)** Classe d'uso (Art. 2.4.2) **Classe IV**

Vita Nominale di progetto Vn (anni): **100.00**

Periodo di riferimento per l'azione sismica:  $VR = Vn * Cu = 100.00 * 2.00 = 200.00$  anni

SLD	81.00
SLD	63.00
SLV	10.00
SLC	5.00

SLD	120.43
SLD	201.16
SLV	1898.24
SLC	2475.00

Posizione del sito  
 Comune: **Avetrana - (TA)**  
 Longitudine: **17.7280**  
 Latitudine: **40.3510**  
 Isola: **Sardegna**

Nodi intorno al sito

ID	Longitudine	Latitudine	Dist. sito (Km)
35030	17.7550	40.3540	2.3143
35029	17.6890	40.3560	3.3544
35251	17.6860	40.3060	6.1469
35252	17.7510	40.3040	5.5833

Parametri di pericolosità sismica

	ag (g/10)	F0 (adim)	TC*(sec)
SLD	0.33714260	2.43615512	0.35519996
SLD	0.39837879	2.51328819	0.40726141
SLV	0.71417754	2.95031726	0.52154670
SLC	0.75816515	3.00868670	0.53167077

Ricalcola > Ok e avanti > Annulla e avanti > ?

N.B. Dal valore tabellato, per ottenere ag in (g), dividerlo per 10; per ottenerlo in m/sec<sup>2</sup>, moltipicarlo per 0.9806

Figura 9. Pericolosità sismica

### Parametri sismici

Categoria di sottosuolo (Art. 3.2.2)  Categoria topografica (Art. 3.2.2)

Rapporto h/H altezza pendio:  Coeff. amplif. topografica St:

Coeff. smorzamento (%)  $\xi$ :  =>  $\eta = 1.000$

Parametri spettri orizzontali e Fv

	S	TB	TC	TD	Fv	Cc	Ss
SLO	1.800	0.248	0.745	1.735	0.604	2.097	1.800
SLD	1.800	0.266	0.798	1.759	0.677	1.959	1.800
SLV	1.800	0.301	0.903	1.886	1.064	1.731	1.800
SLC	1.800	0.304	0.911	1.903	1.118	1.714	1.800

Ricalcola =>

Parametri spettri verticali

Ss	TB	TC	TD
1.000	0.050	0.150	1.000

Tipo comportamento

Non dissipativo

Dissipativo

Classe di duttilità

Alta (CD'A')

Media (CD'B')

Fattori di comportamento q (par. 7.3 NTC)

	SLO	SLD	SLV	SLC
Direz. X1	1.000	1.500	1.500	1.500
Direz. Y1	1.000	1.500	2.500	1.500
Direz. Z	1.000	1.500	1.500	1.500

Regolarità edificio

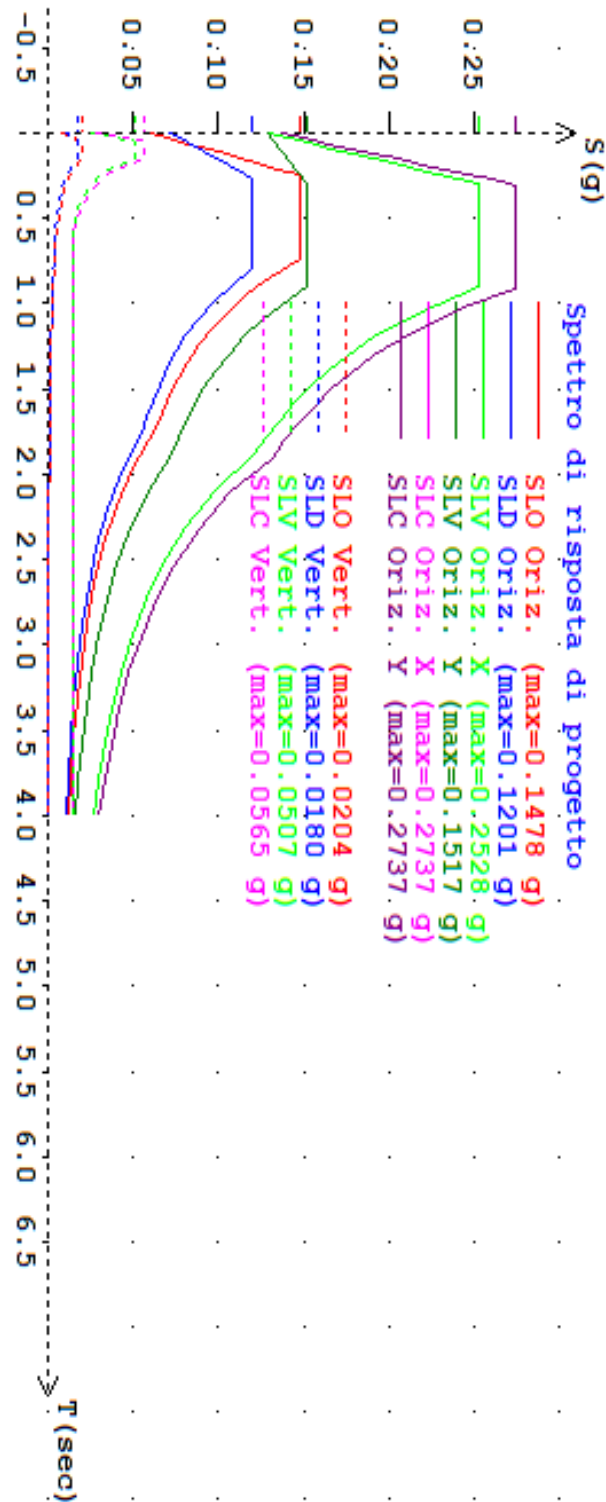
In pianta

In altezza

Calcola q per SLV

Calcola q per SLV

Figura 10. Parametri sismici



## 2.2 INFORMAZIONI GEOTECNICHE

Per tutte le informazioni inerenti la caratterizzazione geotecnica e la capacità portante dei terreni di fondazione si rimanda alla relazione geologica e alla relazione geotecnica e sismica, parte integrante della presente relazione generale di calcolo. Si riporta di seguito lo schema riassuntivo dei terreni di fondazione nell'area in oggetto.

CARATTERISTICHE FISICO-MECCANICHE DEL CALCARE	
Peso di Volume (g/cmc)	2,55 - 2,65
Peso specifico dei grani (g/cmc)	2,65 - 2,70
Porosità (%)	3
Resistenza a rottura (Kg/cmq)	800 – 1200
Angolo di attrito (°)	38
Modulo di Poisson (P)	0,275
Modulo di incompressibilità(K) (kg/cmq)	48,300

## 3 DESCRIZIONE DEL MODELLO

Il presente paragrafo ha lo scopo di illustrare le dimensioni principali che caratterizzano il modello di aerogeneratore preso come riferimento.

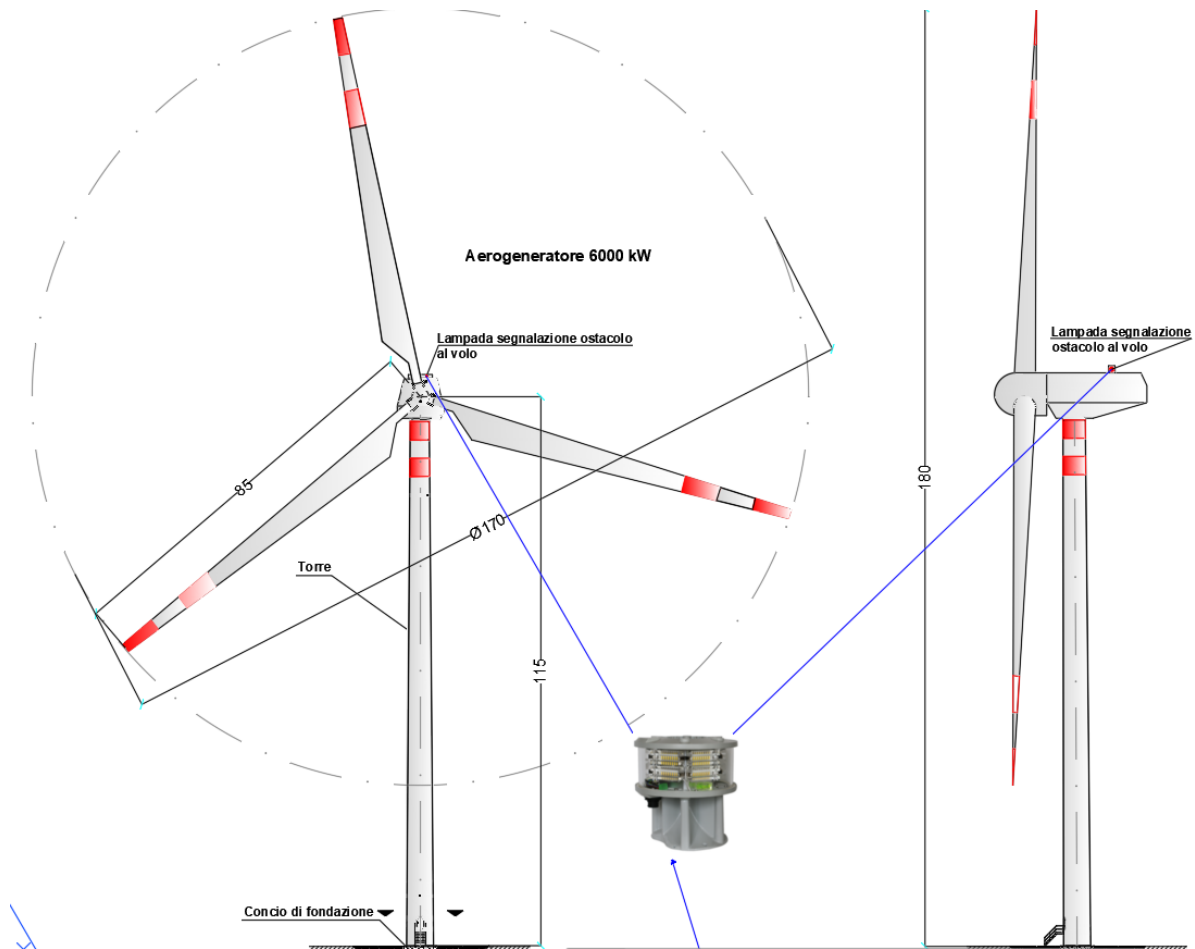


Figura 11. Dimensioni aerogeneratore

### 3.1 FONDAZIONI

Per i terreni classificati come rocce, le torri eoliche possono richiedere fondazioni di tipo diretto o indiretto costituite da:

- fondazioni dirette: plinti di base, rappresentate da plinti troncoconici, in cui viene generalmente annegata la virola di fondazione della torre in acciaio;
- fondazioni indirette: plinti di base, rappresentate da plinti troncoconici, in cui viene generalmente annegata la virola di fondazione della torre in acciaio; pali con diametro e lunghezza da determinare caso per caso in funzione delle anomalie geotecniche riscontrate nel corso delle indagini di dettaglio sviluppate per la redazione del progetto esecutivo.

Per i terreni classificati come sabbie e calcareniti, in questo caso specifico, le torri eoliche richiedono

fondazioni di tipo indiretto costituite da:

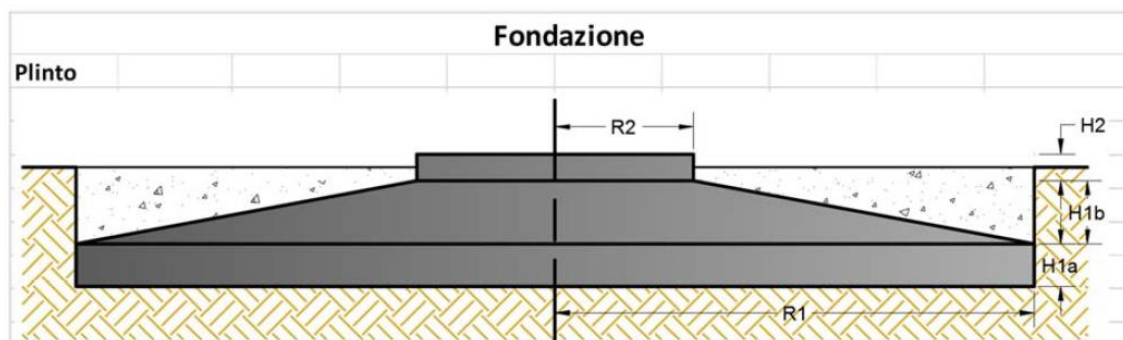
- plinti di base, rappresentate da plinti troncoconici, in cui viene generalmente annegata la virola di fondazione della torre in acciaio;
- n. 12 pali  $\phi 1000$  mm e lunghezza 30 m.

**Si osserva infine che quanto determinato nella presente relazione è frutto delle indagini geognostiche indirette condotte per la presente fase progettuale. la tipologia di fondazione in fase esecutiva può subire sostanziali modifiche in funzione delle indagini geognostiche dirette che saranno eseguite in fase di progettazione esecutiva.**

Nel caso in esame, in prima approssimazione, sarà considerata una fondazione indiretta con platea superiore del diametro di 23,2 m, altezza variabile da circa 0,5 m a circa 3,5 m (in corrispondenza dell'attacco virola – torre ibrida calcestruzzo / acciaio) e n. 12 pali di fondazione pali  $\phi 1000$  mm e lunghezza 30 m.

### 3.1.1 VERIFICA A RIBALTAMENTO

La verifica a ribaltamento rappresenta il primo passo per il predimensionamento delle strutture di fondazione delle torri eoliche. Si riporta una tabella di sintesi del calcolo effettuato.





<b>R<sub>1</sub></b>	<b>H<sub>1a</sub></b>	<b>H<sub>1b</sub></b>	<b>R<sub>2</sub></b>	<b>H<sub>2</sub></b>	$\gamma_c$	$\gamma_z$	<b>H<sub>t</sub></b>
[m]	[m]	[m]	[m]	[m]	[daN/mc]	[daN/mc]	[m]
11,6	0,5	2,9	2,35	0,1	2500	1000	3,4

<b>Volume calcestruzzo 01</b>	<b>V<sub>1</sub></b>	211,2592	[mc]
<b>Volume calcestruzzo 02</b>	<b>V<sub>2</sub></b>	507,9403	[mc]
<b>Volume calcestruzzo 03</b>	<b>V<sub>3</sub></b>	1,734065	[mc]
	<b>V<sub>TOT</sub></b>	720,9335	[mc]

<b>Momento ribaltante</b>	60000	[KNm]
<b>Momento stabilizzante</b>	209070,7	[KNm]
<b>Fattore di sicurezza</b>	3,484512	

Dove:

R1 = Raggio impronta di base del plinto

R2 = Raggio in testa al plinto, nel punto di ancoraggio con la torre

Il momento ribaltante è stato ricavato dai risultati del modello strutturale processato con opportuno software, fattorizzato per un coefficiente di sicurezza pari a 1,5.

In allegato alla presente si riporta la relazione di calcolo strutturale, comprensiva dei tabulati di calcolo, impostata e redatta secondo le modalità previste nel D.M. 17 Gennaio 2018 cap. 10 "Redazione dei progetti strutturali esecutivi e delle relazioni di calcolo", utilizzando il software PRO-SAP di 2S.I. Software e Servizi per l'Ingegneria S.r.l. , Via Garibaldi, 90, 44121 Ferrara FE (Italy) Tel. +39 0532 200091 [www.2si.it](http://www.2si.it) [info@2si.it](mailto:info@2si.it) D.M. 17/01/18 cap. 10.2 Affidabilità dei codici utilizzati <https://www.2si.it/it/prodotti/affidabilita/>



## 4 RELAZIONE DI CALCOLO STRUTTURALE

### 4.1 Premessa

La presente relazione di calcolo strutturale, in conformità al §10.1 del DM 17/01/18, è comprensiva di una descrizione generale dell'opera e dei criteri generali di analisi e verifica. Segue inoltre le indicazioni fornite al §10.2 del DM stesso per quanto concerne analisi e verifiche svolte con l'ausilio di codici di calcolo.

### 4.2 Descrizione generale dell'opera

Descrizione generale dell'opera	
Fabbricato ad uso	
Ubicazione	Comune di ERCHIE (BR), MANDURIA (TA), T.S.SUSANNA (BR), AVETRANA(TA) (Regione PUGLIA)
	Località ERCHIE (BR), MANDURIA (TA), T.S.SUSANNA (BR), AVETRANA(TA) (Regione PUGLIA)
	Longitudine 17.735, Latitudine 40.435
Numero di piani	Fuori terra
	Interrati
	le dimensioni dell'opera in pianta sono racchiuse in una circonferenza di raggio 11,6 m

Parametri della struttura			
Classe d'uso	Vita Vn [anni]	Coeff. Uso	Periodo Vr [anni]
IV	100.0	2.0	200.0

### 4.3 Quadro normativo di riferimento adottato

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito.

Nel capitolo "normativa di riferimento" è comunque presente l'elenco completo delle normative disponibili.

Progetto-verifica degli elementi	
Progetto cemento armato	D.M. 17-01-2018
Progetto acciaio	D.M. 17-01-2018
Progetto legno	D.M. 17-01-2018
Progetto muratura	D.M. 17-01-2018
Azione sismica	
Norma applicata per l'azione sismica	D.M. 17-01-2018

### 4.4 Azioni di progetto sulla costruzione

Nei capitoli "modellazione delle azioni" e "schematizzazione dei casi di carico" sono indicate le azioni sulla costruzioni.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico,dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame *sono risultate effettivamente esaustive per la progettazione-verifica.*

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

$$\mathbf{K} * \mathbf{u} = \mathbf{F} \quad \text{dove} \quad \mathbf{K} = \text{matrice di rigidità}$$

$\mathbf{u}$  = vettore spostamenti nodali

$\mathbf{F}$  = vettore forze nodali

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.

---

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

Elemento tipo <b>TRUSS</b>	(biella-D2)
Elemento tipo <b>BEAM</b>	(trave-D2)
Elemento tipo <b>MEMBRANE</b>	(membrana-D3)
Elemento tipo <b>PLATE</b>	(piastra-guscio-D3)
Elemento tipo <b>BOUNDARY</b>	(molla)
Elemento tipo <b>STIFFNESS</b>	(matrice di rigidità)
Elemento tipo <b>BRICK</b>	(elemento solido)
Elemento tipo <b>SOLAIO</b>	(macro elemento composto da più membrane)

## 4.5 Modello numerico

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 e relativi sottoparagrafi delle NTC-18, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

Informazioni sul codice di calcolo	
Titolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2020-01-187)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Dati utente finale:	Progetto Engineering s.r.l.
Codice Utente:	002107/cli
Codice Licenza:	Licenza dsi5770

Un attento esame preliminare della documentazione a corredo del software **ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico**. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

Affidabilità dei codici utilizzati
2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche.
E' possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: <a href="https://www.2si.it/it/prodotti/affidabilita/">https://www.2si.it/it/prodotti/affidabilita/</a>

<b>Modellazione della geometria e proprietà meccaniche:</b>	
nodi	198
elementi D2 (per aste, travi, pilastri...)	5
elementi D3 (per pareti, platee, gusci...)	180
elementi solaio	0
elementi solidi	0
<b>Dimensione del modello strutturale [cm]:</b>	
X min =	-1160.00
Xmax =	1160.00
Ymin =	-1160.00
Ymax =	1160.00
Zmin =	0.00
Zmax =	11241.40
<b>Strutture verticali:</b>	
Elementi di tipo asta	NO
Pilastri	SI
Pareti	NO
Setti (a comportamento membranale)	NO
<b>Strutture non verticali:</b>	
Elementi di tipo asta	NO
Travi	NO
Gusci	NO
Membrane	NO
<b>Orizzontamenti:</b>	
Solai con la proprietà piano rigido	NO
Solai senza la proprietà piano rigido	NO
<b>Tipo di vincoli:</b>	
Nodi vincolati rigidamente	NO
Nodi vincolati elasticamente	NO
Nodi con isolatori sismici	NO
Fondazioni puntuali (plinti/plinti su palo)	SI
Fondazioni di tipo trave	NO

Fondazioni di tipo platea	SI
Fondazioni con elementi solidi	NO

#### 4.6 Modellazione delle azioni

Si veda il capitolo "Schematizzazione dei casi di carico" per le informazioni necessarie alla comprensione ed alla ricostruzione delle azioni applicate al modello numerico, coerentemente con quanto indicato nella parte "2.6. Azioni di progetto sulla costruzione".

#### 4.7 Combinazioni e/o percorsi di carico

Si veda il capitolo "Definizione delle combinazioni" in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

Combinazioni dei casi di carico	
APPROCCIO PROGETTUALE	Approccio 2
Tensioni ammissibili	NO
SLU	SI
SLV (SLU con sisma)	SI
SLC	NO
SLD	SI
SLO	NO
SLU GEO A2 (per approccio 1)	NO
SLU EQU	NO
Combinazione caratteristica (rara)	SI
Combinazione frequente	SI
Combinazione quasi permanente (SLE)	SI
SLA (accidentale quale incendio)	SI

#### Principali risultati

I risultati devono costituire una sintesi completa ed efficace, presentata in modo da riassumere il comportamento della struttura, per ogni tipo di analisi svolta.

Nella presente relazione di calcolo sono riportati i seguenti risultati che il progettista ritiene di interesse per la descrizione e la comprensione del/i modello/i e del comportamento della struttura:

per l'analisi modale:

- periodi dei modi di vibrare della struttura
- masse eccitate dai singoli modi
- massa eccitata totale

deformate e sollecitazioni:

- spostamenti e rotazioni dei singoli nodi della struttura
- reazioni vincolari (nel caso siano presenti nodi vincolati rigidamente)
- pressioni sul terreno (nel caso siano presenti elementi di fondazione)
- sollecitazioni sugli elementi d2 nelle combinazioni di calcolo più significative
- tensioni sugli elementi d3 nelle combinazioni di calcolo più significative
- sollecitazioni sui macroelementi da elementi d3 nelle combinazioni di calcolo più significative

La presente relazione, oltre ad illustrare in modo esaustivo i dati in ingresso ed i risultati delle analisi in forma tabellare, riporta una serie di immagini:

per i dati in ingresso:

- modello solido della struttura
- numerazione di nodi e ed elementi
- configurazioni di carico statiche
- configurazioni di carico sismiche con baricentri delle masse e eccentricità

per le combinazioni più significative (statisticamente più gravose per la struttura):

- configurazioni deformate
- diagrammi e involuipi delle azioni interne
- mappe delle tensioni
- reazioni vincolari
- mappe delle pressioni sul terreno

per il progetto-verifica degli elementi:

- diagrammi di armatura
- percentuali di sfruttamento
- mappe delle verifiche più significative per i vari stati limite



#### **Informazioni generali sull'elaborazione e giudizio motivato di accettabilità dei risultati.**

Il programma prevede una serie di controlli automatici (check) che consentono l'individuazione di errori di modellazione. Al termine dell'analisi un controllo automatico identifica la presenza di spostamenti o rotazioni abnormi. Si può pertanto asserire che l'elaborazione sia corretta e completa. I risultati delle elaborazioni sono stati sottoposti a controlli che ne comprovano l'attendibilità. Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali e adottati, anche in fase di primo proporzionamento della struttura. Inoltre, sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni. Si allega al termine della presente relazione elenco sintetico dei controlli svolti (verifiche di equilibrio tra reazioni vincolari e carichi applicati, comparazioni tra i risultati delle analisi e quelli di valutazioni semplificate, etc.) .

#### **4.8 Verifiche agli stati limite ultimi**

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di fatica, di duttilità, di degrado.

#### **4.9 Verifiche agli stati limite di esercizio**

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.

## 5 NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
8. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. Circolare 4 Gennaio 1989 n. 30787 "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
11. D.M. LL.PP. 11 Marzo 1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesì per unità di volume, pesì propri e sovraccarichi per gli edifici.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
21. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
22. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.

23. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
25. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
26. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
27. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali - Regole comuni e regole per gli edifici.
28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
29. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1: Regole generali per strutture di muratura armata e non armata.
30. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
32. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
34. UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.

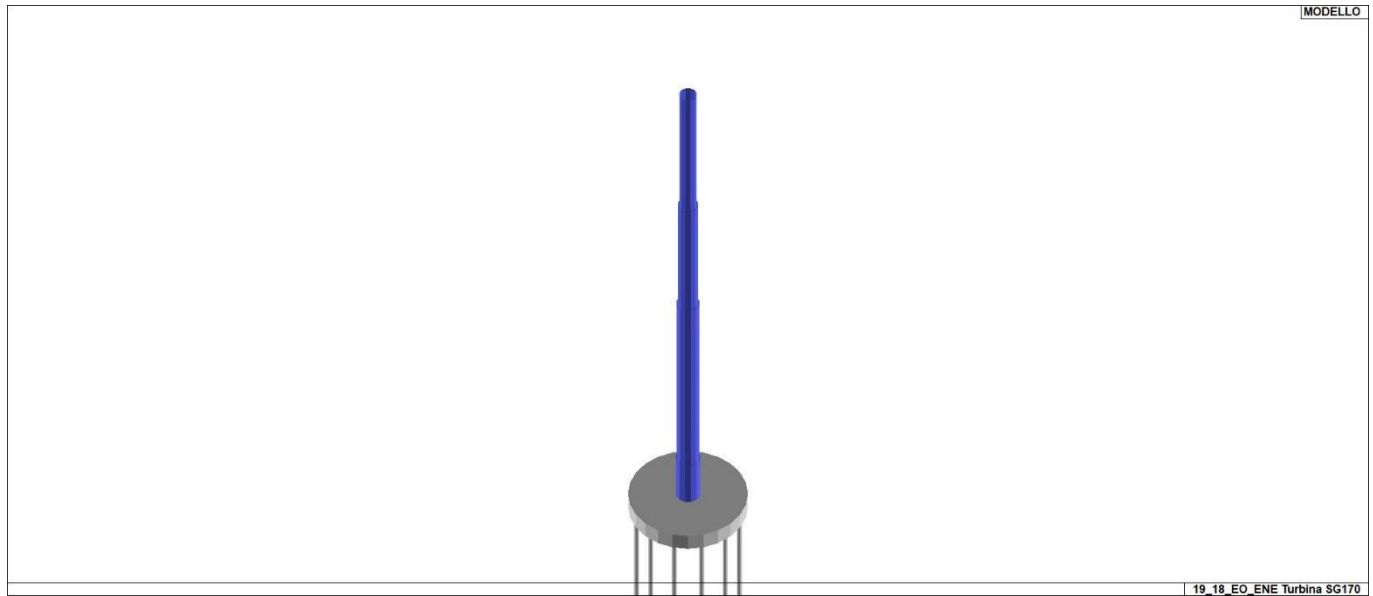


Figura 12. Vista solida modello strutturale

## 6 CARATTERISTICHE MATERIALI UTILIZZATI

### 6.1 LEGENDA TABELLA DATI MATERIALI

Il programma consente l'uso di materiali diversi. Sono previsti i seguenti tipi di materiale:

1	materiale tipo cemento armato
2	materiale tipo acciaio
3	materiale tipo muratura
4	materiale tipo legno
5	materiale tipo generico

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale $\nu$
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Fattore di confidenza FC m	Fattore di confidenza specifico per materiale; (è riportato solo se diverso da quello globale della struttura)
Fattore di confidenza FC a	Fattore di confidenza specifico per l'armatura (è riportato solo se diverso da quello globale della struttura)
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Massima compressione	Massima tensione di compressione per aste non lineari
Massima trazione	Massima tensione di trazione per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari
Rapporto HRDb	Rapporto di hardening a flessione
Rapporto HRDv	Rapporto di hardening a taglio

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

1	cemento armato	Resistenza Rc	resistenza a compressione cubica
		Resistenza fctm	resistenza media a trazione semplice
		Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
2	acciaio	Tensione ft	Valore della tensione di rottura
		Tensione fy	Valore della tensione di snervamento
		Resistenza fd	Resistenza di calcolo per SL CNR-UNI 10011
		Resistenza fd (>40)	Resistenza di calcolo per SL CNR-UNI 10011 per spessori > 40mm
		Tensione ammissibile	Tensione ammissibile CNR-UNI 10011
		Tensione ammissibile (>40)	Tensione ammissibile CNR-UNI 10011 per spessori > 40mm
3	muratura	Muratura consolidata	Muratura per la quale si prevedono interventi di rinforzo"
		Incremento resistenza	Incremento conseguito in termini di resistenza
		Incremento rigidezza	Incremento conseguito in termini di rigidezza
		Resistenza f	Valore della resistenza a compressione
		Resistenza fv0	Valore della resistenza a taglio in assenza di tensioni normali
		Resistenza fh	Valore della resistenza a compressione orizzontale

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	Resistenza fb	Valore della resistenza a compressione dei blocchi
	Resistenza fbh	Valore della resistenza a compressione dei blocchi in direzione orizzontale
	Resistenza fv0h	Valore della resistenza a taglio in assenza di tensioni normali per le travi
	Resistenza ft	Valore della resistenza a trazione per fessurazione diagonale
	Resistenza fvlm	Valore della massima resistenza a taglio
	Resistenza fbt	Valore della resistenza a trazione dei blocchi
	Coefficiente mu	Coefficiente d'attrito utilizzato per la resistenza a taglio (tipicamente 0.4)
	Coefficiente fi	Coefficiente d'ingranamento utilizzato per la resistenza a taglio
	Coefficiente ksb	Coefficiente di riduzione della resistenza a compressione da utilizzare nello stress block
4	legno	
	E0,05	Modulo di elasticità corrispondente ad un frattile del 5%
	Resistenza fc0	Valore della resistenza a compressione parallela
	Resistenza ft0	Valore della resistenza a trazione parallela
	Resistenza fm	Valore della resistenza a flessione
	Resistenza fv	Valore della resistenza a taglio
	Resist. ft0k	Resistenza caratteristica (tensione amm. per REGLES) per trazione
	Resist. fmk	Resistenza caratteristica (tensione amm. per REGLES) per flessione
	Resist. fvk	Resistenza caratteristica (tensione amm. per REGLES) per taglio
	Modulo E0,05	Modulo elastico parallelo caratteristico
	Lamellare	lamellare o massiccio

Nel tabulato si riportano sia i valori caratteristici che medi utilizzando gli uni e/o gli altri in relazione alle richieste di normativa ed alla tipologia di verifica. (Cap.7 NTC18 per materiali nuovi, Cap.8 NTC18 e relativa circolare 21/01/2019 per materiali esistenti, Linee Guida Reluis per incamicatura CAM, CNR-DT 200 per interventi con FRP)

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Maggio 2011, disponibile per il download sul sito [www.2si.it](http://www.2si.it), si segnalano i seguenti esempi applicativi:

Modellazione di strutture in c.a.

Test N°	Titolo
41	GERARCHIA DELLE RESISTENZE PER TRAVI IN C.A.
42	GERARCHIA DELLE RESISTENZE PER PILASTRI IN C.A.
43	VERIFICA ALLE TA DI STRUTTURE IN C.A.
44	VERIFICA AGLI SLU DI STRUTTURE IN C.A.
45	VERIFICA A PUNZONAMENTO ALLO SLU DI PIASTRE IN C.A.
46	VERIFICA A PUNZONAMENTO ALLO SLU DI TRAVI IN C.A.
47	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96
48	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008
49	VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A.
50	VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A.
51	FATTORE DI STRUTTURA
52	SOVRARESISTENZE
53	DETTAGLI COSTRUTTIVI C.A.: LIMITI D'ARMATURA PILASTRI E NODI TRAVE-PILASTRO
54	PARETI IN C.A. SNELLE IN ZONA SISMICA

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80	ANALISI PUSHOVER DI UN EDIFICIO IN C.A.
120	PROGETTO E VERIFICA DI TRAVI PREM

Modellazione di strutture in acciaio

Test N°	Titolo
55	VERIFICA DI STABILITA' DI ASTE COMPRESSE IN ACCIAIO – METODO OMEGA
56	LUCE LIBERA DI TRAVI E ASTE IN ACCIAIO
57	LUCE LIBERA DI COLONNE IN ACCIAIO
58	SVERGOLAMENTO DI TRAVI IN ACCIAIO
59	FATTORE DI STRUTTURA
60	ACCIAIO D.M.2008
61	ACCIAIO EC3
62	GERARCHIA RESISTENZE STRUTTURE IN ACCIAIO
63	STABILITA' DI ASTE COMPOSTE IN ACCIAIO
73	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA IRRIGIDIMENTI TRASVERSALI
74	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA DI UN PIATTO DI RINFORZO SALDATO ALL'ANIMA DELLA COLONNA
75	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO CON PRESENZA DI DUE PIATTI DI RINFORZO SALDATI ALL'ANIMA DELLA COLONNA
76	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO A DUE VIE SU ALI COLONNA
77	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO A UNA VIA CON DUE COMBINAZIONI DI CARICO
78	COLLEGAMENTI IN ACCIAIO: NODO TRAVE COLONNA FLANGIATO SU ANIMA SENZA RINFORZI A QUATTRO FILE DI BULLONI DI CUI UNA SU PIASTRA INFERIORE E UNA SU PIASTRA SUPERIORE
79	VERIFICA DELLA PIASTRA NODO TRAVE COLONNA
85	TELAIO ACCIAIO: CONTROVENTI CONCENTRICI

Modellazione di strutture in muratura

Test N°	Titolo
81	ANALISI PUSHOVER DI UNA STRUTTURA IN MURATURA
84	ANALISI ELASTO PLASTICA INCREMENTALE, PARETE IN MURATURA
86	VERIFICA NON SISMICA DELLE MURATURE (D.M. 87 TA)
87	VERIFICA NON SISMICA DELLE MURATURE (D.M. 2005 SL)
88	FATTORE DI STRUTTURA

Modellazione di strutture in legno

Test N°	Titolo
17	SOLAIO: MISTO LEGNO-CALCESTRUZZO
89	VERIFICA ALLO SLU DI STRUTTURE IN LEGNO SECONDO EC5
90	VERIFICA ALLO SLE DI STRUTTURE IN LEGNO SECONDO EC5
91	FATTORE DI STRUTTURA
92	VERIFICHE EC5
93	SNELLEZZE EC5
94	VERIFICA AL FUOCO DI STRUTTURE IN LEGNO SECONDO EC5

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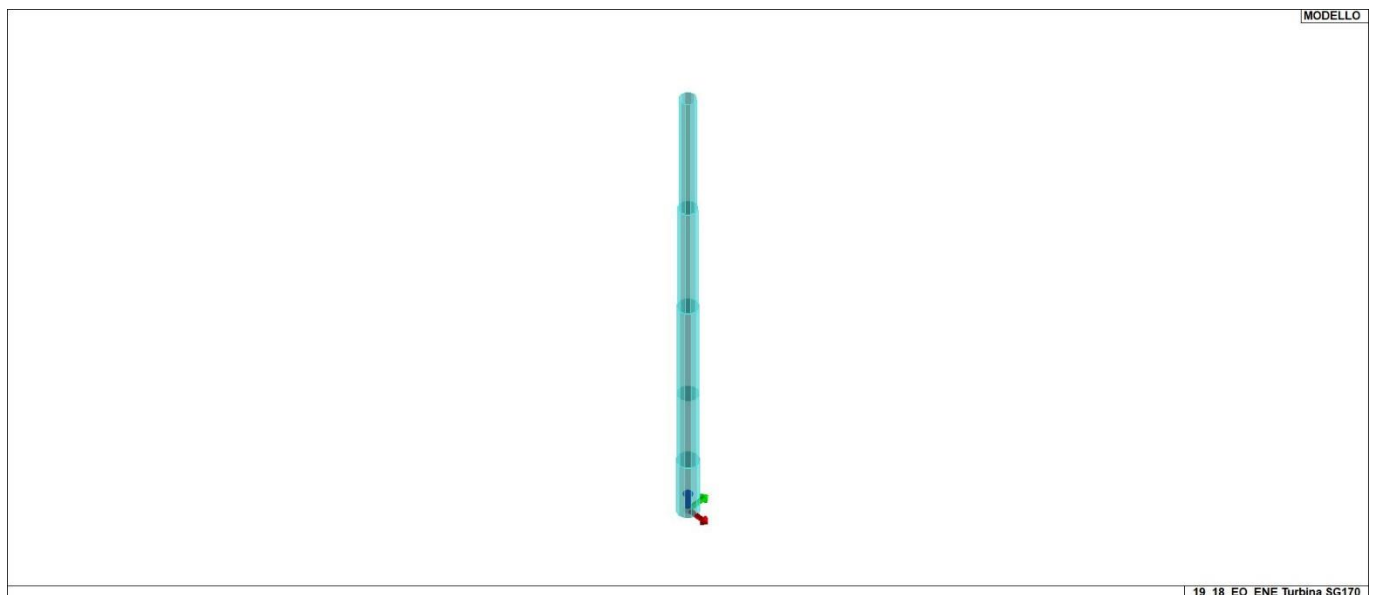
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117	PROGETTO E VERIFICA DI GUSCI IN MATERIALE XLAM
118	PROGETTO E VERIFICA DI PARETI IN MATERIALE XLAM E RELATIVI COLLEGAMENTI
119	PROGETTO E VERIFICA DI SOLAI IN MATERIALE XLAM

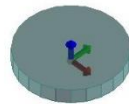
Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
		daN/cm2	daN/cm2	daN/cm2		daN/cm2	daN/cm3		
3	Calcestruzzo Classe C28/35			3.260e+05	0.20	1.358e+05	2.50e-03	1.00e-05	
	Resistenza Rc	350.0							
	Resistenza fctm		28.4						
	Rapporto Rfessurata								1.00
	Coefficiente ksb								0.85
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
13	Acciaio Fe510 - S355			2.100e+06	0.30	8.077e+05	7.80e-03	1.20e-05	
	Tensione ft	5100.0							
	Resistenza fd	3550.0							
	Resistenza fd (>40)	3150.0							
	Tensione ammissibile	2400.0							
	Tensione ammissibile (>40)	2100.0							
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05



11\_MOD\_MATERIALI\_D2

19\_18\_EO\_ENE Turbina SG170





### 11\_MOD\_MATERIALI\_D3

Pilastri acc.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
<b>Lunghezze libere</b>						
Metodo di calcolo 2-2	Assegnato					
2-2 Beta assegnato	2.00					
2-2 Beta * L assegnato [ cm ]	0.0					
Metodo di calcolo 3-3	Assegnato					
3-3 Beta assegnato	2.00					
3-3 Beta * L assegnato [ cm ]	0.0					
1-1 Beta assegnato	1.00					
1-1 Beta * L assegnato [ cm ]	0.0					
<b>Generalità</b>						
Coefficiente gamma M0	1.05					
Coefficiente gamma M1	1.05					
Coefficiente gamma M2	1.25					
Effetti del 2 ordine	Si					
Momenti equivalenti	Si					
Usa condizioni I e II	Si					

Gusci c.a.	1/7/..	2/8/..	3/9/..	4/10/..	5/11/..	6/12/..
<b>Armatura</b>						
Inclinazione Ax [ gradi ]	0.0					
Angolo Ax-Ay [ gradi ]	90.00					
Minima tesa	0.31					
Massima tesa	0.78					
Maglia unica centrale	No					
Copriferro [ cm ]	2.00					
<b>Maglia x</b>						
diametro	10					
passo	20					
diametro aggiuntivi	12					
<b>Maglia y</b>						
diametro	10					
passo	20					
diametro aggiuntivi	12					
<b>Stati limite ultimi</b>						
Tensione fy [daN/cm <sup>2</sup> ]	4500.00					
Tipo acciaio	tipo C					

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<b>Gusci c.a.</b>	<b>1/7/..</b>	<b>2/8/..</b>	<b>3/9/..</b>	<b>4/10/..</b>	<b>5/11/..</b>	<b>6/12/..</b>
Coefficiente gamma s	1.15					
Coefficiente gamma c	1.50					
Verifiche con N costante	Si					
Applica SLU da DIN	No					
<b>Tensioni ammissibili</b>						
Tensione amm. cls [daN/cm2 ]	97.50					
Tensione amm. acciaio [daN/cm2 ]	2600.00					
Rapporto omogeneizzazione N	15.00					
Massimo rapporto area compressa/tesa	1.00					
<b>Resistenza al fuoco</b>						
3- intradosso	No					
3+ estradosso	No					
Tempo di esposizione R	15					

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## 7 MODELLAZIONE DELLE SEZIONI

### 7.1 LEGENDA TABELLA DATI SEZIONI

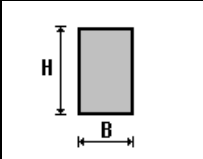
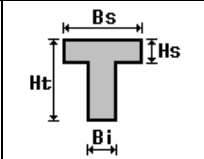
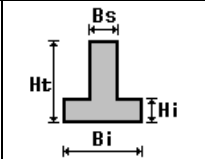
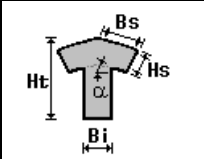
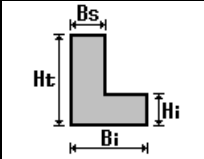
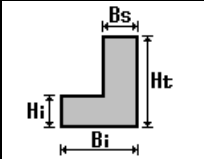
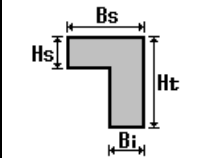
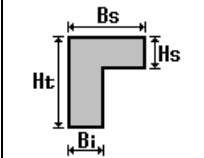
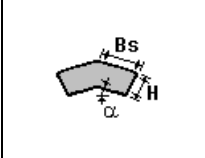
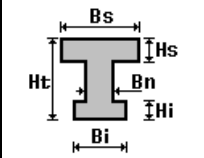
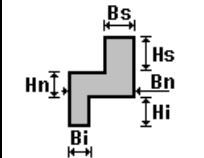
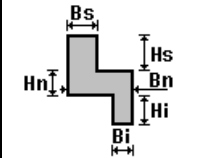
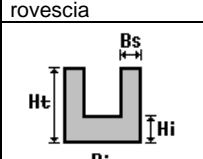
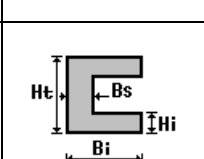
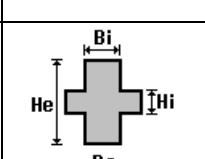
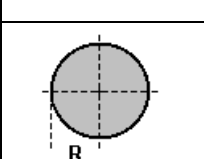
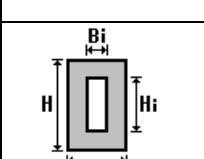
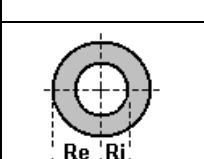
Il programma consente l'uso di sezioni diverse. Sono previsti i seguenti tipi di sezione:

1. sezione di tipo generico
2. profilati semplici
3. profilati accoppiati e speciali

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

<b>Area</b>	area della sezione
<b>A V2</b>	area della sezione/fattore di taglio (per il taglio in direzione 2)
<b>A V3</b>	area della sezione/fattore di taglio (per il taglio in direzione 3)
<b>Jt</b>	fattore torsionale di rigidità
<b>J2-2</b>	momento d'inerzia della sezione riferito all'asse 2
<b>J3-3</b>	momento d'inerzia della sezione riferito all'asse 3
<b>W2-2</b>	modulo di resistenza della sezione riferito all'asse 2
<b>W3-3</b>	modulo di resistenza della sezione riferito all'asse 3
<b>Wp2-2</b>	modulo di resistenza plastico della sezione riferito all'asse 2
<b>Wp3-3</b>	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidità degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

 rettangolare	 a T	 a T rovescia	 a T di colmo	 a L	 a L specchiata
 a L specchiata rovescia	 a L rovescia	 a L di colmo	 a doppio T	 a quattro specchiata	 a quattro
 a U	 a C	 a croce	 circolare	 rettangolare cava	 circolare cava

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):  
i valori dimensionali con prefisso B sono riferiti all'asse 2  
i valori dimensionali con prefisso H sono riferiti all'asse 3

Con riferimento al Documento di Affidabilità "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Settembre 2014, disponibile per il download sul sito [www.2si.it](http://www.2si.it), si segnalano i seguenti esempi applicativi:

Test N°	Titolo
1	CARATTERISTICHE GEOMETRICHE E INERZIALI
45	VERIFICA AGLI SLU DI STRUTTURE IN C.A.
48	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96
49	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008
50	VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A.
51	VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A.
104	ANALISI DI RESISTENZA AL FUOCO

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
1	Tronco 1-Circolare cava: re=235 ri=229	8746.19	0.0	0.0	4.708e+08	2.354e+08	2.354e+08	1.002e+06	1.002e+06	1.292e+06	1.292e+06
2	Tronco 2-Circolare cava: re=221.8 ri=215.8	8248.57	0.0	0.0	3.950e+08	1.975e+08	1.975e+08	8.904e+05	8.904e+05	1.149e+06	1.149e+06
3	Tronco 3-Circolare cava: re=221.35 ri=215.35	8231.60	0.0	0.0	3.925e+08	1.963e+08	1.963e+08	8.867e+05	8.867e+05	1.144e+06	1.144e+06
4	Tronco 4-Circolare cava: re=201.05 ri=195.05	7466.31	0.0	0.0	2.929e+08	1.465e+08	1.465e+08	7.285e+05	7.285e+05	9.414e+05	9.414e+05
5	Tronco 5-Circolare cava: re=175.15 ri=169.15	6489.90	0.0	0.0	1.924e+08	9.620e+07	9.620e+07	5.492e+05	5.492e+05	7.113e+05	7.113e+05

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13\_MOD\_SEZIONI

## 8 MODELLAZIONE STRUTTURA: NODI

### 8.1 LEGENDA TABELLA DATI NODI

Il programma utilizza per la modellazione nodi strutturali.

Ogni nodo è individuato dalle coordinate cartesiane nel sistema di riferimento globale (X Y Z).

Ad ogni nodo è eventualmente associato un codice di vincolamento rigido, un codice di fondazione speciale, ed un set di sei molle (tre per le traslazioni, tre per le rotazioni). Le tabelle sottoriportate riflettono le succitate possibilità. In particolare per ogni nodo viene indicato in tabella:

<b>Nodo</b>	numero del nodo.
<b>X</b>	valore della coordinata X
<b>Y</b>	valore della coordinata Y
<b>Z</b>	valore della coordinata Z

Per i nodi ai quali sia associato un codice di vincolamento rigido, un codice di fondazione speciale o un set di molle viene indicato in tabella:

<b>Nodo</b>	numero del nodo.
<b>X</b>	valore della coordinata X
<b>Y</b>	valore della coordinata Y
<b>Z</b>	valore della coordinata Z
<b>Note</b>	eventuale codice di vincolo (es. v=110010 sei valori relativi ai sei gradi di libertà previsti per il nodo TxTyTzRxRyRz, il valore 1 indica che lo spostamento o rotazione relativo è impedito, il valore 0 indica che lo spostamento o rotazione relativo è libero).
<b>Note</b>	(FS = 1, 2,...) eventuale codice del tipo di fondazione speciale (1, 2,... fanno riferimento alle tipologie: plinto, palo, plinto su pali,...) che è collegato al nodo. (ISO = "id SIGLA") indice e sigla identificativa dell' eventuale isolatore sismico assegnato al nodo
<b>Rig. TX</b>	valore della rigidezza dei vincoli elastici eventualmente applicati al nodo, nello specifico TX (idem per TY, TZ, RX, RY, RZ).

Per strutture sismicamente isolate viene inoltre inserita la tabella delle caratteristiche per gli isolatori utilizzati; le caratteristiche sono indicate in conformità al cap. 7.10 del D.M. 17/01/18

## 8.2 TABELLA DATI NODI

Nodo	X	Y	Z	Nodo	X	Y	Z	Nodo	X	Y	Z
	cm	cm	cm		cm	cm	cm		cm	cm	cm
1	0.0	0.0	0.0	2	0.0	0.0	1356.4	3	0.0	0.0	3176.4
4	0.0	0.0	5556.4	5	0.0	0.0	8244.4	6	0.0	0.0	1.124e+04
7	-290.0	-290.0	0.0	8	-193.3	-290.0	0.0	9	-193.3	-193.3	0.0
10	-290.0	-193.3	0.0	11	-193.3	-96.7	0.0	12	-290.0	-96.7	0.0
13	-193.3	0.0	0.0	14	-290.0	0.0	0.0	15	-193.3	96.7	0.0
16	-290.0	96.7	0.0	17	-193.3	193.3	0.0	18	-290.0	193.3	0.0
19	-193.3	290.0	0.0	20	-290.0	290.0	0.0	21	-96.7	-290.0	0.0
22	-96.7	-193.3	0.0	23	-96.7	-96.7	0.0	24	-96.7	0.0	0.0
25	-96.7	96.7	0.0	26	-96.7	193.3	0.0	27	-96.7	290.0	0.0
28	0.0	-290.0	0.0	29	0.0	-193.3	0.0	30	0.0	-96.7	0.0
31	0.0	96.7	0.0	32	0.0	193.3	0.0	33	0.0	290.0	0.0
34	96.7	-290.0	0.0	35	96.7	-193.3	0.0	36	96.7	-96.7	0.0
37	96.7	0.0	0.0	38	96.7	96.7	0.0	39	96.7	193.3	0.0
40	96.7	290.0	0.0	41	193.3	-290.0	0.0	42	193.3	-193.3	0.0
43	193.3	-96.7	0.0	44	193.3	0.0	0.0	45	193.3	96.7	0.0
46	193.3	193.3	0.0	47	193.3	290.0	0.0	48	290.0	-290.0	0.0
49	290.0	-193.3	0.0	50	290.0	-96.7	0.0	51	290.0	0.0	0.0
52	290.0	96.7	0.0	53	290.0	193.3	0.0	54	290.0	290.0	0.0
55	435.0	0.0	0.0	56	428.4	130.6	0.0	57	580.0	0.0	0.0
58	566.8	164.5	0.0	59	725.0	0.0	0.0	60	705.2	198.4	0.0
61	870.0	0.0	0.0	62	843.6	232.4	0.0	64	982.1	266.3	0.0
65	1160.0	0.0	0.0	66	1120.5	300.2	0.0	67	409.1	257.8	0.0
68	528.2	322.2	0.0	69	647.3	386.7	0.0	70	766.4	451.1	0.0
72	1004.6	580.0	0.0	73	378.4	378.4	0.0	74	466.7	466.7	0.0
75	555.1	555.1	0.0	76	643.5	643.5	0.0	77	731.9	731.9	0.0
78	820.2	820.2	0.0	79	257.8	409.1	0.0	80	322.2	528.2	0.0
81	386.7	647.3	0.0	82	451.1	766.4	0.0	84	580.0	1004.6	0.0
85	130.6	428.4	0.0	86	164.5	566.8	0.0	87	198.4	705.2	0.0
88	232.4	843.6	0.0	89	266.3	982.1	0.0	90	300.2	1120.5	0.0
91	0.0	435.0	0.0	92	0.0	580.0	0.0	93	0.0	725.0	0.0
94	0.0	870.0	0.0	96	0.0	1160.0	0.0	97	-130.6	428.4	0.0
98	-164.5	566.8	0.0	99	-198.4	705.2	0.0	100	-232.4	843.6	0.0
101	-266.3	982.1	0.0	102	-300.2	1120.5	0.0	103	-257.8	409.1	0.0
104	-322.2	528.2	0.0	105	-386.7	647.3	0.0	106	-451.1	766.4	0.0
108	-580.0	1004.6	0.0	109	-378.4	378.4	0.0	110	-466.7	466.7	0.0
111	-555.1	555.1	0.0	112	-643.5	643.5	0.0	113	-731.9	731.9	0.0
114	-820.2	820.2	0.0	115	-409.1	257.8	0.0	116	-528.2	322.2	0.0
117	-647.3	386.7	0.0	118	-766.4	451.1	0.0	120	-1004.6	580.0	0.0
121	-428.4	130.6	0.0	122	-566.8	164.5	0.0	123	-705.2	198.4	0.0
124	-843.6	232.4	0.0	125	-982.1	266.3	0.0	126	-1120.5	300.2	0.0
127	-435.0	0.0	0.0	128	-580.0	0.0	0.0	129	-725.0	0.0	0.0
130	-870.0	0.0	0.0	132	-1160.0	0.0	0.0	133	-428.4	-130.6	0.0
134	-566.8	-164.5	0.0	135	-705.2	-198.4	0.0	136	-843.6	-232.4	0.0
137	-982.1	-266.3	0.0	138	-1120.5	-300.2	0.0	139	-409.1	-257.8	0.0
140	-528.2	-322.2	0.0	141	-647.3	-386.7	0.0	142	-766.4	-451.1	0.0
144	-1004.6	-580.0	0.0	145	-378.4	-378.4	0.0	146	-466.7	-466.7	0.0
147	-555.1	-555.1	0.0	148	-643.5	-643.5	0.0	149	-731.9	-731.9	0.0
150	-820.2	-820.2	0.0	151	-257.8	-409.1	0.0	152	-322.2	-528.2	0.0
153	-386.7	-647.3	0.0	154	-451.1	-766.4	0.0	156	-580.0	-1004.6	0.0
157	-130.6	-428.4	0.0	158	-164.5	-566.8	0.0	159	-198.4	-705.2	0.0
160	-232.4	-843.6	0.0	161	-266.3	-982.1	0.0	162	-300.2	-1120.5	0.0
163	0.0	-435.0	0.0	164	0.0	-580.0	0.0	165	0.0	-725.0	0.0
166	0.0	-870.0	0.0	168	0.0	-1160.0	0.0	169	130.6	-428.4	0.0
170	164.5	-566.8	0.0	171	198.4	-705.2	0.0	172	232.4	-843.6	0.0
173	266.3	-982.1	0.0	174	300.2	-1120.5	0.0	175	257.8	-409.1	0.0
176	322.2	-528.2	0.0	177	386.7	-647.3	0.0	178	451.1	-766.4	0.0
180	580.0	-1004.6	0.0	181	378.4	-378.4	0.0	182	466.7	-466.7	0.0
183	555.1	-555.1	0.0	184	643.5	-643.5	0.0	185	731.9	-731.9	0.0
186	820.2	-820.2	0.0	187	409.1	-257.8	0.0	188	528.2	-322.2	0.0
189	647.3	-386.7	0.0	190	766.4	-451.1	0.0	192	1004.6	-580.0	0.0

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

193	428.4	-130.6	0.0	194	566.8	-164.5	0.0	195	705.2	-198.4	0.0
196	843.6	-232.4	0.0	197	982.1	-266.3	0.0	198	1120.5	-300.2	0.0

Nodo	X	Y	Z	Note	Rig. TX	Rig. TY	Rig. TZ	Rig. RX	Rig. RY	Rig. RZ
	cm	cm	cm		daN/cm	daN/cm	daN/cm	daN cm/rad	daN cm/rad	daN cm/rad
63	1015.0	0.0	0.0	FS=1						
71	885.5	515.6	0.0	FS=1						
83	515.6	885.5	0.0	FS=1						
95	0.0	1015.0	0.0	FS=1						
107	-515.6	885.5	0.0	FS=1						
119	-885.5	515.6	0.0	FS=1						
131	-1015.0	0.0	0.0	FS=1						
143	-885.5	-515.6	0.0	FS=1						
155	-515.6	-885.5	0.0	FS=1						
167	0.0	-1015.0	0.0	FS=1						
179	515.6	-885.5	0.0	FS=1						
191	885.5	-515.6	0.0	FS=1						

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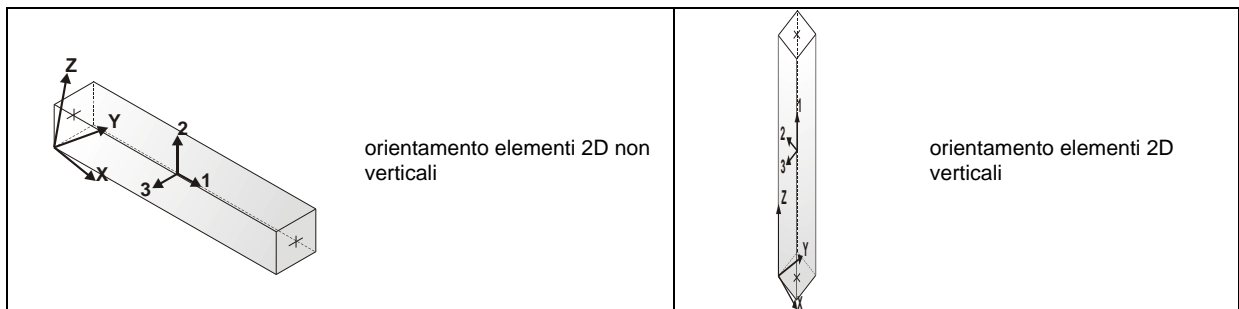
## 9 MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

### 9.1 TABELLA DATI TRAVI

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi.

Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale.

Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

<b>Elem.</b>	numero dell'elemento
<b>Note</b>	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
<b>Nodo I (J)</b>	numero del nodo iniziale (finale)
<b>Mat.</b>	codice del materiale assegnato all'elemento
<b>Sez.</b>	codice della sezione assegnata all'elemento
<b>Rotaz.</b>	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
<b>Svincolo I (J)</b>	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
<b>Wink V</b>	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
<b>Wink O</b>	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale



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Test N°	Titolo
2	TRAVI A UNA CAMPATA
3	TRAVE A PIU' CAMPATE
4	TRAVE A UNA CAMPATA SU TERRENO ALLA WINKLER
5	TRAVI SU TERRENO ALLA WINKLER CON CARICO TRASVERSALE
6	TELAI PIANI CON CERNIERE ALLA BASE
7	TELAI PIANI CON INCASTRI ALLA BASE
11	STRUTTURE SOGGETTE A VARIAZIONI TERMICHE
12	STRUTTURE SU TERRENO ALLA WINKLER SOTTOPOSTE A CARICHI DISTRIBUITI TRIANGOLARI
21	DRILLING
24	TENSIONI E ROTAZIONI RISPETTO ALLA CORDA DI ELEMENTI TRAVE
27	FRECCIA DI ELEMENTI TRAVE
42	GERARCHIA DELLE RESISTENZE PER TRAVI IN C.A.
43	GERARCHIA DELLE RESISTENZE PER PILASTRI IN C.A.
44	VERIFICA ALLE TA DI STRUTTURE IN C.A.
45	VERIFICA AGLI SLU DI STRUTTURE IN C.A.
47	VERIFICA A PUNZONAMENTO ALLO SLU DI TRAVI IN C.A.
48	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96
49	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008
50	VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A.
51	VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A.
52	FATTORE DI STRUTTURA
53	SOVRARESISTENZE
54	DETTAGLI COSTRUTTIVI C.A.: LIMITI D'ARMATURA PILASTRI E NODI TRAVE-PILASTRO
56	VERIFICA DI STABILITA' DI ASTE COMPRESSE IN ACCIAIO - METODO OMEGA
57	LUCE LIBERA DI TRAVI E ASTE IN ACCIAIO
58	LUCE LIBERA DI COLONNE IN ACCIAIO
59	SVERGOLAMENTO DI TRAVI IN ACCIAIO
64	STABILITA' DI ASTE COMPOSTE IN ACCIAIO
73	VALUTAZIONE EFFETTO P- $\delta$ SU PILASTRATA
74	VALUTAZIONE EFFETTO P- $\delta$ SU TELAIO 3D
85	ANALISI PUSHOVER DI UN EDIFICIO IN C.A.
87	ANALISI ELASTO PLASTICA INCREMENTALE
88	ANALISI ELASTO PLASTICA INCREMENTALE
98	VERIFICA ALLO SLU DI STRUTTURE IN LEGNO SECONDO EC5
99	VERIFICA ALLO SLE DI STRUTTURE IN LEGNO SECONDO EC5
102	SNELLEZZE EC5
130	PROGETTO E VERIFICA DI TRAVI PREM

Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Rotaz. gradi	Svincolo I	Svincolo J	Wink V daN/cm3	Wink O daN/cm3
1	Pilas.	1	2	13	1					
2	Pilas.	2	3	13	2					
3	Pilas.	3	4	13	3					

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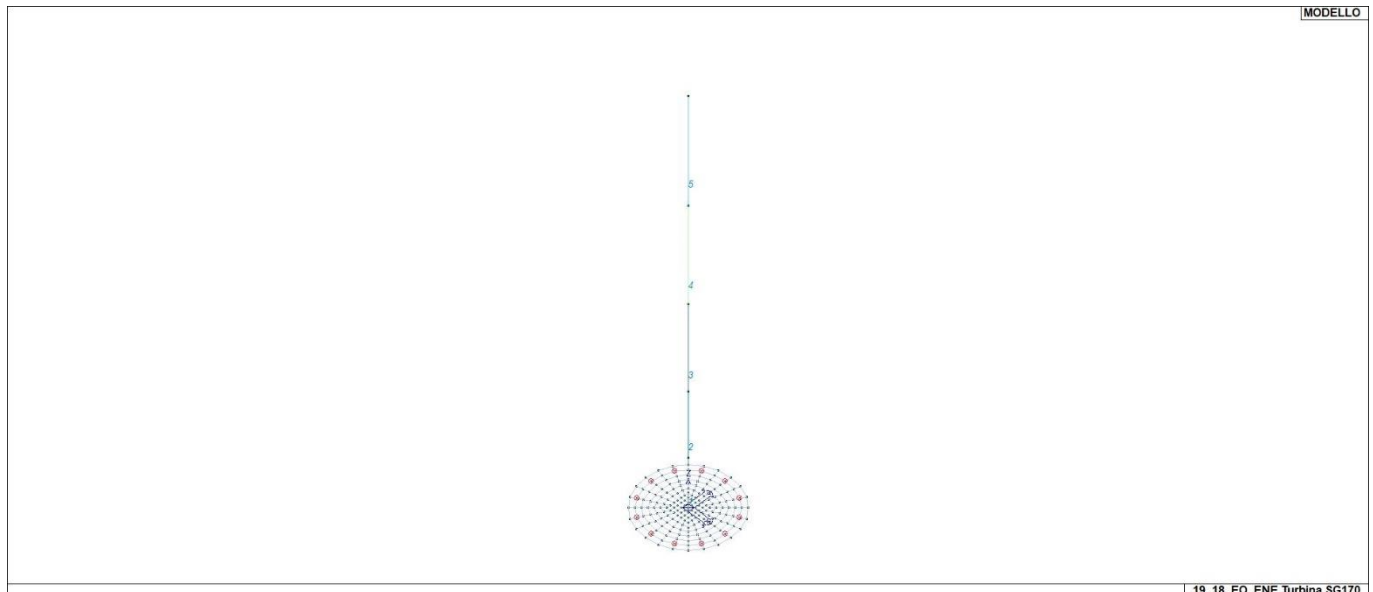
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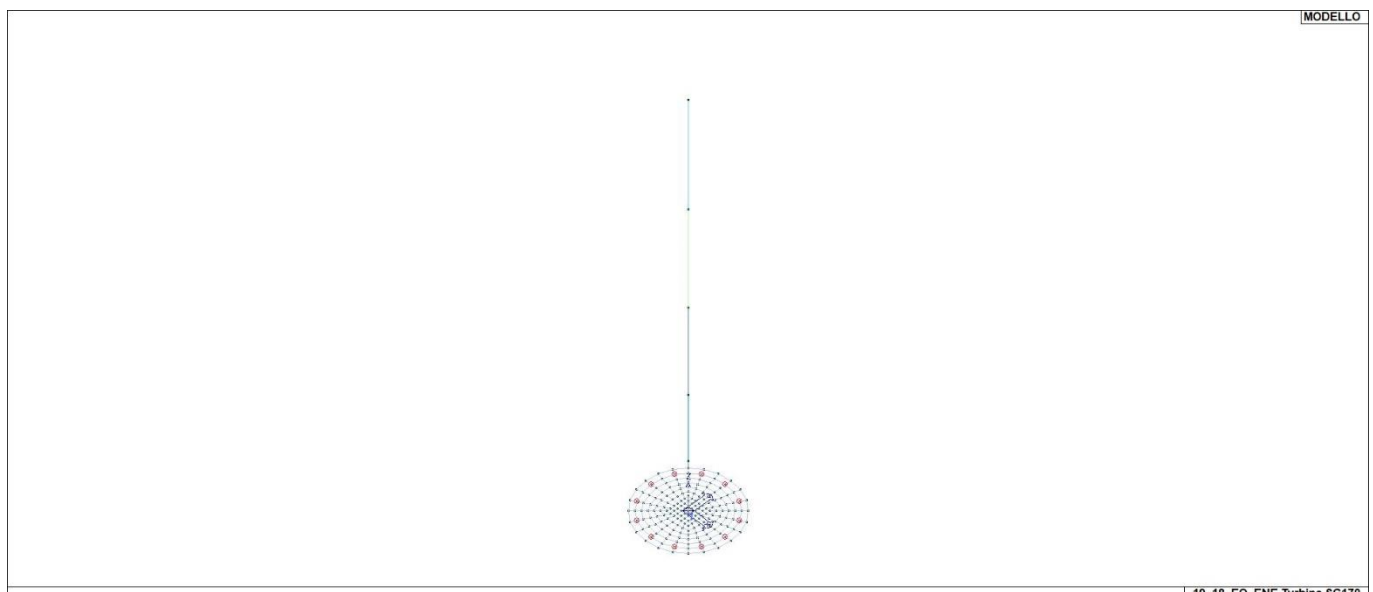
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4	Pilas.	4	5	13	4
5	Pilas.	5	6	13	5



15\_MOD\_NUMERAZIONE\_D2



15\_MOD\_NUMERAZIONE\_D2\_PILASTRATE

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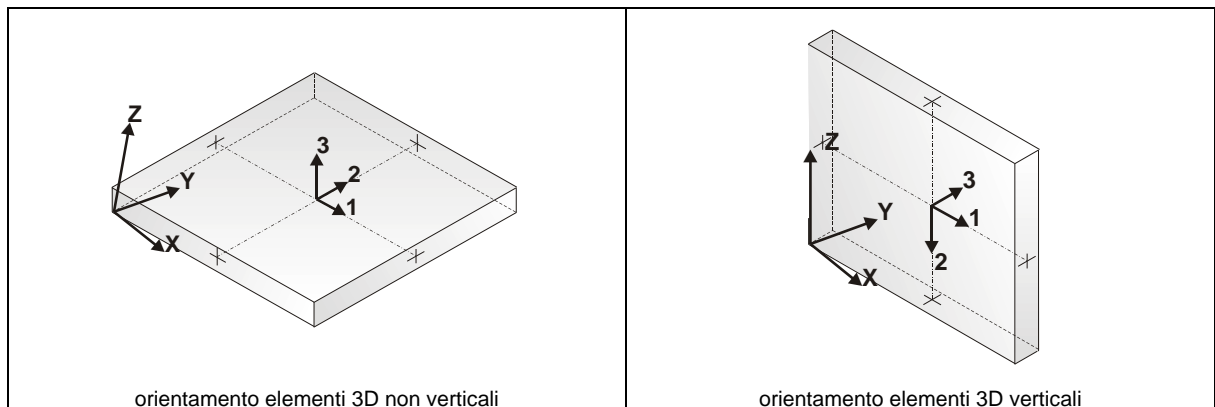


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## 10 MODELLAZIONE STRUTTURA: ELEMENTI SHELL

### 10.1 LEGENDA TABELLA DATI SHELL

Il programma utilizza per la modellazione elementi a tre o quattro nodi denominati in generale shell. Ogni elemento shell è individuato dai nodi I, J, K, L (L=I per gli elementi a tre nodi). Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

<b>Elem.</b>	numero dell'elemento
<b>Note</b>	codice di comportamento: <i>Guscio</i> (elemento guscio in elevazione non verticale) <i>Guscio fond.</i> (elemento guscio su suolo elastico) <i>Setto</i> (elemento guscio in elevazione verticale) <i>Membrana</i> (elemento guscio con comportamento membranale)
<b>Nodo I (J, K, L)</b>	numero del nodo I (J, K, L)
<b>Mat.</b>	codice del materiale assegnato all'elemento
<b>Spessore</b>	spessore dell'elemento (costante)
<b>Wink V</b>	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico verticale
<b>Wink O</b>	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Maggio 2011, disponibile per il download sul sito **www.2si.it**, si segnalano i seguenti esempi applicativi:

Test N°	Titolo
8	MENSOLE CON ELEMENTI PLATE E MATERIALE ORTOTROPO
10	PIASTRA CON ELEMENTI PLATE E MATERIALE ORTOTROPO
21	DRILLING
25	TENSIONI DI ELEMENTI PLATE
31	REALIZZAZIONE DI MESH PIANA SU GEOMETRIA CON PUNTI FISSI IMPORTATA DA FILE .DXF
32	REALIZZAZIONE DI MESH PIANA SU GEOMETRIA CON SEGMENTI E FORI INTERNI IMPORTATA DA FILE .DXF
33	REALIZZAZIONE DI MESH PIANE SU GEOMETRIE COSTRUITE IN PRO_SAP
34	ANALISI DI BUCKLING DI PIASTRA ISOTROPA
35	ANALISI DI BUCKLING DI UN CILINDRO COMPRESSO INCASTRATO ALLA BASE
36	ANALISI DI PARETI FORATE
37	BIMETALLIC STRIP (NAFEMS EXERCISE 6)
38	ANALISI ELASTICA DI PIASTRA CON INTAGLIO CIRCOLARE (FLAT BAR WITH EDGE NOTCHES-NAFEMS EXERCISE 9)
39	PLATEA NERVATA
45	VERIFICA A PUNZONAMENTO ALLO SLU DI PIASTRE IN C.A.
117	PROGETTO E VERIFICA DI GUSCI IN MATERIALE XLAM
118	PROGETTO E VERIFICA DI PARETI IN MATERIALE XLAM E RELATIVI COLLEGAMENTI

Elem.	Note	Nodo I	Nodo J	Nodo K	Nodo L	Mat.	Spessore cm	Svincolo	Wink V daN/cm3	Wink O daN/cm3
1	Guscio fond.	7	8	9	10	3	350.0		0.14	0.05
2	Guscio fond.	10	9	11	12	3	350.0		0.14	0.05
3	Guscio fond.	12	11	13	14	3	350.0		0.14	0.05
4	Guscio fond.	14	13	15	16	3	350.0		0.14	0.05
5	Guscio fond.	16	15	17	18	3	350.0		0.14	0.05
6	Guscio fond.	18	17	19	20	3	350.0		0.14	0.05
7	Guscio fond.	8	21	22	9	3	350.0		0.14	0.05
8	Guscio fond.	9	22	23	11	3	350.0		0.14	0.05
9	Guscio fond.	11	23	24	13	3	350.0		0.14	0.05
10	Guscio fond.	13	24	25	15	3	350.0		0.14	0.05
11	Guscio fond.	15	25	26	17	3	350.0		0.14	0.05
12	Guscio fond.	17	26	27	19	3	350.0		0.14	0.05

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13	Guscio fond.	21	28	29	22	3	350.0	0.14	0.05
14	Guscio fond.	22	29	30	23	3	350.0	0.14	0.05
15	Guscio fond.	23	30	1	24	3	350.0	0.14	0.05
16	Guscio fond.	24	1	31	25	3	350.0	0.14	0.05
17	Guscio fond.	25	31	32	26	3	350.0	0.14	0.05
18	Guscio fond.	26	32	33	27	3	350.0	0.14	0.05
19	Guscio fond.	28	34	35	29	3	350.0	0.14	0.05
20	Guscio fond.	29	35	36	30	3	350.0	0.14	0.05
21	Guscio fond.	30	36	37	1	3	350.0	0.14	0.05
22	Guscio fond.	1	37	38	31	3	350.0	0.14	0.05
23	Guscio fond.	31	38	39	32	3	350.0	0.14	0.05
24	Guscio fond.	32	39	40	33	3	350.0	0.14	0.05
25	Guscio fond.	34	41	42	35	3	350.0	0.14	0.05
26	Guscio fond.	35	42	43	36	3	350.0	0.14	0.05
27	Guscio fond.	36	43	44	37	3	350.0	0.14	0.05
28	Guscio fond.	37	44	45	38	3	350.0	0.14	0.05
29	Guscio fond.	38	45	46	39	3	350.0	0.14	0.05
30	Guscio fond.	39	46	47	40	3	350.0	0.14	0.05
31	Guscio fond.	41	48	49	42	3	350.0	0.14	0.05
32	Guscio fond.	42	49	50	43	3	350.0	0.14	0.05
33	Guscio fond.	43	50	51	44	3	350.0	0.14	0.05
34	Guscio fond.	44	51	52	45	3	350.0	0.14	0.05
35	Guscio fond.	45	52	53	46	3	350.0	0.14	0.05
36	Guscio fond.	46	53	54	47	3	350.0	0.14	0.05
37	Guscio fond.	51	55	56	52	3	350.0	0.14	0.05
38	Guscio fond.	55	57	58	56	3	350.0	0.14	0.05
39	Guscio fond.	57	59	60	58	3	350.0	0.14	0.05
40	Guscio fond.	59	61	62	60	3	350.0	0.14	0.05
41	Guscio fond.	61	63	64	62	3	350.0	0.14	0.05
42	Guscio fond.	63	65	66	64	3	350.0	0.14	0.05
43	Guscio fond.	52	56	67	53	3	350.0	0.14	0.05
44	Guscio fond.	56	58	68	67	3	350.0	0.14	0.05
45	Guscio fond.	58	60	69	68	3	350.0	0.14	0.05
46	Guscio fond.	60	62	70	69	3	350.0	0.14	0.05
47	Guscio fond.	62	64	71	70	3	350.0	0.14	0.05
48	Guscio fond.	64	66	72	71	3	350.0	0.14	0.05
49	Guscio fond.	53	67	73	54	3	350.0	0.14	0.05
50	Guscio fond.	67	68	74	73	3	350.0	0.14	0.05
51	Guscio fond.	68	69	75	74	3	350.0	0.14	0.05
52	Guscio fond.	69	70	76	75	3	350.0	0.14	0.05
53	Guscio fond.	70	71	77	76	3	350.0	0.14	0.05
54	Guscio fond.	71	72	78	77	3	350.0	0.14	0.05
55	Guscio fond.	47	54	73	79	3	350.0	0.14	0.05
56	Guscio fond.	79	73	74	80	3	350.0	0.14	0.05
57	Guscio fond.	80	74	75	81	3	350.0	0.14	0.05
58	Guscio fond.	81	75	76	82	3	350.0	0.14	0.05
59	Guscio fond.	82	76	77	83	3	350.0	0.14	0.05
60	Guscio fond.	83	77	78	84	3	350.0	0.14	0.05
61	Guscio fond.	40	47	79	85	3	350.0	0.14	0.05
62	Guscio fond.	85	79	80	86	3	350.0	0.14	0.05
63	Guscio fond.	86	80	81	87	3	350.0	0.14	0.05
64	Guscio fond.	87	81	82	88	3	350.0	0.14	0.05
65	Guscio fond.	88	82	83	89	3	350.0	0.14	0.05
66	Guscio fond.	89	83	84	90	3	350.0	0.14	0.05
67	Guscio fond.	33	40	85	91	3	350.0	0.14	0.05
68	Guscio fond.	91	85	86	92	3	350.0	0.14	0.05
69	Guscio fond.	92	86	87	93	3	350.0	0.14	0.05
70	Guscio fond.	93	87	88	94	3	350.0	0.14	0.05
71	Guscio fond.	94	88	89	95	3	350.0	0.14	0.05
72	Guscio fond.	95	89	90	96	3	350.0	0.14	0.05
73	Guscio fond.	27	33	91	97	3	350.0	0.14	0.05
74	Guscio fond.	97	91	92	98	3	350.0	0.14	0.05
75	Guscio fond.	98	92	93	99	3	350.0	0.14	0.05
76	Guscio fond.	99	93	94	100	3	350.0	0.14	0.05
77	Guscio fond.	100	94	95	101	3	350.0	0.14	0.05
78	Guscio fond.	101	95	96	102	3	350.0	0.14	0.05
79	Guscio fond.	19	27	97	103	3	350.0	0.14	0.05
80	Guscio fond.	103	97	98	104	3	350.0	0.14	0.05
81	Guscio fond.	104	98	99	105	3	350.0	0.14	0.05
82	Guscio fond.	105	99	100	106	3	350.0	0.14	0.05
83	Guscio fond.	106	100	101	107	3	350.0	0.14	0.05

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84	Guscio fond.	107	101	102	108	3	350.0	0.14	0.05
85	Guscio fond.	20	19	103	109	3	350.0	0.14	0.05
86	Guscio fond.	109	103	104	110	3	350.0	0.14	0.05
87	Guscio fond.	110	104	105	111	3	350.0	0.14	0.05
88	Guscio fond.	111	105	106	112	3	350.0	0.14	0.05
89	Guscio fond.	112	106	107	113	3	350.0	0.14	0.05
90	Guscio fond.	113	107	108	114	3	350.0	0.14	0.05
91	Guscio fond.	115	18	20	109	3	350.0	0.14	0.05
92	Guscio fond.	116	115	109	110	3	350.0	0.14	0.05
93	Guscio fond.	117	116	110	111	3	350.0	0.14	0.05
94	Guscio fond.	118	117	111	112	3	350.0	0.14	0.05
95	Guscio fond.	119	118	112	113	3	350.0	0.14	0.05
96	Guscio fond.	120	119	113	114	3	350.0	0.14	0.05
97	Guscio fond.	121	16	18	115	3	350.0	0.14	0.05
98	Guscio fond.	122	121	115	116	3	350.0	0.14	0.05
99	Guscio fond.	123	122	116	117	3	350.0	0.14	0.05
100	Guscio fond.	124	123	117	118	3	350.0	0.14	0.05
101	Guscio fond.	125	124	118	119	3	350.0	0.14	0.05
102	Guscio fond.	126	125	119	120	3	350.0	0.14	0.05
103	Guscio fond.	127	14	16	121	3	350.0	0.14	0.05
104	Guscio fond.	128	127	121	122	3	350.0	0.14	0.05
105	Guscio fond.	129	128	122	123	3	350.0	0.14	0.05
106	Guscio fond.	130	129	123	124	3	350.0	0.14	0.05
107	Guscio fond.	131	130	124	125	3	350.0	0.14	0.05
108	Guscio fond.	132	131	125	126	3	350.0	0.14	0.05
109	Guscio fond.	133	12	14	127	3	350.0	0.14	0.05
110	Guscio fond.	134	133	127	128	3	350.0	0.14	0.05
111	Guscio fond.	135	134	128	129	3	350.0	0.14	0.05
112	Guscio fond.	136	135	129	130	3	350.0	0.14	0.05
113	Guscio fond.	137	136	130	131	3	350.0	0.14	0.05
114	Guscio fond.	138	137	131	132	3	350.0	0.14	0.05
115	Guscio fond.	139	10	12	133	3	350.0	0.14	0.05
116	Guscio fond.	140	139	133	134	3	350.0	0.14	0.05
117	Guscio fond.	141	140	134	135	3	350.0	0.14	0.05
118	Guscio fond.	142	141	135	136	3	350.0	0.14	0.05
119	Guscio fond.	143	142	136	137	3	350.0	0.14	0.05
120	Guscio fond.	144	143	137	138	3	350.0	0.14	0.05
121	Guscio fond.	145	7	10	139	3	350.0	0.14	0.05
122	Guscio fond.	146	145	139	140	3	350.0	0.14	0.05
123	Guscio fond.	147	146	140	141	3	350.0	0.14	0.05
124	Guscio fond.	148	147	141	142	3	350.0	0.14	0.05
125	Guscio fond.	149	148	142	143	3	350.0	0.14	0.05
126	Guscio fond.	150	149	143	144	3	350.0	0.14	0.05
127	Guscio fond.	145	151	8	7	3	350.0	0.14	0.05
128	Guscio fond.	146	152	151	145	3	350.0	0.14	0.05
129	Guscio fond.	147	153	152	146	3	350.0	0.14	0.05
130	Guscio fond.	148	154	153	147	3	350.0	0.14	0.05
131	Guscio fond.	149	155	154	148	3	350.0	0.14	0.05
132	Guscio fond.	150	156	155	149	3	350.0	0.14	0.05
133	Guscio fond.	151	157	21	8	3	350.0	0.14	0.05
134	Guscio fond.	152	158	157	151	3	350.0	0.14	0.05
135	Guscio fond.	153	159	158	152	3	350.0	0.14	0.05
136	Guscio fond.	154	160	159	153	3	350.0	0.14	0.05
137	Guscio fond.	155	161	160	154	3	350.0	0.14	0.05
138	Guscio fond.	156	162	161	155	3	350.0	0.14	0.05
139	Guscio fond.	157	163	28	21	3	350.0	0.14	0.05
140	Guscio fond.	158	164	163	157	3	350.0	0.14	0.05
141	Guscio fond.	159	165	164	158	3	350.0	0.14	0.05
142	Guscio fond.	160	166	165	159	3	350.0	0.14	0.05
143	Guscio fond.	161	167	166	160	3	350.0	0.14	0.05
144	Guscio fond.	162	168	167	161	3	350.0	0.14	0.05
145	Guscio fond.	163	169	34	28	3	350.0	0.14	0.05
146	Guscio fond.	164	170	169	163	3	350.0	0.14	0.05
147	Guscio fond.	165	171	170	164	3	350.0	0.14	0.05
148	Guscio fond.	166	172	171	165	3	350.0	0.14	0.05
149	Guscio fond.	167	173	172	166	3	350.0	0.14	0.05
150	Guscio fond.	168	174	173	167	3	350.0	0.14	0.05
151	Guscio fond.	169	175	41	34	3	350.0	0.14	0.05
152	Guscio fond.	170	176	175	169	3	350.0	0.14	0.05
153	Guscio fond.	171	177	176	170	3	350.0	0.14	0.05
154	Guscio fond.	172	178	177	171	3	350.0	0.14	0.05

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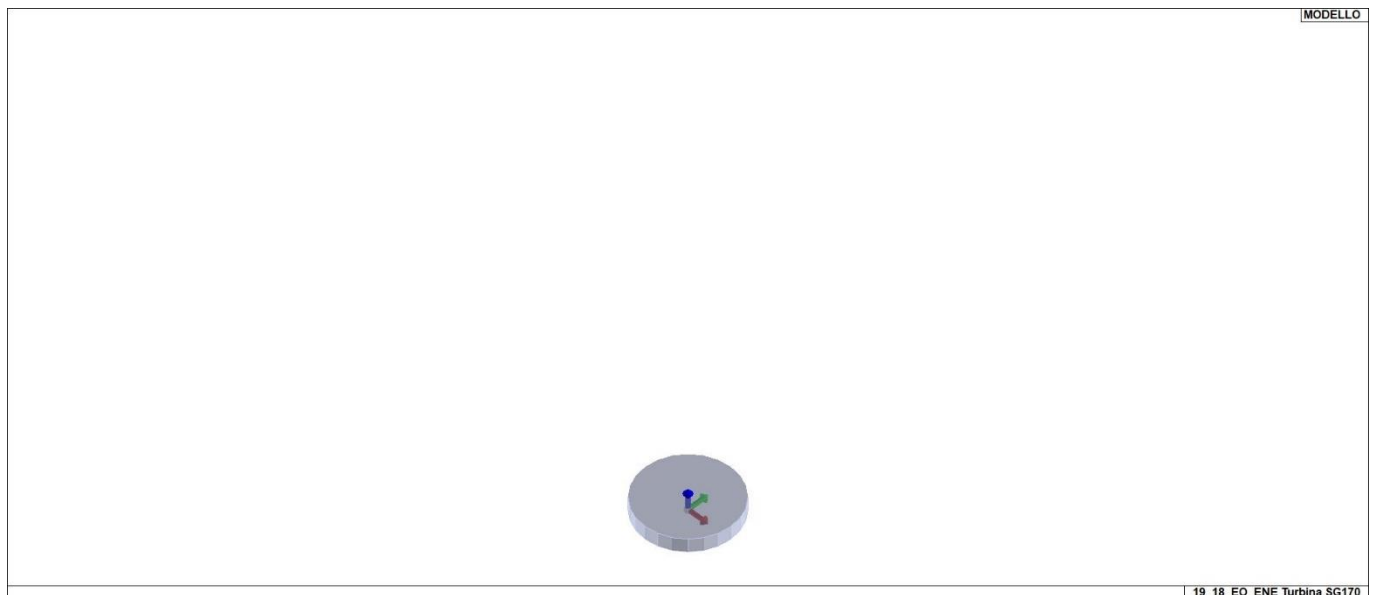
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155	Guscio fond.	173	179	178	172	3	350.0	0.14	0.05
156	Guscio fond.	174	180	179	173	3	350.0	0.14	0.05
157	Guscio fond.	175	181	48	41	3	350.0	0.14	0.05
158	Guscio fond.	176	182	181	175	3	350.0	0.14	0.05
159	Guscio fond.	177	183	182	176	3	350.0	0.14	0.05
160	Guscio fond.	178	184	183	177	3	350.0	0.14	0.05
161	Guscio fond.	179	185	184	178	3	350.0	0.14	0.05
162	Guscio fond.	180	186	185	179	3	350.0	0.14	0.05
163	Guscio fond.	48	181	187	49	3	350.0	0.14	0.05
164	Guscio fond.	181	182	188	187	3	350.0	0.14	0.05
165	Guscio fond.	182	183	189	188	3	350.0	0.14	0.05
166	Guscio fond.	183	184	190	189	3	350.0	0.14	0.05
167	Guscio fond.	184	185	191	190	3	350.0	0.14	0.05
168	Guscio fond.	185	186	192	191	3	350.0	0.14	0.05
169	Guscio fond.	49	187	193	50	3	350.0	0.14	0.05
170	Guscio fond.	187	188	194	193	3	350.0	0.14	0.05
171	Guscio fond.	188	189	195	194	3	350.0	0.14	0.05
172	Guscio fond.	189	190	196	195	3	350.0	0.14	0.05
173	Guscio fond.	190	191	197	196	3	350.0	0.14	0.05
174	Guscio fond.	191	192	198	197	3	350.0	0.14	0.05
175	Guscio fond.	50	193	55	51	3	350.0	0.14	0.05
176	Guscio fond.	193	194	57	55	3	350.0	0.14	0.05
177	Guscio fond.	194	195	59	57	3	350.0	0.14	0.05
178	Guscio fond.	195	196	61	59	3	350.0	0.14	0.05
179	Guscio fond.	196	197	63	61	3	350.0	0.14	0.05
180	Guscio fond.	197	198	65	63	3	350.0	0.14	0.05



16\_MOD\_SPESSORI\_D3

19\_18\_EO\_ENE Turbina SG170

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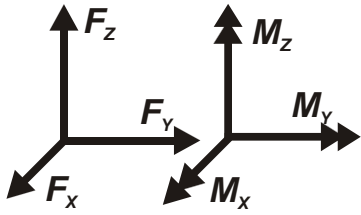
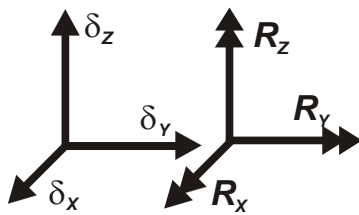
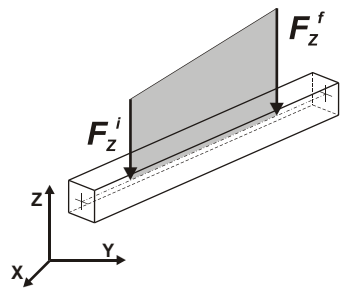
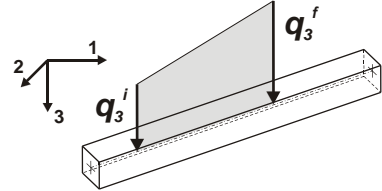
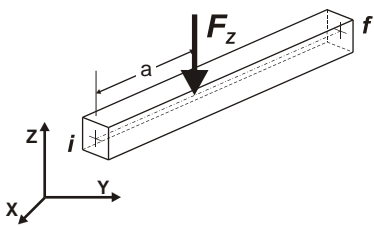
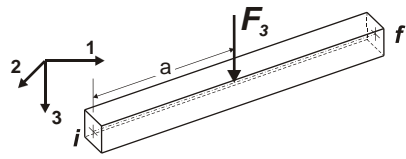
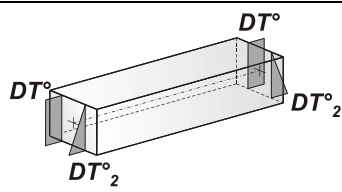
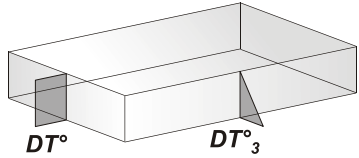
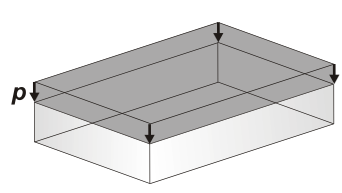
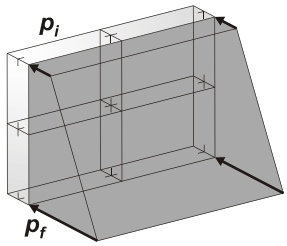
## 11 MODELLAZIONE DELLE AZIONI

### 11.1 LEGENDA TABELLA DATI AZIONI

Il programma consente l'uso di diverse tipologie di carico (azioni). Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

<b>1</b>	<b>carico concentrato nodale</b> 6 dati (forza $F_x$ , $F_y$ , $F_z$ , momento $M_x$ , $M_y$ , $M_z$ )
<b>2</b>	<b>spostamento nodale impresso</b> 6 dati (spostamento $T_x$ , $T_y$ , $T_z$ , rotazione $R_x$ , $R_y$ , $R_z$ )
<b>3</b>	<b>carico distribuito globale su elemento tipo trave</b> 7 dati ( $f_x$ , $f_y$ , $f_z$ , $m_x$ , $m_y$ , $m_z$ , ascissa di inizio carico) 7 dati ( $f_x$ , $f_y$ , $f_z$ , $m_x$ , $m_y$ , $m_z$ , ascissa di fine carico)
<b>4</b>	<b>carico distribuito locale su elemento tipo trave</b> 7 dati ( $f_1$ , $f_2$ , $f_3$ , $m_1$ , $m_2$ , $m_3$ , ascissa di inizio carico) 7 dati ( $f_1$ , $f_2$ , $f_3$ , $m_1$ , $m_2$ , $m_3$ , ascissa di fine carico)
<b>5</b>	<b>carico concentrato globale su elemento tipo trave</b> 7 dati ( $F_x$ , $F_y$ , $F_z$ , $M_x$ , $M_y$ , $M_z$ , ascissa di carico)
<b>6</b>	<b>carico concentrato locale su elemento tipo trave</b> 7 dati ( $F_1$ , $F_2$ , $F_3$ , $M_1$ , $M_2$ , $M_3$ , ascissa di carico)
<b>7</b>	<b>variazione termica applicata ad elemento tipo trave</b> 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
<b>8</b>	<b>carico di pressione uniforme su elemento tipo piastra</b> 1 dato (pressione)
<b>9</b>	<b>carico di pressione variabile su elemento tipo piastra</b> 4 dati (pressione, quota, pressione, quota)
<b>10</b>	<b>variazione termica applicata ad elemento tipo piastra</b> 2 dati (variazioni termiche: media e differenza nello spessore)
<b>11</b>	<b>carico variabile generale su elementi tipo trave e piastra</b> 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
<b>12</b>	<b>gruppo di carichi con impronta su piastra</b> 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell'impronta, interasse tra i carichi)



 <p>Carico concentrato nodale</p>	 <p>Spostamento impresso</p>
 <p>Carico distribuito globale</p>	 <p>Carico distribuito locale</p>
 <p>Carico concentrato globale</p>	 <p>Carico concentrato locale</p>
 <p>Carico termico 2D</p>	 <p>Carico termico 3D</p>
 <p>Carico pressione uniforme</p>	 <p>Carico pressione variabile</p>

**Tipo carico concentrato nodale**

Id	Tipo	Fx	Fy	Fz	Mx	My	Mz
		daN	daN	daN	daN cm	daN cm	daN cm
6	Pesto Torre-CN:Fz=-6.694e+05	0.0	0.0	-6.694e+05	0.0	0.0	0.0
7	Neve Navicella-CN:Fz=-2648.00	0.0	0.0	-2648.00	0.0	0.0	0.0
8	Vento X Navicella -CN:Fx=693.00	693.00	0.0	0.0	0.0	0.0	0.0
9	Vento Y Navicella-CN:Fy=2474.00	0.0	2474.00	0.0	0.0	0.0	0.0
10	Vento Tronco 1-CN:Fy=6822.00	0.0	6822.00	0.0	0.0	0.0	0.0
11	Vento Tronco 2-CN:Fy=9923.00	0.0	9923.00	0.0	0.0	0.0	0.0
12	Vento Tronco 3-CN:Fy= 1.309e+04	0.0	1.309e+04	0.0	0.0	0.0	0.0
13	Vento Tronco 4-CN:Fy= 1.523e+04	0.0	1.523e+04	0.0	0.0	0.0	0.0

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## 12 SCHEMATIZZAZIONE DEI CASI DI CARICO

### 12.1 LEGENDA TABELLA CASI DI CARICO

Il programma consente l'applicazione di diverse tipologie di casi di carico.

Sono previsti i seguenti 11 tipi di casi di carico:

	<b>Sigla</b>	<b>Tipo</b>	<b>Descrizione</b>
<b>1</b>	<b>Ggk</b>	A	caso di carico comprensivo del peso proprio struttura
<b>2</b>	<b>Gk</b>	NA	caso di carico con azioni permanenti
<b>3</b>	<b>Qk</b>	NA	caso di carico con azioni variabili
<b>4</b>	<b>Gsk</b>	A	caso di carico comprensivo dei carichi permanenti sui solai e sulle coperture
<b>5</b>	<b>Qsk</b>	A	caso di carico comprensivo dei carichi variabili sui solai
<b>6</b>	<b>Qnk</b>	A	caso di carico comprensivo dei carichi di neve sulle coperture
<b>7</b>	<b>Qtk</b>	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
<b>8</b>	<b>Qvk</b>	NA	caso di carico comprensivo di azioni da vento sulla struttura
<b>9</b>	<b>Esk</b>	SA	caso di carico sismico con analisi statica equivalente
<b>10</b>	<b>Edk</b>	SA	caso di carico sismico con analisi dinamica
<b>11</b>	<b>Etk</b>	NA	caso di carico comprensivo di azioni derivanti dall' incremento di spinta delle terre in condizione sismica
<b>12</b>	<b>PK</b>	NA	caso di carico comprensivo di azioni derivanti da coazioni, cedimenti e precompressioni

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 4-Gsk; 5-Qsk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico: 7-Qtk, in quanto richiede solo il valore della variazione termica;

9-Esk e 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:

*Numero Tipo e Sigla identificativa, Valore di riferimento del caso di carico (se previsto).*

In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (9-Esk e 10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i caso di carico 5-Qsk e 6-Qnk la partecipazione è prevista localmente per ogni elemento solaio o copertura presente nel modello (si confronti il valore Sksol nel capitolo relativo agli elementi solaio) e pertanto la loro partecipazione è di norma pari a uno.

<b>CDC</b>	<b>Tipo</b>	<b>Sigla Id</b>	<b>Note</b>
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione:1.00 per 1 CDC=Ggk (peso proprio della struttura)
			partecipazione:1.00 per 10 CDC=G1k (permanente gnavicella+torre)
			partecipazione:0.80 per 11 CDC=Qk Neve
			partecipazione:0.80 per 12 CDC=Qk Vento
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
10	Gk	CDC=G1k (permanente gnavicella+torre)	Azioni applicate: Nodo: 1 Azione : Pesto Torre-CN:Fz=-6.694e+05
11	Qk	CDC=Qk Neve	Azioni applicate:

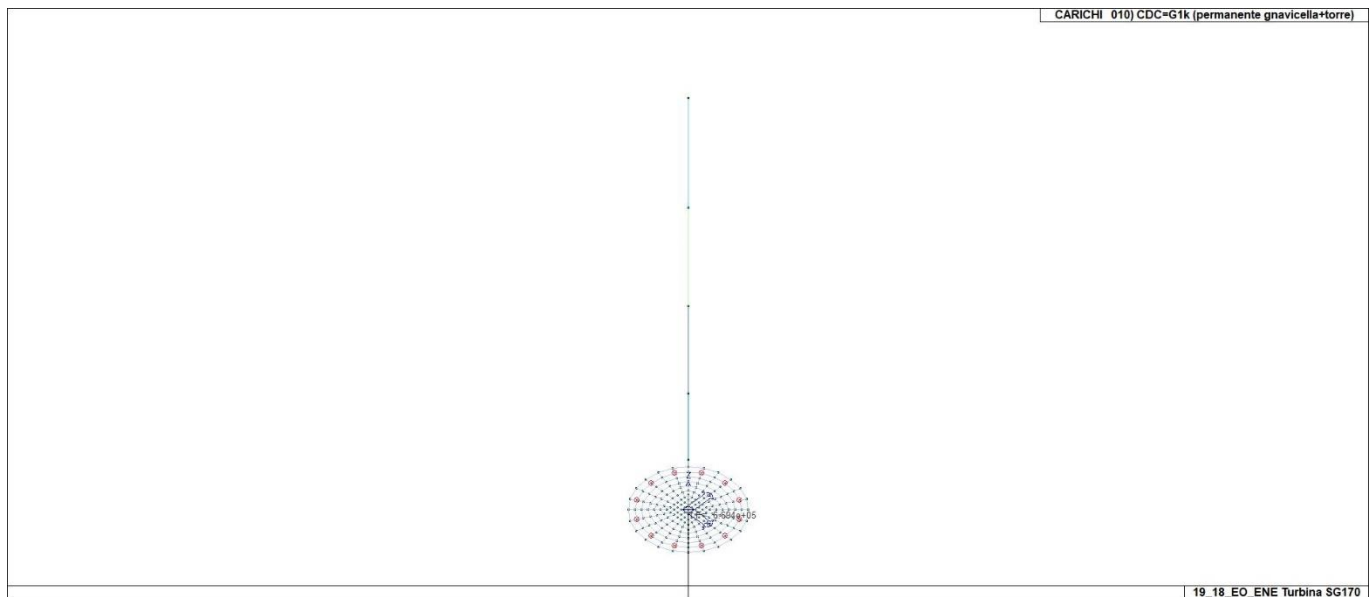
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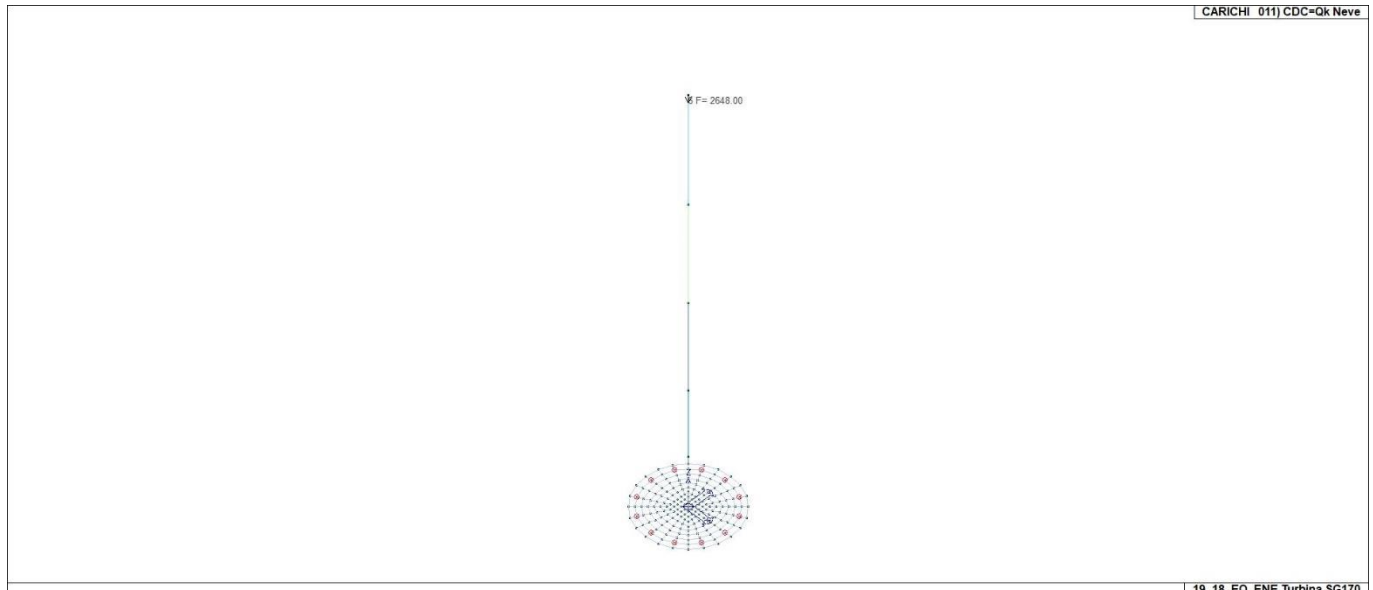


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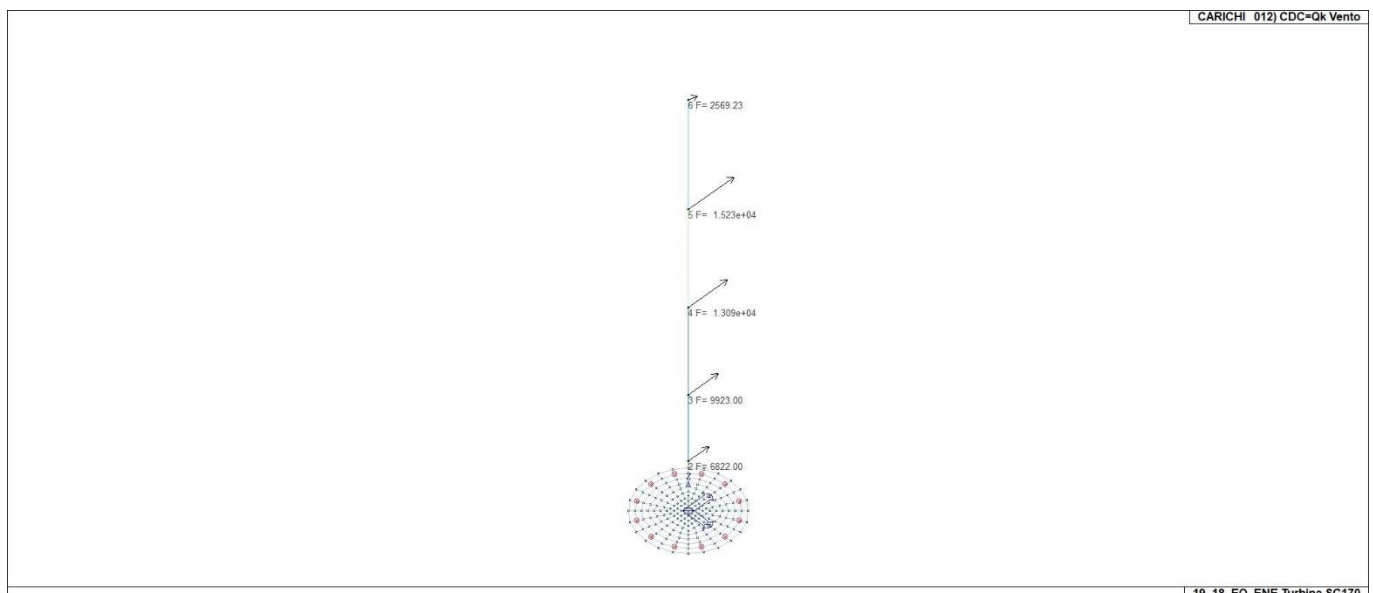
CDC	Tipo	Sigla Id	Note
			Nodo: 6 Azione : Neve Navicella-CN:Fz=-2648.00
12	Qk	CDC=Qk Vento	Azioni applicate:
			Nodo: 2 Azione : Vento Tronco 1-CN:Fy=6822.00
			Nodo: 3 Azione : Vento Tronco 2-CN:Fy=9923.00
			Nodo: 4 Azione : Vento Tronco 3-CN:Fy= 1.309e+04
			Nodo: 5 Azione : Vento Tronco 4-CN:Fy= 1.523e+04
			Nodo: 6 Azione : Vento X Navicella -CN:Fx=693.00
			Nodo: 6 Azione : Vento Y Navicella-CN:Fy=2474.00



22\_CDC\_010\_CDC=G1k (permanente gnavicella+torre)



22\_CDC\_011\_CDC=Qk Neve



22\_CDC\_012\_CDC=Qk Vento

## 13 DEFINIZIONE DELLE COMBINAZIONI

### 13.1 LEGENDA TABELLA COMBINAZIONI DI CARICO

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente.

Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico.

Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

**Combinazione fondamentale SLU**

$$\gamma G_1 \cdot G_1 + \gamma G_2 \cdot G_2 + \gamma P \cdot P + \gamma Q_1 \cdot Q_{k1} + \gamma Q_2 \cdot \psi_{02} \cdot Q_{k2} + \gamma Q_3 \cdot \psi_{03} \cdot Q_{k3} + \dots$$

**Combinazione caratteristica (rara) SLE**

$$G_1 + G_2 + P + Q_{k1} + \psi_{02} \cdot Q_{k2} + \psi_{03} \cdot Q_{k3} + \dots$$

**Combinazione frequente SLE**

$$G_1 + G_2 + P + \psi_{11} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

**Combinazione quasi permanente SLE**

$$G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \psi_{23} \cdot Q_{k3} + \dots$$

**Combinazione sismica**, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$$E + G_1 + G_2 + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

**Combinazione eccezionale**, impiegata per gli stati limite connessi alle azioni eccezionali

$$G_1 + G_2 + A_d + P + \psi_{21} \cdot Q_{k1} + \psi_{22} \cdot Q_{k2} + \dots$$

Dove:

NTC 2018 Tabella 2.5.I

Destinazione d'uso/azione	$\psi_0$	$\psi_1$	$\psi_2$
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini, ...	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli $\leq 30kN$ )	0,70	0,70	0,60
Categoria G Rimesse e parcheggi (autoveicoli $> 30kN$ )	0,70	0,50	0,30
Categoria H Coperture	0,00	0,00	0,00
Vento	0,60	0,20	0,00
Neve a quota $\leq 1000$ m	0,50	0,20	0,00
Neve a quota $> 1000$ m	0,70	0,50	0,20
Variazioni Termiche	0,60	0,50	0,00

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:

- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),
- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2018 Tabella 2.6.I

		Coefficiente	EQU	A1	A2
		$\gamma_f$			
Carichi permanenti	Favorevoli	$\gamma_{G1}$	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli	$\gamma_{G2}$	0,8	0,8	0,8
	Sfavorevoli		1,5	1,5	1,3
Carichi variabili	Favorevoli	$\gamma_{Qi}$	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Cmb	Tipo	Sigla Id	effetto P-delta
1	SLU	Comb. SLU A1 1	
2	SLU	Comb. SLU A1 2	
3	SLU	Comb. SLU A1 3	
4	SLU	Comb. SLU A1 4	
5	SLU	Comb. SLU A1 5	
6	SLU	Comb. SLU A1 6	
7	SLU	Comb. SLU A1 7	
8	SLU	Comb. SLU A1 8	
9	SLU	Comb. SLU A1 9	
10	SLU	Comb. SLU A1 10	
11	SLU	Comb. SLU A1 11	
12	SLU	Comb. SLU A1 12	
13	SLU	Comb. SLU A1 13	
14	SLU	Comb. SLU A1 14	
15	SLE(r)	Comb. SLE(rara) 15	
16	SLE(r)	Comb. SLE(rara) 16	
17	SLE(r)	Comb. SLE(rara) 17	
18	SLE(r)	Comb. SLE(rara) 18	
19	SLE(r)	Comb. SLE(rara) 19	
20	SLE(r)	Comb. SLE(rara) 20	
21	SLE(r)	Comb. SLE(rara) 21	
22	SLU	Comb. SLU A1 (SLV sism.) 22	
23	SLU	Comb. SLU A1 (SLV sism.) 23	
24	SLU	Comb. SLU A1 (SLV sism.) 24	
25	SLU	Comb. SLU A1 (SLV sism.) 25	
26	SLU	Comb. SLU A1 (SLV sism.) 26	
27	SLU	Comb. SLU A1 (SLV sism.) 27	
28	SLU	Comb. SLU A1 (SLV sism.) 28	
29	SLU	Comb. SLU A1 (SLV sism.) 29	
30	SLU	Comb. SLU A1 (SLV sism.) 30	
31	SLU	Comb. SLU A1 (SLV sism.) 31	
32	SLU	Comb. SLU A1 (SLV sism.) 32	
33	SLU	Comb. SLU A1 (SLV sism.) 33	
34	SLU	Comb. SLU A1 (SLV sism.) 34	
35	SLU	Comb. SLU A1 (SLV sism.) 35	
36	SLU	Comb. SLU A1 (SLV sism.) 36	
37	SLU	Comb. SLU A1 (SLV sism.) 37	
38	SLU	Comb. SLU A1 (SLV sism.) 38	
39	SLU	Comb. SLU A1 (SLV sism.) 39	
40	SLU	Comb. SLU A1 (SLV sism.) 40	
41	SLU	Comb. SLU A1 (SLV sism.) 41	
42	SLU	Comb. SLU A1 (SLV sism.) 42	
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44	SLU	Comb. SLU A1 (SLV sism.) 44	
45	SLU	Comb. SLU A1 (SLV sism.) 45	
46	SLU	Comb. SLU A1 (SLV sism.) 46	
47	SLU	Comb. SLU A1 (SLV sism.) 47	
48	SLU	Comb. SLU A1 (SLV sism.) 48	
49	SLU	Comb. SLU A1 (SLV sism.) 49	
50	SLU	Comb. SLU A1 (SLV sism.) 50	
51	SLU	Comb. SLU A1 (SLV sism.) 51	
52	SLU	Comb. SLU A1 (SLV sism.) 52	
53	SLU	Comb. SLU A1 (SLV sism.) 53	
54	SLD(sis)	Comb. SLE (SLD Danno sism.) 54	
55	SLD(sis)	Comb. SLE (SLD Danno sism.) 55	
56	SLD(sis)	Comb. SLE (SLD Danno sism.) 56	
57	SLD(sis)	Comb. SLE (SLD Danno sism.) 57	
58	SLD(sis)	Comb. SLE (SLD Danno sism.) 58	
59	SLD(sis)	Comb. SLE (SLD Danno sism.) 59	
60	SLD(sis)	Comb. SLE (SLD Danno sism.) 60	
61	SLD(sis)	Comb. SLE (SLD Danno sism.) 61	

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Cmb	Tipo	Sigla Id	effetto P-delta
62	SLD(sis)	Comb. SLE (SLD Danno sism.) 62	
63	SLD(sis)	Comb. SLE (SLD Danno sism.) 63	
64	SLD(sis)	Comb. SLE (SLD Danno sism.) 64	
65	SLD(sis)	Comb. SLE (SLD Danno sism.) 65	
66	SLD(sis)	Comb. SLE (SLD Danno sism.) 66	
67	SLD(sis)	Comb. SLE (SLD Danno sism.) 67	
68	SLD(sis)	Comb. SLE (SLD Danno sism.) 68	
69	SLD(sis)	Comb. SLE (SLD Danno sism.) 69	
70	SLD(sis)	Comb. SLE (SLD Danno sism.) 70	
71	SLD(sis)	Comb. SLE (SLD Danno sism.) 71	
72	SLD(sis)	Comb. SLE (SLD Danno sism.) 72	
73	SLD(sis)	Comb. SLE (SLD Danno sism.) 73	
74	SLD(sis)	Comb. SLE (SLD Danno sism.) 74	
75	SLD(sis)	Comb. SLE (SLD Danno sism.) 75	
76	SLD(sis)	Comb. SLE (SLD Danno sism.) 76	
77	SLD(sis)	Comb. SLE (SLD Danno sism.) 77	
78	SLD(sis)	Comb. SLE (SLD Danno sism.) 78	
79	SLD(sis)	Comb. SLE (SLD Danno sism.) 79	
80	SLD(sis)	Comb. SLE (SLD Danno sism.) 80	
81	SLD(sis)	Comb. SLE (SLD Danno sism.) 81	
82	SLD(sis)	Comb. SLE (SLD Danno sism.) 82	
83	SLD(sis)	Comb. SLE (SLD Danno sism.) 83	
84	SLD(sis)	Comb. SLE (SLD Danno sism.) 84	
85	SLD(sis)	Comb. SLE (SLD Danno sism.) 85	
86	SLE(f)	Comb. SLE(freq.) 86	
87	SLE(f)	Comb. SLE(freq.) 87	
88	SLE(f)	Comb. SLE(freq.) 88	
89	SLU(acc.)	Comb. SLU (Accid.) 89	
90	SLE(p)	Comb. SLE(perm.) 90	

Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
1	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	0.0	0.0		
2	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	0.0	0.90		
3	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	1.50	0.0		
4	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	1.50	0.90		
5	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0		
6	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.90		
7	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.50	0.0		
8	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.50	0.90		
9	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	0.0	1.50		
10	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	0.75	0.0		
11	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.30	0.75	1.50		
12	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.50		
13	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.75	0.0		
14	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.75	1.50		
15	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0		
16	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.60		
17	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00	0.0		
18	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	1.00	0.60		
19	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.00		
20	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50	0.0		
21	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.50	1.00		
22	1.00	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
23	1.00	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
24	1.00	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
25	1.00	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
26	1.00	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
27	1.00	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
28	1.00	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
29	1.00	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
30	1.00	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
31	1.00	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		
32	1.00	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	1.00	0.80	0.0		

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## 14 AZIONE SISMICA

### 14.1 VALUTAZIONE DELL' AZIONE SISMICA

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell' allegato alle NTC (rispettivamente media pesata e interpolazione).

L' azione sismica viene definita in relazione ad un periodo di riferimento  $V_r$  che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento  $V_r$  e la probabilità di superamento  $P_{ver}$  associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno  $T_r$  e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T\*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

• Parametri della struttura					
Classe d'uso	Vita $V_n$ [anni]	Coeff. Uso	Periodo $V_r$ [anni]	Tipo di suolo	Categoria topografica
IV	100.0	2.0	200.0	D	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente  $S = S_s * S_t$  (3.2.3)

Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale

Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	17.735	40.435	
34807	17.692	40.406	4.847
34808	17.758	40.404	3.946
34586	17.761	40.454	3.040
34585	17.696	40.456	4.029

SL	P <sub>ver</sub>	T <sub>r</sub>	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	120.0	0.033	2.430	0.350
SLD	63.0	201.0	0.039	2.520	0.390
SLV	10.0	1898.0	0.069	2.950	0.520
SLC	5.0	2475.0	0.073	3.010	0.530

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SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.033	1.800	2.430	0.596	0.247	0.740	1.732
SLD	0.039	1.800	2.520	0.672	0.260	0.781	1.756
SLV	0.069	1.800	2.950	1.045	0.300	0.901	1.876
SLC	0.073	1.800	3.010	1.098	0.303	0.910	1.892

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## 15 RISULTATI ANALISI SISMICHE

### 15.1 LEGENDA TABELLA ANALISI SISMICHE

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

- 9. Esk** caso di carico sismico con analisi statica equivalente  
**10. Edk** caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

<b>Angolo di ingresso</b>	Angolo di ingresso dell'azione sismica orizzontale
<b>Fattore di importanza</b>	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
<b>Zona sismica</b>	Zona sismica
<b>Accelerazione ag</b>	Accelerazione orizzontale massima sul suolo
<b>Categoria suolo</b>	Categoria di profilo stratigrafico del suolo di fondazione
<b>Fattore q</b>	Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
<b>Fattore di sito S</b>	Fattore dipendente dalla stratigrafia e dal profilo topografico
<b>Classe di duttilità CD</b>	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
<b>Fattore riduz. SLD</b>	Fattore di riduzione dello spettro elastico per lo stato limite di danno
<b>Periodo proprio T1</b>	Periodo proprio di vibrazione della struttura
<b>Coefficiente Lambda</b>	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
<b>Ordinata spettro Sd(T1)</b>	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale Svd)
<b>Ordinata spettro Se(T1)</b>	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale Sve)
<b>Ordinata spettro S (Tb-Tc)</b>	Valore dell' ordinata dello spettro in uso nel tratto costante
<b>numero di modi considerati</b>	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

a) **analisi sismica statica equivalente:**

- quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
- azione sismica complessiva

b) **analisi sismica dinamica con spettro di risposta:**

- quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo) , indici di regolarità e/r secondo EC8 4.2.3.2
- frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
- massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione  $\eta_T$  (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità  $1000 \cdot \eta_T/h$  da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

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Qualora si applichi il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") l'analisi sismica dinamica può essere comprensiva di sollecitazione verticale contemporanea a quella orizzontale, nel qual caso è effettuata una sovrapposizione degli effetti in ragione della radice dei quadrati degli effetti stessi. Per ciascuna combinazione sismica - analisi effettuate con il D.M. 96 (vedi NOTA sul capitolo "normativa di riferimento") - viene riportato il livello di deformazione  $\epsilon_{tT}$ ,  $\epsilon_{tP}$  e  $\epsilon_{tD}$  degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso in unità  $1000 \cdot \epsilon_{tT}/h$  da confrontare direttamente con il valore 2 o 4 per la verifica.

Per gli edifici sismicamente isolati si riportano di seguito le verifiche condotte sui dispositivi di isolamento. Le verifiche sono effettuate secondo la circolare n.7/2019 del C.S.LL.PP nelle combinazioni in SLC come previsto dal DM 17-01-2018. Per ogni combinazione è riportato il codice di verifica ed i valori utilizzati per la verifica: spostamento  $dE$ , area ridotta e dimensione  $A2$ , azione verticale, deformazioni di taglio dell'elastomero e tensioni nell'acciaio.

Qualora si applichi l'Ordinanza 3274 e s.m.i. le verifiche sono eseguite in accordo con l'allegato 10.A.

In particolare la tabella, per ogni combinazione di calcolo, riporta:

<b>Nodo</b>	Nodo di appoggio dell' isolatore
<b>Cmb</b>	Combinazione oggetto della verifica
<b>Verif.</b>	Codice di verifica ok – verifica positiva , NV – verifica negativa, ND – verifica non completata
<b>dE</b>	Spostamento relativo tra le due facce (amplificato del 20% per Ordinanza 3274 e smi) combinato con la regola del 30%
<b>Ang fi</b>	Angolo utilizzato per il calcolo dell' area ridotta $A_r$ (per dispositivi circolari)
<b>V</b>	Azione verticale agente
<b>Ar</b>	Area ridotta efficace
<b>Dim A2</b>	Dimensione utile per il calcolo della deformazione per rotazione
<b>Sig s</b>	Tensione nell' inserto in acciaio
<b>Gam c(a,s,t)</b>	Deformazioni di taglio dell' elastomero
<b>Vcr</b>	Carico critico per instabilità

Affinché la verifica sia positiva deve essere:

- 1)  $V > 0$
- 2)  $\text{Sig } s < f_{yk}$
- 3)  $\text{Gam } t < 5$
- 4)  $\text{Gam } s < \text{Gam } * \text{ (caratteristica dell' elastomero)}$
- 5)  $\text{Gam } s < 2$
- 6)  $V < 0.5 V_{cr}$

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Maggio 2011, disponibile per il download sul sito [www.2si.it](http://www.2si.it), si segnalano i seguenti esempi applicativi:

Test N°	Titolo
23	DM 2008: SPETTRO
29	SISMICA 1000/H, SOMMA V, EFFETTO P- $\delta$
30	ANALISI DI UN EDIFICIO CON ISOLATORI SISMICI
70	MASSE SISMICHE
75	PROGETTO DI ISOLATORI ELASTOMERICI
76	VERIFICA DI ISOLATORI ELASTOMERICI
77	VERIFICA DI ISOLATORI FRICTION PENDULUM

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**Calcolo dei fattori di comportamento secondo il D.M. 17/01/2018**

La costruzione, nuova, è caratterizzata da regolarità sia in pianta sia in altezza ed è progettata in classe di duttilità media (CD"B").

**Parametri fattore in direzione x e y**

Sistema costruttivo: acciaio o composto acciaio-calcestruzzo  
 Tipologia strutturale: altre tipologie  
 Valore base fattore  $q_0 = 1.500$   
 Fattore di regolarità  $K_R = 1.0$   
 Fattore dissipativo  $q_D = q_0 \cdot K_R = 1.500$

**Fattori di comportamento utilizzati**

Dissipativi  
 q SLU x 1.500  
 q SLU y 1.500  
 q SLU z 1.500

CDC	Tipo	Sigla Id	Note
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.244 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 2.775 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.500
			classe di duttilità CD: B
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.054	4.031e+05	60.8	0.0	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.054	0.0	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.244	1.388e+05	20.9	1.37e-05	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.244	1.37e-05	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.206	8.528e+04	12.9	8.24e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.206	8.24e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.165	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.138	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.132	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

CDC	Tipo	Sigla Id	Note
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.244 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 2.775 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.500
			classe di duttilità CD: B
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.054	4.031e+05	60.8	1.89e-04	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.054	1.89e-04	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.244	1.388e+05	20.9	5.47e-06	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.244	5.47e-06	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.206	8.528e+04	12.9	8.93e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.206	8.93e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.165	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.138	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.132	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

CDC	Tipo	Sigla Id	Note
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.244 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 2.775 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.500
			classe di duttilità CD: B
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.054	4.031e+05	60.8	0.0	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.054	0.0	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.244	1.388e+05	20.9	1.60e-05	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.244	1.60e-05	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.206	8.528e+04	12.9	9.74e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.206	9.74e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.165	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.138	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.132	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

CDC	Tipo	Sigla Id	Note
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.244 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 2.775 sec.
			fattore q: 1.500
			fattore per spost. mu d: 1.500
			classe di duttilità CD: B
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.054	4.031e+05	60.8	2.23e-04	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.054	2.23e-04	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.244	1.388e+05	20.9	1.41e-05	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.244	1.41e-05	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.206	8.528e+04	12.9	1.05e-04	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.206	1.05e-04	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.165	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.138	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
9	48.979	0.020	0.132	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.177 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 2.775 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.032	4.031e+05	60.8	0.0	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.032	0.0	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.177	1.388e+05	20.9	1.37e-05	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.177	1.37e-05	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.154	8.528e+04	12.9	8.24e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.154	8.24e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.113	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.085	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.079	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.177 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 2.775 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.032	4.031e+05	60.8	1.89e-04	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.032	1.89e-04	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.177	1.388e+05	20.9	5.47e-06	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.177	5.47e-06	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.154	8.528e+04	12.9	8.93e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.154	8.93e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.113	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.085	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.079	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0
Risulta				6.271e+05		6.271e+05		6.630e+05			
In percentuale				94.53		94.53		99.93			

CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.177 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 2.775 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%	Energia	Energia x v
	Hz	sec	g	daN		daN		daN			
1	0.360	2.775	0.032	4.031e+05	60.8	0.0	0.0	0.0	0.0	0.0	0.0
2	0.360	2.775	0.032	0.0	0.0	4.031e+05	60.8	0.0	0.0	0.0	0.0
3	1.803	0.555	0.177	1.388e+05	20.9	1.60e-05	0.0	0.0	0.0	0.0	0.0
4	1.803	0.555	0.177	1.60e-05	0.0	1.388e+05	20.9	0.0	0.0	0.0	0.0
5	4.883	0.205	0.154	8.528e+04	12.9	9.74e-05	0.0	0.0	0.0	0.0	0.0
6	4.883	0.205	0.154	9.74e-05	0.0	8.528e+04	12.9	0.0	0.0	0.0	0.0
7	9.658	0.104	0.113	0.0	0.0	0.0	0.0	6.194e+05	93.4	0.0	0.0
8	28.079	0.036	0.085	0.0	0.0	0.0	0.0	3.543e+04	5.3	0.0	0.0
9	48.979	0.020	0.079	0.0	0.0	0.0	0.0	8124.13	1.2	0.0	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g %	M efficace Y x g %	M efficace Z x g %	Energia	Energia x v
Risulta				6.271e+05	6.271e+05	6.630e+05		
In percentuale				94.53	94.53	99.93		

CDC	Tipo	Sigla Id	Note
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: D
			fattore di sito S = 1.800
			ordinata spettro (tratto Tb-Tc) = 0.177 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 2.775 sec.
			numero di modi considerati: 9
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
1.124e+04	7.881e+04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8244.40	1.663e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5556.40	1.652e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3176.40	1.429e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1356.40	1.103e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	6.634e+05									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g %	M efficace Y x g %	M efficace Z x g %	Energia	Energia x v
	Hz	sec	g	daN	daN	daN		
1	0.360	2.775	0.032	4.031e+05	60.8	2.23e-04	0.0	0.0
2	0.360	2.775	0.032	2.23e-04	0.0	4.031e+05	60.8	0.0
3	1.803	0.555	0.177	1.388e+05	20.9	1.41e-05	0.0	0.0
4	1.803	0.555	0.177	1.41e-05	0.0	1.388e+05	20.9	0.0
5	4.883	0.205	0.154	8.528e+04	12.9	1.05e-04	0.0	0.0
6	4.883	0.205	0.154	1.05e-04	0.0	8.528e+04	12.9	0.0
7	9.658	0.104	0.113	0.0	0.0	0.0	6.194e+05	93.4
8	28.079	0.036	0.085	0.0	0.0	0.0	3.543e+04	5.3
9	48.979	0.020	0.079	0.0	0.0	0.0	8124.13	1.2
Risulta				6.271e+05	6.271e+05	6.630e+05		
In percentuale				94.53	94.53	99.93		

Cmb	Pilas. 1000 etaT/h	etaT	inter. h	Pilas. 1000 etaT/h	etaT	inter. h	Pilas. 1000 etaT/h	etaT	inter. h
		cm	cm		cm	cm		cm	cm
54	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
55	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
56	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
57	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
58	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
59	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84
60	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0	0.84

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



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61	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
62	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
63	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
64	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
65	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
66	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
67	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
68	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
69	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
70	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
71	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
72	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
73	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
74	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
75	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
76	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
77	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
78	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
79	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
80	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
81	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
82	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
83	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
84	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
85	1	0.22	0.30	1356.4	2	0.54	0.99	1820.0	3	0.84	1.99	2380.0
	4	1.07	2.87	2688.0	5	1.27	3.81	2997.0				
<b>Cmb</b>		<b>1000 etaT/h</b>										
		1.27										

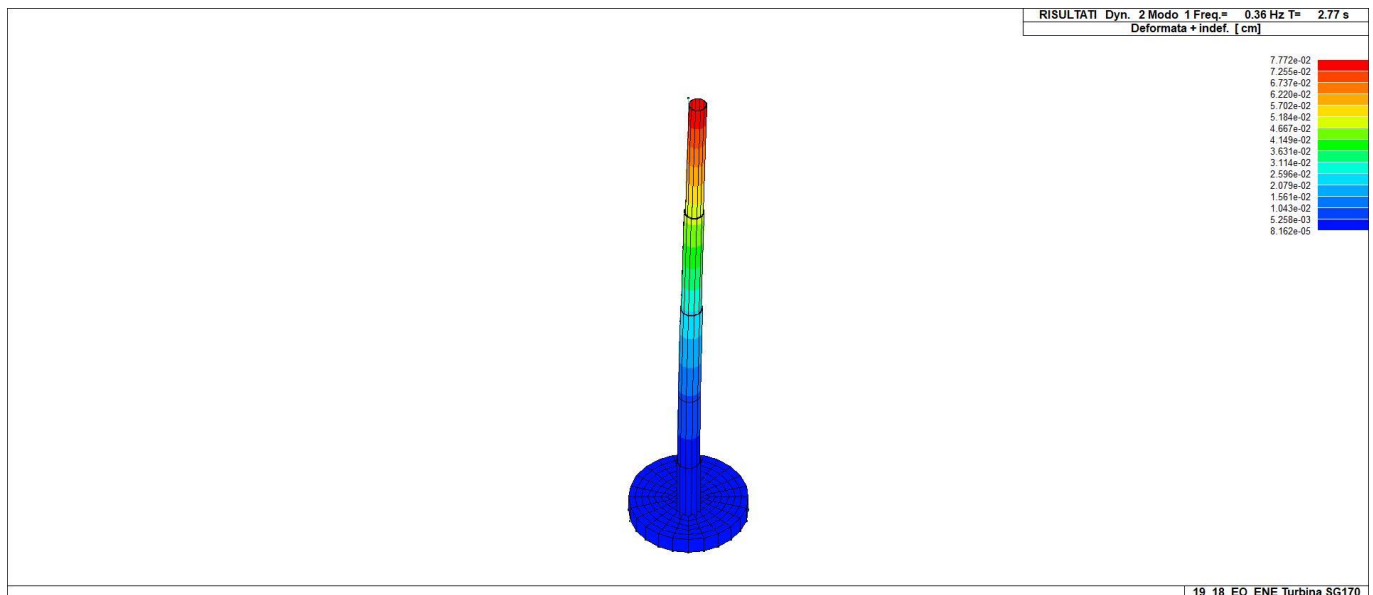
**PROJETTO engineering s.r.l.**  
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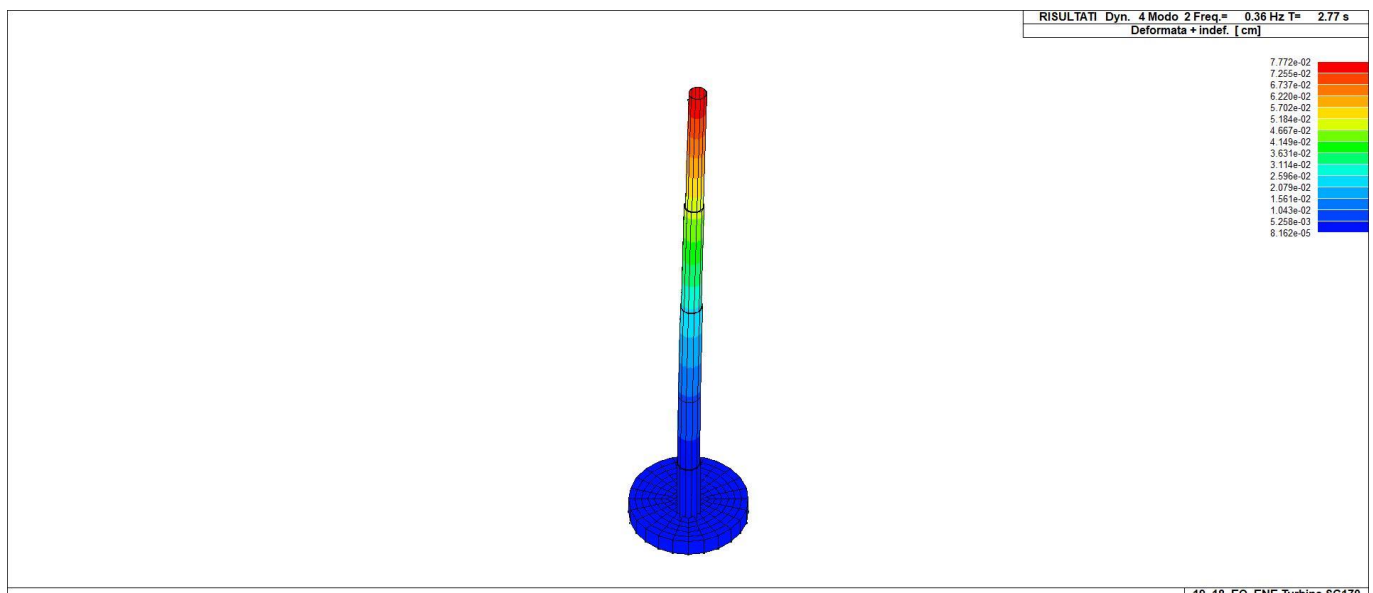


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31\_RIS\_MODALX\_001\_CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)



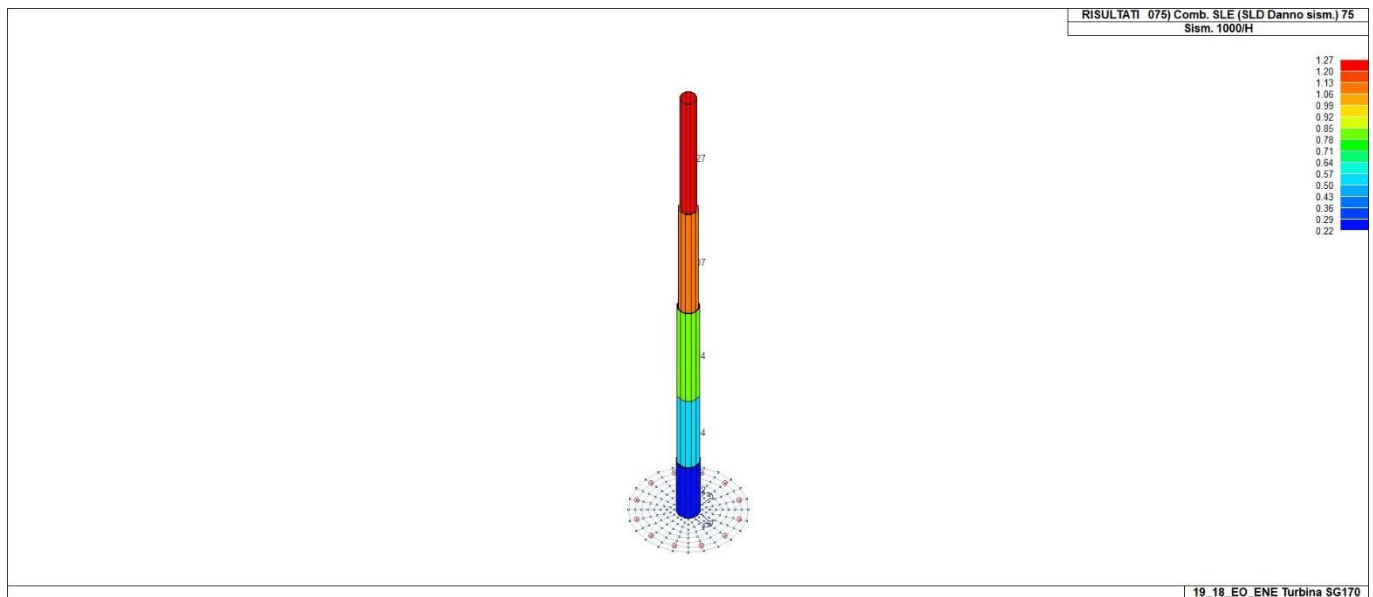
31\_RIS\_MODALY\_002\_CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)

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31\_RIS\_SLE\_075\_Comb. SLE (SLD Danno sism.) 75

## 16 RISULTATI NODALI

### 16.1 LEGENDA RISULTATI NODALI

Il controllo dei risultati delle analisi condotte, per quanto concerne i nodi strutturali, è possibile in relazione alle tabelle sottoriportate.

Una prima tabella riporta infatti per ogni nodo e per ogni combinazione (o caso di carico) gli spostamenti nodali.

Una seconda tabella riporta per ogni nodo a cui sia associato un vincolo rigido e/o elastico o una fondazione speciale e per ogni combinazione (o caso di carico) i valori delle azioni esercitate dalla struttura sui vincoli (reazioni vincolari cambiate di segno).

Una terza tabella, infine riassume per ogni nodo le sei combinazioni in cui si attingono i valori minimi e massimi della reazione Fz, della reazione Mx e della reazione My.

Nodo	Cmb	Traslazione X cm	Traslazione Y cm	Traslazione Z cm	Rotazione X	Rotazione Y	Rotazione Z
1	3	0.0	0.0	-0.77	0.0	0.0	0.0
1	11	6.56e-04	0.05	-0.77	-2.46e-04	7.22e-06	0.0
1	12	6.56e-04	0.05	-0.60	-2.46e-04	7.22e-06	0.0
1	17	0.0	0.0	-0.60	0.0	0.0	0.0
1	19	4.38e-04	0.04	-0.60	-1.64e-04	4.81e-06	0.0
1	21	4.38e-04	0.04	-0.60	-1.64e-04	4.81e-06	0.0
1	23	0.04	-0.01	-0.60	3.04e-05	1.01e-04	0.0
1	43	0.01	-0.04	-0.60	1.01e-04	3.04e-05	0.0
1	55	0.03	-8.56e-03	-0.60	1.88e-05	6.26e-05	0.0
1	75	8.56e-03	-0.03	-0.60	6.26e-05	1.88e-05	0.0
1	87	0.0	0.0	-0.60	0.0	0.0	0.0
1	88	8.75e-05	7.28e-03	-0.60	-3.29e-05	0.0	0.0
1	89	0.0	0.0	-0.60	0.0	0.0	0.0
1	90	0.0	0.0	-0.60	0.0	0.0	0.0
2	3	0.0	0.0	-0.83	0.0	0.0	0.0
2	11	0.03	1.07	-0.83	-1.21e-03	3.73e-05	0.0
2	12	0.03	1.07	-0.64	-1.21e-03	3.73e-05	0.0
2	17	0.0	0.0	-0.64	0.0	0.0	0.0
2	19	0.02	0.72	-0.64	-8.08e-04	2.49e-05	0.0
2	21	0.02	0.72	-0.64	-8.08e-04	2.49e-05	0.0
2	23	0.50	-0.15	-0.64	1.73e-04	5.78e-04	0.0
2	43	0.15	-0.50	-0.64	5.78e-04	1.73e-04	0.0
2	55	0.31	-0.09	-0.64	1.06e-04	3.52e-04	0.0
2	62	0.31	0.09	-0.64	-1.06e-04	3.52e-04	0.0
2	75	0.09	-0.31	-0.64	3.52e-04	1.06e-04	0.0
2	87	0.0	0.0	-0.64	0.0	0.0	0.0
2	88	4.18e-03	0.14	-0.64	-1.62e-04	4.98e-06	0.0
2	89	0.0	0.0	-0.64	0.0	0.0	0.0
2	90	0.0	0.0	-0.64	0.0	0.0	0.0
3	3	0.0	0.0	-0.91	0.0	0.0	0.0
3	11	0.14	4.34	-0.91	-2.30e-03	7.83e-05	0.0
3	12	0.14	4.34	-0.70	-2.30e-03	7.83e-05	0.0
3	17	0.0	0.0	-0.70	0.0	0.0	0.0
3	19	0.09	2.90	-0.70	-1.53e-03	5.22e-05	0.0
3	21	0.09	2.90	-0.70	-1.53e-03	5.22e-05	0.0
3	23	2.08	-0.62	-0.70	3.38e-04	1.13e-03	0.0
3	35	2.08	-0.62	-0.70	3.38e-04	1.13e-03	0.0
3	43	0.62	-2.08	-0.70	1.13e-03	3.38e-04	0.0
3	55	1.26	-0.38	-0.70	2.02e-04	6.72e-04	0.0
3	67	1.26	-0.38	-0.70	2.02e-04	6.72e-04	0.0
3	75	0.38	-1.26	-0.70	6.72e-04	2.02e-04	0.0
3	87	0.0	0.0	-0.70	0.0	0.0	0.0

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3	88	0.02	0.58	-0.70	-3.07e-04	1.04e-05	0.0
3	89	0.0	0.0	-0.70	0.0	0.0	0.0
3	90	0.0	0.0	-0.70	0.0	0.0	0.0
4	3	0.0	0.0	-0.98	0.0	0.0	0.0
4	11	0.38	10.89	-0.97	-3.09e-03	1.20e-04	0.0
4	12	0.38	10.89	-0.75	-3.09e-03	1.20e-04	0.0
4	17	0.0	0.0	-0.75	0.0	0.0	0.0
4	19	0.25	7.26	-0.75	-2.06e-03	7.97e-05	0.0
4	21	0.25	7.26	-0.75	-2.06e-03	7.97e-05	0.0
4	23	5.32	-1.60	-0.75	4.76e-04	1.59e-03	0.0
4	35	5.32	-1.60	-0.75	4.76e-04	1.59e-03	0.0
4	43	1.60	-5.32	-0.75	1.59e-03	4.76e-04	0.0
4	55	3.16	-0.95	-0.75	2.80e-04	9.35e-04	0.0
4	62	3.16	0.95	-0.75	-2.80e-04	9.35e-04	0.0
4	83	0.95	-3.16	-0.75	9.35e-04	2.80e-04	0.0
4	87	0.0	0.0	-0.75	0.0	0.0	0.0
4	88	0.05	1.45	-0.75	-4.13e-04	1.59e-05	0.0
4	89	0.0	0.0	-0.75	0.0	0.0	0.0
4	90	0.0	0.0	-0.75	0.0	0.0	0.0
5	3	0.0	0.0	-1.03	0.0	0.0	0.0
5	11	0.76	19.90	-1.03	-3.50e-03	1.59e-04	0.0
5	12	0.76	19.90	-0.79	-3.50e-03	1.59e-04	0.0
5	17	0.0	0.0	-0.79	0.0	0.0	0.0
5	19	0.50	13.27	-0.79	-2.34e-03	1.06e-04	0.0
5	21	0.50	13.27	-0.79	-2.34e-03	1.06e-04	0.0
5	31	10.04	-3.01	-0.79	5.97e-04	1.99e-03	0.0
5	35	10.04	-3.01	-0.79	5.97e-04	1.99e-03	0.0
5	51	3.01	-10.04	-0.79	1.99e-03	5.97e-04	0.0
5	55	5.91	-1.77	-0.79	3.56e-04	1.19e-03	0.0
5	67	5.91	-1.77	-0.79	3.56e-04	1.19e-03	0.0
5	83	1.77	-5.91	-0.79	1.19e-03	3.56e-04	0.0
5	87	0.0	0.0	-0.79	0.0	0.0	0.0
5	88	0.10	2.65	-0.79	-4.67e-04	2.12e-05	0.0
5	89	0.0	0.0	-0.79	0.0	0.0	0.0
5	90	0.0	0.0	-0.79	0.0	0.0	0.0
6	3	0.0	0.0	-1.05	0.0	0.0	0.0
6	9	1.28	30.56	-1.05	-3.59e-03	1.82e-04	0.0
6	12	1.28	30.56	-0.80	-3.59e-03	1.82e-04	0.0
6	17	0.0	0.0	-0.81	0.0	0.0	0.0
6	19	0.85	20.38	-0.80	-2.39e-03	1.21e-04	0.0
6	21	0.85	20.38	-0.81	-2.39e-03	1.21e-04	0.0
6	30	16.21	4.86	-0.81	-6.69e-04	2.23e-03	0.0
6	31	16.21	-4.86	-0.81	6.69e-04	2.23e-03	0.0
6	43	4.86	-16.21	-0.81	2.23e-03	6.69e-04	0.0
6	62	9.56	2.87	-0.81	-4.06e-04	1.35e-03	0.0
6	63	9.56	-2.87	-0.81	4.06e-04	1.35e-03	0.0
6	83	2.87	-9.56	-0.81	1.35e-03	4.06e-04	0.0
6	87	0.0	0.0	-0.81	0.0	0.0	0.0
6	88	0.17	4.08	-0.80	-4.78e-04	2.43e-05	0.0
6	89	0.0	0.0	-0.80	0.0	0.0	0.0
6	90	0.0	0.0	-0.80	0.0	0.0	0.0
7	3	-0.02	-0.02	-0.71	-9.07e-05	9.07e-05	0.0
7	12	-0.01	0.06	-0.52	-1.53e-04	6.77e-05	0.0
7	17	-0.01	-0.01	-0.55	-6.97e-05	6.97e-05	0.0
7	19	-0.01	0.04	-0.53	-1.25e-04	6.83e-05	0.0
7	25	-0.06	-0.03	-0.56	-5.95e-05	2.93e-05	0.0
7	41	-0.03	-0.06	-0.56	-2.93e-05	5.95e-05	0.0
7	45	-0.03	-0.06	-0.56	-2.93e-05	5.95e-05	0.0
7	57	-0.04	-0.02	-0.56	-6.34e-05	4.46e-05	0.0
7	73	-0.02	-0.04	-0.56	-4.46e-05	6.34e-05	0.0
7	77	-0.02	-0.04	-0.56	-4.46e-05	6.34e-05	0.0
7	87	-0.01	-0.01	-0.55	-6.97e-05	6.97e-05	0.0
7	89	-0.01	-0.01	-0.55	-6.96e-05	6.96e-05	0.0
7	90	-0.01	-0.01	-0.55	-6.96e-05	6.96e-05	0.0
8	3	-0.01	-0.02	-0.72	-9.68e-05	6.46e-05	0.0
8	12	-6.83e-03	0.06	-0.52	-1.61e-04	4.94e-05	0.0
8	17	-8.68e-03	-0.01	-0.55	-7.44e-05	4.97e-05	0.0
8	19	-7.45e-03	0.03	-0.53	-1.32e-04	4.95e-05	0.0
8	25	-0.05	-0.03	-0.57	-6.30e-05	6.51e-06	0.0
8	41	-0.02	-0.06	-0.57	-3.21e-05	3.79e-05	0.0
8	45	-0.02	-0.06	-0.57	-3.21e-05	3.79e-05	0.0

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Tel/Fax 099 9574694 mob. 349 1735914



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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

8	57	-0.04	-0.02	-0.56	-6.73e-05	2.29e-05	0.0
8	73	-0.02	-0.04	-0.56	-4.82e-05	4.24e-05	0.0
8	87	-8.67e-03	-0.01	-0.55	-7.44e-05	4.96e-05	0.0
8	89	-8.67e-03	-0.01	-0.55	-7.43e-05	4.96e-05	0.0
8	90	-8.67e-03	-0.01	-0.55	-7.43e-05	4.96e-05	0.0
9	3	-0.01	-0.01	-0.73	-7.04e-05	7.04e-05	0.0
9	12	-7.79e-03	0.06	-0.54	-1.50e-04	5.56e-05	0.0
9	17	-9.46e-03	-9.46e-03	-0.56	-5.41e-05	5.41e-05	0.0
9	19	-8.34e-03	0.04	-0.55	-1.18e-04	5.51e-05	0.0
9	25	-0.05	-0.02	-0.57	-4.02e-05	6.85e-06	0.0
9	45	-0.02	-0.05	-0.57	-6.85e-06	4.02e-05	0.0
9	57	-0.04	-0.02	-0.57	-4.55e-05	2.48e-05	0.0
9	73	-0.02	-0.04	-0.57	-2.48e-05	4.55e-05	0.0
9	87	-9.46e-03	-9.46e-03	-0.56	-5.41e-05	5.41e-05	0.0
9	89	-9.45e-03	-9.45e-03	-0.56	-5.41e-05	5.41e-05	0.0
9	90	-9.45e-03	-9.45e-03	-0.56	-5.41e-05	5.41e-05	0.0
10	3	-0.02	-0.01	-0.72	-6.46e-05	9.68e-05	0.0
10	12	-0.01	0.06	-0.53	-1.38e-04	7.39e-05	0.0
10	17	-0.01	-8.68e-03	-0.55	-4.97e-05	7.44e-05	0.0
10	19	-0.01	0.04	-0.54	-1.09e-04	7.41e-05	0.0
10	25	-0.06	-0.02	-0.57	-3.79e-05	3.21e-05	0.0
10	45	-0.03	-0.05	-0.57	-6.51e-06	6.30e-05	0.0
10	57	-0.04	-0.02	-0.56	-4.24e-05	4.82e-05	0.0
10	77	-0.02	-0.04	-0.56	-2.29e-05	6.73e-05	0.0
10	87	-0.01	-8.67e-03	-0.55	-4.96e-05	7.44e-05	0.0
10	89	-0.01	-8.67e-03	-0.55	-4.96e-05	7.43e-05	0.0
10	90	-0.01	-8.67e-03	-0.55	-4.96e-05	7.43e-05	0.0
11	3	-0.01	-6.63e-03	-0.74	-3.79e-05	7.59e-05	0.0
11	12	-8.54e-03	0.06	-0.55	-1.36e-04	6.06e-05	0.0
11	17	-0.01	-5.10e-03	-0.57	-2.92e-05	5.84e-05	0.0
11	19	-9.09e-03	0.04	-0.56	-1.00e-04	5.98e-05	0.0
11	25	-0.05	-0.02	-0.58	-1.34e-05	5.74e-06	0.0
11	45	-0.02	-0.05	-0.57	2.22e-05	4.26e-05	0.0
11	57	-0.04	-0.01	-0.57	-1.94e-05	2.57e-05	0.0
11	77	-0.02	-0.04	-0.57	2.65e-06	4.86e-05	0.0
11	87	-0.01	-5.10e-03	-0.57	-2.92e-05	5.83e-05	0.0
11	89	-0.01	-5.09e-03	-0.57	-2.91e-05	5.83e-05	0.0
11	90	-0.01	-5.09e-03	-0.57	-2.91e-05	5.83e-05	0.0
12	3	-0.02	-5.92e-03	-0.72	-3.39e-05	1.02e-04	0.0
12	12	-0.01	0.07	-0.55	-1.20e-04	7.92e-05	0.0
12	17	-0.01	-4.55e-03	-0.56	-2.61e-05	7.81e-05	0.0
12	19	-0.01	0.04	-0.55	-8.84e-05	7.88e-05	0.0
12	25	-0.06	-0.02	-0.57	-1.30e-05	3.38e-05	0.0
12	45	-0.03	-0.05	-0.57	1.93e-05	6.54e-05	0.0
12	57	-0.05	-0.01	-0.57	-1.79e-05	5.06e-05	0.0
12	77	-0.02	-0.04	-0.56	2.06e-06	7.02e-05	0.0
12	87	-0.01	-4.55e-03	-0.56	-2.60e-05	7.80e-05	0.0
12	88	-0.01	4.84e-03	-0.56	-3.85e-05	7.82e-05	0.0
12	89	-0.01	-4.55e-03	-0.56	-2.60e-05	7.80e-05	0.0
12	90	-0.01	-4.55e-03	-0.56	-2.60e-05	7.80e-05	0.0
13	3	-0.01	0.0	-0.74	0.0	7.84e-05	0.0
13	11	-0.01	0.07	-0.74	-1.12e-04	8.16e-05	0.0
13	17	-0.01	0.0	-0.57	0.0	6.03e-05	0.0
13	21	-9.83e-03	0.04	-0.57	-7.48e-05	6.24e-05	0.0
13	24	-0.05	0.01	-0.58	-1.59e-05	5.18e-06	0.0
13	25	-0.05	-0.01	-0.58	1.59e-05	5.18e-06	0.0
13	44	-0.02	0.04	-0.57	-5.31e-05	4.37e-05	0.0
13	56	-0.04	9.18e-03	-0.57	-9.88e-06	2.61e-05	0.0
13	65	-0.04	-9.18e-03	-0.57	9.88e-06	2.61e-05	0.0
13	76	-0.02	0.03	-0.57	-3.29e-05	5.00e-05	0.0
13	87	-0.01	0.0	-0.57	0.0	6.02e-05	0.0
13	88	-0.01	8.91e-03	-0.57	-1.50e-05	6.06e-05	0.0
13	89	-0.01	0.0	-0.57	0.0	6.02e-05	0.0
13	90	-0.01	0.0	-0.57	0.0	6.02e-05	0.0
14	3	-0.02	0.0	-0.73	0.0	1.03e-04	0.0
14	11	-0.02	0.07	-0.73	-9.54e-05	1.06e-04	0.0
14	17	-0.01	0.0	-0.56	0.0	7.96e-05	0.0
14	21	-0.01	0.05	-0.56	-6.36e-05	8.13e-05	0.0
14	24	-0.06	0.01	-0.57	-1.39e-05	3.43e-05	0.0
14	33	-0.06	-0.01	-0.57	1.39e-05	3.43e-05	0.0
14	44	-0.03	0.04	-0.56	-4.62e-05	6.60e-05	0.0

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14	56	-0.05	9.35e-03	-0.57	-8.59e-06	5.15e-05	0.0
14	57	-0.05	-9.35e-03	-0.57	8.59e-06	5.15e-05	0.0
14	76	-0.02	0.03	-0.56	-2.86e-05	7.11e-05	0.0
14	87	-0.01	0.0	-0.56	0.0	7.95e-05	0.0
14	88	-0.01	9.33e-03	-0.56	-1.27e-05	7.98e-05	0.0
14	89	-0.01	0.0	-0.56	0.0	7.95e-05	0.0
14	90	-0.01	0.0	-0.56	0.0	7.95e-05	0.0
15	3	-0.01	6.63e-03	-0.74	3.79e-05	7.59e-05	0.0
15	11	-0.01	0.07	-0.74	-6.89e-05	7.98e-05	0.0
15	17	-0.01	5.10e-03	-0.57	2.92e-05	5.84e-05	0.0
15	21	-9.87e-03	0.05	-0.57	-4.20e-05	6.10e-05	0.0
15	24	-0.05	0.02	-0.58	1.34e-05	5.74e-06	0.0
15	28	-0.05	0.02	-0.58	1.34e-05	5.74e-06	0.0
15	40	-0.02	0.05	-0.57	-2.22e-05	4.26e-05	0.0
15	56	-0.04	0.01	-0.57	1.94e-05	2.57e-05	0.0
15	60	-0.04	0.01	-0.57	1.94e-05	2.57e-05	0.0
15	72	-0.02	0.04	-0.57	-2.65e-06	4.86e-05	0.0
15	87	-0.01	5.10e-03	-0.57	2.92e-05	5.83e-05	0.0
15	88	-0.01	0.01	-0.57	1.49e-05	5.88e-05	0.0
15	89	-0.01	5.09e-03	-0.57	2.91e-05	5.83e-05	0.0
15	90	-0.01	5.09e-03	-0.57	2.91e-05	5.83e-05	0.0
16	3	-0.02	5.92e-03	-0.72	3.39e-05	1.02e-04	0.0
16	11	-0.02	0.08	-0.73	-5.97e-05	1.06e-04	0.0
16	17	-0.01	4.55e-03	-0.56	2.61e-05	7.81e-05	0.0
16	21	-0.01	0.05	-0.56	-3.63e-05	8.08e-05	0.0
16	24	-0.06	0.02	-0.57	1.30e-05	3.38e-05	0.0
16	28	-0.06	0.02	-0.57	1.30e-05	3.38e-05	0.0
16	40	-0.03	0.05	-0.57	-1.93e-05	6.54e-05	0.0
16	56	-0.05	0.01	-0.57	1.79e-05	5.06e-05	0.0
16	60	-0.05	0.01	-0.57	1.79e-05	5.06e-05	0.0
16	72	-0.02	0.04	-0.56	-2.06e-06	7.02e-05	0.0
16	87	-0.01	4.55e-03	-0.56	2.60e-05	7.80e-05	0.0
16	88	-0.01	0.01	-0.56	1.35e-05	7.86e-05	0.0
16	89	-0.01	4.55e-03	-0.56	2.60e-05	7.80e-05	0.0
16	90	-0.01	4.55e-03	-0.56	2.60e-05	7.80e-05	0.0
17	3	-0.01	0.01	-0.73	7.04e-05	7.04e-05	0.0
17	11	-0.01	0.08	-0.75	-2.60e-05	7.44e-05	0.0
17	17	-9.46e-03	9.46e-03	-0.56	5.41e-05	5.41e-05	0.0
17	21	-9.07e-03	0.06	-0.57	-1.01e-05	5.68e-05	0.0
17	28	-0.05	0.02	-0.57	4.02e-05	6.85e-06	0.0
17	40	-0.02	0.05	-0.57	6.85e-06	4.02e-05	0.0
17	60	-0.04	0.02	-0.57	4.55e-05	2.48e-05	0.0
17	72	-0.02	0.04	-0.57	2.48e-05	4.55e-05	0.0
17	87	-9.46e-03	9.46e-03	-0.56	5.41e-05	5.41e-05	0.0
17	88	-9.38e-03	0.02	-0.56	4.12e-05	5.46e-05	0.0
17	89	-9.45e-03	9.45e-03	-0.56	5.41e-05	5.41e-05	0.0
17	90	-9.45e-03	9.45e-03	-0.56	5.41e-05	5.41e-05	0.0
18	3	-0.02	0.01	-0.72	6.46e-05	9.68e-05	0.0
18	11	-0.02	0.08	-0.74	-2.45e-05	1.02e-04	0.0
18	17	-0.01	8.68e-03	-0.55	4.97e-05	7.44e-05	0.0
18	21	-0.01	0.06	-0.56	-9.70e-06	7.80e-05	0.0
18	28	-0.06	0.02	-0.57	3.79e-05	3.21e-05	0.0
18	32	-0.06	0.02	-0.57	3.79e-05	3.21e-05	0.0
18	40	-0.03	0.05	-0.57	6.51e-06	6.30e-05	0.0
18	56	-0.04	0.02	-0.56	4.24e-05	4.82e-05	0.0
18	60	-0.04	0.02	-0.56	4.24e-05	4.82e-05	0.0
18	72	-0.02	0.04	-0.56	2.29e-05	6.73e-05	0.0
18	87	-0.01	8.67e-03	-0.55	4.96e-05	7.44e-05	0.0
18	88	-0.01	0.02	-0.55	3.77e-05	7.51e-05	0.0
18	89	-0.01	8.67e-03	-0.55	4.96e-05	7.43e-05	0.0
18	90	-0.01	8.67e-03	-0.55	4.96e-05	7.43e-05	0.0
19	3	-0.01	0.02	-0.72	9.68e-05	6.46e-05	0.0
19	11	-0.01	0.09	-0.75	9.65e-06	6.98e-05	0.0
19	17	-8.68e-03	0.01	-0.55	7.44e-05	4.97e-05	0.0
19	21	-8.35e-03	0.06	-0.57	1.63e-05	5.32e-05	0.0
19	28	-0.05	0.03	-0.57	6.30e-05	6.51e-06	0.0
19	40	-0.02	0.06	-0.57	3.21e-05	3.79e-05	0.0
19	60	-0.04	0.02	-0.56	6.73e-05	2.29e-05	0.0
19	72	-0.02	0.04	-0.56	4.82e-05	4.24e-05	0.0
19	76	-0.02	0.04	-0.56	4.82e-05	4.24e-05	0.0
19	87	-8.67e-03	0.01	-0.55	7.44e-05	4.96e-05	0.0

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19	88	-8.60e-03	0.02	-0.56	6.27e-05	5.03e-05	0.0
19	89	-8.67e-03	0.01	-0.55	7.43e-05	4.96e-05	0.0
19	90	-8.67e-03	0.01	-0.55	7.43e-05	4.96e-05	0.0
20	3	-0.02	0.02	-0.71	9.07e-05	9.07e-05	0.0
20	11	-0.02	0.09	-0.73	7.24e-06	9.74e-05	0.0
20	17	-0.01	0.01	-0.55	6.97e-05	6.97e-05	0.0
20	21	-0.01	0.06	-0.56	1.41e-05	7.42e-05	0.0
20	28	-0.06	0.03	-0.56	5.95e-05	2.93e-05	0.0
20	40	-0.03	0.06	-0.56	2.93e-05	5.95e-05	0.0
20	60	-0.04	0.02	-0.56	6.34e-05	4.46e-05	0.0
20	72	-0.02	0.04	-0.56	4.46e-05	6.34e-05	0.0
20	87	-0.01	0.01	-0.55	6.97e-05	6.97e-05	0.0
20	88	-0.01	0.02	-0.55	5.85e-05	7.05e-05	0.0
20	89	-0.01	0.01	-0.55	6.96e-05	6.96e-05	0.0
20	90	-0.01	0.01	-0.55	6.96e-05	6.96e-05	0.0
21	3	-5.92e-03	-0.02	-0.72	-1.02e-04	3.39e-05	0.0
21	12	-3.05e-03	0.06	-0.53	-1.69e-04	2.75e-05	0.0
21	17	-4.55e-03	-0.01	-0.56	-7.81e-05	2.61e-05	0.0
21	19	-3.55e-03	0.03	-0.54	-1.39e-04	2.70e-05	0.0
21	25	-0.05	-0.03	-0.57	-6.54e-05	-1.93e-05	0.0
21	41	-0.02	-0.06	-0.57	-3.38e-05	1.30e-05	0.0
21	57	-0.04	-0.02	-0.56	-7.02e-05	-2.06e-06	0.0
21	73	-0.01	-0.05	-0.57	-5.06e-05	1.79e-05	0.0
21	87	-4.55e-03	-0.01	-0.56	-7.80e-05	2.60e-05	0.0
21	89	-4.55e-03	-0.01	-0.56	-7.80e-05	2.60e-05	0.0
21	90	-4.55e-03	-0.01	-0.56	-7.80e-05	2.60e-05	0.0
22	3	-6.63e-03	-0.01	-0.74	-7.59e-05	3.79e-05	0.0
22	12	-3.45e-03	0.06	-0.54	-1.66e-04	3.14e-05	0.0
22	17	-5.10e-03	-0.01	-0.57	-5.84e-05	2.92e-05	0.0
22	19	-3.99e-03	0.04	-0.55	-1.30e-04	3.06e-05	0.0
22	25	-0.05	-0.02	-0.57	-4.26e-05	-2.22e-05	0.0
22	41	-0.02	-0.05	-0.58	-5.74e-06	1.34e-05	0.0
22	57	-0.04	-0.02	-0.57	-4.86e-05	-2.65e-06	0.0
22	73	-0.01	-0.04	-0.57	-2.57e-05	1.94e-05	0.0
22	87	-5.10e-03	-0.01	-0.57	-5.83e-05	2.92e-05	0.0
22	89	-5.09e-03	-0.01	-0.57	-5.83e-05	2.91e-05	0.0
22	90	-5.09e-03	-0.01	-0.57	-5.83e-05	2.91e-05	0.0
23	3	-7.55e-03	-7.55e-03	-0.74	-4.32e-05	4.32e-05	0.0
23	12	-7.15e-04	0.06	-0.56	-1.76e-04	2.35e-05	0.0
23	17	-5.80e-03	-5.80e-03	-0.57	-3.32e-05	3.32e-05	0.0
23	19	-2.41e-03	0.04	-0.56	-1.28e-04	2.67e-05	0.0
23	25	-0.05	-0.02	-0.58	-1.55e-05	-3.33e-05	0.0
23	41	-0.02	-0.05	-0.58	3.33e-05	1.55e-05	0.0
23	57	-0.04	-0.02	-0.58	-2.22e-05	-7.94e-06	0.0
23	73	-0.02	-0.04	-0.58	7.94e-06	2.22e-05	0.0
23	87	-5.80e-03	-5.80e-03	-0.57	-3.32e-05	3.32e-05	0.0
23	89	-5.80e-03	-5.80e-03	-0.57	-3.32e-05	3.32e-05	0.0
23	90	-5.80e-03	-5.80e-03	-0.57	-3.32e-05	3.32e-05	0.0
24	3	-8.15e-03	0.0	-0.75	0.0	4.66e-05	0.0
24	11	-7.19e-03	0.06	-0.75	-1.73e-04	5.07e-05	0.0
24	17	-6.27e-03	0.0	-0.58	0.0	3.58e-05	0.0
24	21	-5.63e-03	0.04	-0.58	-1.15e-04	3.86e-05	0.0
24	24	-0.05	0.01	-0.58	-2.22e-05	-3.30e-05	0.0
24	25	-0.05	-0.01	-0.58	2.22e-05	-3.30e-05	0.0
24	44	-0.02	0.04	-0.58	-7.41e-05	1.52e-05	0.0
24	56	-0.04	8.60e-03	-0.58	-1.37e-05	-6.76e-06	0.0
24	65	-0.04	-8.60e-03	-0.58	1.37e-05	-6.76e-06	0.0
24	76	-0.02	0.03	-0.58	-4.58e-05	2.31e-05	0.0
24	87	-6.26e-03	0.0	-0.58	0.0	3.58e-05	0.0
24	88	-6.13e-03	7.37e-03	-0.58	-2.31e-05	3.63e-05	0.0
24	89	-6.26e-03	0.0	-0.58	0.0	3.58e-05	0.0
24	90	-6.26e-03	0.0	-0.58	0.0	3.58e-05	0.0
25	11	-0.01	0.07	-0.76	-1.01e-04	6.12e-05	0.0
25	21	-8.04e-03	0.05	-0.58	-6.26e-05	4.52e-05	0.0
25	28	-0.05	0.02	-0.58	1.55e-05	-3.33e-05	0.0
25	40	-0.02	0.05	-0.58	-3.33e-05	1.55e-05	0.0
25	60	-0.04	0.02	-0.58	2.22e-05	-7.94e-06	0.0
25	72	-0.02	0.04	-0.58	-7.94e-06	2.22e-05	0.0
25	76	-0.02	0.04	-0.58	-7.94e-06	2.22e-05	0.0
25	88	-6.24e-03	0.01	-0.57	1.40e-05	3.56e-05	0.0
25	89	-5.80e-03	5.80e-03	-0.57	3.32e-05	3.32e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

25	90	-5.80e-03	5.80e-03	-0.57	3.32e-05	3.32e-05	0.0
26	3	-6.63e-03	0.01	-0.74	7.59e-05	3.79e-05	0.0
26	11	-6.16e-03	0.08	-0.76	-3.20e-05	4.19e-05	0.0
26	17	-5.10e-03	0.01	-0.57	5.84e-05	2.92e-05	0.0
26	21	-4.79e-03	0.06	-0.58	-1.35e-05	3.18e-05	0.0
26	28	-0.05	0.02	-0.57	4.26e-05	-2.22e-05	0.0
26	40	-0.02	0.05	-0.58	5.74e-06	1.34e-05	0.0
26	60	-0.04	0.02	-0.57	4.86e-05	-2.65e-06	0.0
26	72	-0.01	0.04	-0.57	2.57e-05	1.94e-05	0.0
26	76	-0.01	0.04	-0.57	2.57e-05	1.94e-05	0.0
26	87	-5.10e-03	0.01	-0.57	5.83e-05	2.92e-05	0.0
26	88	-5.03e-03	0.02	-0.57	4.39e-05	2.97e-05	0.0
26	89	-5.09e-03	0.01	-0.57	5.83e-05	2.91e-05	0.0
26	90	-5.09e-03	0.01	-0.57	5.83e-05	2.91e-05	0.0
27	3	-5.92e-03	0.02	-0.72	1.02e-04	3.39e-05	0.0
27	11	-5.16e-03	0.09	-0.75	1.02e-05	3.78e-05	0.0
27	17	-4.55e-03	0.01	-0.56	7.81e-05	2.61e-05	0.0
27	21	-4.04e-03	0.06	-0.58	1.72e-05	2.87e-05	0.0
27	28	-0.05	0.03	-0.57	6.54e-05	-1.93e-05	0.0
27	40	-0.02	0.06	-0.57	3.38e-05	1.30e-05	0.0
27	60	-0.04	0.02	-0.56	7.02e-05	-2.06e-06	0.0
27	72	-0.01	0.05	-0.57	5.06e-05	1.79e-05	0.0
27	76	-0.01	0.05	-0.57	5.06e-05	1.79e-05	0.0
27	87	-4.55e-03	0.01	-0.56	7.80e-05	2.60e-05	0.0
27	88	-4.45e-03	0.02	-0.56	6.58e-05	2.65e-05	0.0
27	89	-4.55e-03	0.01	-0.56	7.80e-05	2.60e-05	0.0
27	90	-4.55e-03	0.01	-0.56	7.80e-05	2.60e-05	0.0
28	3	0.0	-0.02	-0.73	-1.03e-04	0.0	0.0
28	12	1.12e-03	0.06	-0.53	-1.73e-04	2.77e-06	0.0
28	17	0.0	-0.01	-0.56	-7.96e-05	0.0	0.0
28	19	7.45e-04	0.03	-0.54	-1.42e-04	1.84e-06	0.0
28	24	-0.04	-4.67e-04	-0.55	-9.31e-05	-4.62e-05	0.0
28	43	0.01	-0.06	-0.57	-3.43e-05	1.39e-05	0.0
28	56	-0.03	-4.49e-03	-0.56	-8.80e-05	-2.86e-05	0.0
28	75	9.35e-03	-0.05	-0.57	-5.15e-05	8.59e-06	0.0
28	87	0.0	-0.01	-0.56	-7.95e-05	0.0	0.0
28	88	1.49e-04	-4.44e-03	-0.55	-9.19e-05	0.0	0.0
28	89	0.0	-0.01	-0.56	-7.95e-05	0.0	0.0
28	90	0.0	-0.01	-0.56	-7.95e-05	0.0	0.0
29	3	0.0	-0.01	-0.74	-7.84e-05	0.0	0.0
29	12	1.02e-03	0.06	-0.55	-1.73e-04	3.27e-06	0.0
29	17	0.0	-0.01	-0.57	-6.03e-05	0.0	0.0
29	19	6.81e-04	0.03	-0.55	-1.35e-04	2.18e-06	0.0
29	24	-0.04	2.53e-03	-0.56	-7.68e-05	-5.31e-05	0.0
29	43	0.01	-0.05	-0.58	-5.18e-06	1.59e-05	0.0
29	56	-0.03	-1.35e-03	-0.57	-7.05e-05	-3.29e-05	0.0
29	75	9.18e-03	-0.04	-0.57	-2.61e-05	9.88e-06	0.0
29	87	0.0	-0.01	-0.57	-6.02e-05	0.0	0.0
29	88	1.36e-04	-1.48e-03	-0.56	-7.52e-05	0.0	0.0
29	89	0.0	-0.01	-0.57	-6.02e-05	0.0	0.0
29	90	0.0	-0.01	-0.57	-6.02e-05	0.0	0.0
30	3	0.0	-8.15e-03	-0.75	-4.66e-05	0.0	0.0
30	12	6.77e-04	0.06	-0.56	-1.77e-04	5.08e-06	0.0
30	17	0.0	-6.27e-03	-0.58	-3.58e-05	0.0	0.0
30	19	4.51e-04	0.04	-0.57	-1.30e-04	3.38e-06	0.0
30	24	-0.04	6.44e-03	-0.57	-5.65e-05	-7.41e-05	0.0
30	43	0.01	-0.05	-0.58	3.30e-05	2.22e-05	0.0
30	56	-0.03	2.70e-03	-0.58	-4.86e-05	-4.58e-05	0.0
30	75	8.60e-03	-0.04	-0.58	6.76e-06	1.37e-05	0.0
30	83	8.60e-03	-0.04	-0.58	6.76e-06	1.37e-05	0.0
30	87	0.0	-6.26e-03	-0.58	-3.58e-05	0.0	0.0
30	88	9.03e-05	2.32e-03	-0.57	-5.46e-05	0.0	0.0
30	89	0.0	-6.26e-03	-0.58	-3.58e-05	0.0	0.0
30	90	0.0	-6.26e-03	-0.58	-3.58e-05	0.0	0.0
31	11	6.77e-04	0.07	-0.76	-9.48e-05	5.08e-06	0.0
31	21	4.51e-04	0.05	-0.58	-5.84e-05	3.38e-06	0.0
31	23	0.04	-6.44e-03	-0.57	5.65e-05	7.41e-05	0.0
31	42	0.01	0.05	-0.58	-3.30e-05	2.22e-05	0.0
31	44	-0.01	0.05	-0.58	-3.30e-05	-2.22e-05	0.0
31	55	0.03	-2.70e-03	-0.58	4.86e-05	4.58e-05	0.0
31	70	8.60e-03	0.04	-0.58	-6.76e-06	1.37e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

31	76	-8.60e-03	0.04	-0.58	-6.76e-06	-1.37e-05	0.0
31	88	9.03e-05	0.01	-0.58	1.69e-05	0.0	0.0
31	89	0.0	6.26e-03	-0.58	3.58e-05	0.0	0.0
31	90	0.0	6.26e-03	-0.58	3.58e-05	0.0	0.0
32	11	1.02e-03	0.08	-0.76	-3.41e-05	3.27e-06	0.0
32	21	6.81e-04	0.06	-0.58	-1.47e-05	2.18e-06	0.0
32	23	0.04	-2.53e-03	-0.56	7.68e-05	5.31e-05	0.0
32	42	0.01	0.05	-0.58	5.18e-06	1.59e-05	0.0
32	44	-0.01	0.05	-0.58	5.18e-06	-1.59e-05	0.0
32	55	0.03	1.35e-03	-0.57	7.05e-05	3.29e-05	0.0
32	74	9.18e-03	0.04	-0.57	2.61e-05	9.88e-06	0.0
32	76	-9.18e-03	0.04	-0.57	2.61e-05	-9.88e-06	0.0
32	88	1.36e-04	0.02	-0.57	4.52e-05	0.0	0.0
32	89	0.0	0.01	-0.57	6.02e-05	0.0	0.0
32	90	0.0	0.01	-0.57	6.02e-05	0.0	0.0
33	11	1.12e-03	0.09	-0.75	1.02e-05	2.77e-06	0.0
33	21	7.45e-04	0.06	-0.58	1.74e-05	1.84e-06	0.0
33	23	0.04	4.67e-04	-0.55	9.31e-05	4.62e-05	0.0
33	42	0.01	0.06	-0.57	3.43e-05	1.39e-05	0.0
33	44	-0.01	0.06	-0.57	3.43e-05	-1.39e-05	0.0
33	54	0.03	0.02	-0.56	7.11e-05	2.86e-05	0.0
33	74	9.35e-03	0.05	-0.57	5.15e-05	8.59e-06	0.0
33	76	-9.35e-03	0.05	-0.57	5.15e-05	-8.59e-06	0.0
33	88	1.49e-04	0.02	-0.56	6.70e-05	0.0	0.0
33	89	0.0	0.01	-0.56	7.95e-05	0.0	0.0
33	90	0.0	0.01	-0.56	7.95e-05	0.0	0.0
34	3	5.92e-03	-0.02	-0.72	-1.02e-04	-3.39e-05	0.0
34	11	6.68e-03	0.05	-0.70	-1.93e-04	-2.99e-05	0.0
34	12	5.31e-03	0.06	-0.53	-1.69e-04	-2.21e-05	0.0
34	17	4.55e-03	-0.01	-0.56	-7.81e-05	-2.61e-05	0.0
34	19	5.06e-03	0.03	-0.54	-1.39e-04	-2.34e-05	0.0
34	21	5.06e-03	0.03	-0.54	-1.39e-04	-2.34e-05	0.0
34	27	0.05	-0.03	-0.57	-6.54e-05	1.93e-05	0.0
34	39	0.02	-0.06	-0.57	-3.38e-05	-1.30e-05	0.0
34	43	0.02	-0.06	-0.57	-3.38e-05	-1.30e-05	0.0
34	59	0.04	-0.02	-0.56	-7.02e-05	2.06e-06	0.0
34	71	0.01	-0.05	-0.57	-5.06e-05	-1.79e-05	0.0
34	75	0.01	-0.05	-0.57	-5.06e-05	-1.79e-05	0.0
34	87	4.55e-03	-0.01	-0.56	-7.80e-05	-2.60e-05	0.0
34	88	4.65e-03	-4.16e-03	-0.55	-9.02e-05	-2.55e-05	0.0
34	89	4.55e-03	-0.01	-0.56	-7.80e-05	-2.60e-05	0.0
34	90	4.55e-03	-0.01	-0.56	-7.80e-05	-2.60e-05	0.0
35	3	6.63e-03	-0.01	-0.74	-7.59e-05	-3.79e-05	0.0
35	11	7.09e-03	0.06	-0.71	-1.84e-04	-3.39e-05	0.0
35	12	5.56e-03	0.06	-0.54	-1.66e-04	-2.52e-05	0.0
35	17	5.10e-03	-0.01	-0.57	-5.84e-05	-2.92e-05	0.0
35	19	5.41e-03	0.04	-0.55	-1.30e-04	-2.65e-05	0.0
35	21	5.41e-03	0.04	-0.55	-1.30e-04	-2.65e-05	0.0
35	27	0.05	-0.02	-0.57	-4.26e-05	2.22e-05	0.0
35	39	0.02	-0.05	-0.58	-5.74e-06	-1.34e-05	0.0
35	43	0.02	-0.05	-0.58	-5.74e-06	-1.34e-05	0.0
35	59	0.04	-0.02	-0.57	-4.86e-05	2.65e-06	0.0
35	71	0.01	-0.04	-0.57	-2.57e-05	-1.94e-05	0.0
35	75	0.01	-0.04	-0.57	-2.57e-05	-1.94e-05	0.0
35	87	5.10e-03	-0.01	-0.57	-5.83e-05	-2.92e-05	0.0
35	88	5.16e-03	-1.08e-03	-0.56	-7.26e-05	-2.86e-05	0.0
35	89	5.09e-03	-0.01	-0.57	-5.83e-05	-2.91e-05	0.0
35	90	5.09e-03	-0.01	-0.57	-5.83e-05	-2.91e-05	0.0
36	3	7.55e-03	-7.55e-03	-0.74	-4.32e-05	-4.32e-05	0.0
36	12	2.43e-03	0.06	-0.56	-1.77e-04	-1.51e-05	0.0
36	17	5.80e-03	-5.80e-03	-0.57	-3.32e-05	-3.32e-05	0.0
36	19	3.55e-03	0.04	-0.57	-1.29e-04	-2.11e-05	0.0
36	27	0.05	-0.02	-0.58	-1.55e-05	3.33e-05	0.0
36	39	0.02	-0.05	-0.58	3.33e-05	-1.55e-05	0.0
36	43	0.02	-0.05	-0.58	3.33e-05	-1.55e-05	0.0
36	59	0.04	-0.02	-0.58	-2.22e-05	7.94e-06	0.0
36	75	0.02	-0.04	-0.58	7.94e-06	-2.22e-05	0.0
36	79	0.02	-0.04	-0.58	7.94e-06	-2.22e-05	0.0
36	87	5.80e-03	-5.80e-03	-0.57	-3.32e-05	-3.32e-05	0.0
36	89	5.80e-03	-5.80e-03	-0.57	-3.32e-05	-3.32e-05	0.0
36	90	5.80e-03	-5.80e-03	-0.57	-3.32e-05	-3.32e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

37	4	8.71e-03	0.03	-0.75	-1.04e-04	-4.41e-05	0.0
37	11	9.09e-03	0.06	-0.75	-1.73e-04	-4.24e-05	0.0
37	12	7.20e-03	0.06	-0.58	-1.73e-04	-3.17e-05	0.0
37	18	6.64e-03	0.02	-0.58	-6.92e-05	-3.42e-05	0.0
37	19	6.89e-03	0.04	-0.58	-1.15e-04	-3.30e-05	0.0
37	21	6.89e-03	0.04	-0.58	-1.15e-04	-3.31e-05	0.0
37	23	0.05	-0.01	-0.58	2.22e-05	3.30e-05	0.0
37	43	0.02	-0.04	-0.58	7.41e-05	-1.52e-05	0.0
37	55	0.04	-8.60e-03	-0.58	1.37e-05	6.76e-06	0.0
37	75	0.02	-0.03	-0.58	4.58e-05	-2.31e-05	0.0
37	87	6.26e-03	0.0	-0.58	0.0	-3.58e-05	0.0
37	88	6.38e-03	7.37e-03	-0.58	-2.31e-05	-3.52e-05	0.0
37	89	6.26e-03	0.0	-0.58	0.0	-3.58e-05	0.0
37	90	6.26e-03	0.0	-0.58	0.0	-3.58e-05	0.0
38	11	0.01	0.07	-0.76	-9.97e-05	-5.28e-05	0.0
38	21	9.19e-03	0.05	-0.58	-6.21e-05	-3.96e-05	0.0
38	22	0.05	0.02	-0.58	1.55e-05	3.33e-05	0.0
38	38	0.02	0.05	-0.58	-3.33e-05	-1.55e-05	0.0
38	54	0.04	0.02	-0.58	2.22e-05	7.94e-06	0.0
38	70	0.02	0.04	-0.58	-7.94e-06	-2.22e-05	0.0
38	88	6.47e-03	0.01	-0.57	1.41e-05	-3.44e-05	0.0
38	89	5.80e-03	5.80e-03	-0.57	3.32e-05	-3.32e-05	0.0
38	90	5.80e-03	5.80e-03	-0.57	3.32e-05	-3.32e-05	0.0
39	11	8.28e-03	0.08	-0.76	-3.19e-05	-3.57e-05	0.0
39	21	6.20e-03	0.06	-0.58	-1.35e-05	-2.77e-05	0.0
39	22	0.05	0.02	-0.57	4.26e-05	2.22e-05	0.0
39	38	0.02	0.05	-0.58	5.74e-06	-1.34e-05	0.0
39	54	0.04	0.02	-0.57	4.86e-05	2.65e-06	0.0
39	70	0.01	0.04	-0.57	2.57e-05	-1.94e-05	0.0
39	88	5.31e-03	0.02	-0.57	4.39e-05	-2.88e-05	0.0
39	89	5.09e-03	0.01	-0.57	5.83e-05	-2.91e-05	0.0
39	90	5.09e-03	0.01	-0.57	5.83e-05	-2.91e-05	0.0
40	11	7.41e-03	0.09	-0.75	1.03e-05	-3.24e-05	0.0
40	21	5.55e-03	0.06	-0.58	1.73e-05	-2.50e-05	0.0
40	22	0.05	0.03	-0.57	6.54e-05	1.93e-05	0.0
40	38	0.02	0.06	-0.57	3.38e-05	-1.30e-05	0.0
40	54	0.04	0.02	-0.56	7.02e-05	2.06e-06	0.0
40	70	0.01	0.05	-0.57	5.06e-05	-1.79e-05	0.0
40	88	4.75e-03	0.02	-0.56	6.59e-05	-2.58e-05	0.0
40	89	4.55e-03	0.01	-0.56	7.80e-05	-2.60e-05	0.0
40	90	4.55e-03	0.01	-0.56	7.80e-05	-2.60e-05	0.0
41	3	0.01	-0.02	-0.72	-9.68e-05	-6.46e-05	0.0
41	11	0.01	0.05	-0.69	-1.84e-04	-5.92e-05	0.0
41	12	9.15e-03	0.06	-0.52	-1.61e-04	-4.43e-05	0.0
41	17	8.68e-03	-0.01	-0.55	-7.44e-05	-4.97e-05	0.0
41	19	8.99e-03	0.03	-0.53	-1.32e-04	-4.60e-05	0.0
41	21	8.99e-03	0.03	-0.53	-1.32e-04	-4.61e-05	0.0
41	27	0.05	-0.03	-0.57	-6.30e-05	-6.51e-06	0.0
41	43	0.02	-0.06	-0.57	-3.21e-05	-3.79e-05	0.0
41	59	0.04	-0.02	-0.56	-6.73e-05	-2.29e-05	0.0
41	71	0.02	-0.04	-0.56	-4.82e-05	-4.24e-05	0.0
41	75	0.02	-0.04	-0.56	-4.82e-05	-4.24e-05	0.0
41	87	8.67e-03	-0.01	-0.55	-7.44e-05	-4.96e-05	0.0
41	88	8.73e-03	-3.43e-03	-0.55	-8.60e-05	-4.89e-05	0.0
41	89	8.67e-03	-0.01	-0.55	-7.43e-05	-4.96e-05	0.0
41	90	8.67e-03	-0.01	-0.55	-7.43e-05	-4.96e-05	0.0
42	3	0.01	-0.01	-0.73	-7.04e-05	-7.04e-05	0.0
42	11	0.01	0.06	-0.71	-1.67e-04	-6.63e-05	0.0
42	12	0.01	0.06	-0.54	-1.50e-04	-5.01e-05	0.0
42	17	9.46e-03	-9.46e-03	-0.56	-5.41e-05	-5.41e-05	0.0
42	19	9.84e-03	0.04	-0.55	-1.18e-04	-5.14e-05	0.0
42	21	9.84e-03	0.04	-0.55	-1.18e-04	-5.14e-05	0.0
42	27	0.05	-0.02	-0.57	-4.02e-05	-6.85e-06	0.0
42	43	0.02	-0.05	-0.57	-6.85e-06	-4.02e-05	0.0
42	59	0.04	-0.02	-0.57	-4.55e-05	-2.48e-05	0.0
42	75	0.02	-0.04	-0.57	-2.48e-05	-4.55e-05	0.0
42	83	0.02	-0.04	-0.57	-2.48e-05	-4.55e-05	0.0
42	87	9.46e-03	-9.46e-03	-0.56	-5.41e-05	-5.41e-05	0.0
42	88	9.53e-03	-1.09e-04	-0.56	-6.69e-05	-5.35e-05	0.0
42	89	9.45e-03	-9.45e-03	-0.56	-5.41e-05	-5.41e-05	0.0
42	90	9.45e-03	-9.45e-03	-0.56	-5.41e-05	-5.41e-05	0.0

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43	3	0.01	-6.63e-03	-0.74	-3.79e-05	-7.59e-05	0.0
43	11	0.01	0.06	-0.73	-1.45e-04	-7.18e-05	0.0
43	12	0.01	0.06	-0.56	-1.36e-04	-5.43e-05	0.0
43	17	0.01	-5.10e-03	-0.57	-2.92e-05	-5.84e-05	0.0
43	19	0.01	0.04	-0.56	-1.00e-04	-5.56e-05	0.0
43	21	0.01	0.04	-0.56	-1.00e-04	-5.57e-05	0.0
43	23	0.05	-0.02	-0.58	-1.34e-05	-5.74e-06	0.0
43	27	0.05	-0.02	-0.58	-1.34e-05	-5.74e-06	0.0
43	43	0.02	-0.05	-0.57	2.22e-05	-4.26e-05	0.0
43	55	0.04	-0.01	-0.57	-1.94e-05	-2.57e-05	0.0
43	59	0.04	-0.01	-0.57	-1.94e-05	-2.57e-05	0.0
43	75	0.02	-0.04	-0.57	2.65e-06	-4.86e-05	0.0
43	87	0.01	-5.10e-03	-0.57	-2.92e-05	-5.83e-05	0.0
43	88	0.01	3.97e-03	-0.56	-4.34e-05	-5.77e-05	0.0
43	89	0.01	-5.09e-03	-0.57	-2.91e-05	-5.83e-05	0.0
43	90	0.01	-5.09e-03	-0.57	-2.91e-05	-5.83e-05	0.0
44	4	0.01	0.04	-0.74	-6.74e-05	-7.64e-05	0.0
44	11	0.01	0.07	-0.74	-1.12e-04	-7.50e-05	0.0
44	12	0.01	0.07	-0.57	-1.12e-04	-5.69e-05	0.0
44	18	0.01	0.03	-0.57	-4.49e-05	-5.90e-05	0.0
44	19	0.01	0.04	-0.57	-7.48e-05	-5.80e-05	0.0
44	21	0.01	0.04	-0.57	-7.48e-05	-5.81e-05	0.0
44	23	0.05	-0.01	-0.58	1.59e-05	-5.18e-06	0.0
44	31	0.05	-0.01	-0.58	1.59e-05	-5.18e-06	0.0
44	43	0.02	-0.04	-0.57	5.31e-05	-4.37e-05	0.0
44	55	0.04	-9.18e-03	-0.57	9.88e-06	-2.61e-05	0.0
44	75	0.02	-0.03	-0.57	3.29e-05	-5.00e-05	0.0
44	88	0.01	8.91e-03	-0.57	-1.50e-05	-5.98e-05	0.0
44	89	0.01	0.0	-0.57	0.0	-6.02e-05	0.0
44	90	0.01	0.0	-0.57	0.0	-6.02e-05	0.0
45	11	0.01	0.07	-0.75	-6.88e-05	-7.35e-05	0.0
45	21	0.01	0.05	-0.57	-4.20e-05	-5.68e-05	0.0
45	22	0.05	0.02	-0.58	1.34e-05	-5.74e-06	0.0
45	38	0.02	0.05	-0.57	-2.22e-05	-4.26e-05	0.0
45	54	0.04	0.01	-0.57	1.94e-05	-2.57e-05	0.0
45	62	0.04	0.01	-0.57	1.94e-05	-2.57e-05	0.0
45	70	0.02	0.04	-0.57	-2.65e-06	-4.86e-05	0.0
45	88	0.01	0.01	-0.57	1.49e-05	-5.80e-05	0.0
45	89	0.01	5.09e-03	-0.57	2.91e-05	-5.83e-05	0.0
45	90	0.01	5.09e-03	-0.57	2.91e-05	-5.83e-05	0.0
46	11	0.01	0.08	-0.75	-2.60e-05	-6.88e-05	0.0
46	21	0.01	0.06	-0.57	-1.01e-05	-5.31e-05	0.0
46	22	0.05	0.02	-0.57	4.02e-05	-6.85e-06	0.0
46	38	0.02	0.05	-0.57	6.85e-06	-4.02e-05	0.0
46	54	0.04	0.02	-0.57	4.55e-05	-2.48e-05	0.0
46	70	0.02	0.04	-0.57	2.48e-05	-4.55e-05	0.0
46	74	0.02	0.04	-0.57	2.48e-05	-4.55e-05	0.0
46	88	9.67e-03	0.02	-0.56	4.12e-05	-5.39e-05	0.0
46	89	9.45e-03	9.45e-03	-0.56	5.41e-05	-5.41e-05	0.0
46	90	9.45e-03	9.45e-03	-0.56	5.41e-05	-5.41e-05	0.0
47	11	0.01	0.09	-0.75	9.83e-06	-6.47e-05	0.0
47	21	9.90e-03	0.06	-0.57	1.65e-05	-4.97e-05	0.0
47	22	0.05	0.03	-0.57	6.30e-05	-6.51e-06	0.0
47	38	0.02	0.06	-0.57	3.21e-05	-3.79e-05	0.0
47	42	0.02	0.06	-0.57	3.21e-05	-3.79e-05	0.0
47	54	0.04	0.02	-0.56	6.73e-05	-2.29e-05	0.0
47	70	0.02	0.04	-0.56	4.82e-05	-4.24e-05	0.0
47	88	8.91e-03	0.02	-0.56	6.28e-05	-4.96e-05	0.0
47	89	8.67e-03	0.01	-0.55	7.43e-05	-4.96e-05	0.0
47	90	8.67e-03	0.01	-0.55	7.43e-05	-4.96e-05	0.0
48	3	0.02	-0.02	-0.71	-9.07e-05	-9.07e-05	0.0
48	11	0.02	0.06	-0.68	-1.74e-04	-8.38e-05	0.0
48	12	0.01	0.06	-0.52	-1.53e-04	-6.29e-05	0.0
48	17	0.01	-0.01	-0.55	-6.97e-05	-6.97e-05	0.0
48	19	0.01	0.04	-0.53	-1.25e-04	-6.51e-05	0.0
48	21	0.01	0.04	-0.53	-1.25e-04	-6.52e-05	0.0
48	27	0.06	-0.03	-0.56	-5.95e-05	-2.93e-05	0.0
48	39	0.03	-0.06	-0.56	-2.93e-05	-5.95e-05	0.0
48	43	0.03	-0.06	-0.56	-2.93e-05	-5.95e-05	0.0
48	59	0.04	-0.02	-0.56	-6.34e-05	-4.46e-05	0.0
48	71	0.02	-0.04	-0.56	-4.46e-05	-6.34e-05	0.0

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48	75	0.02	-0.04	-0.56	-4.46e-05	-6.34e-05	0.0
48	87	0.01	-0.01	-0.55	-6.97e-05	-6.97e-05	0.0
48	88	0.01	-2.53e-03	-0.54	-8.08e-05	-6.87e-05	0.0
48	89	0.01	-0.01	-0.55	-6.96e-05	-6.96e-05	0.0
48	90	0.01	-0.01	-0.55	-6.96e-05	-6.96e-05	0.0
49	3	0.02	-0.01	-0.72	-6.46e-05	-9.68e-05	0.0
49	11	0.02	0.06	-0.70	-1.54e-04	-9.13e-05	0.0
49	12	0.01	0.06	-0.53	-1.39e-04	-6.89e-05	0.0
49	17	0.01	-8.68e-03	-0.55	-4.97e-05	-7.44e-05	0.0
49	19	0.01	0.04	-0.54	-1.09e-04	-7.07e-05	0.0
49	21	0.01	0.04	-0.54	-1.09e-04	-7.08e-05	0.0
49	27	0.06	-0.02	-0.57	-3.79e-05	-3.21e-05	0.0
49	31	0.06	-0.02	-0.57	-3.79e-05	-3.21e-05	0.0
49	43	0.03	-0.05	-0.57	-6.51e-06	-6.30e-05	0.0
49	55	0.04	-0.02	-0.56	-4.24e-05	-4.82e-05	0.0
49	59	0.04	-0.02	-0.56	-4.24e-05	-4.82e-05	0.0
49	75	0.02	-0.04	-0.56	-2.29e-05	-6.73e-05	0.0
49	87	0.01	-8.67e-03	-0.55	-4.96e-05	-7.44e-05	0.0
49	88	0.01	8.34e-04	-0.55	-6.15e-05	-7.36e-05	0.0
49	89	0.01	-8.67e-03	-0.55	-4.96e-05	-7.43e-05	0.0
49	90	0.01	-8.67e-03	-0.55	-4.96e-05	-7.43e-05	0.0
50	3	0.02	-5.92e-03	-0.72	-3.39e-05	-1.02e-04	0.0
50	11	0.02	0.06	-0.72	-1.27e-04	-9.74e-05	0.0
50	12	0.01	0.07	-0.55	-1.20e-04	-7.39e-05	0.0
50	17	0.01	-4.55e-03	-0.56	-2.61e-05	-7.81e-05	0.0
50	19	0.01	0.04	-0.55	-8.84e-05	-7.53e-05	0.0
50	21	0.01	0.04	-0.55	-8.84e-05	-7.53e-05	0.0
50	27	0.06	-0.02	-0.57	-1.30e-05	-3.38e-05	0.0
50	31	0.06	-0.02	-0.57	-1.30e-05	-3.38e-05	0.0
50	43	0.03	-0.05	-0.57	1.93e-05	-6.54e-05	0.0
50	55	0.05	-0.01	-0.57	-1.79e-05	-5.06e-05	0.0
50	59	0.05	-0.01	-0.57	-1.79e-05	-5.06e-05	0.0
50	75	0.02	-0.04	-0.56	2.06e-06	-7.02e-05	0.0
50	87	0.01	-4.55e-03	-0.56	-2.60e-05	-7.80e-05	0.0
50	88	0.01	4.83e-03	-0.56	-3.85e-05	-7.75e-05	0.0
50	89	0.01	-4.55e-03	-0.56	-2.60e-05	-7.80e-05	0.0
50	90	0.01	-4.55e-03	-0.56	-2.60e-05	-7.80e-05	0.0
51	11	0.02	0.07	-0.73	-9.54e-05	-1.01e-04	0.0
51	12	0.02	0.07	-0.56	-9.54e-05	-7.68e-05	0.0
51	19	0.01	0.05	-0.56	-6.36e-05	-7.77e-05	0.0
51	21	0.01	0.05	-0.56	-6.36e-05	-7.77e-05	0.0
51	23	0.06	-0.01	-0.57	1.39e-05	-3.43e-05	0.0
51	31	0.06	-0.01	-0.57	1.39e-05	-3.43e-05	0.0
51	43	0.03	-0.04	-0.56	4.62e-05	-6.60e-05	0.0
51	55	0.05	-9.35e-03	-0.57	8.59e-06	-5.15e-05	0.0
51	75	0.02	-0.03	-0.56	2.86e-05	-7.11e-05	0.0
51	88	0.01	9.33e-03	-0.56	-1.27e-05	-7.91e-05	0.0
51	89	0.01	0.0	-0.56	0.0	-7.95e-05	0.0
51	90	0.01	0.0	-0.56	0.0	-7.95e-05	0.0
52	11	0.02	0.08	-0.73	-5.96e-05	-1.00e-04	0.0
52	21	0.01	0.05	-0.56	-3.63e-05	-7.73e-05	0.0
52	22	0.06	0.02	-0.57	1.30e-05	-3.38e-05	0.0
52	30	0.06	0.02	-0.57	1.30e-05	-3.38e-05	0.0
52	38	0.03	0.05	-0.57	-1.93e-05	-6.54e-05	0.0
52	54	0.05	0.01	-0.57	1.79e-05	-5.06e-05	0.0
52	70	0.02	0.04	-0.56	-2.06e-06	-7.02e-05	0.0
52	88	0.01	0.01	-0.56	1.36e-05	-7.79e-05	0.0
52	89	0.01	4.55e-03	-0.56	2.60e-05	-7.80e-05	0.0
52	90	0.01	4.55e-03	-0.56	2.60e-05	-7.80e-05	0.0
53	11	0.02	0.08	-0.74	-2.43e-05	-9.71e-05	0.0
53	21	0.01	0.06	-0.57	-9.59e-06	-7.47e-05	0.0
53	22	0.06	0.02	-0.57	3.79e-05	-3.21e-05	0.0
53	38	0.03	0.05	-0.57	6.51e-06	-6.30e-05	0.0
53	54	0.04	0.02	-0.56	4.24e-05	-4.82e-05	0.0
53	70	0.02	0.04	-0.56	2.29e-05	-6.73e-05	0.0
53	88	0.01	0.02	-0.55	3.77e-05	-7.44e-05	0.0
53	89	0.01	8.67e-03	-0.55	4.96e-05	-7.43e-05	0.0
53	90	0.01	8.67e-03	-0.55	4.96e-05	-7.43e-05	0.0
54	11	0.02	0.09	-0.74	7.50e-06	-9.26e-05	0.0
54	21	0.01	0.06	-0.56	1.43e-05	-7.10e-05	0.0
54	22	0.06	0.03	-0.56	5.95e-05	-2.93e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

54	38	0.03	0.06	-0.56	2.93e-05	-5.95e-05	0.0
54	54	0.04	0.02	-0.56	6.34e-05	-4.46e-05	0.0
54	70	0.02	0.04	-0.56	4.46e-05	-6.34e-05	0.0
54	88	0.01	0.02	-0.55	5.86e-05	-6.99e-05	0.0
54	89	0.01	0.01	-0.55	6.96e-05	-6.96e-05	0.0
54	90	0.01	0.01	-0.55	6.96e-05	-6.96e-05	0.0
55	11	0.02	0.07	-0.71	-8.63e-05	-1.30e-04	0.0
55	21	0.02	0.05	-0.54	-5.75e-05	-1.00e-04	0.0
55	23	0.06	-0.01	-0.56	1.27e-05	-6.42e-05	0.0
55	44	4.06e-03	0.04	-0.54	-4.24e-05	-1.13e-04	0.0
55	55	0.05	-9.44e-03	-0.55	7.89e-06	-7.84e-05	0.0
55	76	8.21e-03	0.03	-0.54	-2.63e-05	-1.09e-04	0.0
55	88	0.02	9.55e-03	-0.54	-1.15e-05	-1.01e-04	0.0
55	89	0.02	0.0	-0.54	0.0	-1.02e-04	0.0
55	90	0.02	0.0	-0.54	0.0	-1.02e-04	0.0
56	11	0.02	0.08	-0.72	-4.56e-05	-1.29e-04	0.0
56	21	0.02	0.05	-0.55	-2.63e-05	-9.94e-05	0.0
56	22	0.06	0.02	-0.56	1.91e-05	-6.17e-05	0.0
56	38	0.03	0.05	-0.55	-1.11e-05	-8.91e-05	0.0
56	54	0.05	0.01	-0.55	2.33e-05	-7.58e-05	0.0
56	70	0.03	0.04	-0.55	4.57e-06	-9.28e-05	0.0
56	88	0.02	0.01	-0.54	1.89e-05	-9.90e-05	0.0
56	89	0.02	5.28e-03	-0.54	3.02e-05	-9.89e-05	0.0
56	90	0.02	5.28e-03	-0.54	3.02e-05	-9.89e-05	0.0
57	11	0.03	0.07	-0.68	-8.16e-05	-1.51e-04	0.0
57	21	0.02	0.05	-0.53	-5.44e-05	-1.16e-04	0.0
57	23	0.07	-0.01	-0.55	1.21e-05	-8.37e-05	0.0
57	31	0.07	-0.01	-0.55	1.21e-05	-8.37e-05	0.0
57	44	6.64e-03	0.05	-0.52	-4.03e-05	-1.28e-04	0.0
57	55	0.05	-9.49e-03	-0.54	7.50e-06	-9.64e-05	0.0
57	59	0.05	-9.49e-03	-0.54	7.50e-06	-9.64e-05	0.0
57	76	0.01	0.03	-0.52	-2.50e-05	-1.24e-04	0.0
57	88	0.02	9.66e-03	-0.52	-1.09e-05	-1.17e-04	0.0
57	89	0.02	0.0	-0.52	0.0	-1.17e-04	0.0
57	90	0.02	0.0	-0.52	0.0	-1.17e-04	0.0
58	11	0.03	0.08	-0.69	-3.72e-05	-1.49e-04	0.0
58	21	0.02	0.05	-0.53	-2.04e-05	-1.15e-04	0.0
58	22	0.07	0.02	-0.55	2.30e-05	-8.00e-05	0.0
58	38	0.03	0.05	-0.54	-5.99e-06	-1.05e-04	0.0
58	54	0.05	0.02	-0.54	2.68e-05	-9.27e-05	0.0
58	70	0.03	0.04	-0.53	8.83e-06	-1.08e-04	0.0
58	88	0.02	0.02	-0.52	2.24e-05	-1.14e-04	0.0
58	89	0.02	5.78e-03	-0.52	3.31e-05	-1.14e-04	0.0
58	90	0.02	5.78e-03	-0.52	3.31e-05	-1.14e-04	0.0
59	11	0.03	0.07	-0.66	-7.83e-05	-1.63e-04	0.0
59	21	0.02	0.05	-0.51	-5.22e-05	-1.26e-04	0.0
59	23	0.07	-0.01	-0.53	1.16e-05	-9.51e-05	0.0
59	35	0.07	-0.01	-0.53	1.16e-05	-9.51e-05	0.0
59	44	8.22e-03	0.05	-0.50	-3.87e-05	-1.37e-04	0.0
59	55	0.05	-9.53e-03	-0.52	7.21e-06	-1.07e-04	0.0
59	59	0.05	-9.53e-03	-0.52	7.21e-06	-1.07e-04	0.0
59	76	0.01	0.03	-0.50	-2.40e-05	-1.33e-04	0.0
59	88	0.02	9.73e-03	-0.50	-1.04e-05	-1.27e-04	0.0
59	89	0.02	0.0	-0.50	0.0	-1.27e-04	0.0
59	90	0.02	0.0	-0.50	0.0	-1.27e-04	0.0
60	11	0.03	0.08	-0.67	-3.20e-05	-1.61e-04	0.0
60	21	0.02	0.05	-0.51	-1.67e-05	-1.23e-04	0.0
60	22	0.07	0.02	-0.53	2.51e-05	-9.05e-05	0.0
60	38	0.04	0.05	-0.52	-2.90e-06	-1.14e-04	0.0
60	54	0.05	0.02	-0.52	2.87e-05	-1.02e-04	0.0
60	70	0.03	0.04	-0.51	1.13e-05	-1.17e-04	0.0
60	88	0.02	0.02	-0.51	2.44e-05	-1.22e-04	0.0
60	89	0.02	6.05e-03	-0.50	3.46e-05	-1.22e-04	0.0
60	90	0.02	6.05e-03	-0.50	3.46e-05	-1.22e-04	0.0
61	11	0.03	0.07	-0.63	-7.61e-05	-1.68e-04	0.0
61	21	0.02	0.05	-0.48	-5.07e-05	-1.29e-04	0.0
61	23	0.07	-0.01	-0.52	1.13e-05	-9.95e-05	0.0
61	27	0.07	-0.01	-0.52	1.13e-05	-9.95e-05	0.0
61	44	8.81e-03	0.05	-0.47	-3.75e-05	-1.40e-04	0.0
61	55	0.06	-9.55e-03	-0.50	6.99e-06	-1.11e-04	0.0
61	76	0.01	0.03	-0.48	-2.33e-05	-1.36e-04	0.0

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

61	88	0.02	9.77e-03	-0.48	-1.01e-05	-1.30e-04	0.0
61	89	0.02	0.0	-0.48	0.0	-1.30e-04	0.0
61	90	0.02	0.0	-0.48	0.0	-1.30e-04	0.0
62	11	0.03	0.08	-0.65	-2.97e-05	-1.63e-04	0.0
62	21	0.02	0.06	-0.50	-1.52e-05	-1.25e-04	0.0
62	22	0.07	0.02	-0.52	2.53e-05	-9.33e-05	0.0
62	30	0.07	0.02	-0.52	2.53e-05	-9.33e-05	0.0
62	38	0.04	0.05	-0.50	-1.79e-06	-1.17e-04	0.0
62	54	0.05	0.02	-0.50	2.89e-05	-1.05e-04	0.0
62	70	0.03	0.04	-0.49	1.20e-05	-1.20e-04	0.0
62	88	0.02	0.02	-0.49	2.47e-05	-1.25e-04	0.0
62	89	0.02	6.07e-03	-0.48	3.47e-05	-1.24e-04	0.0
62	90	0.02	6.07e-03	-0.48	3.47e-05	-1.24e-04	0.0
63	11	0.03	0.07	-0.60	-7.55e-05	-1.61e-04	0.0
63	21	0.02	0.05	-0.46	-5.04e-05	-1.24e-04	0.0
63	23	0.07	-0.01	-0.50	1.11e-05	-9.40e-05	0.0
63	35	0.07	-0.01	-0.50	1.11e-05	-9.40e-05	0.0
63	44	7.95e-03	0.05	-0.45	-3.71e-05	-1.35e-04	0.0
63	55	0.05	-9.54e-03	-0.48	6.93e-06	-1.06e-04	0.0
63	59	0.05	-9.54e-03	-0.48	6.93e-06	-1.06e-04	0.0
63	76	0.01	0.03	-0.45	-2.31e-05	-1.31e-04	0.0
63	88	0.02	9.78e-03	-0.46	-1.01e-05	-1.25e-04	0.0
63	89	0.02	0.0	-0.46	0.0	-1.25e-04	0.0
63	90	0.02	0.0	-0.46	0.0	-1.25e-04	0.0
64	11	0.03	0.08	-0.62	-3.00e-05	-1.59e-04	0.0
64	21	0.02	0.05	-0.48	-1.55e-05	-1.22e-04	0.0
64	22	0.07	0.02	-0.50	2.42e-05	-9.02e-05	0.0
64	30	0.07	0.02	-0.50	2.42e-05	-9.02e-05	0.0
64	38	0.04	0.05	-0.48	-2.22e-06	-1.13e-04	0.0
64	54	0.05	0.02	-0.49	2.77e-05	-1.02e-04	0.0
64	70	0.03	0.04	-0.48	1.13e-05	-1.16e-04	0.0
64	88	0.02	0.02	-0.47	2.38e-05	-1.21e-04	0.0
64	89	0.02	5.86e-03	-0.46	3.36e-05	-1.21e-04	0.0
64	90	0.02	5.86e-03	-0.46	3.36e-05	-1.21e-04	0.0
65	11	0.03	0.07	-0.58	-7.50e-05	-1.55e-04	0.0
65	21	0.02	0.05	-0.45	-5.00e-05	-1.19e-04	0.0
65	23	0.07	-0.01	-0.49	1.11e-05	-8.89e-05	0.0
65	35	0.07	-0.01	-0.49	1.11e-05	-8.89e-05	0.0
65	42	0.03	0.05	-0.46	-3.69e-05	-1.11e-04	0.0
65	55	0.05	-9.55e-03	-0.47	6.88e-06	-1.01e-04	0.0
65	63	0.05	-9.55e-03	-0.47	6.88e-06	-1.01e-04	0.0
65	74	0.03	0.03	-0.45	-2.29e-05	-1.15e-04	0.0
65	88	0.02	9.79e-03	-0.44	-1.00e-05	-1.20e-04	0.0
65	89	0.02	0.0	-0.44	0.0	-1.21e-04	0.0
65	90	0.02	0.0	-0.44	0.0	-1.21e-04	0.0
66	11	0.03	0.08	-0.60	-3.26e-05	-1.53e-04	0.0
66	21	0.02	0.05	-0.46	-1.75e-05	-1.17e-04	0.0
66	22	0.07	0.02	-0.49	2.23e-05	-8.55e-05	0.0
66	30	0.07	0.02	-0.49	2.23e-05	-8.55e-05	0.0
66	38	0.03	0.05	-0.47	-4.15e-06	-1.09e-04	0.0
66	54	0.05	0.02	-0.47	2.59e-05	-9.73e-05	0.0
66	62	0.05	0.02	-0.47	2.59e-05	-9.73e-05	0.0
66	70	0.03	0.04	-0.46	9.43e-06	-1.12e-04	0.0
66	88	0.02	0.02	-0.45	2.19e-05	-1.17e-04	0.0
66	89	0.02	5.55e-03	-0.45	3.18e-05	-1.17e-04	0.0
66	90	0.02	5.55e-03	-0.45	3.18e-05	-1.17e-04	0.0
67	11	0.02	0.09	-0.72	-6.46e-06	-1.21e-04	0.0
67	21	0.02	0.06	-0.55	3.36e-06	-9.31e-05	0.0
67	22	0.06	0.02	-0.56	4.81e-05	-5.42e-05	0.0
67	38	0.03	0.06	-0.55	1.82e-05	-8.24e-05	0.0
67	54	0.05	0.02	-0.55	5.16e-05	-6.82e-05	0.0
67	70	0.03	0.04	-0.55	3.31e-05	-8.57e-05	0.0
67	88	0.02	0.02	-0.54	4.67e-05	-9.15e-05	0.0
67	89	0.02	0.01	-0.54	5.75e-05	-9.12e-05	0.0
67	90	0.02	0.01	-0.54	5.75e-05	-9.12e-05	0.0
68	11	0.03	0.09	-0.70	5.02e-06	-1.38e-04	0.0
68	21	0.02	0.06	-0.54	1.17e-05	-1.06e-04	0.0
68	22	0.06	0.03	-0.54	5.47e-05	-6.90e-05	0.0
68	38	0.03	0.06	-0.54	2.59e-05	-9.56e-05	0.0
68	54	0.05	0.02	-0.53	5.78e-05	-8.19e-05	0.0
68	70	0.03	0.04	-0.53	4.00e-05	-9.84e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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68	88	0.02	0.02	-0.52	5.27e-05	-1.04e-04	0.0
68	89	0.02	0.01	-0.52	6.30e-05	-1.03e-04	0.0
68	90	0.02	0.01	-0.52	6.30e-05	-1.03e-04	0.0
69	11	0.03	0.09	-0.68	1.19e-05	-1.48e-04	0.0
69	21	0.02	0.06	-0.52	1.67e-05	-1.13e-04	0.0
69	22	0.07	0.03	-0.53	5.83e-05	-7.78e-05	0.0
69	30	0.07	0.03	-0.53	5.83e-05	-7.78e-05	0.0
69	38	0.03	0.06	-0.52	3.04e-05	-1.03e-04	0.0
69	54	0.05	0.02	-0.52	6.12e-05	-9.01e-05	0.0
69	62	0.05	0.02	-0.52	6.12e-05	-9.01e-05	0.0
69	70	0.03	0.04	-0.51	4.39e-05	-1.06e-04	0.0
69	88	0.02	0.02	-0.50	5.62e-05	-1.11e-04	0.0
69	89	0.02	0.01	-0.50	6.61e-05	-1.10e-04	0.0
69	90	0.02	0.01	-0.50	6.61e-05	-1.10e-04	0.0
70	11	0.03	0.09	-0.66	1.47e-05	-1.51e-04	0.0
70	21	0.02	0.06	-0.50	1.87e-05	-1.16e-04	0.0
70	22	0.07	0.03	-0.51	5.92e-05	-8.13e-05	0.0
70	30	0.07	0.03	-0.51	5.92e-05	-8.13e-05	0.0
70	38	0.03	0.06	-0.51	3.21e-05	-1.06e-04	0.0
70	54	0.05	0.02	-0.50	6.21e-05	-9.33e-05	0.0
70	70	0.03	0.04	-0.50	4.53e-05	-1.09e-04	0.0
70	88	0.02	0.02	-0.48	5.73e-05	-1.14e-04	0.0
70	89	0.02	0.01	-0.48	6.70e-05	-1.13e-04	0.0
70	90	0.02	0.01	-0.48	6.70e-05	-1.13e-04	0.0
71	11	0.03	0.09	-0.63	1.11e-05	-1.45e-04	0.0
71	21	0.02	0.06	-0.48	1.60e-05	-1.11e-04	0.0
71	22	0.07	0.03	-0.49	5.62e-05	-7.71e-05	0.0
71	30	0.07	0.03	-0.49	5.62e-05	-7.71e-05	0.0
71	38	0.03	0.06	-0.49	2.94e-05	-1.02e-04	0.0
71	54	0.05	0.02	-0.48	5.92e-05	-8.91e-05	0.0
71	62	0.05	0.02	-0.48	5.92e-05	-8.91e-05	0.0
71	70	0.03	0.04	-0.47	4.25e-05	-1.05e-04	0.0
71	88	0.02	0.02	-0.46	5.46e-05	-1.10e-04	0.0
71	89	0.02	0.01	-0.46	6.43e-05	-1.09e-04	0.0
71	90	0.02	0.01	-0.46	6.43e-05	-1.09e-04	0.0
72	11	0.03	0.09	-0.62	8.13e-06	-1.40e-04	0.0
72	21	0.02	0.06	-0.47	1.37e-05	-1.08e-04	0.0
72	22	0.06	0.03	-0.49	5.35e-05	-7.32e-05	0.0
72	30	0.06	0.03	-0.49	5.35e-05	-7.32e-05	0.0
72	38	0.03	0.06	-0.47	2.69e-05	-9.80e-05	0.0
72	54	0.05	0.02	-0.47	5.66e-05	-8.54e-05	0.0
72	62	0.05	0.02	-0.47	5.66e-05	-8.54e-05	0.0
72	70	0.03	0.04	-0.46	4.00e-05	-1.01e-04	0.0
72	88	0.02	0.02	-0.45	5.21e-05	-1.06e-04	0.0
72	89	0.02	0.01	-0.44	6.17e-05	-1.05e-04	0.0
72	90	0.02	0.01	-0.44	6.17e-05	-1.05e-04	0.0
73	11	0.02	0.09	-0.72	2.75e-05	-1.08e-04	0.0
73	21	0.02	0.06	-0.55	2.90e-05	-8.28e-05	0.0
73	22	0.06	0.03	-0.55	7.19e-05	-4.33e-05	0.0
73	38	0.03	0.06	-0.55	4.33e-05	-7.19e-05	0.0
73	54	0.05	0.02	-0.54	7.51e-05	-5.73e-05	0.0
73	62	0.05	0.02	-0.54	7.51e-05	-5.73e-05	0.0
73	70	0.02	0.05	-0.54	5.73e-05	-7.51e-05	0.0
73	88	0.01	0.02	-0.53	6.99e-05	-8.07e-05	0.0
73	89	0.01	0.01	-0.53	8.02e-05	-8.02e-05	0.0
73	90	0.01	0.01	-0.53	8.02e-05	-8.02e-05	0.0
74	11	0.02	0.09	-0.71	4.09e-05	-1.18e-04	0.0
74	21	0.02	0.06	-0.54	3.89e-05	-9.06e-05	0.0
74	22	0.06	0.03	-0.54	8.02e-05	-5.25e-05	0.0
74	30	0.06	0.03	-0.54	8.02e-05	-5.25e-05	0.0
74	38	0.03	0.06	-0.54	5.25e-05	-8.02e-05	0.0
74	54	0.05	0.03	-0.53	8.29e-05	-6.57e-05	0.0
74	70	0.03	0.05	-0.53	6.57e-05	-8.29e-05	0.0
74	88	0.02	0.03	-0.52	7.77e-05	-8.81e-05	0.0
74	89	0.02	0.02	-0.51	8.74e-05	-8.74e-05	0.0
74	90	0.02	0.02	-0.51	8.74e-05	-8.74e-05	0.0
75	11	0.02	0.10	-0.69	4.84e-05	-1.24e-04	0.0
75	21	0.02	0.07	-0.53	4.44e-05	-9.46e-05	0.0
75	22	0.06	0.03	-0.52	8.44e-05	-5.76e-05	0.0
75	30	0.06	0.03	-0.52	8.44e-05	-5.76e-05	0.0
75	38	0.03	0.06	-0.52	5.76e-05	-8.44e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

75	54	0.05	0.03	-0.51	8.70e-05	-7.03e-05	0.0
75	70	0.03	0.05	-0.51	7.03e-05	-8.70e-05	0.0
75	88	0.02	0.03	-0.50	8.19e-05	-9.20e-05	0.0
75	89	0.02	0.02	-0.50	9.13e-05	-9.13e-05	0.0
75	90	0.02	0.02	-0.50	9.13e-05	-9.13e-05	0.0
76	11	0.02	0.10	-0.67	5.01e-05	-1.24e-04	0.0
76	21	0.02	0.07	-0.51	4.56e-05	-9.47e-05	0.0
76	22	0.06	0.03	-0.51	8.47e-05	-5.84e-05	0.0
76	38	0.03	0.06	-0.51	5.84e-05	-8.47e-05	0.0
76	54	0.05	0.03	-0.50	8.73e-05	-7.10e-05	0.0
76	70	0.03	0.05	-0.50	7.10e-05	-8.73e-05	0.0
76	88	0.02	0.03	-0.48	8.25e-05	-9.23e-05	0.0
76	89	0.02	0.02	-0.48	9.17e-05	-9.17e-05	0.0
76	90	0.02	0.02	-0.48	9.17e-05	-9.17e-05	0.0
77	11	0.02	0.09	-0.65	4.75e-05	-1.20e-04	0.0
77	21	0.02	0.07	-0.50	4.36e-05	-9.20e-05	0.0
77	22	0.06	0.03	-0.50	8.22e-05	-5.64e-05	0.0
77	38	0.03	0.06	-0.50	5.64e-05	-8.22e-05	0.0
77	54	0.05	0.03	-0.48	8.49e-05	-6.89e-05	0.0
77	70	0.03	0.05	-0.48	6.89e-05	-8.49e-05	0.0
77	88	0.02	0.03	-0.47	8.02e-05	-8.99e-05	0.0
77	89	0.02	0.02	-0.46	8.94e-05	-8.94e-05	0.0
77	90	0.02	0.02	-0.46	8.94e-05	-8.94e-05	0.0
78	11	0.02	0.09	-0.64	4.34e-05	-1.16e-04	0.0
78	21	0.02	0.06	-0.49	4.05e-05	-8.91e-05	0.0
78	22	0.06	0.03	-0.48	7.92e-05	-5.33e-05	0.0
78	38	0.03	0.06	-0.48	5.33e-05	-7.92e-05	0.0
78	54	0.05	0.03	-0.47	8.19e-05	-6.59e-05	0.0
78	70	0.03	0.05	-0.47	6.59e-05	-8.19e-05	0.0
78	88	0.02	0.03	-0.45	7.73e-05	-8.70e-05	0.0
78	89	0.02	0.02	-0.45	8.65e-05	-8.65e-05	0.0
78	90	0.02	0.02	-0.45	8.65e-05	-8.65e-05	0.0
79	11	0.02	0.09	-0.73	4.18e-05	-7.75e-05	0.0
79	21	0.01	0.06	-0.56	4.00e-05	-5.93e-05	0.0
79	22	0.06	0.03	-0.55	8.24e-05	-1.82e-05	0.0
79	38	0.02	0.06	-0.56	5.42e-05	-4.81e-05	0.0
79	54	0.04	0.03	-0.55	8.57e-05	-3.31e-05	0.0
79	70	0.02	0.05	-0.55	6.82e-05	-5.16e-05	0.0
79	88	0.01	0.03	-0.54	8.09e-05	-5.79e-05	0.0
79	89	0.01	0.02	-0.54	9.12e-05	-5.75e-05	0.0
79	90	0.01	0.02	-0.54	9.12e-05	-5.75e-05	0.0
80	11	0.02	0.10	-0.72	6.30e-05	-8.57e-05	0.0
80	21	0.01	0.07	-0.55	5.57e-05	-6.55e-05	0.0
80	22	0.06	0.03	-0.54	9.56e-05	-2.59e-05	0.0
80	38	0.03	0.06	-0.54	6.90e-05	-5.47e-05	0.0
80	54	0.04	0.03	-0.53	9.84e-05	-4.00e-05	0.0
80	70	0.02	0.05	-0.53	8.19e-05	-5.78e-05	0.0
80	88	0.01	0.03	-0.52	9.35e-05	-6.35e-05	0.0
80	89	0.01	0.02	-0.52	1.03e-04	-6.30e-05	0.0
80	90	0.01	0.02	-0.52	1.03e-04	-6.30e-05	0.0
81	11	0.02	0.10	-0.70	7.56e-05	-9.00e-05	0.0
81	21	0.01	0.07	-0.53	6.51e-05	-6.88e-05	0.0
81	22	0.06	0.03	-0.52	1.03e-04	-3.04e-05	0.0
81	38	0.03	0.07	-0.53	7.78e-05	-5.83e-05	0.0
81	54	0.04	0.03	-0.51	1.06e-04	-4.39e-05	0.0
81	70	0.02	0.05	-0.52	9.01e-05	-6.12e-05	0.0
81	88	0.01	0.03	-0.51	1.01e-04	-6.67e-05	0.0
81	89	0.01	0.02	-0.50	1.10e-04	-6.61e-05	0.0
81	90	0.01	0.02	-0.50	1.10e-04	-6.61e-05	0.0
82	11	0.02	0.10	-0.68	8.07e-05	-9.08e-05	0.0
82	21	0.01	0.07	-0.52	6.89e-05	-6.95e-05	0.0
82	22	0.06	0.03	-0.51	1.06e-04	-3.21e-05	0.0
82	38	0.03	0.07	-0.51	8.13e-05	-5.92e-05	0.0
82	54	0.04	0.03	-0.50	1.09e-04	-4.53e-05	0.0
82	70	0.02	0.05	-0.50	9.33e-05	-6.21e-05	0.0
82	88	0.01	0.03	-0.49	1.04e-04	-6.75e-05	0.0
82	89	0.01	0.02	-0.48	1.13e-04	-6.70e-05	0.0
82	90	0.01	0.02	-0.48	1.13e-04	-6.70e-05	0.0
83	11	0.02	0.10	-0.66	7.49e-05	-8.68e-05	0.0
83	21	0.01	0.07	-0.50	6.45e-05	-6.64e-05	0.0
83	22	0.06	0.03	-0.49	1.02e-04	-2.94e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

83	38	0.03	0.07	-0.49	7.71e-05	-5.62e-05	0.0
83	54	0.04	0.03	-0.47	1.05e-04	-4.25e-05	0.0
83	70	0.02	0.05	-0.48	8.91e-05	-5.92e-05	0.0
83	88	0.01	0.03	-0.47	1.00e-04	-6.47e-05	0.0
83	89	0.01	0.02	-0.46	1.09e-04	-6.43e-05	0.0
83	90	0.01	0.02	-0.46	1.09e-04	-6.43e-05	0.0
84	11	0.02	0.10	-0.65	7.04e-05	-8.32e-05	0.0
84	21	0.01	0.07	-0.49	6.10e-05	-6.37e-05	0.0
84	22	0.06	0.03	-0.47	9.80e-05	-2.69e-05	0.0
84	38	0.03	0.06	-0.49	7.32e-05	-5.35e-05	0.0
84	54	0.04	0.03	-0.46	1.01e-04	-4.00e-05	0.0
84	70	0.02	0.05	-0.47	8.54e-05	-5.66e-05	0.0
84	88	0.01	0.03	-0.45	9.66e-05	-6.21e-05	0.0
84	89	0.01	0.02	-0.44	1.05e-04	-6.17e-05	0.0
84	90	0.01	0.02	-0.44	1.05e-04	-6.17e-05	0.0
85	11	8.61e-03	0.10	-0.74	5.17e-05	-3.96e-05	0.0
85	21	6.44e-03	0.07	-0.57	4.76e-05	-3.04e-05	0.0
85	22	0.05	0.03	-0.55	8.91e-05	1.11e-05	0.0
85	38	0.02	0.06	-0.56	6.17e-05	-1.91e-05	0.0
85	54	0.04	0.03	-0.55	9.28e-05	-4.57e-06	0.0
85	70	0.01	0.05	-0.55	7.58e-05	-2.33e-05	0.0
85	88	5.51e-03	0.03	-0.55	8.86e-05	-3.02e-05	0.0
85	89	5.28e-03	0.02	-0.54	9.89e-05	-3.02e-05	0.0
85	90	5.28e-03	0.02	-0.54	9.89e-05	-3.02e-05	0.0
86	11	9.40e-03	0.10	-0.73	7.81e-05	-4.42e-05	0.0
86	21	7.03e-03	0.07	-0.55	6.72e-05	-3.39e-05	0.0
86	22	0.05	0.03	-0.54	1.05e-04	5.99e-06	0.0
86	38	0.02	0.07	-0.55	8.00e-05	-2.30e-05	0.0
86	42	0.02	0.07	-0.55	8.00e-05	-2.30e-05	0.0
86	54	0.04	0.03	-0.53	1.08e-04	-8.83e-06	0.0
86	70	0.02	0.05	-0.54	9.27e-05	-2.68e-05	0.0
86	88	6.03e-03	0.03	-0.53	1.04e-04	-3.32e-05	0.0
86	89	5.78e-03	0.02	-0.52	1.14e-04	-3.31e-05	0.0
86	90	5.78e-03	0.02	-0.52	1.14e-04	-3.31e-05	0.0
87	11	9.78e-03	0.10	-0.71	9.31e-05	-4.65e-05	0.0
87	21	7.33e-03	0.07	-0.54	7.84e-05	-3.56e-05	0.0
87	22	0.05	0.04	-0.52	1.14e-04	2.90e-06	0.0
87	38	0.02	0.07	-0.53	9.05e-05	-2.51e-05	0.0
87	54	0.04	0.03	-0.51	1.17e-04	-1.13e-05	0.0
87	70	0.02	0.05	-0.52	1.02e-04	-2.87e-05	0.0
87	88	6.31e-03	0.03	-0.51	1.13e-04	-3.48e-05	0.0
87	89	6.05e-03	0.02	-0.50	1.22e-04	-3.46e-05	0.0
87	90	6.05e-03	0.02	-0.50	1.22e-04	-3.46e-05	0.0
88	11	9.77e-03	0.10	-0.69	9.75e-05	-4.64e-05	0.0
88	21	7.32e-03	0.07	-0.53	8.16e-05	-3.56e-05	0.0
88	22	0.05	0.04	-0.50	1.17e-04	1.79e-06	0.0
88	38	0.02	0.07	-0.52	9.33e-05	-2.53e-05	0.0
88	54	0.04	0.03	-0.49	1.20e-04	-1.20e-05	0.0
88	70	0.02	0.05	-0.50	1.05e-04	-2.89e-05	0.0
88	88	6.32e-03	0.03	-0.49	1.16e-04	-3.49e-05	0.0
88	89	6.07e-03	0.02	-0.48	1.24e-04	-3.47e-05	0.0
88	90	6.07e-03	0.02	-0.48	1.24e-04	-3.47e-05	0.0
89	11	9.45e-03	0.10	-0.68	9.34e-05	-4.46e-05	0.0
89	21	7.08e-03	0.07	-0.51	7.85e-05	-3.42e-05	0.0
89	22	0.05	0.04	-0.48	1.13e-04	2.22e-06	0.0
89	38	0.02	0.07	-0.50	9.02e-05	-2.42e-05	0.0
89	54	0.04	0.03	-0.48	1.16e-04	-1.13e-05	0.0
89	70	0.02	0.05	-0.49	1.02e-04	-2.77e-05	0.0
89	88	6.11e-03	0.03	-0.47	1.13e-04	-3.37e-05	0.0
89	89	5.86e-03	0.02	-0.46	1.21e-04	-3.36e-05	0.0
89	90	5.86e-03	0.02	-0.46	1.21e-04	-3.36e-05	0.0
90	11	9.02e-03	0.10	-0.66	8.73e-05	-4.21e-05	0.0
90	21	6.75e-03	0.07	-0.50	7.37e-05	-3.23e-05	0.0
90	22	0.05	0.03	-0.47	1.09e-04	4.15e-06	0.0
90	38	0.02	0.07	-0.49	8.55e-05	-2.23e-05	0.0
90	54	0.04	0.03	-0.46	1.12e-04	-9.43e-06	0.0
90	70	0.02	0.05	-0.47	9.73e-05	-2.59e-05	0.0
90	88	5.79e-03	0.03	-0.46	1.08e-04	-3.19e-05	0.0
90	89	5.55e-03	0.02	-0.45	1.17e-04	-3.18e-05	0.0
90	90	5.55e-03	0.02	-0.45	1.17e-04	-3.18e-05	0.0
91	11	1.17e-03	0.10	-0.74	5.51e-05	2.49e-06	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

91	12	1.17e-03	0.09	-0.58	2.45e-05	2.49e-06	0.0
91	19	7.78e-04	0.07	-0.57	5.02e-05	1.66e-06	0.0
91	21	7.78e-04	0.07	-0.57	5.03e-05	1.66e-06	0.0
91	24	-0.04	0.03	-0.55	9.05e-05	-4.24e-05	0.0
91	42	0.01	0.06	-0.56	6.42e-05	1.27e-05	0.0
91	44	-0.01	0.06	-0.56	6.42e-05	-1.27e-05	0.0
91	56	-0.03	0.03	-0.55	9.48e-05	-2.63e-05	0.0
91	74	9.44e-03	0.05	-0.55	7.84e-05	7.89e-06	0.0
91	76	-9.44e-03	0.05	-0.55	7.84e-05	-7.89e-06	0.0
91	88	1.56e-04	0.03	-0.55	9.14e-05	0.0	0.0
91	89	0.0	0.02	-0.54	1.02e-04	0.0	0.0
91	90	0.0	0.02	-0.54	1.02e-04	0.0	0.0
92	11	1.19e-03	0.10	-0.73	8.36e-05	2.35e-06	0.0
92	12	1.19e-03	0.10	-0.57	4.83e-05	2.35e-06	0.0
92	19	7.95e-04	0.07	-0.56	7.13e-05	1.57e-06	0.0
92	21	7.95e-04	0.07	-0.56	7.14e-05	1.57e-06	0.0
92	24	-0.05	0.03	-0.53	1.07e-04	-4.03e-05	0.0
92	42	0.01	0.07	-0.55	8.37e-05	1.21e-05	0.0
92	44	-0.01	0.07	-0.55	8.37e-05	-1.21e-05	0.0
92	56	-0.03	0.03	-0.53	1.11e-04	-2.50e-05	0.0
92	74	9.49e-03	0.05	-0.54	9.64e-05	7.50e-06	0.0
92	76	-9.49e-03	0.05	-0.54	9.64e-05	-7.50e-06	0.0
92	88	1.59e-04	0.03	-0.53	1.08e-04	0.0	0.0
92	89	0.0	0.02	-0.52	1.17e-04	0.0	0.0
92	90	0.0	0.02	-0.52	1.17e-04	0.0	0.0
93	11	1.21e-03	0.10	-0.71	1.00e-04	2.26e-06	0.0
93	12	1.21e-03	0.10	-0.56	6.19e-05	2.26e-06	0.0
93	19	8.06e-04	0.07	-0.54	8.35e-05	1.50e-06	0.0
93	21	8.06e-04	0.07	-0.54	8.36e-05	1.50e-06	0.0
93	24	-0.05	0.04	-0.51	1.17e-04	-3.87e-05	0.0
93	42	0.01	0.07	-0.53	9.51e-05	1.16e-05	0.0
93	44	-0.01	0.07	-0.53	9.51e-05	-1.16e-05	0.0
93	56	-0.03	0.03	-0.51	1.21e-04	-2.40e-05	0.0
93	74	9.53e-03	0.05	-0.52	1.07e-04	7.21e-06	0.0
93	76	-9.53e-03	0.05	-0.52	1.07e-04	-7.21e-06	0.0
93	88	1.61e-04	0.03	-0.51	1.18e-04	0.0	0.0
93	89	0.0	0.02	-0.50	1.27e-04	0.0	0.0
93	90	0.0	0.02	-0.50	1.27e-04	0.0	0.0
94	11	1.22e-03	0.11	-0.69	1.06e-04	2.19e-06	0.0
94	12	1.22e-03	0.10	-0.55	6.70e-05	2.19e-06	0.0
94	19	8.14e-04	0.07	-0.53	8.82e-05	1.46e-06	0.0
94	21	8.14e-04	0.07	-0.53	8.82e-05	1.46e-06	0.0
94	24	-0.05	0.04	-0.49	1.21e-04	-3.75e-05	0.0
94	42	0.01	0.07	-0.52	9.95e-05	1.13e-05	0.0
94	44	-0.01	0.07	-0.52	9.95e-05	-1.13e-05	0.0
94	56	-0.03	0.03	-0.49	1.25e-04	-2.33e-05	0.0
94	74	9.55e-03	0.06	-0.50	1.11e-04	6.99e-06	0.0
94	76	-9.55e-03	0.06	-0.50	1.11e-04	-6.99e-06	0.0
94	88	1.63e-04	0.03	-0.49	1.22e-04	0.0	0.0
94	89	0.0	0.02	-0.48	1.30e-04	0.0	0.0
94	90	0.0	0.02	-0.48	1.30e-04	0.0	0.0
95	11	1.23e-03	0.10	-0.67	9.88e-05	2.15e-06	0.0
95	12	1.23e-03	0.10	-0.53	6.11e-05	2.15e-06	0.0
95	19	8.17e-04	0.07	-0.51	8.25e-05	1.44e-06	0.0
95	21	8.17e-04	0.07	-0.51	8.26e-05	1.44e-06	0.0
95	24	-0.05	0.04	-0.47	1.16e-04	-3.71e-05	0.0
95	42	0.01	0.07	-0.50	9.40e-05	1.11e-05	0.0
95	44	-0.01	0.07	-0.50	9.40e-05	-1.11e-05	0.0
95	56	-0.03	0.03	-0.47	1.20e-04	-2.31e-05	0.0
95	74	9.54e-03	0.05	-0.48	1.06e-04	6.93e-06	0.0
95	76	-9.54e-03	0.05	-0.48	1.06e-04	-6.93e-06	0.0
95	88	1.63e-04	0.03	-0.47	1.17e-04	0.0	0.0
95	89	0.0	0.02	-0.46	1.25e-04	0.0	0.0
95	90	0.0	0.02	-0.46	1.25e-04	0.0	0.0
96	11	1.23e-03	0.10	-0.66	9.24e-05	2.15e-06	0.0
96	12	1.23e-03	0.10	-0.53	5.62e-05	2.15e-06	0.0
96	19	8.17e-04	0.07	-0.50	7.76e-05	1.43e-06	0.0
96	21	8.17e-04	0.07	-0.50	7.77e-05	1.43e-06	0.0
96	24	-0.05	0.03	-0.46	1.11e-04	-3.69e-05	0.0
96	42	0.01	0.07	-0.49	8.89e-05	1.11e-05	0.0
96	44	-0.01	0.07	-0.49	8.89e-05	-1.11e-05	0.0

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96	56	-0.03	0.03	-0.45	1.15e-04	-2.29e-05	0.0
96	74	9.55e-03	0.05	-0.47	1.01e-04	6.88e-06	0.0
96	76	-9.55e-03	0.05	-0.47	1.01e-04	-6.88e-06	0.0
96	88	1.63e-04	0.03	-0.46	1.12e-04	0.0	0.0
96	89	0.0	0.02	-0.44	1.21e-04	0.0	0.0
96	90	0.0	0.02	-0.44	1.21e-04	0.0	0.0
97	3	-6.87e-03	0.02	-0.70	1.29e-04	3.93e-05	0.0
97	11	-6.26e-03	0.10	-0.74	5.15e-05	4.45e-05	0.0
97	17	-5.29e-03	0.02	-0.54	9.90e-05	3.02e-05	0.0
97	21	-4.88e-03	0.07	-0.57	4.75e-05	3.37e-05	0.0
97	28	-0.05	0.03	-0.55	8.91e-05	-1.11e-05	0.0
97	40	-0.02	0.06	-0.56	6.17e-05	1.91e-05	0.0
97	60	-0.04	0.03	-0.55	9.28e-05	4.57e-06	0.0
97	72	-0.01	0.05	-0.55	7.58e-05	2.33e-05	0.0
97	87	-5.28e-03	0.02	-0.54	9.89e-05	3.02e-05	0.0
97	88	-5.20e-03	0.03	-0.55	8.86e-05	3.09e-05	0.0
97	89	-5.28e-03	0.02	-0.54	9.89e-05	3.02e-05	0.0
97	90	-5.28e-03	0.02	-0.54	9.89e-05	3.02e-05	0.0
98	3	-7.53e-03	0.03	-0.68	1.48e-04	4.31e-05	0.0
98	11	-7.00e-03	0.10	-0.73	7.79e-05	4.89e-05	0.0
98	17	-5.79e-03	0.02	-0.52	1.14e-04	3.31e-05	0.0
98	21	-5.44e-03	0.07	-0.55	6.71e-05	3.70e-05	0.0
98	28	-0.05	0.03	-0.54	1.05e-04	-5.99e-06	0.0
98	40	-0.02	0.07	-0.55	8.00e-05	2.30e-05	0.0
98	60	-0.04	0.03	-0.53	1.08e-04	8.83e-06	0.0
98	72	-0.02	0.05	-0.54	9.27e-05	2.68e-05	0.0
98	87	-5.78e-03	0.02	-0.52	1.14e-04	3.31e-05	0.0
98	88	-5.71e-03	0.03	-0.53	1.04e-04	3.39e-05	0.0
98	89	-5.78e-03	0.02	-0.52	1.14e-04	3.31e-05	0.0
98	90	-5.78e-03	0.02	-0.52	1.14e-04	3.31e-05	0.0
99	3	-7.88e-03	0.03	-0.65	1.59e-04	4.51e-05	0.0
99	11	-7.35e-03	0.10	-0.71	9.29e-05	5.09e-05	0.0
99	17	-6.06e-03	0.02	-0.50	1.22e-04	3.47e-05	0.0
99	21	-5.70e-03	0.07	-0.54	7.82e-05	3.86e-05	0.0
99	28	-0.05	0.04	-0.52	1.14e-04	-2.90e-06	0.0
99	40	-0.02	0.07	-0.53	9.05e-05	2.51e-05	0.0
99	60	-0.04	0.03	-0.51	1.17e-04	1.13e-05	0.0
99	72	-0.02	0.05	-0.52	1.02e-04	2.87e-05	0.0
99	87	-6.05e-03	0.02	-0.50	1.22e-04	3.46e-05	0.0
99	88	-5.98e-03	0.03	-0.51	1.13e-04	3.54e-05	0.0
99	89	-6.05e-03	0.02	-0.50	1.22e-04	3.46e-05	0.0
99	90	-6.05e-03	0.02	-0.50	1.22e-04	3.46e-05	0.0
100	3	-7.89e-03	0.03	-0.63	1.62e-04	4.52e-05	0.0
100	11	-7.31e-03	0.10	-0.69	9.73e-05	5.07e-05	0.0
100	17	-6.07e-03	0.02	-0.48	1.24e-04	3.48e-05	0.0
100	21	-5.68e-03	0.07	-0.53	8.14e-05	3.84e-05	0.0
100	28	-0.05	0.04	-0.50	1.17e-04	-1.79e-06	0.0
100	40	-0.02	0.07	-0.52	9.33e-05	2.53e-05	0.0
100	60	-0.04	0.03	-0.49	1.20e-04	1.20e-05	0.0
100	72	-0.02	0.05	-0.50	1.05e-04	2.89e-05	0.0
100	87	-6.07e-03	0.02	-0.48	1.24e-04	3.47e-05	0.0
100	88	-5.99e-03	0.03	-0.49	1.16e-04	3.55e-05	0.0
100	89	-6.07e-03	0.02	-0.48	1.24e-04	3.47e-05	0.0
100	90	-6.07e-03	0.02	-0.48	1.24e-04	3.47e-05	0.0
101	3	-7.63e-03	0.03	-0.60	1.58e-04	4.37e-05	0.0
101	11	-6.98e-03	0.10	-0.67	9.33e-05	4.88e-05	0.0
101	17	-5.87e-03	0.02	-0.46	1.21e-04	3.36e-05	0.0
101	21	-5.44e-03	0.07	-0.51	7.83e-05	3.70e-05	0.0
101	28	-0.05	0.04	-0.48	1.13e-04	-2.22e-06	0.0
101	40	-0.02	0.07	-0.50	9.02e-05	2.42e-05	0.0
101	44	-0.02	0.07	-0.50	9.02e-05	2.42e-05	0.0
101	60	-0.04	0.03	-0.48	1.16e-04	1.13e-05	0.0
101	72	-0.02	0.05	-0.49	1.02e-04	2.77e-05	0.0
101	76	-0.02	0.05	-0.49	1.02e-04	2.77e-05	0.0
101	87	-5.86e-03	0.02	-0.46	1.21e-04	3.36e-05	0.0
101	88	-5.78e-03	0.03	-0.47	1.13e-04	3.43e-05	0.0
101	89	-5.86e-03	0.02	-0.46	1.21e-04	3.36e-05	0.0
101	90	-5.86e-03	0.02	-0.46	1.21e-04	3.36e-05	0.0
102	3	-7.22e-03	0.03	-0.58	1.52e-04	4.13e-05	0.0
102	11	-6.56e-03	0.10	-0.66	8.71e-05	4.63e-05	0.0
102	17	-5.55e-03	0.02	-0.45	1.17e-04	3.18e-05	0.0

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102	21	-5.11e-03	0.07	-0.50	7.36e-05	3.51e-05	0.0
102	28	-0.05	0.03	-0.47	1.09e-04	-4.15e-06	0.0
102	40	-0.02	0.07	-0.49	8.55e-05	2.23e-05	0.0
102	60	-0.04	0.03	-0.46	1.12e-04	9.43e-06	0.0
102	72	-0.02	0.05	-0.47	9.73e-05	2.59e-05	0.0
102	87	-5.55e-03	0.02	-0.45	1.17e-04	3.18e-05	0.0
102	88	-5.46e-03	0.03	-0.46	1.08e-04	3.24e-05	0.0
102	89	-5.55e-03	0.02	-0.45	1.17e-04	3.18e-05	0.0
102	90	-5.55e-03	0.02	-0.45	1.17e-04	3.18e-05	0.0
103	3	-0.01	0.02	-0.70	1.19e-04	7.49e-05	0.0
103	11	-0.01	0.09	-0.73	4.15e-05	8.22e-05	0.0
103	17	-0.01	0.02	-0.54	9.13e-05	5.76e-05	0.0
103	21	-9.92e-03	0.06	-0.56	3.98e-05	6.24e-05	0.0
103	28	-0.06	0.03	-0.55	8.24e-05	1.82e-05	0.0
103	40	-0.02	0.06	-0.56	5.42e-05	4.81e-05	0.0
103	60	-0.04	0.03	-0.55	8.57e-05	3.31e-05	0.0
103	72	-0.02	0.05	-0.55	6.82e-05	5.16e-05	0.0
103	87	-0.01	0.02	-0.54	9.12e-05	5.75e-05	0.0
103	88	-0.01	0.03	-0.54	8.09e-05	5.85e-05	0.0
103	89	-0.01	0.02	-0.54	9.12e-05	5.75e-05	0.0
103	90	-0.01	0.02	-0.54	9.12e-05	5.75e-05	0.0
104	3	-0.01	0.02	-0.67	1.34e-04	8.20e-05	0.0
104	11	-0.01	0.10	-0.72	6.26e-05	9.01e-05	0.0
104	17	-0.01	0.02	-0.52	1.03e-04	6.31e-05	0.0
104	21	-0.01	0.07	-0.55	5.55e-05	6.85e-05	0.0
104	28	-0.06	0.03	-0.54	9.56e-05	2.59e-05	0.0
104	40	-0.03	0.06	-0.54	6.90e-05	5.47e-05	0.0
104	60	-0.04	0.03	-0.53	9.84e-05	4.00e-05	0.0
104	72	-0.02	0.05	-0.53	8.19e-05	5.78e-05	0.0
104	87	-0.01	0.02	-0.52	1.03e-04	6.30e-05	0.0
104	88	-0.01	0.03	-0.52	9.35e-05	6.41e-05	0.0
104	89	-0.01	0.02	-0.52	1.03e-04	6.30e-05	0.0
104	90	-0.01	0.02	-0.52	1.03e-04	6.30e-05	0.0
105	3	-0.02	0.03	-0.65	1.43e-04	8.61e-05	0.0
105	11	-0.01	0.10	-0.70	7.52e-05	9.43e-05	0.0
105	17	-0.01	0.02	-0.50	1.10e-04	6.62e-05	0.0
105	21	-0.01	0.07	-0.53	6.48e-05	7.17e-05	0.0
105	28	-0.06	0.03	-0.52	1.03e-04	3.04e-05	0.0
105	40	-0.03	0.07	-0.53	7.78e-05	5.83e-05	0.0
105	44	-0.03	0.07	-0.53	7.78e-05	5.83e-05	0.0
105	60	-0.04	0.03	-0.51	1.06e-04	4.39e-05	0.0
105	72	-0.02	0.05	-0.52	9.01e-05	6.12e-05	0.0
105	87	-0.01	0.02	-0.50	1.10e-04	6.61e-05	0.0
105	88	-0.01	0.03	-0.51	1.01e-04	6.72e-05	0.0
105	89	-0.01	0.02	-0.50	1.10e-04	6.61e-05	0.0
105	90	-0.01	0.02	-0.50	1.10e-04	6.61e-05	0.0
106	3	-0.02	0.03	-0.62	1.47e-04	8.71e-05	0.0
106	11	-0.02	0.10	-0.68	8.03e-05	9.50e-05	0.0
106	17	-0.01	0.02	-0.48	1.13e-04	6.70e-05	0.0
106	21	-0.01	0.07	-0.52	6.86e-05	7.23e-05	0.0
106	28	-0.06	0.03	-0.51	1.06e-04	3.21e-05	0.0
106	40	-0.03	0.07	-0.51	8.13e-05	5.92e-05	0.0
106	60	-0.04	0.03	-0.50	1.09e-04	4.53e-05	0.0
106	72	-0.02	0.05	-0.50	9.33e-05	6.21e-05	0.0
106	87	-0.01	0.02	-0.48	1.13e-04	6.70e-05	0.0
106	88	-0.01	0.03	-0.49	1.04e-04	6.80e-05	0.0
106	89	-0.01	0.02	-0.48	1.13e-04	6.70e-05	0.0
106	90	-0.01	0.02	-0.48	1.13e-04	6.70e-05	0.0
107	3	-0.01	0.02	-0.59	1.42e-04	8.36e-05	0.0
107	11	-0.01	0.10	-0.66	7.46e-05	9.09e-05	0.0
107	17	-0.01	0.02	-0.46	1.09e-04	6.43e-05	0.0
107	21	-0.01	0.07	-0.50	6.43e-05	6.92e-05	0.0
107	28	-0.06	0.03	-0.49	1.02e-04	2.94e-05	0.0
107	40	-0.03	0.07	-0.49	7.71e-05	5.62e-05	0.0
107	60	-0.04	0.03	-0.47	1.05e-04	4.25e-05	0.0
107	72	-0.02	0.05	-0.48	8.91e-05	5.92e-05	0.0
107	87	-0.01	0.02	-0.46	1.09e-04	6.43e-05	0.0
107	88	-0.01	0.03	-0.47	1.00e-04	6.52e-05	0.0
107	89	-0.01	0.02	-0.46	1.09e-04	6.43e-05	0.0
107	90	-0.01	0.02	-0.46	1.09e-04	6.43e-05	0.0
108	3	-0.01	0.02	-0.58	1.37e-04	8.03e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

108	11	-0.01	0.10	-0.65	7.01e-05	8.74e-05	0.0
108	17	-0.01	0.02	-0.44	1.06e-04	6.18e-05	0.0
108	21	-0.01	0.07	-0.49	6.08e-05	6.65e-05	0.0
108	28	-0.06	0.03	-0.47	9.80e-05	2.69e-05	0.0
108	40	-0.03	0.06	-0.49	7.32e-05	5.35e-05	0.0
108	60	-0.04	0.03	-0.46	1.01e-04	4.00e-05	0.0
108	72	-0.02	0.05	-0.47	8.54e-05	5.66e-05	0.0
108	87	-0.01	0.02	-0.44	1.05e-04	6.17e-05	0.0
108	88	-0.01	0.03	-0.45	9.65e-05	6.27e-05	0.0
108	89	-0.01	0.02	-0.44	1.05e-04	6.17e-05	0.0
108	90	-0.01	0.02	-0.44	1.05e-04	6.17e-05	0.0
109	3	-0.02	0.02	-0.69	1.04e-04	1.04e-04	0.0
109	11	-0.02	0.09	-0.72	2.72e-05	1.13e-04	0.0
109	17	-0.01	0.01	-0.53	8.03e-05	8.03e-05	0.0
109	21	-0.01	0.06	-0.55	2.88e-05	8.58e-05	0.0
109	24	-0.06	0.03	-0.55	7.19e-05	4.33e-05	0.0
109	28	-0.06	0.03	-0.55	7.19e-05	4.33e-05	0.0
109	40	-0.03	0.06	-0.55	4.33e-05	7.19e-05	0.0
109	56	-0.05	0.02	-0.54	7.51e-05	5.73e-05	0.0
109	60	-0.05	0.02	-0.54	7.51e-05	5.73e-05	0.0
109	72	-0.02	0.05	-0.54	5.73e-05	7.51e-05	0.0
109	87	-0.01	0.01	-0.53	8.02e-05	8.02e-05	0.0
109	88	-0.01	0.02	-0.53	6.99e-05	8.13e-05	0.0
109	89	-0.01	0.01	-0.53	8.02e-05	8.02e-05	0.0
109	90	-0.01	0.01	-0.53	8.02e-05	8.02e-05	0.0
110	11	-0.02	0.09	-0.70	4.05e-05	1.23e-04	0.0
110	21	-0.02	0.06	-0.54	3.86e-05	9.34e-05	0.0
110	28	-0.06	0.03	-0.54	8.02e-05	5.25e-05	0.0
110	32	-0.06	0.03	-0.54	8.02e-05	5.25e-05	0.0
110	40	-0.03	0.06	-0.54	5.25e-05	8.02e-05	0.0
110	56	-0.05	0.03	-0.53	8.29e-05	6.57e-05	0.0
110	60	-0.05	0.03	-0.53	8.29e-05	6.57e-05	0.0
110	72	-0.03	0.05	-0.53	6.57e-05	8.29e-05	0.0
110	88	-0.02	0.03	-0.52	7.77e-05	8.86e-05	0.0
110	89	-0.02	0.02	-0.51	8.74e-05	8.74e-05	0.0
110	90	-0.02	0.02	-0.51	8.74e-05	8.74e-05	0.0
111	11	-0.02	0.10	-0.69	4.79e-05	1.28e-04	0.0
111	21	-0.02	0.07	-0.52	4.41e-05	9.73e-05	0.0
111	24	-0.06	0.03	-0.52	8.44e-05	5.76e-05	0.0
111	28	-0.06	0.03	-0.52	8.44e-05	5.76e-05	0.0
111	40	-0.03	0.06	-0.52	5.76e-05	8.44e-05	0.0
111	60	-0.05	0.03	-0.51	8.70e-05	7.03e-05	0.0
111	64	-0.05	0.03	-0.51	8.70e-05	7.03e-05	0.0
111	72	-0.03	0.05	-0.51	7.03e-05	8.70e-05	0.0
111	88	-0.02	0.03	-0.50	8.19e-05	9.25e-05	0.0
111	89	-0.02	0.02	-0.50	9.13e-05	9.13e-05	0.0
111	90	-0.02	0.02	-0.50	9.13e-05	9.13e-05	0.0
112	3	-0.02	0.02	-0.62	1.19e-04	1.19e-04	0.0
112	11	-0.02	0.10	-0.67	4.97e-05	1.28e-04	0.0
112	17	-0.02	0.02	-0.48	9.18e-05	9.18e-05	0.0
112	21	-0.02	0.07	-0.51	4.53e-05	9.73e-05	0.0
112	28	-0.06	0.03	-0.51	8.47e-05	5.84e-05	0.0
112	40	-0.03	0.06	-0.51	5.84e-05	8.47e-05	0.0
112	60	-0.05	0.03	-0.50	8.73e-05	7.10e-05	0.0
112	72	-0.03	0.05	-0.50	7.10e-05	8.73e-05	0.0
112	87	-0.02	0.02	-0.48	9.17e-05	9.17e-05	0.0
112	88	-0.02	0.03	-0.48	8.24e-05	9.28e-05	0.0
112	89	-0.02	0.02	-0.48	9.17e-05	9.17e-05	0.0
112	90	-0.02	0.02	-0.48	9.17e-05	9.17e-05	0.0
113	3	-0.02	0.02	-0.60	1.16e-04	1.16e-04	0.0
113	11	-0.02	0.09	-0.65	4.71e-05	1.24e-04	0.0
113	17	-0.02	0.02	-0.46	8.95e-05	8.95e-05	0.0
113	21	-0.02	0.07	-0.50	4.33e-05	9.46e-05	0.0
113	28	-0.06	0.03	-0.50	8.22e-05	5.64e-05	0.0
113	40	-0.03	0.06	-0.50	5.64e-05	8.22e-05	0.0
113	60	-0.05	0.03	-0.48	8.49e-05	6.89e-05	0.0
113	72	-0.03	0.05	-0.48	6.89e-05	8.49e-05	0.0
113	87	-0.02	0.02	-0.46	8.94e-05	8.94e-05	0.0
113	88	-0.02	0.03	-0.47	8.02e-05	9.04e-05	0.0
113	89	-0.02	0.02	-0.46	8.94e-05	8.94e-05	0.0
113	90	-0.02	0.02	-0.46	8.94e-05	8.94e-05	0.0

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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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114	3	-0.02	0.02	-0.58	1.13e-04	1.13e-04	0.0
114	11	-0.02	0.09	-0.64	4.30e-05	1.20e-04	0.0
114	17	-0.02	0.02	-0.45	8.66e-05	8.66e-05	0.0
114	21	-0.02	0.06	-0.48	4.02e-05	9.17e-05	0.0
114	28	-0.06	0.03	-0.48	7.92e-05	5.33e-05	0.0
114	40	-0.03	0.06	-0.48	5.33e-05	7.92e-05	0.0
114	44	-0.03	0.06	-0.48	5.33e-05	7.92e-05	0.0
114	60	-0.05	0.03	-0.47	8.19e-05	6.59e-05	0.0
114	72	-0.03	0.05	-0.47	6.59e-05	8.19e-05	0.0
114	87	-0.02	0.02	-0.45	8.65e-05	8.65e-05	0.0
114	88	-0.02	0.03	-0.45	7.72e-05	8.75e-05	0.0
114	89	-0.02	0.02	-0.45	8.65e-05	8.65e-05	0.0
114	90	-0.02	0.02	-0.45	8.65e-05	8.65e-05	0.0
115	3	-0.02	0.01	-0.70	7.49e-05	1.19e-04	0.0
115	11	-0.02	0.09	-0.72	-6.76e-06	1.26e-04	0.0
115	17	-0.02	0.01	-0.54	5.76e-05	9.13e-05	0.0
115	21	-0.02	0.06	-0.55	3.16e-06	9.60e-05	0.0
115	28	-0.06	0.02	-0.56	4.81e-05	5.42e-05	0.0
115	32	-0.06	0.02	-0.56	4.81e-05	5.42e-05	0.0
115	40	-0.03	0.06	-0.55	1.82e-05	8.24e-05	0.0
115	60	-0.05	0.02	-0.55	5.16e-05	6.82e-05	0.0
115	64	-0.05	0.02	-0.55	5.16e-05	6.82e-05	0.0
115	72	-0.03	0.04	-0.55	3.31e-05	8.57e-05	0.0
115	87	-0.02	0.01	-0.54	5.75e-05	9.12e-05	0.0
115	88	-0.02	0.02	-0.54	4.66e-05	9.21e-05	0.0
115	89	-0.02	0.01	-0.54	5.75e-05	9.12e-05	0.0
115	90	-0.02	0.01	-0.54	5.75e-05	9.12e-05	0.0
116	3	-0.02	0.01	-0.67	8.20e-05	1.34e-04	0.0
116	11	-0.02	0.09	-0.70	4.66e-06	1.42e-04	0.0
116	17	-0.02	0.01	-0.52	6.31e-05	1.03e-04	0.0
116	21	-0.02	0.06	-0.54	1.15e-05	1.08e-04	0.0
116	24	-0.06	0.03	-0.54	5.47e-05	6.90e-05	0.0
116	28	-0.06	0.03	-0.54	5.47e-05	6.90e-05	0.0
116	40	-0.03	0.06	-0.54	2.59e-05	9.56e-05	0.0
116	56	-0.05	0.02	-0.53	5.78e-05	8.19e-05	0.0
116	60	-0.05	0.02	-0.53	5.78e-05	8.19e-05	0.0
116	72	-0.03	0.04	-0.53	4.00e-05	9.84e-05	0.0
116	87	-0.02	0.01	-0.52	6.30e-05	1.03e-04	0.0
116	88	-0.02	0.02	-0.52	5.27e-05	1.04e-04	0.0
116	89	-0.02	0.01	-0.52	6.30e-05	1.03e-04	0.0
116	90	-0.02	0.01	-0.52	6.30e-05	1.03e-04	0.0
117	3	-0.03	0.02	-0.65	8.61e-05	1.43e-04	0.0
117	11	-0.02	0.09	-0.68	1.15e-05	1.51e-04	0.0
117	17	-0.02	0.01	-0.50	6.62e-05	1.10e-04	0.0
117	21	-0.02	0.06	-0.52	1.65e-05	1.16e-04	0.0
117	28	-0.07	0.03	-0.53	5.83e-05	7.78e-05	0.0
117	32	-0.07	0.03	-0.53	5.83e-05	7.78e-05	0.0
117	40	-0.03	0.06	-0.52	3.04e-05	1.03e-04	0.0
117	60	-0.05	0.02	-0.52	6.12e-05	9.01e-05	0.0
117	64	-0.05	0.02	-0.52	6.12e-05	9.01e-05	0.0
117	72	-0.03	0.04	-0.51	4.39e-05	1.06e-04	0.0
117	87	-0.02	0.01	-0.50	6.61e-05	1.10e-04	0.0
117	88	-0.02	0.02	-0.50	5.62e-05	1.11e-04	0.0
117	89	-0.02	0.01	-0.50	6.61e-05	1.10e-04	0.0
117	90	-0.02	0.01	-0.50	6.61e-05	1.10e-04	0.0
118	3	-0.03	0.02	-0.62	8.71e-05	1.47e-04	0.0
118	11	-0.03	0.09	-0.66	1.43e-05	1.55e-04	0.0
118	17	-0.02	0.01	-0.48	6.70e-05	1.13e-04	0.0
118	21	-0.02	0.06	-0.50	1.85e-05	1.18e-04	0.0
118	28	-0.07	0.03	-0.51	5.92e-05	8.13e-05	0.0
118	32	-0.07	0.03	-0.51	5.92e-05	8.13e-05	0.0
118	40	-0.03	0.06	-0.51	3.21e-05	1.06e-04	0.0
118	56	-0.05	0.02	-0.50	6.21e-05	9.33e-05	0.0
118	60	-0.05	0.02	-0.50	6.21e-05	9.33e-05	0.0
118	72	-0.03	0.04	-0.50	4.53e-05	1.09e-04	0.0
118	87	-0.02	0.01	-0.48	6.70e-05	1.13e-04	0.0
118	88	-0.02	0.02	-0.48	5.73e-05	1.14e-04	0.0
118	89	-0.02	0.01	-0.48	6.70e-05	1.13e-04	0.0
118	90	-0.02	0.01	-0.48	6.70e-05	1.13e-04	0.0
119	3	-0.02	0.01	-0.59	8.36e-05	1.42e-04	0.0
119	11	-0.02	0.09	-0.63	1.08e-05	1.49e-04	0.0

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Direttore Tecnico: ING. LEONARDO FILOTICO  
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Partita Iva : 02658050733  
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119	17	-0.02	0.01	-0.46	6.43e-05	1.09e-04	0.0
119	21	-0.02	0.06	-0.48	1.57e-05	1.14e-04	0.0
119	28	-0.07	0.03	-0.49	5.62e-05	7.71e-05	0.0
119	32	-0.07	0.03	-0.49	5.62e-05	7.71e-05	0.0
119	40	-0.03	0.06	-0.49	2.94e-05	1.02e-04	0.0
119	60	-0.05	0.02	-0.48	5.92e-05	8.91e-05	0.0
119	64	-0.05	0.02	-0.48	5.92e-05	8.91e-05	0.0
119	72	-0.03	0.04	-0.47	4.25e-05	1.05e-04	0.0
119	87	-0.02	0.01	-0.46	6.43e-05	1.09e-04	0.0
119	88	-0.02	0.02	-0.46	5.45e-05	1.10e-04	0.0
119	89	-0.02	0.01	-0.46	6.43e-05	1.09e-04	0.0
119	90	-0.02	0.01	-0.46	6.43e-05	1.09e-04	0.0
120	3	-0.02	0.01	-0.58	8.03e-05	1.37e-04	0.0
120	11	-0.02	0.09	-0.62	7.82e-06	1.44e-04	0.0
120	17	-0.02	0.01	-0.44	6.18e-05	1.06e-04	0.0
120	21	-0.02	0.06	-0.47	1.34e-05	1.10e-04	0.0
120	28	-0.06	0.03	-0.49	5.35e-05	7.32e-05	0.0
120	32	-0.06	0.03	-0.49	5.35e-05	7.32e-05	0.0
120	40	-0.03	0.06	-0.47	2.69e-05	9.80e-05	0.0
120	60	-0.05	0.02	-0.47	5.66e-05	8.54e-05	0.0
120	64	-0.05	0.02	-0.47	5.66e-05	8.54e-05	0.0
120	72	-0.03	0.04	-0.46	4.00e-05	1.01e-04	0.0
120	87	-0.02	0.01	-0.44	6.17e-05	1.05e-04	0.0
120	88	-0.02	0.02	-0.45	5.21e-05	1.06e-04	0.0
120	89	-0.02	0.01	-0.44	6.17e-05	1.05e-04	0.0
120	90	-0.02	0.01	-0.44	6.17e-05	1.05e-04	0.0
121	3	-0.02	6.87e-03	-0.70	3.93e-05	1.29e-04	0.0
121	11	-0.02	0.08	-0.71	-4.57e-05	1.34e-04	0.0
121	17	-0.02	5.29e-03	-0.54	3.02e-05	9.90e-05	0.0
121	21	-0.02	0.05	-0.55	-2.65e-05	1.02e-04	0.0
121	28	-0.06	0.02	-0.56	1.91e-05	6.17e-05	0.0
121	32	-0.06	0.02	-0.56	1.91e-05	6.17e-05	0.0
121	40	-0.03	0.05	-0.55	-1.11e-05	8.91e-05	0.0
121	56	-0.05	0.01	-0.55	2.33e-05	7.58e-05	0.0
121	60	-0.05	0.01	-0.55	2.33e-05	7.58e-05	0.0
121	72	-0.03	0.04	-0.55	4.57e-06	9.28e-05	0.0
121	87	-0.02	5.28e-03	-0.54	3.02e-05	9.89e-05	0.0
121	88	-0.02	0.01	-0.54	1.89e-05	9.96e-05	0.0
121	89	-0.02	5.28e-03	-0.54	3.02e-05	9.89e-05	0.0
121	90	-0.02	5.28e-03	-0.54	3.02e-05	9.89e-05	0.0
122	3	-0.03	7.53e-03	-0.68	4.31e-05	1.48e-04	0.0
122	11	-0.03	0.08	-0.69	-3.74e-05	1.53e-04	0.0
122	17	-0.02	5.79e-03	-0.52	3.31e-05	1.14e-04	0.0
122	21	-0.02	0.05	-0.53	-2.05e-05	1.17e-04	0.0
122	28	-0.07	0.02	-0.55	2.30e-05	8.00e-05	0.0
122	32	-0.07	0.02	-0.55	2.30e-05	8.00e-05	0.0
122	40	-0.03	0.05	-0.54	-5.99e-06	1.05e-04	0.0
122	60	-0.05	0.02	-0.54	2.68e-05	9.27e-05	0.0
122	64	-0.05	0.02	-0.54	2.68e-05	9.27e-05	0.0
122	72	-0.03	0.04	-0.53	8.83e-06	1.08e-04	0.0
122	87	-0.02	5.78e-03	-0.52	3.31e-05	1.14e-04	0.0
122	88	-0.02	0.02	-0.52	2.24e-05	1.14e-04	0.0
122	89	-0.02	5.78e-03	-0.52	3.31e-05	1.14e-04	0.0
122	90	-0.02	5.78e-03	-0.52	3.31e-05	1.14e-04	0.0
123	3	-0.03	7.88e-03	-0.65	4.51e-05	1.59e-04	0.0
123	11	-0.03	0.08	-0.67	-3.22e-05	1.64e-04	0.0
123	17	-0.02	6.06e-03	-0.50	3.47e-05	1.22e-04	0.0
123	21	-0.02	0.05	-0.51	-1.69e-05	1.26e-04	0.0
123	24	-0.07	0.02	-0.53	2.51e-05	9.05e-05	0.0
123	28	-0.07	0.02	-0.53	2.51e-05	9.05e-05	0.0
123	40	-0.04	0.05	-0.52	-2.90e-06	1.14e-04	0.0
123	56	-0.05	0.02	-0.52	2.87e-05	1.02e-04	0.0
123	60	-0.05	0.02	-0.52	2.87e-05	1.02e-04	0.0
123	72	-0.03	0.04	-0.51	1.13e-05	1.17e-04	0.0
123	87	-0.02	6.05e-03	-0.50	3.46e-05	1.22e-04	0.0
123	88	-0.02	0.02	-0.50	2.43e-05	1.23e-04	0.0
123	89	-0.02	6.05e-03	-0.50	3.46e-05	1.22e-04	0.0
123	90	-0.02	6.05e-03	-0.50	3.46e-05	1.22e-04	0.0
124	3	-0.03	7.89e-03	-0.63	4.52e-05	1.62e-04	0.0
124	11	-0.03	0.08	-0.64	-2.99e-05	1.67e-04	0.0
124	17	-0.02	6.07e-03	-0.48	3.48e-05	1.24e-04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

124	21	-0.02	0.06	-0.49	-1.53e-05	1.28e-04	0.0
124	28	-0.07	0.02	-0.52	2.53e-05	9.33e-05	0.0
124	32	-0.07	0.02	-0.52	2.53e-05	9.33e-05	0.0
124	40	-0.04	0.05	-0.50	-1.79e-06	1.17e-04	0.0
124	60	-0.05	0.02	-0.50	2.89e-05	1.05e-04	0.0
124	64	-0.05	0.02	-0.50	2.89e-05	1.05e-04	0.0
124	72	-0.03	0.04	-0.49	1.20e-05	1.20e-04	0.0
124	87	-0.02	6.07e-03	-0.48	3.47e-05	1.24e-04	0.0
124	88	-0.02	0.02	-0.49	2.47e-05	1.25e-04	0.0
124	89	-0.02	6.07e-03	-0.48	3.47e-05	1.24e-04	0.0
124	90	-0.02	6.07e-03	-0.48	3.47e-05	1.24e-04	0.0
125	3	-0.03	7.63e-03	-0.60	4.37e-05	1.58e-04	0.0
125	11	-0.03	0.08	-0.62	-3.02e-05	1.62e-04	0.0
125	17	-0.02	5.87e-03	-0.46	3.36e-05	1.21e-04	0.0
125	21	-0.02	0.05	-0.47	-1.56e-05	1.24e-04	0.0
125	28	-0.07	0.02	-0.50	2.42e-05	9.02e-05	0.0
125	32	-0.07	0.02	-0.50	2.42e-05	9.02e-05	0.0
125	40	-0.04	0.05	-0.48	-2.22e-06	1.13e-04	0.0
125	60	-0.05	0.02	-0.49	2.77e-05	1.02e-04	0.0
125	64	-0.05	0.02	-0.49	2.77e-05	1.02e-04	0.0
125	72	-0.03	0.04	-0.48	1.13e-05	1.16e-04	0.0
125	87	-0.02	5.86e-03	-0.46	3.36e-05	1.21e-04	0.0
125	88	-0.02	0.02	-0.47	2.37e-05	1.22e-04	0.0
125	89	-0.02	5.86e-03	-0.46	3.36e-05	1.21e-04	0.0
125	90	-0.02	5.86e-03	-0.46	3.36e-05	1.21e-04	0.0
126	3	-0.03	7.22e-03	-0.58	4.13e-05	1.52e-04	0.0
126	11	-0.03	0.08	-0.60	-3.28e-05	1.56e-04	0.0
126	17	-0.02	5.55e-03	-0.45	3.18e-05	1.17e-04	0.0
126	21	-0.02	0.05	-0.46	-1.76e-05	1.20e-04	0.0
126	28	-0.07	0.02	-0.49	2.23e-05	8.55e-05	0.0
126	32	-0.07	0.02	-0.49	2.23e-05	8.55e-05	0.0
126	40	-0.03	0.05	-0.47	-4.15e-06	1.09e-04	0.0
126	60	-0.05	0.02	-0.47	2.59e-05	9.73e-05	0.0
126	64	-0.05	0.02	-0.47	2.59e-05	9.73e-05	0.0
126	72	-0.03	0.04	-0.46	9.43e-06	1.12e-04	0.0
126	87	-0.02	5.55e-03	-0.45	3.18e-05	1.17e-04	0.0
126	88	-0.02	0.02	-0.45	2.19e-05	1.17e-04	0.0
126	89	-0.02	5.55e-03	-0.45	3.18e-05	1.17e-04	0.0
126	90	-0.02	5.55e-03	-0.45	3.18e-05	1.17e-04	0.0
127	3	-0.02	0.0	-0.71	0.0	1.32e-04	0.0
127	12	-0.02	0.07	-0.54	-8.63e-05	1.04e-04	0.0
127	17	-0.02	0.0	-0.54	0.0	1.02e-04	0.0
127	19	-0.02	0.05	-0.54	-5.75e-05	1.03e-04	0.0
127	24	-0.06	0.01	-0.56	-1.27e-05	6.42e-05	0.0
127	25	-0.06	-0.01	-0.56	1.27e-05	6.42e-05	0.0
127	43	-4.06e-03	-0.04	-0.54	4.24e-05	1.13e-04	0.0
127	56	-0.05	9.44e-03	-0.55	-7.89e-06	7.84e-05	0.0
127	57	-0.05	-9.44e-03	-0.55	7.89e-06	7.84e-05	0.0
127	75	-8.21e-03	-0.03	-0.54	2.63e-05	1.09e-04	0.0
127	87	-0.02	0.0	-0.54	0.0	1.02e-04	0.0
127	88	-0.02	9.55e-03	-0.54	-1.15e-05	1.02e-04	0.0
127	89	-0.02	0.0	-0.54	0.0	1.02e-04	0.0
127	90	-0.02	0.0	-0.54	0.0	1.02e-04	0.0
128	3	-0.03	0.0	-0.68	0.0	1.53e-04	0.0
128	12	-0.02	0.07	-0.52	-8.16e-05	1.19e-04	0.0
128	17	-0.02	0.0	-0.52	0.0	1.17e-04	0.0
128	19	-0.02	0.05	-0.52	-5.44e-05	1.19e-04	0.0
128	24	-0.07	0.01	-0.55	-1.21e-05	8.37e-05	0.0
128	25	-0.07	-0.01	-0.55	1.21e-05	8.37e-05	0.0
128	43	-6.64e-03	-0.05	-0.52	4.03e-05	1.28e-04	0.0
128	56	-0.05	9.49e-03	-0.54	-7.50e-06	9.64e-05	0.0
128	65	-0.05	-9.49e-03	-0.54	7.50e-06	9.64e-05	0.0
128	75	-0.01	-0.03	-0.52	2.50e-05	1.24e-04	0.0
128	87	-0.02	0.0	-0.52	0.0	1.17e-04	0.0
128	88	-0.02	9.66e-03	-0.52	-1.09e-05	1.18e-04	0.0
128	89	-0.02	0.0	-0.52	0.0	1.17e-04	0.0
128	90	-0.02	0.0	-0.52	0.0	1.17e-04	0.0
129	3	-0.03	0.0	-0.66	0.0	1.65e-04	0.0
129	12	-0.02	0.07	-0.50	-7.83e-05	1.29e-04	0.0
129	17	-0.02	0.0	-0.50	0.0	1.27e-04	0.0
129	19	-0.02	0.05	-0.50	-5.22e-05	1.28e-04	0.0

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

129	24	-0.07	0.01	-0.53	-1.16e-05	9.51e-05	0.0
129	29	-0.07	-0.01	-0.53	1.16e-05	9.51e-05	0.0
129	43	-8.22e-03	-0.05	-0.50	3.87e-05	1.37e-04	0.0
129	56	-0.05	9.53e-03	-0.52	-7.21e-06	1.07e-04	0.0
129	65	-0.05	-9.53e-03	-0.52	7.21e-06	1.07e-04	0.0
129	75	-0.01	-0.03	-0.50	2.40e-05	1.33e-04	0.0
129	87	-0.02	0.0	-0.50	0.0	1.27e-04	0.0
129	88	-0.02	9.73e-03	-0.50	-1.04e-05	1.27e-04	0.0
129	89	-0.02	0.0	-0.50	0.0	1.27e-04	0.0
129	90	-0.02	0.0	-0.50	0.0	1.27e-04	0.0
130	3	-0.03	0.0	-0.63	0.0	1.70e-04	0.0
130	12	-0.02	0.07	-0.48	-7.61e-05	1.32e-04	0.0
130	17	-0.02	0.0	-0.48	0.0	1.31e-04	0.0
130	19	-0.02	0.05	-0.48	-5.07e-05	1.32e-04	0.0
130	24	-0.07	0.01	-0.52	-1.13e-05	9.95e-05	0.0
130	37	-0.07	-0.01	-0.52	1.13e-05	9.95e-05	0.0
130	43	-8.81e-03	-0.05	-0.47	3.75e-05	1.40e-04	0.0
130	56	-0.06	9.55e-03	-0.50	-6.99e-06	1.11e-04	0.0
130	61	-0.06	-9.55e-03	-0.50	6.99e-06	1.11e-04	0.0
130	75	-0.01	-0.03	-0.48	2.33e-05	1.36e-04	0.0
130	87	-0.02	0.0	-0.48	0.0	1.30e-04	0.0
130	88	-0.02	9.77e-03	-0.48	-1.01e-05	1.31e-04	0.0
130	89	-0.02	0.0	-0.48	0.0	1.30e-04	0.0
130	90	-0.02	0.0	-0.48	0.0	1.30e-04	0.0
131	3	-0.03	0.0	-0.60	0.0	1.63e-04	0.0
131	12	-0.02	0.07	-0.46	-7.55e-05	1.27e-04	0.0
131	17	-0.02	0.0	-0.46	0.0	1.26e-04	0.0
131	19	-0.02	0.05	-0.46	-5.04e-05	1.27e-04	0.0
131	24	-0.07	0.01	-0.50	-1.11e-05	9.40e-05	0.0
131	33	-0.07	-0.01	-0.50	1.11e-05	9.40e-05	0.0
131	43	-7.95e-03	-0.05	-0.45	3.71e-05	1.35e-04	0.0
131	56	-0.05	9.54e-03	-0.48	-6.93e-06	1.06e-04	0.0
131	65	-0.05	-9.54e-03	-0.48	6.93e-06	1.06e-04	0.0
131	75	-0.01	-0.03	-0.45	2.31e-05	1.31e-04	0.0
131	87	-0.02	0.0	-0.46	0.0	1.25e-04	0.0
131	88	-0.02	9.78e-03	-0.46	-1.01e-05	1.26e-04	0.0
131	89	-0.02	0.0	-0.46	0.0	1.25e-04	0.0
131	90	-0.02	0.0	-0.46	0.0	1.25e-04	0.0
132	3	-0.03	0.0	-0.58	0.0	1.57e-04	0.0
132	12	-0.02	0.07	-0.44	-7.50e-05	1.22e-04	0.0
132	17	-0.02	0.0	-0.44	0.0	1.21e-04	0.0
132	19	-0.02	0.05	-0.44	-5.00e-05	1.22e-04	0.0
132	24	-0.07	0.01	-0.49	-1.11e-05	8.89e-05	0.0
132	33	-0.07	-0.01	-0.49	1.11e-05	8.89e-05	0.0
132	43	-7.12e-03	-0.05	-0.43	3.69e-05	1.30e-04	0.0
132	56	-0.05	9.55e-03	-0.47	-6.88e-06	1.01e-04	0.0
132	69	-0.05	-9.55e-03	-0.47	6.88e-06	1.01e-04	0.0
132	75	-0.01	-0.03	-0.44	2.29e-05	1.27e-04	0.0
132	87	-0.02	0.0	-0.44	0.0	1.21e-04	0.0
132	88	-0.02	9.79e-03	-0.44	-1.00e-05	1.21e-04	0.0
132	89	-0.02	0.0	-0.44	0.0	1.21e-04	0.0
132	90	-0.02	0.0	-0.44	0.0	1.21e-04	0.0
133	3	-0.02	-6.87e-03	-0.70	-3.93e-05	1.29e-04	0.0
133	12	-0.02	0.07	-0.53	-1.15e-04	9.83e-05	0.0
133	17	-0.02	-5.29e-03	-0.54	-3.02e-05	9.90e-05	0.0
133	19	-0.02	0.04	-0.53	-8.68e-05	9.85e-05	0.0
133	25	-0.06	-0.02	-0.56	-1.91e-05	6.17e-05	0.0
133	33	-0.06	-0.02	-0.56	-1.91e-05	6.17e-05	0.0
133	45	-0.03	-0.05	-0.55	1.11e-05	8.91e-05	0.0
133	57	-0.05	-0.01	-0.55	-2.33e-05	7.58e-05	0.0
133	77	-0.03	-0.04	-0.55	-4.57e-06	9.28e-05	0.0
133	87	-0.02	-5.28e-03	-0.54	-3.02e-05	9.89e-05	0.0
133	89	-0.02	-5.28e-03	-0.54	-3.02e-05	9.89e-05	0.0
133	90	-0.02	-5.28e-03	-0.54	-3.02e-05	9.89e-05	0.0
134	3	-0.03	-7.53e-03	-0.68	-4.31e-05	1.48e-04	0.0
134	12	-0.02	0.07	-0.51	-1.13e-04	1.12e-04	0.0
134	17	-0.02	-5.79e-03	-0.52	-3.31e-05	1.14e-04	0.0
134	19	-0.02	0.04	-0.51	-8.66e-05	1.13e-04	0.0
134	25	-0.07	-0.02	-0.55	-2.30e-05	8.00e-05	0.0
134	45	-0.03	-0.05	-0.54	5.99e-06	1.05e-04	0.0
134	57	-0.05	-0.02	-0.54	-2.68e-05	9.27e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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134	77	-0.03	-0.04	-0.53	-8.83e-06	1.08e-04	0.0
134	87	-0.02	-5.78e-03	-0.52	-3.31e-05	1.14e-04	0.0
134	89	-0.02	-5.78e-03	-0.52	-3.31e-05	1.14e-04	0.0
134	90	-0.02	-5.78e-03	-0.52	-3.31e-05	1.14e-04	0.0
135	3	-0.03	-7.88e-03	-0.65	-4.51e-05	1.59e-04	0.0
135	12	-0.02	0.07	-0.49	-1.12e-04	1.20e-04	0.0
135	17	-0.02	-6.06e-03	-0.50	-3.47e-05	1.22e-04	0.0
135	19	-0.02	0.04	-0.49	-8.60e-05	1.21e-04	0.0
135	25	-0.07	-0.02	-0.53	-2.51e-05	9.05e-05	0.0
135	45	-0.04	-0.05	-0.52	2.90e-06	1.14e-04	0.0
135	57	-0.05	-0.02	-0.52	-2.87e-05	1.02e-04	0.0
135	65	-0.05	-0.02	-0.52	-2.87e-05	1.02e-04	0.0
135	77	-0.03	-0.04	-0.51	-1.13e-05	1.17e-04	0.0
135	87	-0.02	-6.05e-03	-0.50	-3.46e-05	1.22e-04	0.0
135	89	-0.02	-6.05e-03	-0.50	-3.46e-05	1.22e-04	0.0
135	90	-0.02	-6.05e-03	-0.50	-3.46e-05	1.22e-04	0.0
136	3	-0.03	-7.89e-03	-0.63	-4.52e-05	1.62e-04	0.0
136	12	-0.02	0.07	-0.46	-1.10e-04	1.23e-04	0.0
136	17	-0.02	-6.07e-03	-0.48	-3.48e-05	1.24e-04	0.0
136	19	-0.02	0.04	-0.47	-8.46e-05	1.23e-04	0.0
136	25	-0.07	-0.02	-0.52	-2.53e-05	9.33e-05	0.0
136	33	-0.07	-0.02	-0.52	-2.53e-05	9.33e-05	0.0
136	45	-0.04	-0.05	-0.50	1.79e-06	1.17e-04	0.0
136	57	-0.05	-0.02	-0.50	-2.89e-05	1.05e-04	0.0
136	65	-0.05	-0.02	-0.50	-2.89e-05	1.05e-04	0.0
136	77	-0.03	-0.04	-0.49	-1.20e-05	1.20e-04	0.0
136	87	-0.02	-6.07e-03	-0.48	-3.47e-05	1.24e-04	0.0
136	89	-0.02	-6.07e-03	-0.48	-3.47e-05	1.24e-04	0.0
136	90	-0.02	-6.07e-03	-0.48	-3.47e-05	1.24e-04	0.0
137	3	-0.03	-7.63e-03	-0.60	-4.37e-05	1.58e-04	0.0
137	12	-0.02	0.07	-0.44	-1.07e-04	1.20e-04	0.0
137	17	-0.02	-5.87e-03	-0.46	-3.36e-05	1.21e-04	0.0
137	19	-0.02	0.04	-0.45	-8.27e-05	1.20e-04	0.0
137	25	-0.07	-0.02	-0.50	-2.42e-05	9.02e-05	0.0
137	45	-0.04	-0.05	-0.48	2.22e-06	1.13e-04	0.0
137	57	-0.05	-0.02	-0.49	-2.77e-05	1.02e-04	0.0
137	65	-0.05	-0.02	-0.49	-2.77e-05	1.02e-04	0.0
137	77	-0.03	-0.04	-0.48	-1.13e-05	1.16e-04	0.0
137	87	-0.02	-5.86e-03	-0.46	-3.36e-05	1.21e-04	0.0
137	89	-0.02	-5.86e-03	-0.46	-3.36e-05	1.21e-04	0.0
137	90	-0.02	-5.86e-03	-0.46	-3.36e-05	1.21e-04	0.0
138	3	-0.03	-7.22e-03	-0.58	-4.13e-05	1.52e-04	0.0
138	12	-0.02	0.07	-0.42	-1.06e-04	1.16e-04	0.0
138	17	-0.02	-5.55e-03	-0.45	-3.18e-05	1.17e-04	0.0
138	19	-0.02	0.04	-0.43	-8.10e-05	1.16e-04	0.0
138	25	-0.07	-0.02	-0.49	-2.23e-05	8.55e-05	0.0
138	33	-0.07	-0.02	-0.49	-2.23e-05	8.55e-05	0.0
138	45	-0.03	-0.05	-0.47	4.15e-06	1.09e-04	0.0
138	57	-0.05	-0.02	-0.47	-2.59e-05	9.73e-05	0.0
138	65	-0.05	-0.02	-0.47	-2.59e-05	9.73e-05	0.0
138	77	-0.03	-0.04	-0.46	-9.43e-06	1.12e-04	0.0
138	87	-0.02	-5.55e-03	-0.45	-3.18e-05	1.17e-04	0.0
138	89	-0.02	-5.55e-03	-0.45	-3.18e-05	1.17e-04	0.0
138	90	-0.02	-5.55e-03	-0.45	-3.18e-05	1.17e-04	0.0
139	3	-0.02	-0.01	-0.70	-7.49e-05	1.19e-04	0.0
139	12	-0.01	0.06	-0.51	-1.39e-04	8.84e-05	0.0
139	17	-0.02	-0.01	-0.54	-5.76e-05	9.13e-05	0.0
139	19	-0.01	0.04	-0.52	-1.12e-04	8.93e-05	0.0
139	25	-0.06	-0.02	-0.56	-4.81e-05	5.42e-05	0.0
139	45	-0.03	-0.06	-0.55	-1.82e-05	8.24e-05	0.0
139	57	-0.05	-0.02	-0.55	-5.16e-05	6.82e-05	0.0
139	77	-0.03	-0.04	-0.55	-3.31e-05	8.57e-05	0.0
139	87	-0.02	-0.01	-0.54	-5.75e-05	9.12e-05	0.0
139	89	-0.02	-0.01	-0.54	-5.75e-05	9.12e-05	0.0
139	90	-0.02	-0.01	-0.54	-5.75e-05	9.12e-05	0.0
140	3	-0.02	-0.01	-0.67	-8.20e-05	1.34e-04	0.0
140	12	-0.02	0.06	-0.49	-1.40e-04	9.91e-05	0.0
140	17	-0.02	-0.01	-0.52	-6.31e-05	1.03e-04	0.0
140	19	-0.02	0.04	-0.50	-1.14e-04	1.00e-04	0.0
140	25	-0.06	-0.03	-0.54	-5.47e-05	6.90e-05	0.0
140	45	-0.03	-0.06	-0.54	-2.59e-05	9.56e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

140	57	-0.05	-0.02	-0.53	-5.78e-05	8.19e-05	0.0
140	77	-0.03	-0.04	-0.53	-4.00e-05	9.84e-05	0.0
140	87	-0.02	-0.01	-0.52	-6.30e-05	1.03e-04	0.0
140	89	-0.02	-0.01	-0.52	-6.30e-05	1.03e-04	0.0
140	90	-0.02	-0.01	-0.52	-6.30e-05	1.03e-04	0.0
141	3	-0.03	-0.02	-0.65	-8.61e-05	1.43e-04	0.0
141	12	-0.02	0.06	-0.47	-1.40e-04	1.06e-04	0.0
141	17	-0.02	-0.01	-0.50	-6.62e-05	1.10e-04	0.0
141	19	-0.02	0.04	-0.48	-1.16e-04	1.07e-04	0.0
141	25	-0.07	-0.03	-0.53	-5.83e-05	7.78e-05	0.0
141	45	-0.03	-0.06	-0.52	-3.04e-05	1.03e-04	0.0
141	57	-0.05	-0.02	-0.52	-6.12e-05	9.01e-05	0.0
141	77	-0.03	-0.04	-0.51	-4.39e-05	1.06e-04	0.0
141	87	-0.02	-0.01	-0.50	-6.61e-05	1.10e-04	0.0
141	89	-0.02	-0.01	-0.50	-6.61e-05	1.10e-04	0.0
141	90	-0.02	-0.01	-0.50	-6.61e-05	1.10e-04	0.0
142	3	-0.03	-0.02	-0.62	-8.71e-05	1.47e-04	0.0
142	12	-0.02	0.06	-0.44	-1.39e-04	1.09e-04	0.0
142	17	-0.02	-0.01	-0.48	-6.70e-05	1.13e-04	0.0
142	19	-0.02	0.04	-0.46	-1.15e-04	1.10e-04	0.0
142	25	-0.07	-0.03	-0.51	-5.92e-05	8.13e-05	0.0
142	33	-0.07	-0.03	-0.51	-5.92e-05	8.13e-05	0.0
142	45	-0.03	-0.06	-0.51	-3.21e-05	1.06e-04	0.0
142	57	-0.05	-0.02	-0.50	-6.21e-05	9.33e-05	0.0
142	77	-0.03	-0.04	-0.50	-4.53e-05	1.09e-04	0.0
142	87	-0.02	-0.01	-0.48	-6.70e-05	1.13e-04	0.0
142	89	-0.02	-0.01	-0.48	-6.70e-05	1.13e-04	0.0
142	90	-0.02	-0.01	-0.48	-6.70e-05	1.13e-04	0.0
143	3	-0.02	-0.01	-0.59	-8.36e-05	1.42e-04	0.0
143	12	-0.02	0.06	-0.42	-1.37e-04	1.06e-04	0.0
143	17	-0.02	-0.01	-0.46	-6.43e-05	1.09e-04	0.0
143	19	-0.02	0.04	-0.43	-1.13e-04	1.07e-04	0.0
143	25	-0.07	-0.03	-0.49	-5.62e-05	7.71e-05	0.0
143	33	-0.07	-0.03	-0.49	-5.62e-05	7.71e-05	0.0
143	45	-0.03	-0.06	-0.49	-2.94e-05	1.02e-04	0.0
143	57	-0.05	-0.02	-0.48	-5.92e-05	8.91e-05	0.0
143	65	-0.05	-0.02	-0.48	-5.92e-05	8.91e-05	0.0
143	77	-0.03	-0.04	-0.47	-4.25e-05	1.05e-04	0.0
143	87	-0.02	-0.01	-0.46	-6.43e-05	1.09e-04	0.0
143	89	-0.02	-0.01	-0.46	-6.43e-05	1.09e-04	0.0
143	90	-0.02	-0.01	-0.46	-6.43e-05	1.09e-04	0.0
144	3	-0.02	-0.01	-0.58	-8.03e-05	1.37e-04	0.0
144	12	-0.02	0.06	-0.40	-1.34e-04	1.02e-04	0.0
144	17	-0.02	-0.01	-0.44	-6.18e-05	1.06e-04	0.0
144	19	-0.02	0.04	-0.41	-1.10e-04	1.03e-04	0.0
144	25	-0.06	-0.03	-0.49	-5.35e-05	7.32e-05	0.0
144	33	-0.06	-0.03	-0.49	-5.35e-05	7.32e-05	0.0
144	45	-0.03	-0.06	-0.47	-2.69e-05	9.80e-05	0.0
144	57	-0.05	-0.02	-0.47	-5.66e-05	8.54e-05	0.0
144	65	-0.05	-0.02	-0.47	-5.66e-05	8.54e-05	0.0
144	77	-0.03	-0.04	-0.46	-4.00e-05	1.01e-04	0.0
144	87	-0.02	-0.01	-0.44	-6.17e-05	1.05e-04	0.0
144	89	-0.02	-0.01	-0.44	-6.17e-05	1.05e-04	0.0
144	90	-0.02	-0.01	-0.44	-6.17e-05	1.05e-04	0.0
145	3	-0.02	-0.02	-0.69	-1.04e-04	1.04e-04	0.0
145	12	-0.01	0.06	-0.50	-1.57e-04	7.63e-05	0.0
145	17	-0.01	-0.01	-0.53	-8.03e-05	8.03e-05	0.0
145	19	-0.01	0.03	-0.51	-1.31e-04	7.76e-05	0.0
145	25	-0.06	-0.03	-0.55	-7.19e-05	4.33e-05	0.0
145	45	-0.03	-0.06	-0.55	-4.33e-05	7.19e-05	0.0
145	57	-0.05	-0.02	-0.54	-7.51e-05	5.73e-05	0.0
145	77	-0.02	-0.05	-0.54	-5.73e-05	7.51e-05	0.0
145	87	-0.01	-0.01	-0.53	-8.02e-05	8.02e-05	0.0
145	89	-0.01	-0.01	-0.53	-8.02e-05	8.02e-05	0.0
145	90	-0.01	-0.01	-0.53	-8.02e-05	8.02e-05	0.0
146	3	-0.02	-0.02	-0.67	-1.14e-04	1.14e-04	0.0
146	12	-0.01	0.06	-0.47	-1.60e-04	8.27e-05	0.0
146	17	-0.02	-0.02	-0.51	-8.75e-05	8.75e-05	0.0
146	19	-0.01	0.03	-0.49	-1.36e-04	8.43e-05	0.0
146	25	-0.06	-0.03	-0.54	-8.02e-05	5.25e-05	0.0
146	45	-0.03	-0.06	-0.54	-5.25e-05	8.02e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

146	57	-0.05	-0.03	-0.53	-8.29e-05	6.57e-05	0.0
146	65	-0.05	-0.03	-0.53	-8.29e-05	6.57e-05	0.0
146	77	-0.03	-0.05	-0.53	-6.57e-05	8.29e-05	0.0
146	87	-0.02	-0.02	-0.51	-8.75e-05	8.75e-05	0.0
146	89	-0.02	-0.02	-0.51	-8.74e-05	8.74e-05	0.0
146	90	-0.02	-0.02	-0.51	-8.74e-05	8.74e-05	0.0
147	3	-0.02	-0.02	-0.64	-1.19e-04	1.19e-04	0.0
147	12	-0.01	0.06	-0.45	-1.62e-04	8.65e-05	0.0
147	17	-0.02	-0.02	-0.50	-9.14e-05	9.14e-05	0.0
147	19	-0.01	0.03	-0.47	-1.38e-04	8.81e-05	0.0
147	25	-0.06	-0.03	-0.52	-8.44e-05	5.76e-05	0.0
147	33	-0.06	-0.03	-0.52	-8.44e-05	5.76e-05	0.0
147	45	-0.03	-0.06	-0.52	-5.76e-05	8.44e-05	0.0
147	57	-0.05	-0.03	-0.51	-8.70e-05	7.03e-05	0.0
147	77	-0.03	-0.05	-0.51	-7.03e-05	8.70e-05	0.0
147	87	-0.02	-0.02	-0.50	-9.14e-05	9.14e-05	0.0
147	89	-0.02	-0.02	-0.50	-9.13e-05	9.13e-05	0.0
147	90	-0.02	-0.02	-0.50	-9.13e-05	9.13e-05	0.0
148	3	-0.02	-0.02	-0.62	-1.19e-04	1.19e-04	0.0
148	12	-0.01	0.06	-0.43	-1.61e-04	8.73e-05	0.0
148	17	-0.02	-0.02	-0.48	-9.18e-05	9.18e-05	0.0
148	19	-0.01	0.03	-0.44	-1.38e-04	8.87e-05	0.0
148	25	-0.06	-0.03	-0.51	-8.47e-05	5.84e-05	0.0
148	41	-0.03	-0.06	-0.51	-5.84e-05	8.47e-05	0.0
148	45	-0.03	-0.06	-0.51	-5.84e-05	8.47e-05	0.0
148	57	-0.05	-0.03	-0.50	-8.73e-05	7.10e-05	0.0
148	73	-0.03	-0.05	-0.50	-7.10e-05	8.73e-05	0.0
148	77	-0.03	-0.05	-0.50	-7.10e-05	8.73e-05	0.0
148	87	-0.02	-0.02	-0.48	-9.17e-05	9.17e-05	0.0
148	89	-0.02	-0.02	-0.48	-9.17e-05	9.17e-05	0.0
148	90	-0.02	-0.02	-0.48	-9.17e-05	9.17e-05	0.0
149	3	-0.02	-0.02	-0.60	-1.16e-04	1.16e-04	0.0
149	12	-0.01	0.06	-0.40	-1.58e-04	8.56e-05	0.0
149	17	-0.02	-0.02	-0.46	-8.95e-05	8.95e-05	0.0
149	19	-0.01	0.03	-0.42	-1.35e-04	8.69e-05	0.0
149	25	-0.06	-0.03	-0.50	-8.22e-05	5.64e-05	0.0
149	41	-0.03	-0.06	-0.50	-5.64e-05	8.22e-05	0.0
149	45	-0.03	-0.06	-0.50	-5.64e-05	8.22e-05	0.0
149	57	-0.05	-0.03	-0.48	-8.49e-05	6.89e-05	0.0
149	77	-0.03	-0.05	-0.48	-6.89e-05	8.49e-05	0.0
149	87	-0.02	-0.02	-0.46	-8.94e-05	8.94e-05	0.0
149	89	-0.02	-0.02	-0.46	-8.94e-05	8.94e-05	0.0
149	90	-0.02	-0.02	-0.46	-8.94e-05	8.94e-05	0.0
150	3	-0.02	-0.02	-0.58	-1.13e-04	1.13e-04	0.0
150	12	-0.01	0.06	-0.38	-1.56e-04	8.27e-05	0.0
150	17	-0.02	-0.02	-0.45	-8.66e-05	8.66e-05	0.0
150	19	-0.01	0.03	-0.40	-1.33e-04	8.39e-05	0.0
150	25	-0.06	-0.03	-0.48	-7.92e-05	5.33e-05	0.0
150	45	-0.03	-0.06	-0.48	-5.33e-05	7.92e-05	0.0
150	57	-0.05	-0.03	-0.47	-8.19e-05	6.59e-05	0.0
150	77	-0.03	-0.05	-0.47	-6.59e-05	8.19e-05	0.0
150	87	-0.02	-0.02	-0.45	-8.65e-05	8.65e-05	0.0
150	89	-0.02	-0.02	-0.45	-8.65e-05	8.65e-05	0.0
150	90	-0.02	-0.02	-0.45	-8.65e-05	8.65e-05	0.0
151	3	-0.01	-0.02	-0.70	-1.19e-04	7.49e-05	0.0
151	12	-7.86e-03	0.06	-0.50	-1.68e-04	5.49e-05	0.0
151	17	-0.01	-0.02	-0.54	-9.13e-05	5.76e-05	0.0
151	19	-8.59e-03	0.03	-0.51	-1.42e-04	5.58e-05	0.0
151	25	-0.06	-0.03	-0.55	-8.24e-05	1.82e-05	0.0
151	41	-0.02	-0.06	-0.56	-5.42e-05	4.81e-05	0.0
151	45	-0.02	-0.06	-0.56	-5.42e-05	4.81e-05	0.0
151	57	-0.04	-0.03	-0.55	-8.57e-05	3.31e-05	0.0
151	73	-0.02	-0.05	-0.55	-6.82e-05	5.16e-05	0.0
151	77	-0.02	-0.05	-0.55	-6.82e-05	5.16e-05	0.0
151	87	-0.01	-0.02	-0.54	-9.12e-05	5.75e-05	0.0
151	89	-0.01	-0.02	-0.54	-9.12e-05	5.75e-05	0.0
151	90	-0.01	-0.02	-0.54	-9.12e-05	5.75e-05	0.0
152	3	-0.01	-0.02	-0.67	-1.34e-04	8.20e-05	0.0
152	12	-8.65e-03	0.06	-0.47	-1.74e-04	5.92e-05	0.0
152	17	-0.01	-0.02	-0.52	-1.03e-04	6.31e-05	0.0
152	19	-9.43e-03	0.03	-0.49	-1.50e-04	6.05e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

152	25	-0.06	-0.03	-0.54	-9.56e-05	2.59e-05	0.0
152	41	-0.03	-0.06	-0.54	-6.90e-05	5.47e-05	0.0
152	45	-0.03	-0.06	-0.54	-6.90e-05	5.47e-05	0.0
152	57	-0.04	-0.03	-0.53	-9.84e-05	4.00e-05	0.0
152	73	-0.02	-0.05	-0.53	-8.19e-05	5.78e-05	0.0
152	77	-0.02	-0.05	-0.53	-8.19e-05	5.78e-05	0.0
152	87	-0.01	-0.02	-0.52	-1.03e-04	6.30e-05	0.0
152	89	-0.01	-0.02	-0.52	-1.03e-04	6.30e-05	0.0
152	90	-0.01	-0.02	-0.52	-1.03e-04	6.30e-05	0.0
153	3	-0.02	-0.03	-0.65	-1.43e-04	8.61e-05	0.0
153	12	-9.15e-03	0.06	-0.45	-1.78e-04	6.21e-05	0.0
153	17	-0.01	-0.02	-0.50	-1.10e-04	6.62e-05	0.0
153	19	-9.95e-03	0.03	-0.47	-1.55e-04	6.35e-05	0.0
153	25	-0.06	-0.03	-0.52	-1.03e-04	3.04e-05	0.0
153	41	-0.03	-0.07	-0.53	-7.78e-05	5.83e-05	0.0
153	45	-0.03	-0.07	-0.53	-7.78e-05	5.83e-05	0.0
153	57	-0.04	-0.03	-0.51	-1.06e-04	4.39e-05	0.0
153	73	-0.02	-0.05	-0.52	-9.01e-05	6.12e-05	0.0
153	77	-0.02	-0.05	-0.52	-9.01e-05	6.12e-05	0.0
153	87	-0.01	-0.02	-0.50	-1.10e-04	6.61e-05	0.0
153	89	-0.01	-0.02	-0.50	-1.10e-04	6.61e-05	0.0
153	90	-0.01	-0.02	-0.50	-1.10e-04	6.61e-05	0.0
154	3	-0.02	-0.03	-0.62	-1.47e-04	8.71e-05	0.0
154	12	-9.33e-03	0.06	-0.42	-1.79e-04	6.32e-05	0.0
154	17	-0.01	-0.02	-0.48	-1.13e-04	6.70e-05	0.0
154	19	-0.01	0.03	-0.44	-1.57e-04	6.45e-05	0.0
154	25	-0.06	-0.03	-0.51	-1.06e-04	3.21e-05	0.0
154	41	-0.03	-0.07	-0.51	-8.13e-05	5.92e-05	0.0
154	45	-0.03	-0.07	-0.51	-8.13e-05	5.92e-05	0.0
154	57	-0.04	-0.03	-0.50	-1.09e-04	4.53e-05	0.0
154	73	-0.02	-0.05	-0.50	-9.33e-05	6.21e-05	0.0
154	77	-0.02	-0.05	-0.50	-9.33e-05	6.21e-05	0.0
154	87	-0.01	-0.02	-0.48	-1.13e-04	6.70e-05	0.0
154	89	-0.01	-0.02	-0.48	-1.13e-04	6.70e-05	0.0
154	90	-0.01	-0.02	-0.48	-1.13e-04	6.70e-05	0.0
155	3	-0.01	-0.02	-0.59	-1.42e-04	8.36e-05	0.0
155	12	-8.94e-03	0.06	-0.39	-1.76e-04	6.11e-05	0.0
155	17	-0.01	-0.02	-0.46	-1.09e-04	6.43e-05	0.0
155	19	-9.69e-03	0.03	-0.41	-1.54e-04	6.21e-05	0.0
155	25	-0.06	-0.03	-0.49	-1.02e-04	2.94e-05	0.0
155	45	-0.03	-0.07	-0.49	-7.71e-05	5.62e-05	0.0
155	57	-0.04	-0.03	-0.47	-1.05e-04	4.25e-05	0.0
155	73	-0.02	-0.05	-0.48	-8.91e-05	5.92e-05	0.0
155	77	-0.02	-0.05	-0.48	-8.91e-05	5.92e-05	0.0
155	87	-0.01	-0.02	-0.46	-1.09e-04	6.43e-05	0.0
155	89	-0.01	-0.02	-0.46	-1.09e-04	6.43e-05	0.0
155	90	-0.01	-0.02	-0.46	-1.09e-04	6.43e-05	0.0
156	3	-0.01	-0.02	-0.58	-1.37e-04	8.03e-05	0.0
156	12	-8.54e-03	0.06	-0.37	-1.72e-04	5.87e-05	0.0
156	17	-0.01	-0.02	-0.44	-1.06e-04	6.18e-05	0.0
156	19	-9.28e-03	0.03	-0.39	-1.50e-04	5.97e-05	0.0
156	25	-0.06	-0.03	-0.47	-9.80e-05	2.69e-05	0.0
156	45	-0.03	-0.06	-0.49	-7.32e-05	5.35e-05	0.0
156	57	-0.04	-0.03	-0.46	-1.01e-04	4.00e-05	0.0
156	73	-0.02	-0.05	-0.47	-8.54e-05	5.66e-05	0.0
156	77	-0.02	-0.05	-0.47	-8.54e-05	5.66e-05	0.0
156	87	-0.01	-0.02	-0.44	-1.05e-04	6.17e-05	0.0
156	89	-0.01	-0.02	-0.44	-1.05e-04	6.17e-05	0.0
156	90	-0.01	-0.02	-0.44	-1.05e-04	6.17e-05	0.0
157	3	-6.87e-03	-0.02	-0.70	-1.29e-04	3.93e-05	0.0
157	12	-3.54e-03	0.06	-0.50	-1.76e-04	2.99e-05	0.0
157	17	-5.29e-03	-0.02	-0.54	-9.90e-05	3.02e-05	0.0
157	19	-4.12e-03	0.03	-0.51	-1.50e-04	3.00e-05	0.0
157	25	-0.05	-0.03	-0.55	-8.91e-05	-1.11e-05	0.0
157	41	-0.02	-0.06	-0.56	-6.17e-05	1.91e-05	0.0
157	57	-0.04	-0.03	-0.55	-9.28e-05	4.57e-06	0.0
157	73	-0.01	-0.05	-0.55	-7.58e-05	2.33e-05	0.0
157	87	-5.28e-03	-0.02	-0.54	-9.89e-05	3.02e-05	0.0
157	89	-5.28e-03	-0.02	-0.54	-9.89e-05	3.02e-05	0.0
157	90	-5.28e-03	-0.02	-0.54	-9.89e-05	3.02e-05	0.0
158	3	-7.53e-03	-0.03	-0.68	-1.48e-04	4.31e-05	0.0

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158	12	-3.91e-03	0.05	-0.47	-1.83e-04	3.19e-05	0.0
158	17	-5.79e-03	-0.02	-0.52	-1.14e-04	3.31e-05	0.0
158	19	-4.53e-03	0.03	-0.49	-1.60e-04	3.23e-05	0.0
158	25	-0.05	-0.03	-0.54	-1.05e-04	-5.99e-06	0.0
158	41	-0.02	-0.07	-0.55	-8.00e-05	2.30e-05	0.0
158	57	-0.04	-0.03	-0.53	-1.08e-04	8.83e-06	0.0
158	73	-0.02	-0.05	-0.54	-9.27e-05	2.68e-05	0.0
158	77	-0.02	-0.05	-0.54	-9.27e-05	2.68e-05	0.0
158	87	-5.78e-03	-0.02	-0.52	-1.14e-04	3.31e-05	0.0
158	89	-5.78e-03	-0.02	-0.52	-1.14e-04	3.31e-05	0.0
158	90	-5.78e-03	-0.02	-0.52	-1.14e-04	3.31e-05	0.0
159	3	-7.88e-03	-0.03	-0.65	-1.59e-04	4.51e-05	0.0
159	12	-4.15e-03	0.05	-0.45	-1.88e-04	3.32e-05	0.0
159	17	-6.06e-03	-0.02	-0.50	-1.22e-04	3.47e-05	0.0
159	19	-4.78e-03	0.03	-0.47	-1.66e-04	3.37e-05	0.0
159	25	-0.05	-0.04	-0.52	-1.14e-04	-2.90e-06	0.0
159	41	-0.02	-0.07	-0.53	-9.05e-05	2.51e-05	0.0
159	45	-0.02	-0.07	-0.53	-9.05e-05	2.51e-05	0.0
159	57	-0.04	-0.03	-0.51	-1.17e-04	1.13e-05	0.0
159	73	-0.02	-0.05	-0.52	-1.02e-04	2.87e-05	0.0
159	87	-6.05e-03	-0.02	-0.50	-1.22e-04	3.46e-05	0.0
159	89	-6.05e-03	-0.02	-0.50	-1.22e-04	3.46e-05	0.0
159	90	-6.05e-03	-0.02	-0.50	-1.22e-04	3.46e-05	0.0
160	3	-7.89e-03	-0.03	-0.63	-1.62e-04	4.52e-05	0.0
160	12	-4.19e-03	0.05	-0.42	-1.89e-04	3.35e-05	0.0
160	17	-6.07e-03	-0.02	-0.48	-1.24e-04	3.48e-05	0.0
160	19	-4.81e-03	0.03	-0.44	-1.67e-04	3.39e-05	0.0
160	25	-0.05	-0.04	-0.50	-1.17e-04	-1.79e-06	0.0
160	41	-0.02	-0.07	-0.52	-9.33e-05	2.53e-05	0.0
160	45	-0.02	-0.07	-0.52	-9.33e-05	2.53e-05	0.0
160	57	-0.04	-0.03	-0.49	-1.20e-04	1.20e-05	0.0
160	73	-0.02	-0.05	-0.50	-1.05e-04	2.89e-05	0.0
160	77	-0.02	-0.05	-0.50	-1.05e-04	2.89e-05	0.0
160	87	-6.07e-03	-0.02	-0.48	-1.24e-04	3.47e-05	0.0
160	89	-6.07e-03	-0.02	-0.48	-1.24e-04	3.47e-05	0.0
160	90	-6.07e-03	-0.02	-0.48	-1.24e-04	3.47e-05	0.0
161	3	-7.63e-03	-0.03	-0.60	-1.58e-04	4.37e-05	0.0
161	12	-4.04e-03	0.05	-0.39	-1.85e-04	3.27e-05	0.0
161	17	-5.87e-03	-0.02	-0.46	-1.21e-04	3.36e-05	0.0
161	19	-4.65e-03	0.03	-0.41	-1.64e-04	3.30e-05	0.0
161	25	-0.05	-0.04	-0.48	-1.13e-04	-2.22e-06	0.0
161	45	-0.02	-0.07	-0.50	-9.02e-05	2.42e-05	0.0
161	57	-0.04	-0.03	-0.48	-1.16e-04	1.13e-05	0.0
161	73	-0.02	-0.05	-0.49	-1.02e-04	2.77e-05	0.0
161	77	-0.02	-0.05	-0.49	-1.02e-04	2.77e-05	0.0
161	87	-5.86e-03	-0.02	-0.46	-1.21e-04	3.36e-05	0.0
161	89	-5.86e-03	-0.02	-0.46	-1.21e-04	3.36e-05	0.0
161	90	-5.86e-03	-0.02	-0.46	-1.21e-04	3.36e-05	0.0
162	3	-7.22e-03	-0.03	-0.58	-1.52e-04	4.13e-05	0.0
162	12	-3.74e-03	0.06	-0.36	-1.81e-04	3.10e-05	0.0
162	17	-5.55e-03	-0.02	-0.45	-1.17e-04	3.18e-05	0.0
162	19	-4.34e-03	0.03	-0.39	-1.60e-04	3.12e-05	0.0
162	25	-0.05	-0.03	-0.47	-1.09e-04	-4.15e-06	0.0
162	41	-0.02	-0.07	-0.49	-8.55e-05	2.23e-05	0.0
162	45	-0.02	-0.07	-0.49	-8.55e-05	2.23e-05	0.0
162	57	-0.04	-0.03	-0.46	-1.12e-04	9.43e-06	0.0
162	73	-0.02	-0.05	-0.47	-9.73e-05	2.59e-05	0.0
162	77	-0.02	-0.05	-0.47	-9.73e-05	2.59e-05	0.0
162	87	-5.55e-03	-0.02	-0.45	-1.17e-04	3.18e-05	0.0
162	89	-5.55e-03	-0.02	-0.45	-1.17e-04	3.18e-05	0.0
162	90	-5.55e-03	-0.02	-0.45	-1.17e-04	3.18e-05	0.0
163	3	0.0	-0.02	-0.71	-1.32e-04	0.0	0.0
163	11	1.17e-03	0.05	-0.67	-2.10e-04	2.49e-06	0.0
163	12	1.17e-03	0.06	-0.50	-1.79e-04	2.49e-06	0.0
163	17	0.0	-0.02	-0.54	-1.02e-04	0.0	0.0
163	19	7.78e-04	0.03	-0.52	-1.53e-04	1.66e-06	0.0
163	21	7.78e-04	0.03	-0.52	-1.53e-04	1.66e-06	0.0
163	23	0.04	-0.03	-0.55	-9.05e-05	4.24e-05	0.0
163	43	0.01	-0.06	-0.56	-6.42e-05	1.27e-05	0.0
163	55	0.03	-0.03	-0.55	-9.48e-05	2.63e-05	0.0
163	75	9.44e-03	-0.05	-0.55	-7.84e-05	7.89e-06	0.0

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163	87	0.0	-0.02	-0.54	-1.02e-04	0.0	0.0
163	88	1.56e-04	-7.98e-03	-0.54	-1.12e-04	0.0	0.0
163	89	0.0	-0.02	-0.54	-1.02e-04	0.0	0.0
163	90	0.0	-0.02	-0.54	-1.02e-04	0.0	0.0
164	3	0.0	-0.03	-0.68	-1.53e-04	0.0	0.0
164	11	1.19e-03	0.05	-0.63	-2.22e-04	2.35e-06	0.0
164	12	1.19e-03	0.05	-0.48	-1.86e-04	2.35e-06	0.0
164	17	0.0	-0.02	-0.52	-1.17e-04	0.0	0.0
164	19	7.95e-04	0.03	-0.49	-1.63e-04	1.57e-06	0.0
164	21	7.95e-04	0.03	-0.49	-1.63e-04	1.57e-06	0.0
164	23	0.05	-0.03	-0.53	-1.07e-04	4.03e-05	0.0
164	43	0.01	-0.07	-0.55	-8.37e-05	1.21e-05	0.0
164	54	0.03	-0.01	-0.52	-1.24e-04	2.50e-05	0.0
164	75	9.49e-03	-0.05	-0.54	-9.64e-05	7.50e-06	0.0
164	87	0.0	-0.02	-0.52	-1.17e-04	0.0	0.0
164	88	1.59e-04	-0.01	-0.52	-1.27e-04	0.0	0.0
164	89	0.0	-0.02	-0.52	-1.17e-04	0.0	0.0
164	90	0.0	-0.02	-0.52	-1.17e-04	0.0	0.0
165	3	0.0	-0.03	-0.66	-1.65e-04	0.0	0.0
165	11	1.21e-03	0.05	-0.60	-2.30e-04	2.26e-06	0.0
165	12	1.21e-03	0.05	-0.45	-1.92e-04	2.26e-06	0.0
165	17	0.0	-0.02	-0.50	-1.27e-04	0.0	0.0
165	19	8.06e-04	0.03	-0.47	-1.70e-04	1.50e-06	0.0
165	21	8.06e-04	0.03	-0.47	-1.70e-04	1.50e-06	0.0
165	22	0.05	-8.22e-03	-0.50	-1.37e-04	3.87e-05	0.0
165	43	0.01	-0.07	-0.53	-9.51e-05	1.16e-05	0.0
165	54	0.03	-0.01	-0.50	-1.33e-04	2.40e-05	0.0
165	75	9.53e-03	-0.05	-0.52	-1.07e-04	7.21e-06	0.0
165	87	0.0	-0.02	-0.50	-1.27e-04	0.0	0.0
165	88	1.61e-04	-0.01	-0.50	-1.36e-04	0.0	0.0
165	89	0.0	-0.02	-0.50	-1.27e-04	0.0	0.0
165	90	0.0	-0.02	-0.50	-1.27e-04	0.0	0.0
166	3	0.0	-0.03	-0.63	-1.70e-04	0.0	0.0
166	11	1.22e-03	0.05	-0.56	-2.33e-04	2.19e-06	0.0
166	12	1.22e-03	0.05	-0.42	-1.94e-04	2.19e-06	0.0
166	17	0.0	-0.02	-0.48	-1.31e-04	0.0	0.0
166	19	8.14e-04	0.03	-0.44	-1.73e-04	1.46e-06	0.0
166	21	8.14e-04	0.03	-0.44	-1.73e-04	1.46e-06	0.0
166	22	0.05	-8.81e-03	-0.47	-1.40e-04	3.75e-05	0.0
166	43	0.01	-0.07	-0.52	-9.95e-05	1.13e-05	0.0
166	54	0.03	-0.01	-0.48	-1.36e-04	2.33e-05	0.0
166	75	9.55e-03	-0.06	-0.50	-1.11e-04	6.99e-06	0.0
166	87	0.0	-0.02	-0.48	-1.30e-04	0.0	0.0
166	88	1.63e-04	-0.01	-0.47	-1.39e-04	0.0	0.0
166	89	0.0	-0.02	-0.48	-1.30e-04	0.0	0.0
166	90	0.0	-0.02	-0.48	-1.30e-04	0.0	0.0
167	3	0.0	-0.03	-0.60	-1.63e-04	0.0	0.0
167	11	1.23e-03	0.05	-0.52	-2.27e-04	2.15e-06	0.0
167	12	1.23e-03	0.05	-0.38	-1.90e-04	2.15e-06	0.0
167	17	0.0	-0.02	-0.46	-1.26e-04	0.0	0.0
167	19	8.17e-04	0.03	-0.41	-1.68e-04	1.44e-06	0.0
167	21	8.17e-04	0.03	-0.41	-1.68e-04	1.44e-06	0.0
167	22	0.05	-7.95e-03	-0.45	-1.35e-04	3.71e-05	0.0
167	43	0.01	-0.07	-0.50	-9.40e-05	1.11e-05	0.0
167	54	0.03	-0.01	-0.45	-1.31e-04	2.31e-05	0.0
167	75	9.54e-03	-0.05	-0.48	-1.06e-04	6.93e-06	0.0
167	87	0.0	-0.02	-0.46	-1.25e-04	0.0	0.0
167	88	1.63e-04	-0.01	-0.45	-1.34e-04	0.0	0.0
167	89	0.0	-0.02	-0.46	-1.25e-04	0.0	0.0
167	90	0.0	-0.02	-0.46	-1.25e-04	0.0	0.0
168	3	0.0	-0.03	-0.58	-1.57e-04	0.0	0.0
168	11	1.23e-03	0.05	-0.49	-2.21e-04	2.15e-06	0.0
168	12	1.23e-03	0.05	-0.36	-1.85e-04	2.15e-06	0.0
168	17	0.0	-0.02	-0.44	-1.21e-04	0.0	0.0
168	19	8.17e-04	0.03	-0.39	-1.63e-04	1.43e-06	0.0
168	21	8.17e-04	0.03	-0.39	-1.64e-04	1.43e-06	0.0
168	22	0.05	-7.12e-03	-0.43	-1.30e-04	3.69e-05	0.0
168	43	0.01	-0.07	-0.49	-8.89e-05	1.11e-05	0.0
168	54	0.03	-0.01	-0.44	-1.27e-04	2.29e-05	0.0
168	75	9.55e-03	-0.05	-0.47	-1.01e-04	6.88e-06	0.0
168	87	0.0	-0.02	-0.44	-1.21e-04	0.0	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

168	88	1.63e-04	-0.01	-0.43	-1.29e-04	0.0	0.0
168	89	0.0	-0.02	-0.44	-1.21e-04	0.0	0.0
168	90	0.0	-0.02	-0.44	-1.21e-04	0.0	0.0
169	3	6.87e-03	-0.02	-0.70	-1.29e-04	-3.93e-05	0.0
169	11	7.47e-03	0.05	-0.66	-2.06e-04	-3.40e-05	0.0
169	12	5.89e-03	0.06	-0.50	-1.76e-04	-2.50e-05	0.0
169	17	5.29e-03	-0.02	-0.54	-9.90e-05	-3.02e-05	0.0
169	19	5.68e-03	0.03	-0.52	-1.50e-04	-2.67e-05	0.0
169	21	5.69e-03	0.03	-0.52	-1.50e-04	-2.67e-05	0.0
169	27	0.05	-0.03	-0.55	-8.91e-05	1.11e-05	0.0
169	39	0.02	-0.06	-0.56	-6.17e-05	-1.91e-05	0.0
169	43	0.02	-0.06	-0.56	-6.17e-05	-1.91e-05	0.0
169	59	0.04	-0.03	-0.55	-9.28e-05	-4.57e-06	0.0
169	71	0.01	-0.05	-0.55	-7.58e-05	-2.33e-05	0.0
169	75	0.01	-0.05	-0.55	-7.58e-05	-2.33e-05	0.0
169	87	5.28e-03	-0.02	-0.54	-9.89e-05	-3.02e-05	0.0
169	88	5.36e-03	-7.49e-03	-0.54	-1.09e-04	-2.95e-05	0.0
169	89	5.28e-03	-0.02	-0.54	-9.89e-05	-3.02e-05	0.0
169	90	5.28e-03	-0.02	-0.54	-9.89e-05	-3.02e-05	0.0
170	3	7.53e-03	-0.03	-0.68	-1.48e-04	-4.31e-05	0.0
170	11	8.05e-03	0.05	-0.63	-2.17e-04	-3.72e-05	0.0
170	12	6.31e-03	0.05	-0.48	-1.83e-04	-2.73e-05	0.0
170	17	5.79e-03	-0.02	-0.52	-1.14e-04	-3.31e-05	0.0
170	19	6.13e-03	0.03	-0.49	-1.60e-04	-2.92e-05	0.0
170	21	6.13e-03	0.03	-0.49	-1.60e-04	-2.92e-05	0.0
170	27	0.05	-0.03	-0.54	-1.05e-04	5.99e-06	0.0
170	39	0.02	-0.07	-0.55	-8.00e-05	-2.30e-05	0.0
170	43	0.02	-0.07	-0.55	-8.00e-05	-2.30e-05	0.0
170	59	0.04	-0.03	-0.53	-1.08e-04	-8.83e-06	0.0
170	71	0.02	-0.05	-0.54	-9.27e-05	-2.68e-05	0.0
170	75	0.02	-0.05	-0.54	-9.27e-05	-2.68e-05	0.0
170	87	5.78e-03	-0.02	-0.52	-1.14e-04	-3.31e-05	0.0
170	88	5.85e-03	-9.88e-03	-0.52	-1.23e-04	-3.23e-05	0.0
170	89	5.78e-03	-0.02	-0.52	-1.14e-04	-3.31e-05	0.0
170	90	5.78e-03	-0.02	-0.52	-1.14e-04	-3.31e-05	0.0
171	3	7.88e-03	-0.03	-0.65	-1.59e-04	-4.51e-05	0.0
171	11	8.40e-03	0.05	-0.60	-2.25e-04	-3.92e-05	0.0
171	12	6.58e-03	0.05	-0.45	-1.88e-04	-2.88e-05	0.0
171	17	6.06e-03	-0.02	-0.50	-1.22e-04	-3.47e-05	0.0
171	19	6.40e-03	0.03	-0.47	-1.66e-04	-3.07e-05	0.0
171	21	6.41e-03	0.03	-0.47	-1.66e-04	-3.08e-05	0.0
171	27	0.05	-0.04	-0.52	-1.14e-04	2.90e-06	0.0
171	39	0.02	-0.07	-0.53	-9.05e-05	-2.51e-05	0.0
171	43	0.02	-0.07	-0.53	-9.05e-05	-2.51e-05	0.0
171	59	0.04	-0.03	-0.51	-1.17e-04	-1.13e-05	0.0
171	71	0.02	-0.05	-0.52	-1.02e-04	-2.87e-05	0.0
171	75	0.02	-0.05	-0.52	-1.02e-04	-2.87e-05	0.0
171	87	6.05e-03	-0.02	-0.50	-1.22e-04	-3.46e-05	0.0
171	88	6.12e-03	-0.01	-0.50	-1.31e-04	-3.39e-05	0.0
171	89	6.05e-03	-0.02	-0.50	-1.22e-04	-3.46e-05	0.0
171	90	6.05e-03	-0.02	-0.50	-1.22e-04	-3.46e-05	0.0
172	3	7.89e-03	-0.03	-0.63	-1.62e-04	-4.52e-05	0.0
172	11	8.47e-03	0.05	-0.56	-2.26e-04	-3.96e-05	0.0
172	12	6.64e-03	0.05	-0.42	-1.89e-04	-2.92e-05	0.0
172	17	6.07e-03	-0.02	-0.48	-1.24e-04	-3.48e-05	0.0
172	19	6.45e-03	0.03	-0.44	-1.67e-04	-3.10e-05	0.0
172	21	6.45e-03	0.03	-0.44	-1.67e-04	-3.10e-05	0.0
172	27	0.05	-0.04	-0.50	-1.17e-04	1.79e-06	0.0
172	39	0.02	-0.07	-0.52	-9.33e-05	-2.53e-05	0.0
172	43	0.02	-0.07	-0.52	-9.33e-05	-2.53e-05	0.0
172	59	0.04	-0.03	-0.49	-1.20e-04	-1.20e-05	0.0
172	71	0.02	-0.05	-0.50	-1.05e-04	-2.89e-05	0.0
172	75	0.02	-0.05	-0.50	-1.05e-04	-2.89e-05	0.0
172	87	6.07e-03	-0.02	-0.48	-1.24e-04	-3.47e-05	0.0
172	88	6.14e-03	-0.01	-0.47	-1.33e-04	-3.40e-05	0.0
172	89	6.07e-03	-0.02	-0.48	-1.24e-04	-3.47e-05	0.0
172	90	6.07e-03	-0.02	-0.48	-1.24e-04	-3.47e-05	0.0
173	3	7.63e-03	-0.03	-0.60	-1.58e-04	-4.37e-05	0.0
173	11	8.27e-03	0.05	-0.53	-2.22e-04	-3.85e-05	0.0
173	12	6.51e-03	0.05	-0.39	-1.86e-04	-2.84e-05	0.0
173	17	5.87e-03	-0.02	-0.46	-1.21e-04	-3.36e-05	0.0

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173	19	6.29e-03	0.03	-0.41	-1.64e-04	-3.01e-05	0.0
173	21	6.29e-03	0.03	-0.41	-1.64e-04	-3.02e-05	0.0
173	27	0.05	-0.04	-0.48	-1.13e-04	2.22e-06	0.0
173	39	0.02	-0.07	-0.50	-9.02e-05	-2.42e-05	0.0
173	43	0.02	-0.07	-0.50	-9.02e-05	-2.42e-05	0.0
173	59	0.04	-0.03	-0.48	-1.16e-04	-1.13e-05	0.0
173	71	0.02	-0.05	-0.49	-1.02e-04	-2.77e-05	0.0
173	75	0.02	-0.05	-0.49	-1.02e-04	-2.77e-05	0.0
173	87	5.86e-03	-0.02	-0.46	-1.21e-04	-3.36e-05	0.0
173	88	5.95e-03	-0.01	-0.45	-1.30e-04	-3.29e-05	0.0
173	89	5.86e-03	-0.02	-0.46	-1.21e-04	-3.36e-05	0.0
173	90	5.86e-03	-0.02	-0.46	-1.21e-04	-3.36e-05	0.0
174	3	7.22e-03	-0.03	-0.58	-1.52e-04	-4.13e-05	0.0
174	11	7.87e-03	0.05	-0.50	-2.17e-04	-3.63e-05	0.0
174	12	6.20e-03	0.06	-0.36	-1.81e-04	-2.67e-05	0.0
174	17	5.55e-03	-0.02	-0.45	-1.17e-04	-3.18e-05	0.0
174	19	5.98e-03	0.03	-0.39	-1.60e-04	-2.84e-05	0.0
174	21	5.99e-03	0.03	-0.39	-1.60e-04	-2.84e-05	0.0
174	27	0.05	-0.03	-0.47	-1.09e-04	4.15e-06	0.0
174	39	0.02	-0.07	-0.49	-8.55e-05	-2.23e-05	0.0
174	43	0.02	-0.07	-0.49	-8.55e-05	-2.23e-05	0.0
174	59	0.04	-0.03	-0.46	-1.12e-04	-9.43e-06	0.0
174	75	0.02	-0.05	-0.47	-9.73e-05	-2.59e-05	0.0
174	87	5.55e-03	-0.02	-0.45	-1.17e-04	-3.18e-05	0.0
174	88	5.63e-03	-0.01	-0.43	-1.25e-04	-3.11e-05	0.0
174	89	5.55e-03	-0.02	-0.45	-1.17e-04	-3.18e-05	0.0
174	90	5.55e-03	-0.02	-0.45	-1.17e-04	-3.18e-05	0.0
175	3	0.01	-0.02	-0.70	-1.19e-04	-7.49e-05	0.0
175	11	0.01	0.05	-0.66	-1.96e-04	-6.75e-05	0.0
175	12	0.01	0.06	-0.50	-1.68e-04	-5.02e-05	0.0
175	17	0.01	-0.02	-0.54	-9.13e-05	-5.76e-05	0.0
175	19	0.01	0.03	-0.51	-1.43e-04	-5.26e-05	0.0
175	21	0.01	0.03	-0.51	-1.43e-04	-5.27e-05	0.0
175	27	0.06	-0.03	-0.55	-8.24e-05	-1.82e-05	0.0
175	39	0.02	-0.06	-0.56	-5.42e-05	-4.81e-05	0.0
175	43	0.02	-0.06	-0.56	-5.42e-05	-4.81e-05	0.0
175	59	0.04	-0.03	-0.55	-8.57e-05	-3.31e-05	0.0
175	71	0.02	-0.05	-0.55	-6.82e-05	-5.16e-05	0.0
175	75	0.02	-0.05	-0.55	-6.82e-05	-5.16e-05	0.0
175	87	0.01	-0.02	-0.54	-9.12e-05	-5.75e-05	0.0
175	88	0.01	-6.14e-03	-0.53	-1.01e-04	-5.65e-05	0.0
175	89	0.01	-0.02	-0.54	-9.12e-05	-5.75e-05	0.0
175	90	0.01	-0.02	-0.54	-9.12e-05	-5.75e-05	0.0
176	3	0.01	-0.02	-0.67	-1.34e-04	-8.20e-05	0.0
176	11	0.01	0.05	-0.63	-2.05e-04	-7.38e-05	0.0
176	12	0.01	0.06	-0.48	-1.74e-04	-5.48e-05	0.0
176	17	0.01	-0.02	-0.52	-1.03e-04	-6.31e-05	0.0
176	19	0.01	0.03	-0.49	-1.51e-04	-5.75e-05	0.0
176	21	0.01	0.03	-0.49	-1.51e-04	-5.76e-05	0.0
176	27	0.06	-0.03	-0.54	-9.56e-05	-2.59e-05	0.0
176	39	0.03	-0.06	-0.54	-6.90e-05	-5.47e-05	0.0
176	43	0.03	-0.06	-0.54	-6.90e-05	-5.47e-05	0.0
176	59	0.04	-0.03	-0.53	-9.84e-05	-4.00e-05	0.0
176	71	0.02	-0.05	-0.53	-8.19e-05	-5.78e-05	0.0
176	75	0.02	-0.05	-0.53	-8.19e-05	-5.78e-05	0.0
176	87	0.01	-0.02	-0.52	-1.03e-04	-6.30e-05	0.0
176	88	0.01	-8.09e-03	-0.51	-1.13e-04	-6.19e-05	0.0
176	89	0.01	-0.02	-0.52	-1.03e-04	-6.30e-05	0.0
176	90	0.01	-0.02	-0.52	-1.03e-04	-6.30e-05	0.0
177	3	0.02	-0.03	-0.65	-1.43e-04	-8.61e-05	0.0
177	11	0.02	0.05	-0.60	-2.12e-04	-7.77e-05	0.0
177	12	0.01	0.06	-0.45	-1.78e-04	-5.79e-05	0.0
177	17	0.01	-0.02	-0.50	-1.10e-04	-6.62e-05	0.0
177	19	0.01	0.03	-0.47	-1.56e-04	-6.06e-05	0.0
177	21	0.01	0.03	-0.47	-1.56e-04	-6.06e-05	0.0
177	27	0.06	-0.03	-0.52	-1.03e-04	-3.04e-05	0.0
177	39	0.03	-0.07	-0.53	-7.78e-05	-5.83e-05	0.0
177	43	0.03	-0.07	-0.53	-7.78e-05	-5.83e-05	0.0
177	59	0.04	-0.03	-0.51	-1.06e-04	-4.39e-05	0.0
177	71	0.02	-0.05	-0.52	-9.01e-05	-6.12e-05	0.0
177	75	0.02	-0.05	-0.52	-9.01e-05	-6.12e-05	0.0

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177	87	0.01	-0.02	-0.50	-1.10e-04	-6.61e-05	0.0
177	88	0.01	-9.27e-03	-0.49	-1.19e-04	-6.50e-05	0.0
177	89	0.01	-0.02	-0.50	-1.10e-04	-6.61e-05	0.0
177	90	0.01	-0.02	-0.50	-1.10e-04	-6.61e-05	0.0
178	3	0.02	-0.03	-0.62	-1.47e-04	-8.71e-05	0.0
178	11	0.02	0.05	-0.57	-2.14e-04	-7.92e-05	0.0
178	12	0.01	0.06	-0.42	-1.80e-04	-5.90e-05	0.0
178	17	0.01	-0.02	-0.48	-1.13e-04	-6.70e-05	0.0
178	19	0.01	0.03	-0.44	-1.57e-04	-6.17e-05	0.0
178	21	0.01	0.03	-0.44	-1.58e-04	-6.17e-05	0.0
178	27	0.06	-0.03	-0.51	-1.06e-04	-3.21e-05	0.0
178	39	0.03	-0.07	-0.51	-8.13e-05	-5.92e-05	0.0
178	43	0.03	-0.07	-0.51	-8.13e-05	-5.92e-05	0.0
178	59	0.04	-0.03	-0.50	-1.09e-04	-4.53e-05	0.0
178	75	0.02	-0.05	-0.50	-9.33e-05	-6.21e-05	0.0
178	87	0.01	-0.02	-0.48	-1.13e-04	-6.70e-05	0.0
178	88	0.01	-9.72e-03	-0.47	-1.22e-04	-6.59e-05	0.0
178	89	0.01	-0.02	-0.48	-1.13e-04	-6.70e-05	0.0
178	90	0.01	-0.02	-0.48	-1.13e-04	-6.70e-05	0.0
179	3	0.01	-0.02	-0.59	-1.42e-04	-8.36e-05	0.0
179	11	0.01	0.05	-0.53	-2.09e-04	-7.63e-05	0.0
179	12	0.01	0.06	-0.39	-1.76e-04	-5.69e-05	0.0
179	17	0.01	-0.02	-0.46	-1.09e-04	-6.43e-05	0.0
179	19	0.01	0.03	-0.41	-1.54e-04	-5.94e-05	0.0
179	21	0.01	0.03	-0.41	-1.54e-04	-5.94e-05	0.0
179	27	0.06	-0.03	-0.49	-1.02e-04	-2.94e-05	0.0
179	39	0.03	-0.07	-0.49	-7.71e-05	-5.62e-05	0.0
179	43	0.03	-0.07	-0.49	-7.71e-05	-5.62e-05	0.0
179	59	0.04	-0.03	-0.47	-1.05e-04	-4.25e-05	0.0
179	71	0.02	-0.05	-0.48	-8.91e-05	-5.92e-05	0.0
179	75	0.02	-0.05	-0.48	-8.91e-05	-5.92e-05	0.0
179	87	0.01	-0.02	-0.46	-1.09e-04	-6.43e-05	0.0
179	88	0.01	-9.04e-03	-0.45	-1.18e-04	-6.33e-05	0.0
179	89	0.01	-0.02	-0.46	-1.09e-04	-6.43e-05	0.0
179	90	0.01	-0.02	-0.46	-1.09e-04	-6.43e-05	0.0
180	3	0.01	-0.02	-0.58	-1.37e-04	-8.03e-05	0.0
180	11	0.01	0.05	-0.50	-2.04e-04	-7.32e-05	0.0
180	12	0.01	0.06	-0.37	-1.73e-04	-5.46e-05	0.0
180	17	0.01	-0.02	-0.44	-1.06e-04	-6.18e-05	0.0
180	19	0.01	0.03	-0.40	-1.50e-04	-5.70e-05	0.0
180	21	0.01	0.03	-0.40	-1.50e-04	-5.70e-05	0.0
180	27	0.06	-0.03	-0.47	-9.80e-05	-2.69e-05	0.0
180	39	0.03	-0.06	-0.49	-7.32e-05	-5.35e-05	0.0
180	43	0.03	-0.06	-0.49	-7.32e-05	-5.35e-05	0.0
180	59	0.04	-0.03	-0.46	-1.01e-04	-4.00e-05	0.0
180	71	0.02	-0.05	-0.47	-8.54e-05	-5.66e-05	0.0
180	75	0.02	-0.05	-0.47	-8.54e-05	-5.66e-05	0.0
180	87	0.01	-0.02	-0.44	-1.05e-04	-6.17e-05	0.0
180	88	0.01	-8.41e-03	-0.43	-1.14e-04	-6.08e-05	0.0
180	89	0.01	-0.02	-0.44	-1.05e-04	-6.17e-05	0.0
180	90	0.01	-0.02	-0.44	-1.05e-04	-6.17e-05	0.0
181	3	0.02	-0.02	-0.69	-1.04e-04	-1.04e-04	0.0
181	4	0.02	0.03	-0.67	-1.51e-04	-9.94e-05	0.0
181	12	0.01	0.06	-0.50	-1.57e-04	-7.18e-05	0.0
181	17	0.01	-0.01	-0.53	-8.03e-05	-8.03e-05	0.0
181	18	0.01	0.02	-0.52	-1.11e-04	-7.69e-05	0.0
181	19	0.01	0.03	-0.51	-1.32e-04	-7.46e-05	0.0
181	23	0.06	-0.03	-0.55	-7.19e-05	-4.33e-05	0.0
181	27	0.06	-0.03	-0.55	-7.19e-05	-4.33e-05	0.0
181	43	0.03	-0.06	-0.55	-4.33e-05	-7.19e-05	0.0
181	55	0.05	-0.02	-0.54	-7.51e-05	-5.73e-05	0.0
181	59	0.05	-0.02	-0.54	-7.51e-05	-5.73e-05	0.0
181	75	0.02	-0.05	-0.54	-5.73e-05	-7.51e-05	0.0
181	87	0.01	-0.01	-0.53	-8.02e-05	-8.02e-05	0.0
181	89	0.01	-0.01	-0.53	-8.02e-05	-8.02e-05	0.0
181	90	0.01	-0.01	-0.53	-8.02e-05	-8.02e-05	0.0
182	3	0.02	-0.02	-0.67	-1.14e-04	-1.14e-04	0.0
182	12	0.02	0.06	-0.48	-1.61e-04	-7.85e-05	0.0
182	17	0.02	-0.02	-0.51	-8.75e-05	-8.75e-05	0.0
182	19	0.02	0.03	-0.49	-1.36e-04	-8.15e-05	0.0
182	27	0.06	-0.03	-0.54	-8.02e-05	-5.25e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

182	31	0.06	-0.03	-0.54	-8.02e-05	-5.25e-05	0.0
182	43	0.03	-0.06	-0.54	-5.25e-05	-8.02e-05	0.0
182	59	0.05	-0.03	-0.53	-8.29e-05	-6.57e-05	0.0
182	63	0.05	-0.03	-0.53	-8.29e-05	-6.57e-05	0.0
182	75	0.03	-0.05	-0.53	-6.57e-05	-8.29e-05	0.0
182	87	0.02	-0.02	-0.51	-8.75e-05	-8.75e-05	0.0
182	89	0.02	-0.02	-0.51	-8.74e-05	-8.74e-05	0.0
182	90	0.02	-0.02	-0.51	-8.74e-05	-8.74e-05	0.0
183	3	0.02	-0.02	-0.64	-1.19e-04	-1.19e-04	0.0
183	12	0.02	0.06	-0.45	-1.62e-04	-8.25e-05	0.0
183	17	0.02	-0.02	-0.50	-9.14e-05	-9.14e-05	0.0
183	19	0.02	0.03	-0.47	-1.39e-04	-8.54e-05	0.0
183	27	0.06	-0.03	-0.52	-8.44e-05	-5.76e-05	0.0
183	31	0.06	-0.03	-0.52	-8.44e-05	-5.76e-05	0.0
183	43	0.03	-0.06	-0.52	-5.76e-05	-8.44e-05	0.0
183	55	0.05	-0.03	-0.51	-8.70e-05	-7.03e-05	0.0
183	59	0.05	-0.03	-0.51	-8.70e-05	-7.03e-05	0.0
183	75	0.03	-0.05	-0.51	-7.03e-05	-8.70e-05	0.0
183	87	0.02	-0.02	-0.50	-9.14e-05	-9.14e-05	0.0
183	89	0.02	-0.02	-0.50	-9.13e-05	-9.13e-05	0.0
183	90	0.02	-0.02	-0.50	-9.13e-05	-9.13e-05	0.0
184	3	0.02	-0.02	-0.62	-1.19e-04	-1.19e-04	0.0
184	4	0.02	0.02	-0.59	-1.61e-04	-1.14e-04	0.0
184	12	0.02	0.06	-0.43	-1.61e-04	-8.33e-05	0.0
184	17	0.02	-0.02	-0.48	-9.18e-05	-9.18e-05	0.0
184	18	0.02	0.01	-0.46	-1.20e-04	-8.84e-05	0.0
184	19	0.02	0.03	-0.45	-1.38e-04	-8.61e-05	0.0
184	27	0.06	-0.03	-0.51	-8.47e-05	-5.84e-05	0.0
184	39	0.03	-0.06	-0.51	-5.84e-05	-8.47e-05	0.0
184	43	0.03	-0.06	-0.51	-5.84e-05	-8.47e-05	0.0
184	59	0.05	-0.03	-0.50	-8.73e-05	-7.10e-05	0.0
184	71	0.03	-0.05	-0.50	-7.10e-05	-8.73e-05	0.0
184	75	0.03	-0.05	-0.50	-7.10e-05	-8.73e-05	0.0
184	87	0.02	-0.02	-0.48	-9.17e-05	-9.17e-05	0.0
184	89	0.02	-0.02	-0.48	-9.17e-05	-9.17e-05	0.0
184	90	0.02	-0.02	-0.48	-9.17e-05	-9.17e-05	0.0
185	3	0.02	-0.02	-0.60	-1.16e-04	-1.16e-04	0.0
185	11	0.02	0.05	-0.55	-1.85e-04	-1.09e-04	0.0
185	12	0.02	0.06	-0.41	-1.59e-04	-8.16e-05	0.0
185	17	0.02	-0.02	-0.46	-8.95e-05	-8.95e-05	0.0
185	19	0.02	0.03	-0.43	-1.36e-04	-8.42e-05	0.0
185	21	0.02	0.03	-0.43	-1.36e-04	-8.43e-05	0.0
185	27	0.06	-0.03	-0.50	-8.22e-05	-5.64e-05	0.0
185	39	0.03	-0.06	-0.50	-5.64e-05	-8.22e-05	0.0
185	43	0.03	-0.06	-0.50	-5.64e-05	-8.22e-05	0.0
185	59	0.05	-0.03	-0.48	-8.49e-05	-6.89e-05	0.0
185	71	0.03	-0.05	-0.48	-6.89e-05	-8.49e-05	0.0
185	75	0.03	-0.05	-0.48	-6.89e-05	-8.49e-05	0.0
185	87	0.02	-0.02	-0.46	-8.94e-05	-8.94e-05	0.0
185	88	0.02	-5.67e-03	-0.45	-9.86e-05	-8.84e-05	0.0
185	89	0.02	-0.02	-0.46	-8.94e-05	-8.94e-05	0.0
185	90	0.02	-0.02	-0.46	-8.94e-05	-8.94e-05	0.0
186	3	0.02	-0.02	-0.58	-1.13e-04	-1.13e-04	0.0
186	11	0.02	0.05	-0.52	-1.82e-04	-1.05e-04	0.0
186	12	0.02	0.06	-0.39	-1.56e-04	-7.87e-05	0.0
186	17	0.02	-0.02	-0.45	-8.66e-05	-8.66e-05	0.0
186	19	0.02	0.03	-0.41	-1.33e-04	-8.13e-05	0.0
186	21	0.02	0.03	-0.41	-1.33e-04	-8.13e-05	0.0
186	27	0.06	-0.03	-0.48	-7.92e-05	-5.33e-05	0.0
186	39	0.03	-0.06	-0.48	-5.33e-05	-7.92e-05	0.0
186	43	0.03	-0.06	-0.48	-5.33e-05	-7.92e-05	0.0
186	59	0.05	-0.03	-0.47	-8.19e-05	-6.59e-05	0.0
186	71	0.03	-0.05	-0.47	-6.59e-05	-8.19e-05	0.0
186	75	0.03	-0.05	-0.47	-6.59e-05	-8.19e-05	0.0
186	87	0.02	-0.02	-0.45	-8.65e-05	-8.65e-05	0.0
186	88	0.02	-5.17e-03	-0.44	-9.57e-05	-8.54e-05	0.0
186	89	0.02	-0.02	-0.45	-8.65e-05	-8.65e-05	0.0
186	90	0.02	-0.02	-0.45	-8.65e-05	-8.65e-05	0.0
187	3	0.02	-0.01	-0.70	-7.49e-05	-1.19e-04	0.0
187	11	0.02	0.06	-0.68	-1.56e-04	-1.11e-04	0.0
187	12	0.02	0.06	-0.51	-1.39e-04	-8.39e-05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

187	17	0.02	-0.01	-0.54	-5.76e-05	-9.13e-05	0.0
187	19	0.02	0.04	-0.52	-1.12e-04	-8.63e-05	0.0
187	21	0.02	0.04	-0.52	-1.12e-04	-8.64e-05	0.0
187	23	0.06	-0.02	-0.56	-4.81e-05	-5.42e-05	0.0
187	27	0.06	-0.02	-0.56	-4.81e-05	-5.42e-05	0.0
187	43	0.03	-0.06	-0.55	-1.82e-05	-8.24e-05	0.0
187	59	0.05	-0.02	-0.55	-5.16e-05	-6.82e-05	0.0
187	63	0.05	-0.02	-0.55	-5.16e-05	-6.82e-05	0.0
187	75	0.03	-0.04	-0.55	-3.31e-05	-8.57e-05	0.0
187	87	0.02	-0.01	-0.54	-5.75e-05	-9.12e-05	0.0
187	88	0.02	-3.82e-04	-0.53	-6.84e-05	-9.02e-05	0.0
187	89	0.02	-0.01	-0.54	-5.75e-05	-9.12e-05	0.0
187	90	0.02	-0.01	-0.54	-5.75e-05	-9.12e-05	0.0
188	3	0.02	-0.01	-0.67	-8.20e-05	-1.34e-04	0.0
188	11	0.02	0.06	-0.65	-1.59e-04	-1.26e-04	0.0
188	12	0.02	0.06	-0.49	-1.40e-04	-9.50e-05	0.0
188	17	0.02	-0.01	-0.52	-6.31e-05	-1.03e-04	0.0
188	19	0.02	0.04	-0.50	-1.15e-04	-9.77e-05	0.0
188	21	0.02	0.04	-0.50	-1.15e-04	-9.77e-05	0.0
188	23	0.06	-0.03	-0.54	-5.47e-05	-6.90e-05	0.0
188	27	0.06	-0.03	-0.54	-5.47e-05	-6.90e-05	0.0
188	43	0.03	-0.06	-0.54	-2.59e-05	-9.56e-05	0.0
188	59	0.05	-0.02	-0.53	-5.78e-05	-8.19e-05	0.0
188	63	0.05	-0.02	-0.53	-5.78e-05	-8.19e-05	0.0
188	75	0.03	-0.04	-0.53	-4.00e-05	-9.84e-05	0.0
188	87	0.02	-0.01	-0.52	-6.30e-05	-1.03e-04	0.0
188	88	0.02	-1.24e-03	-0.52	-7.33e-05	-1.02e-04	0.0
188	89	0.02	-0.01	-0.52	-6.30e-05	-1.03e-04	0.0
188	90	0.02	-0.01	-0.52	-6.30e-05	-1.03e-04	0.0
189	3	0.03	-0.02	-0.65	-8.61e-05	-1.43e-04	0.0
189	11	0.03	0.06	-0.62	-1.60e-04	-1.35e-04	0.0
189	12	0.02	0.06	-0.47	-1.41e-04	-1.02e-04	0.0
189	17	0.02	-0.01	-0.50	-6.62e-05	-1.10e-04	0.0
189	19	0.02	0.04	-0.48	-1.16e-04	-1.05e-04	0.0
189	21	0.02	0.04	-0.48	-1.16e-04	-1.05e-04	0.0
189	27	0.07	-0.03	-0.53	-5.83e-05	-7.78e-05	0.0
189	31	0.07	-0.03	-0.53	-5.83e-05	-7.78e-05	0.0
189	43	0.03	-0.06	-0.52	-3.04e-05	-1.03e-04	0.0
189	59	0.05	-0.02	-0.52	-6.12e-05	-9.01e-05	0.0
189	63	0.05	-0.02	-0.52	-6.12e-05	-9.01e-05	0.0
189	75	0.03	-0.04	-0.51	-4.39e-05	-1.06e-04	0.0
189	87	0.02	-0.01	-0.50	-6.61e-05	-1.10e-04	0.0
189	88	0.02	-1.73e-03	-0.50	-7.61e-05	-1.09e-04	0.0
189	89	0.02	-0.01	-0.50	-6.61e-05	-1.10e-04	0.0
189	90	0.02	-0.01	-0.50	-6.61e-05	-1.10e-04	0.0
190	3	0.03	-0.02	-0.62	-8.71e-05	-1.47e-04	0.0
190	11	0.03	0.06	-0.59	-1.60e-04	-1.39e-04	0.0
190	12	0.02	0.06	-0.45	-1.40e-04	-1.05e-04	0.0
190	17	0.02	-0.01	-0.48	-6.70e-05	-1.13e-04	0.0
190	19	0.02	0.04	-0.46	-1.15e-04	-1.08e-04	0.0
190	21	0.02	0.04	-0.46	-1.16e-04	-1.08e-04	0.0
190	27	0.07	-0.03	-0.51	-5.92e-05	-8.13e-05	0.0
190	31	0.07	-0.03	-0.51	-5.92e-05	-8.13e-05	0.0
190	43	0.03	-0.06	-0.51	-3.21e-05	-1.06e-04	0.0
190	59	0.05	-0.02	-0.50	-6.21e-05	-9.33e-05	0.0
190	63	0.05	-0.02	-0.50	-6.21e-05	-9.33e-05	0.0
190	75	0.03	-0.04	-0.50	-4.53e-05	-1.09e-04	0.0
190	87	0.02	-0.01	-0.48	-6.70e-05	-1.13e-04	0.0
190	88	0.02	-1.83e-03	-0.48	-7.67e-05	-1.12e-04	0.0
190	89	0.02	-0.01	-0.48	-6.70e-05	-1.13e-04	0.0
190	90	0.02	-0.01	-0.48	-6.70e-05	-1.13e-04	0.0
191	3	0.02	-0.01	-0.59	-8.36e-05	-1.42e-04	0.0
191	11	0.03	0.06	-0.56	-1.56e-04	-1.35e-04	0.0
191	12	0.02	0.06	-0.42	-1.37e-04	-1.02e-04	0.0
191	17	0.02	-0.01	-0.46	-6.43e-05	-1.09e-04	0.0
191	19	0.02	0.04	-0.43	-1.13e-04	-1.04e-04	0.0
191	21	0.02	0.04	-0.43	-1.13e-04	-1.04e-04	0.0
191	27	0.07	-0.03	-0.49	-5.62e-05	-7.71e-05	0.0
191	31	0.07	-0.03	-0.49	-5.62e-05	-7.71e-05	0.0
191	43	0.03	-0.06	-0.49	-2.94e-05	-1.02e-04	0.0
191	59	0.05	-0.02	-0.48	-5.92e-05	-8.91e-05	0.0

**PROJETTO engineering s.r.l.**  
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191	63	0.05	-0.02	-0.48	-5.92e-05	-8.91e-05	0.0
191	75	0.03	-0.04	-0.47	-4.25e-05	-1.05e-04	0.0
191	87	0.02	-0.01	-0.46	-6.43e-05	-1.09e-04	0.0
191	88	0.02	-1.36e-03	-0.45	-7.40e-05	-1.08e-04	0.0
191	89	0.02	-0.01	-0.46	-6.43e-05	-1.09e-04	0.0
191	90	0.02	-0.01	-0.46	-6.43e-05	-1.09e-04	0.0
192	3	0.02	-0.01	-0.58	-8.03e-05	-1.37e-04	0.0
192	11	0.02	0.06	-0.54	-1.53e-04	-1.30e-04	0.0
192	12	0.02	0.06	-0.40	-1.34e-04	-9.86e-05	0.0
192	17	0.02	-0.01	-0.44	-6.18e-05	-1.06e-04	0.0
192	19	0.02	0.04	-0.42	-1.10e-04	-1.01e-04	0.0
192	21	0.02	0.04	-0.42	-1.10e-04	-1.01e-04	0.0
192	27	0.06	-0.03	-0.49	-5.35e-05	-7.32e-05	0.0
192	31	0.06	-0.03	-0.49	-5.35e-05	-7.32e-05	0.0
192	43	0.03	-0.06	-0.47	-2.69e-05	-9.80e-05	0.0
192	59	0.05	-0.02	-0.47	-5.66e-05	-8.54e-05	0.0
192	63	0.05	-0.02	-0.47	-5.66e-05	-8.54e-05	0.0
192	75	0.03	-0.04	-0.46	-4.00e-05	-1.01e-04	0.0
192	87	0.02	-0.01	-0.44	-6.17e-05	-1.05e-04	0.0
192	88	0.02	-9.15e-04	-0.44	-7.14e-05	-1.05e-04	0.0
192	89	0.02	-0.01	-0.44	-6.17e-05	-1.05e-04	0.0
192	90	0.02	-0.01	-0.44	-6.17e-05	-1.05e-04	0.0
193	3	0.02	-6.87e-03	-0.70	-3.93e-05	-1.29e-04	0.0
193	11	0.02	0.07	-0.69	-1.24e-04	-1.24e-04	0.0
193	12	0.02	0.07	-0.53	-1.15e-04	-9.38e-05	0.0
193	17	0.02	-5.29e-03	-0.54	-3.02e-05	-9.90e-05	0.0
193	19	0.02	0.04	-0.53	-8.69e-05	-9.55e-05	0.0
193	21	0.02	0.04	-0.53	-8.69e-05	-9.56e-05	0.0
193	23	0.06	-0.02	-0.56	-1.91e-05	-6.17e-05	0.0
193	27	0.06	-0.02	-0.56	-1.91e-05	-6.17e-05	0.0
193	43	0.03	-0.05	-0.55	1.11e-05	-8.91e-05	0.0
193	55	0.05	-0.01	-0.55	-2.33e-05	-7.58e-05	0.0
193	59	0.05	-0.01	-0.55	-2.33e-05	-7.58e-05	0.0
193	75	0.03	-0.04	-0.55	-4.57e-06	-9.28e-05	0.0
193	87	0.02	-5.28e-03	-0.54	-3.02e-05	-9.89e-05	0.0
193	88	0.02	4.30e-03	-0.54	-4.15e-05	-9.82e-05	0.0
193	89	0.02	-5.28e-03	-0.54	-3.02e-05	-9.89e-05	0.0
193	90	0.02	-5.28e-03	-0.54	-3.02e-05	-9.89e-05	0.0
194	3	0.03	-7.53e-03	-0.68	-4.31e-05	-1.48e-04	0.0
194	11	0.03	0.07	-0.67	-1.23e-04	-1.42e-04	0.0
194	12	0.02	0.07	-0.51	-1.14e-04	-1.08e-04	0.0
194	17	0.02	-5.79e-03	-0.52	-3.31e-05	-1.14e-04	0.0
194	19	0.02	0.04	-0.51	-8.67e-05	-1.10e-04	0.0
194	21	0.02	0.04	-0.51	-8.67e-05	-1.10e-04	0.0
194	23	0.07	-0.02	-0.55	-2.30e-05	-8.00e-05	0.0
194	27	0.07	-0.02	-0.55	-2.30e-05	-8.00e-05	0.0
194	43	0.03	-0.05	-0.54	5.99e-06	-1.05e-04	0.0
194	55	0.05	-0.02	-0.54	-2.68e-05	-9.27e-05	0.0
194	59	0.05	-0.02	-0.54	-2.68e-05	-9.27e-05	0.0
194	75	0.03	-0.04	-0.53	-8.83e-06	-1.08e-04	0.0
194	87	0.02	-5.78e-03	-0.52	-3.31e-05	-1.14e-04	0.0
194	88	0.02	3.90e-03	-0.52	-4.38e-05	-1.13e-04	0.0
194	89	0.02	-5.78e-03	-0.52	-3.31e-05	-1.14e-04	0.0
194	90	0.02	-5.78e-03	-0.52	-3.31e-05	-1.14e-04	0.0
195	3	0.03	-7.88e-03	-0.65	-4.51e-05	-1.59e-04	0.0
195	11	0.03	0.07	-0.64	-1.22e-04	-1.53e-04	0.0
195	12	0.02	0.07	-0.49	-1.12e-04	-1.17e-04	0.0
195	17	0.02	-6.06e-03	-0.50	-3.47e-05	-1.22e-04	0.0
195	19	0.02	0.04	-0.49	-8.62e-05	-1.19e-04	0.0
195	21	0.02	0.04	-0.49	-8.62e-05	-1.19e-04	0.0
195	23	0.07	-0.02	-0.53	-2.51e-05	-9.05e-05	0.0
195	27	0.07	-0.02	-0.53	-2.51e-05	-9.05e-05	0.0
195	43	0.04	-0.05	-0.52	2.90e-06	-1.14e-04	0.0
195	55	0.05	-0.02	-0.52	-2.87e-05	-1.02e-04	0.0
195	59	0.05	-0.02	-0.52	-2.87e-05	-1.02e-04	0.0
195	75	0.03	-0.04	-0.51	-1.13e-05	-1.17e-04	0.0
195	87	0.02	-6.05e-03	-0.50	-3.46e-05	-1.22e-04	0.0
195	88	0.02	3.70e-03	-0.50	-4.49e-05	-1.21e-04	0.0
195	89	0.02	-6.05e-03	-0.50	-3.46e-05	-1.22e-04	0.0
195	90	0.02	-6.05e-03	-0.50	-3.46e-05	-1.22e-04	0.0
196	3	0.03	-7.89e-03	-0.63	-4.52e-05	-1.62e-04	0.0

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196	11	0.03	0.07	-0.61	-1.20e-04	-1.57e-04	0.0
196	12	0.02	0.07	-0.47	-1.10e-04	-1.19e-04	0.0
196	17	0.02	-6.07e-03	-0.48	-3.48e-05	-1.24e-04	0.0
196	19	0.02	0.04	-0.47	-8.48e-05	-1.21e-04	0.0
196	21	0.02	0.04	-0.47	-8.48e-05	-1.21e-04	0.0
196	23	0.07	-0.02	-0.52	-2.53e-05	-9.33e-05	0.0
196	27	0.07	-0.02	-0.52	-2.53e-05	-9.33e-05	0.0
196	43	0.04	-0.05	-0.50	1.79e-06	-1.17e-04	0.0
196	55	0.05	-0.02	-0.50	-2.89e-05	-1.05e-04	0.0
196	59	0.05	-0.02	-0.50	-2.89e-05	-1.05e-04	0.0
196	75	0.03	-0.04	-0.49	-1.20e-05	-1.20e-04	0.0
196	87	0.02	-6.07e-03	-0.48	-3.47e-05	-1.24e-04	0.0
196	88	0.02	3.73e-03	-0.48	-4.47e-05	-1.24e-04	0.0
196	89	0.02	-6.07e-03	-0.48	-3.47e-05	-1.24e-04	0.0
196	90	0.02	-6.07e-03	-0.48	-3.47e-05	-1.24e-04	0.0
197	3	0.03	-7.63e-03	-0.60	-4.37e-05	-1.58e-04	0.0
197	11	0.03	0.07	-0.58	-1.18e-04	-1.53e-04	0.0
197	12	0.02	0.07	-0.45	-1.07e-04	-1.16e-04	0.0
197	17	0.02	-5.87e-03	-0.46	-3.36e-05	-1.21e-04	0.0
197	19	0.02	0.04	-0.45	-8.28e-05	-1.18e-04	0.0
197	21	0.02	0.04	-0.45	-8.28e-05	-1.18e-04	0.0
197	27	0.07	-0.02	-0.50	-2.42e-05	-9.02e-05	0.0
197	31	0.07	-0.02	-0.50	-2.42e-05	-9.02e-05	0.0
197	43	0.04	-0.05	-0.48	2.22e-06	-1.13e-04	0.0
197	59	0.05	-0.02	-0.49	-2.77e-05	-1.02e-04	0.0
197	63	0.05	-0.02	-0.49	-2.77e-05	-1.02e-04	0.0
197	75	0.03	-0.04	-0.48	-1.13e-05	-1.16e-04	0.0
197	87	0.02	-5.86e-03	-0.46	-3.36e-05	-1.21e-04	0.0
197	88	0.02	3.96e-03	-0.46	-4.34e-05	-1.21e-04	0.0
197	89	0.02	-5.86e-03	-0.46	-3.36e-05	-1.21e-04	0.0
197	90	0.02	-5.86e-03	-0.46	-3.36e-05	-1.21e-04	0.0
198	3	0.03	-7.22e-03	-0.58	-4.13e-05	-1.52e-04	0.0
198	11	0.03	0.07	-0.56	-1.15e-04	-1.47e-04	0.0
198	12	0.02	0.07	-0.43	-1.06e-04	-1.12e-04	0.0
198	17	0.02	-5.55e-03	-0.45	-3.18e-05	-1.17e-04	0.0
198	19	0.02	0.04	-0.43	-8.11e-05	-1.14e-04	0.0
198	21	0.02	0.04	-0.43	-8.11e-05	-1.14e-04	0.0
198	27	0.07	-0.02	-0.49	-2.23e-05	-8.55e-05	0.0
198	31	0.07	-0.02	-0.49	-2.23e-05	-8.55e-05	0.0
198	43	0.03	-0.05	-0.47	4.15e-06	-1.09e-04	0.0
198	59	0.05	-0.02	-0.47	-2.59e-05	-9.73e-05	0.0
198	63	0.05	-0.02	-0.47	-2.59e-05	-9.73e-05	0.0
198	75	0.03	-0.04	-0.46	-9.43e-06	-1.12e-04	0.0
198	87	0.02	-5.55e-03	-0.45	-3.18e-05	-1.17e-04	0.0
198	88	0.02	4.26e-03	-0.44	-4.16e-05	-1.16e-04	0.0
198	89	0.02	-5.55e-03	-0.45	-3.18e-05	-1.17e-04	0.0
198	90	0.02	-5.55e-03	-0.45	-3.18e-05	-1.17e-04	0.0
<b>Nodo</b>		<b>Traslazione X</b>	<b>Traslazione Y</b>	<b>Traslazione Z</b>	<b>Rotazione X</b>	<b>Rotazione Y</b>	<b>Rotazione Z</b>
		-0.07	-16.21	-1.05	-3.59e-03	-1.68e-04	0.0
		16.21	30.56	-0.36	2.23e-03	2.23e-03	0.0

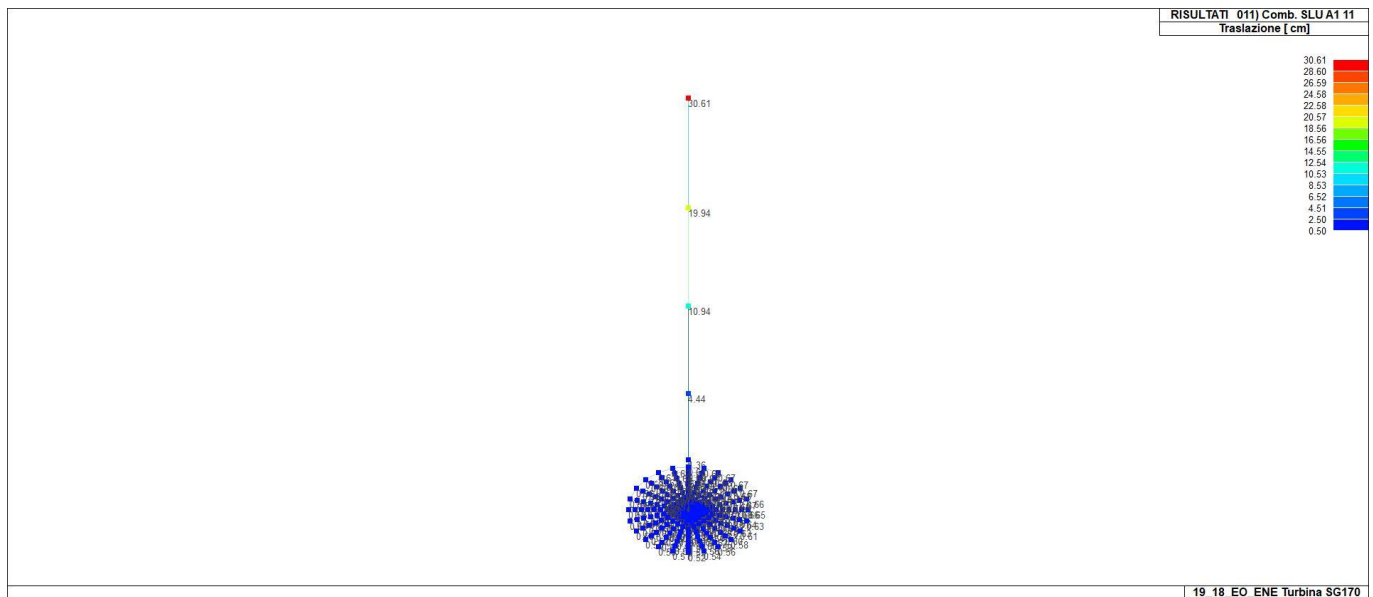
**PROJETTO engineering s.r.l.**  
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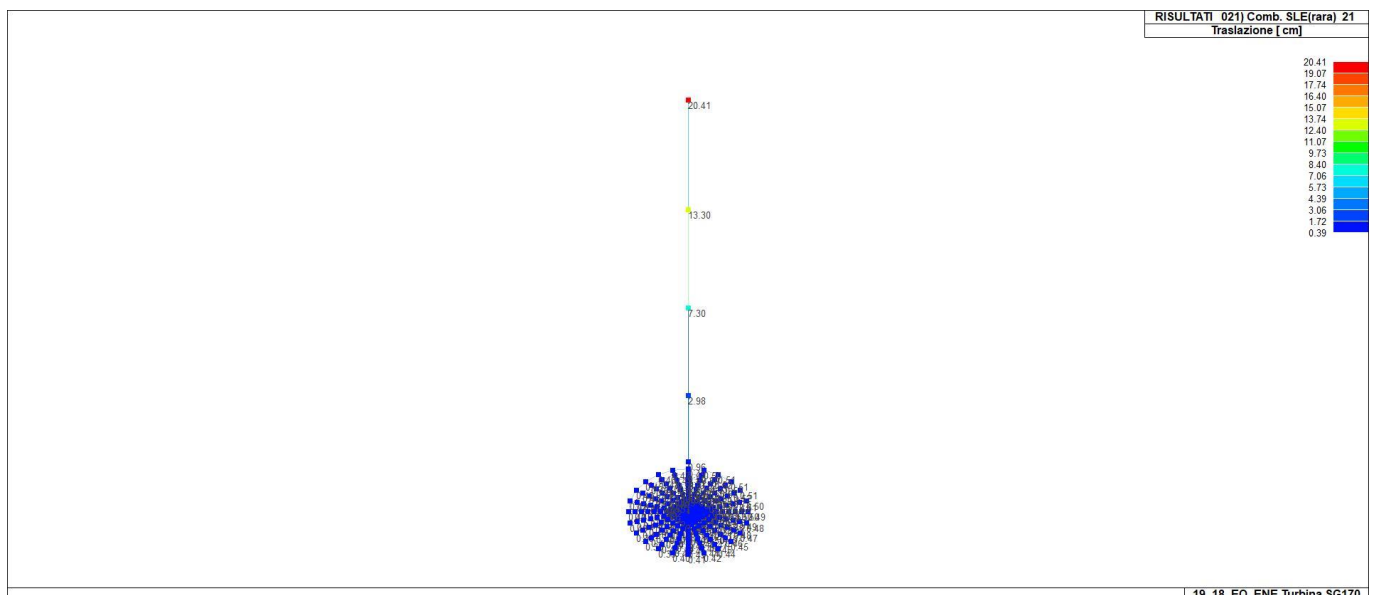


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41\_RIS\_SPOSTAMENTI\_011\_Comb. SLU A1 11



41\_RIS\_SPOSTAMENTI\_021\_Comb. SLE(rara) 21

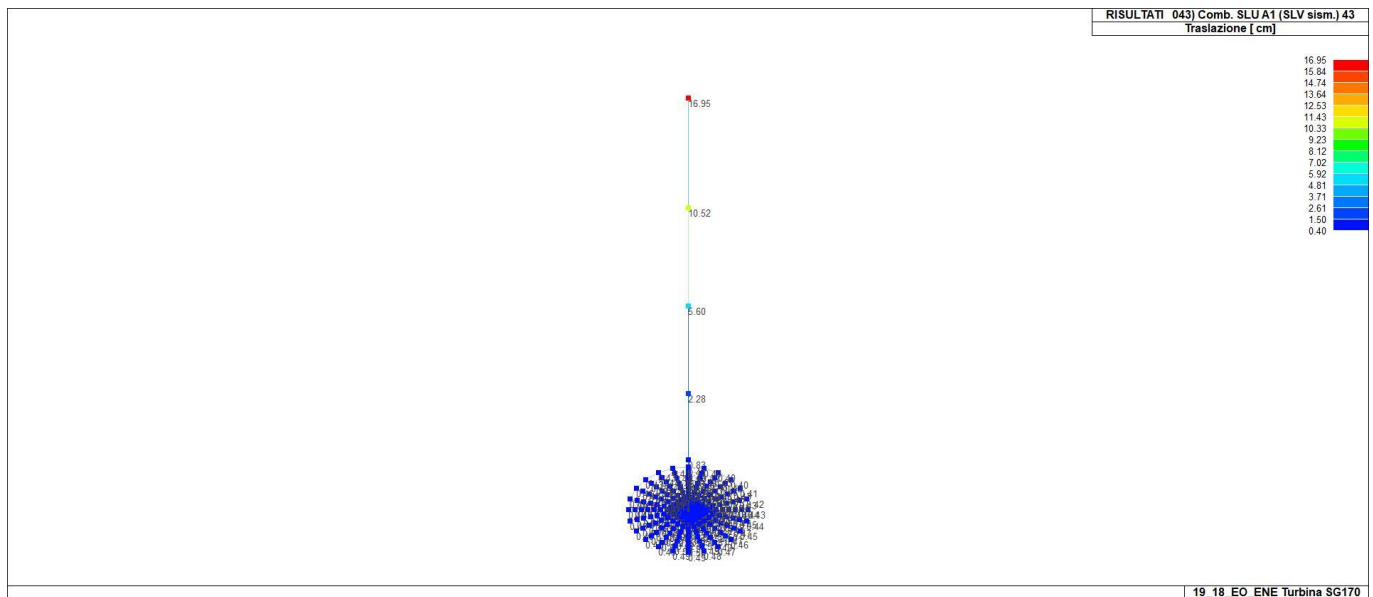
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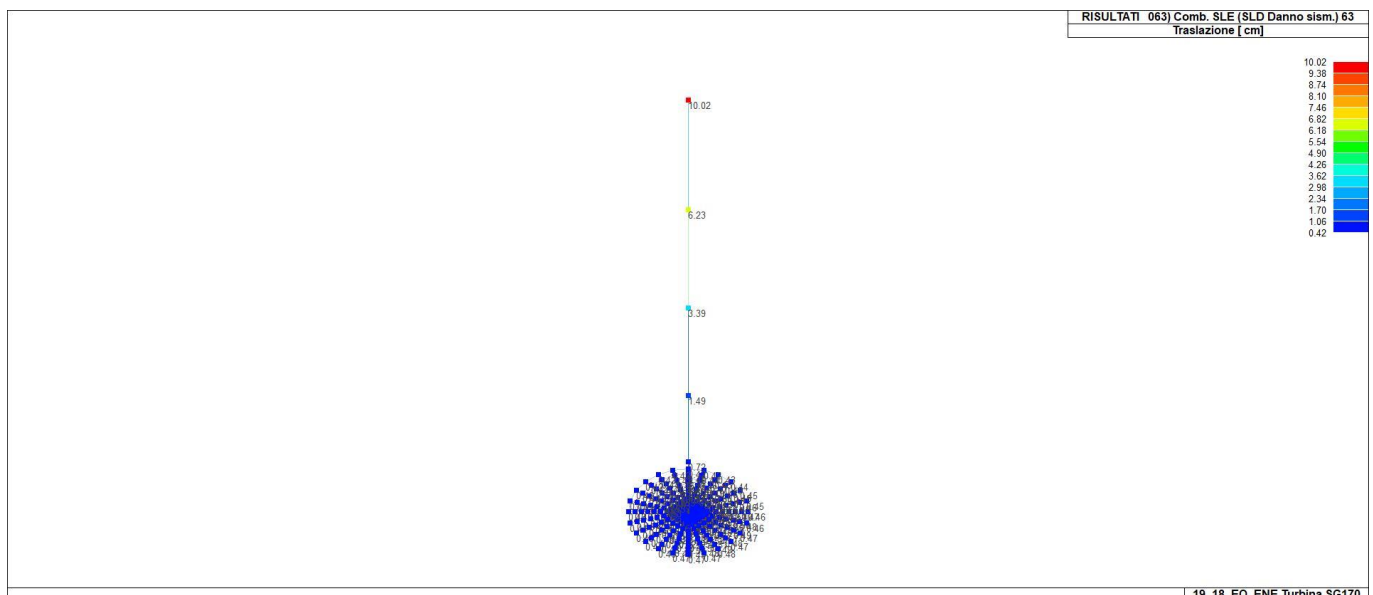


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41\_RIS\_SPOSTAMENTI\_043\_Comb. SLU A1 (SLV sism.) 43



41\_RIS\_SPOSTAMENTI\_063\_Comb. SLE (SLD Danno sism.) 63

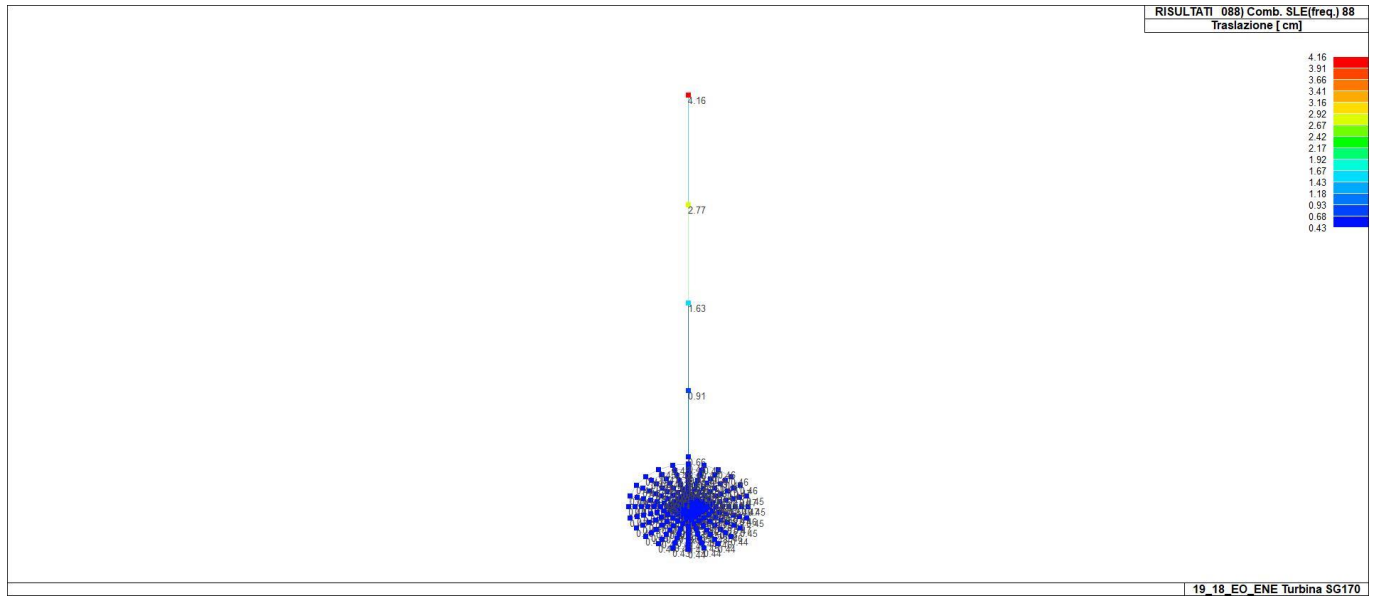
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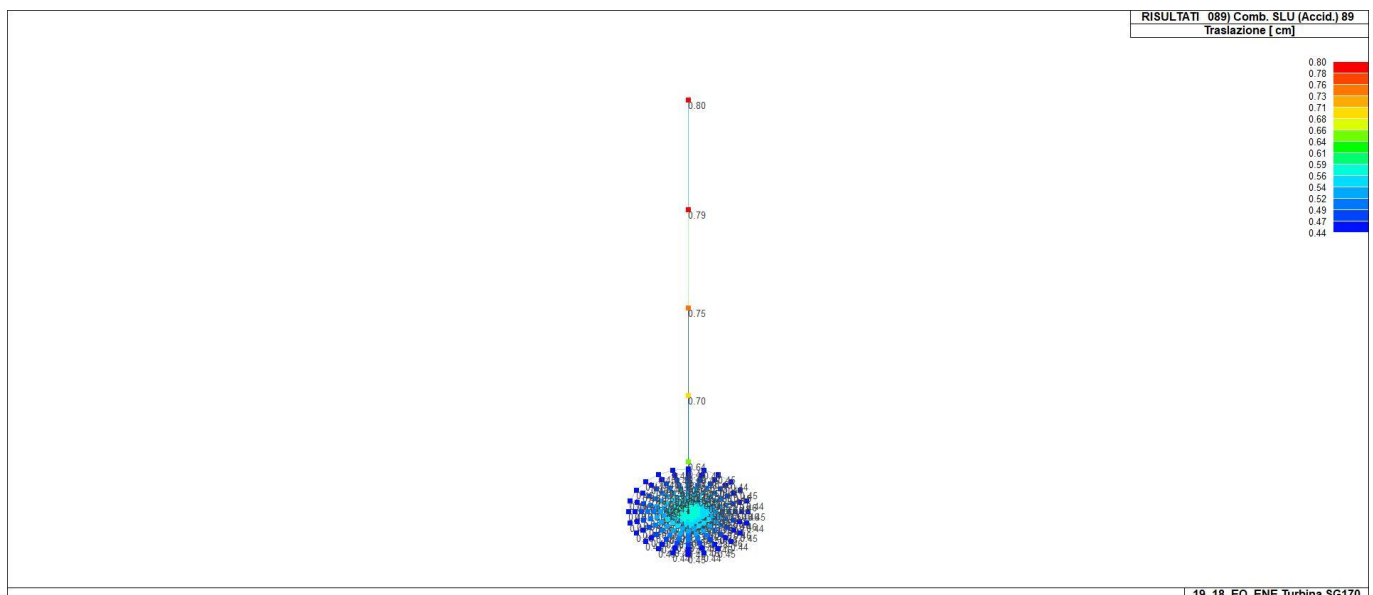


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41\_RIS\_SPOSTAMENTI\_088\_Comb. SLE(freq.) 88



41\_RIS\_SPOSTAMENTI\_089\_Comb. SLU (Accid.) 89

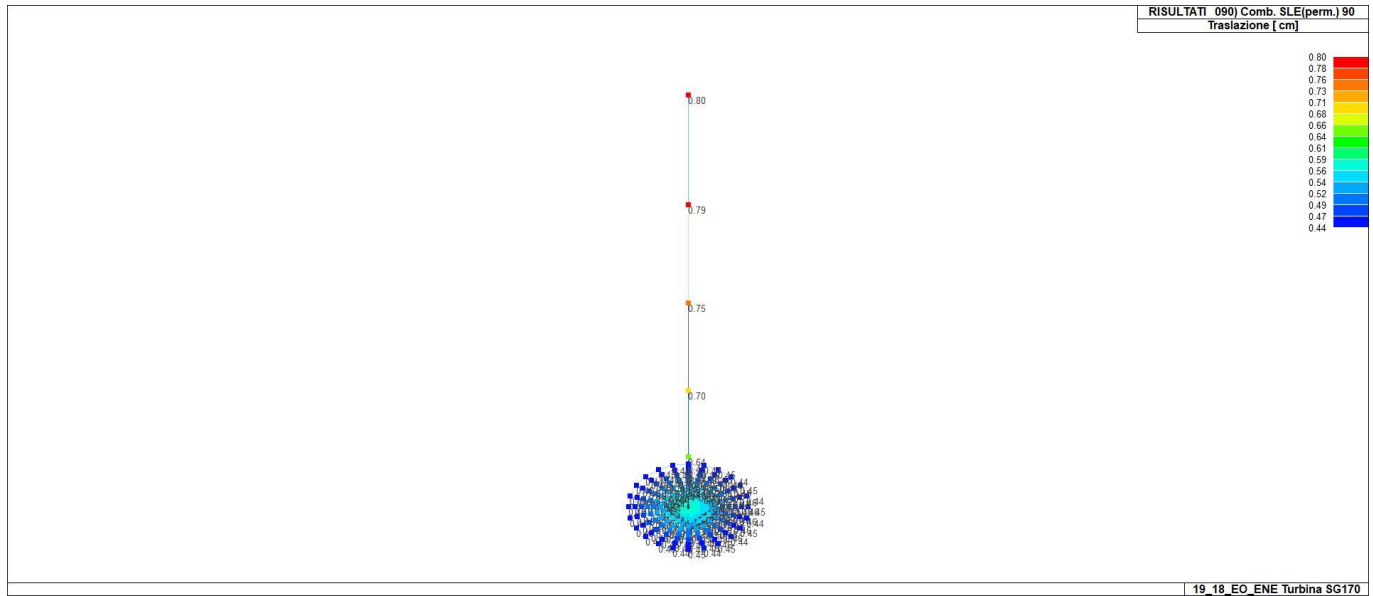
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41\_RIS\_SPOSTAMENTI\_090\_Comb. SLE(perm.) 90

Nodo	Cmb	Azione X daN	Azione Y daN	Azione Z daN	Azione RX daN cm	Azione RY daN cm	Azione RZ daN cm
63	5	3824.98	1.27e-04	-3.940e+05	0.03	-1.267e+06	0.0
63	11	5045.17	4429.93	-5.142e+05	6.998e+05	-1.657e+06	0.0
63	15	3824.98	1.27e-04	-3.940e+05	0.03	-1.267e+06	0.0
63	21	3873.44	2953.29	-3.954e+05	4.665e+05	-1.274e+06	0.0
63	23	6914.18	-876.25	-4.259e+05	-1.517e+05	-1.829e+06	0.0
63	28	742.04	876.25	-3.624e+05	1.517e+05	-7.074e+05	0.0
63	35	6914.18	-876.25	-4.259e+05	-1.517e+05	-1.829e+06	0.0
63	44	2902.29	2920.83	-3.847e+05	5.056e+05	-1.100e+06	0.0
63	55	6015.11	-625.83	-4.139e+05	-1.119e+05	-1.675e+06	0.0
63	59	6015.11	-625.83	-4.139e+05	-1.119e+05	-1.675e+06	0.0
63	68	1641.12	625.83	-3.745e+05	1.119e+05	-8.617e+05	0.0
63	76	3172.01	2086.11	-3.883e+05	3.729e+05	-1.146e+06	0.0
63	86	3824.98	1.27e-04	-3.940e+05	0.03	-1.267e+06	0.0
63	88	3834.28	590.66	-3.943e+05	9.330e+04	-1.269e+06	0.0
63	89	3824.98	1.27e-04	-3.940e+05	0.03	-1.267e+06	0.0
63	90	3824.98	1.27e-04	-3.940e+05	0.03	-1.267e+06	0.0
71	5	3327.03	1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
71	11	4561.01	7076.97	-5.445e+05	1.576e+06	-1.496e+06	0.0
71	15	3327.03	1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
71	21	3484.28	4979.24	-4.154e+05	1.137e+06	-1.144e+06	0.0
71	22	6398.50	2933.24	-4.252e+05	8.329e+05	-1.658e+06	0.0
71	30	6398.50	2933.24	-4.252e+05	8.329e+05	-1.658e+06	0.0
71	33	260.98	988.88	-3.603e+05	4.667e+05	-5.483e+05	0.0
71	38	4325.83	4947.93	-4.171e+05	1.177e+06	-1.294e+06	0.0
71	54	5506.20	2645.79	-4.129e+05	7.809e+05	-1.506e+06	0.0
71	62	5506.20	2645.79	-4.129e+05	7.809e+05	-1.506e+06	0.0
71	65	1153.28	1276.34	-3.726e+05	5.187e+05	-7.002e+05	0.0
71	70	4029.06	4087.53	-4.079e+05	1.036e+06	-1.239e+06	0.0
71	86	3327.03	1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
71	88	3358.14	2563.23	-3.971e+05	7.468e+05	-1.111e+06	0.0
71	89	3327.03	1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
71	90	3327.03	1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
83	5	1959.47	3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
83	11	2779.42	9033.39	-5.672e+05	2.223e+06	-9.058e+05	0.0
83	15	1959.47	3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
83	21	2114.21	6465.86	-4.305e+05	1.629e+06	-6.904e+05	0.0
83	22	4947.93	4325.83	-4.171e+05	1.294e+06	-1.177e+06	0.0
83	38	2933.24	6398.50	-4.252e+05	1.658e+06	-8.329e+05	0.0
83	41	988.88	260.98	-3.603e+05	5.483e+05	-4.667e+05	0.0
83	54	4087.53	4029.06	-4.079e+05	1.239e+06	-1.036e+06	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

83	70	2645.79	5506.21	-4.129e+05	1.506e+06	-7.809e+05	0.0
83	73	1276.33	1153.28	-3.726e+05	7.002e+05	-5.187e+05	0.0
83	86	1959.47	3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
83	88	1990.22	3954.46	-4.001e+05	1.208e+06	-6.574e+05	0.0
83	89	1959.47	3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
83	90	1959.47	3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
95	5	-1.27e-04	3824.98	-3.940e+05	1.267e+06	0.03	0.0
95	11	58.97	9765.54	-5.766e+05	2.466e+06	-5321.89	0.0
95	12	58.97	8615.10	-4.582e+05	2.084e+06	-5321.90	0.0
95	15	-1.27e-04	3824.98	-3.940e+05	1.267e+06	0.03	0.0
95	19	39.32	7018.40	-4.368e+05	1.812e+06	-3547.92	0.0
95	21	39.32	7020.36	-4.369e+05	1.813e+06	-3547.92	0.0
95	24	-2920.83	4753.94	-4.037e+05	1.437e+06	5.056e+05	0.0
95	42	876.25	6914.19	-4.259e+05	1.829e+06	-1.517e+05	0.0
95	44	-876.25	6914.19	-4.259e+05	1.829e+06	1.517e+05	0.0
95	45	-876.25	742.04	-3.624e+05	7.074e+05	1.517e+05	0.0
95	56	-2086.11	4484.21	-4.001e+05	1.390e+06	3.729e+05	0.0
95	74	625.83	6015.11	-4.139e+05	1.675e+06	-1.119e+05	0.0
95	76	-625.83	6015.11	-4.139e+05	1.675e+06	1.119e+05	0.0
95	77	-625.83	1641.12	-3.745e+05	8.617e+05	1.119e+05	0.0
95	86	-1.27e-04	3824.98	-3.940e+05	1.267e+06	0.03	0.0
95	88	7.86	4463.66	-4.026e+05	1.376e+06	-709.56	0.0
95	89	-1.27e-04	3824.98	-3.940e+05	1.267e+06	0.03	0.0
95	90	-1.27e-04	3824.98	-3.940e+05	1.267e+06	0.03	0.0
107	5	-1959.47	3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
107	11	-2655.86	9023.44	-5.654e+05	2.220e+06	8.933e+05	0.0
107	15	-1959.47	3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
107	21	-2031.83	6459.23	-4.293e+05	1.627e+06	6.821e+05	0.0
107	28	-4947.93	4325.83	-4.171e+05	1.294e+06	1.177e+06	0.0
107	39	-988.88	260.98	-3.603e+05	5.483e+05	4.667e+05	0.0
107	40	-2933.24	6398.50	-4.252e+05	1.658e+06	8.329e+05	0.0
107	60	-4087.53	4029.06	-4.079e+05	1.239e+06	1.036e+06	0.0
107	71	-1276.34	1153.28	-3.726e+05	7.002e+05	5.187e+05	0.0
107	72	-2645.79	5506.21	-4.129e+05	1.506e+06	7.809e+05	0.0
107	86	-1959.47	3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
107	88	-1973.74	3953.13	-3.999e+05	1.207e+06	6.558e+05	0.0
107	89	-1959.47	3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
107	90	-1959.47	3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
119	5	-3327.03	1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
119	11	-4426.80	7066.87	-5.413e+05	1.573e+06	1.480e+06	0.0
119	15	-3327.03	1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
119	21	-3394.80	4972.51	-4.132e+05	1.135e+06	1.134e+06	0.0
119	23	-260.98	988.88	-3.603e+05	4.667e+05	5.483e+05	0.0
119	28	-6398.50	2933.24	-4.252e+05	8.329e+05	1.658e+06	0.0
119	32	-6398.50	2933.24	-4.252e+05	8.329e+05	1.658e+06	0.0
119	40	-4325.82	4947.93	-4.171e+05	1.177e+06	1.294e+06	0.0
119	60	-5506.20	2645.79	-4.129e+05	7.809e+05	1.506e+06	0.0
119	63	-1153.28	1276.34	-3.726e+05	5.187e+05	7.002e+05	0.0
119	64	-5506.20	2645.79	-4.129e+05	7.809e+05	1.506e+06	0.0
119	72	-4029.06	4087.53	-4.079e+05	1.036e+06	1.239e+06	0.0
119	86	-3327.03	1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
119	88	-3340.24	2561.88	-3.967e+05	7.464e+05	1.109e+06	0.0
119	89	-3327.03	1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
119	90	-3327.03	1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
131	3	-4978.35	-1.65e-04	-5.125e+05	-0.04	1.650e+06	0.0
131	12	-3755.21	4429.93	-3.922e+05	6.998e+05	1.259e+06	0.0
131	17	-3828.90	-1.27e-04	-3.942e+05	-0.03	1.269e+06	0.0
131	19	-3778.47	2953.29	-3.928e+05	4.665e+05	1.262e+06	0.0
131	24	-6914.18	876.25	-4.259e+05	1.517e+05	1.829e+06	0.0
131	30	-742.04	876.25	-3.624e+05	1.517e+05	7.074e+05	0.0
131	33	-6914.18	-876.25	-4.259e+05	-1.517e+05	1.829e+06	0.0
131	39	-2902.29	-2920.83	-3.847e+05	-5.056e+05	1.100e+06	0.0
131	54	-1641.12	625.83	-3.745e+05	1.119e+05	8.617e+05	0.0
131	56	-6015.11	625.83	-4.139e+05	1.119e+05	1.675e+06	0.0
131	57	-6015.11	-625.83	-4.139e+05	-1.119e+05	1.675e+06	0.0
131	75	-3172.01	-2086.11	-3.883e+05	-3.729e+05	1.146e+06	0.0
131	87	-3825.76	-1.27e-04	-3.941e+05	-0.03	1.268e+06	0.0
131	88	-3815.67	590.66	-3.938e+05	9.330e+04	1.266e+06	0.0
131	89	-3824.98	-1.27e-04	-3.940e+05	-0.03	1.267e+06	0.0
131	90	-3824.98	-1.27e-04	-3.940e+05	-0.03	1.267e+06	0.0
143	3	-4330.22	-2550.30	-5.106e+05	-8.450e+05	1.435e+06	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

143	12	-3093.70	2568.69	-3.585e+05	8.244e+04	1.040e+06	0.0
143	17	-3330.42	-1961.46	-3.928e+05	-6.499e+05	1.104e+06	0.0
143	19	-3171.47	1059.30	-3.699e+05	-1.615e+05	1.061e+06	0.0
143	25	-6398.50	-2933.24	-4.252e+05	-8.329e+05	1.658e+06	0.0
143	30	-260.98	-988.88	-3.603e+05	-4.667e+05	5.483e+05	0.0
143	33	-6398.50	-2933.24	-4.252e+05	-8.329e+05	1.658e+06	0.0
143	45	-4325.83	-4947.93	-4.171e+05	-1.177e+06	1.294e+06	0.0
143	57	-5506.20	-2645.79	-4.129e+05	-7.809e+05	1.506e+06	0.0
143	62	-1153.28	-1276.34	-3.726e+05	-5.187e+05	7.002e+05	0.0
143	65	-5506.20	-2645.79	-4.129e+05	-7.809e+05	1.506e+06	0.0
143	77	-4029.06	-4087.53	-4.079e+05	-1.036e+06	1.239e+06	0.0
143	87	-3327.71	-1959.87	-3.926e+05	-6.494e+05	1.103e+06	0.0
143	88	-3295.92	-1355.72	-3.880e+05	-5.517e+05	1.094e+06	0.0
143	89	-3327.03	-1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
143	90	-3327.03	-1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
155	3	-2550.29	-4330.23	-5.106e+05	-1.435e+06	8.450e+05	0.0
155	12	-1728.85	1378.68	-3.358e+05	-3.129e+05	5.881e+05	0.0
155	17	-1961.46	-3330.42	-3.928e+05	-1.104e+06	6.499e+05	0.0
155	19	-1805.73	-189.89	-3.547e+05	-5.761e+05	6.085e+05	0.0
155	25	-4947.93	-4325.83	-4.171e+05	-1.294e+06	1.177e+06	0.0
155	42	-988.88	-260.98	-3.603e+05	-5.483e+05	4.667e+05	0.0
155	45	-2933.24	-6398.50	-4.252e+05	-1.658e+06	8.329e+05	0.0
155	57	-4087.53	-4029.06	-4.079e+05	-1.239e+06	1.036e+06	0.0
155	70	-1276.33	-1153.28	-3.726e+05	-7.002e+05	5.187e+05	0.0
155	73	-2645.79	-5506.21	-4.129e+05	-1.506e+06	7.809e+05	0.0
155	77	-2645.79	-5506.21	-4.129e+05	-1.506e+06	7.809e+05	0.0
155	87	-1959.87	-3327.71	-3.926e+05	-1.103e+06	6.494e+05	0.0
155	88	-1928.72	-2699.60	-3.850e+05	-9.972e+05	6.411e+05	0.0
155	89	-1959.47	-3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
155	90	-1959.47	-3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
167	3	1.65e-04	-4978.35	-5.125e+05	-1.650e+06	-0.04	0.0
167	11	58.97	-185.29	-4.482e+05	-8.316e+05	-5321.97	0.0
167	12	58.97	965.15	-3.298e+05	-4.504e+05	-5321.96	0.0
167	17	1.27e-04	-3828.90	-3.942e+05	-1.269e+06	-0.03	0.0
167	19	39.32	-631.56	-3.512e+05	-7.227e+05	-3547.98	0.0
167	21	39.32	-633.52	-3.513e+05	-7.234e+05	-3547.98	0.0
167	22	2920.83	-2902.29	-3.847e+05	-1.100e+06	-5.056e+05	0.0
167	43	876.25	-6914.19	-4.259e+05	-1.829e+06	-1.517e+05	0.0
167	44	-876.25	-742.04	-3.624e+05	-7.074e+05	-1.517e+05	0.0
167	54	2086.11	-3172.02	-3.883e+05	-1.146e+06	-3.729e+05	0.0
167	75	625.83	-6015.11	-4.139e+05	-1.675e+06	-1.119e+05	0.0
167	76	-625.83	-1641.12	-3.745e+05	-8.617e+05	1.119e+05	0.0
167	87	1.27e-04	-3825.76	-3.941e+05	-1.268e+06	-0.03	0.0
167	88	7.86	-3186.30	-3.855e+05	-1.158e+06	-709.62	0.0
167	89	1.27e-04	-3824.98	-3.940e+05	-1.267e+06	-0.03	0.0
167	90	1.27e-04	-3824.98	-3.940e+05	-1.267e+06	-0.03	0.0
179	3	2550.29	-4330.23	-5.106e+05	-1.435e+06	-8.450e+05	0.0
179	12	1852.42	1368.73	-3.377e+05	-3.162e+05	-6.005e+05	0.0
179	17	1961.46	-3330.42	-3.928e+05	-1.104e+06	-6.499e+05	0.0
179	19	1888.10	-196.52	-3.560e+05	-5.783e+05	-6.168e+05	0.0
179	27	4947.93	-4325.83	-4.171e+05	-1.294e+06	-1.177e+06	0.0
179	39	2933.24	-6398.50	-4.252e+05	-1.658e+06	-8.329e+05	0.0
179	40	988.88	-260.98	-3.603e+05	-5.483e+05	-4.667e+05	0.0
179	43	2933.24	-6398.50	-4.252e+05	-1.658e+06	-8.329e+05	0.0
179	59	4087.53	-4029.06	-4.079e+05	-1.239e+06	-1.036e+06	0.0
179	71	2645.79	-5506.21	-4.129e+05	-1.506e+06	-7.809e+05	0.0
179	72	1276.34	-1153.28	-3.726e+05	-7.002e+05	-5.187e+05	0.0
179	75	2645.79	-5506.21	-4.129e+05	-1.506e+06	-7.809e+05	0.0
179	87	1959.87	-3327.71	-3.926e+05	-1.103e+06	-6.494e+05	0.0
179	88	1945.20	-2700.93	-3.853e+05	-9.976e+05	-6.428e+05	0.0
179	89	1959.47	-3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
179	90	1959.47	-3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
191	3	4330.22	-2550.30	-5.106e+05	-8.450e+05	-1.435e+06	0.0
191	12	3227.90	2558.59	-3.617e+05	7.913e+04	-1.056e+06	0.0
191	17	3330.42	-1961.46	-3.928e+05	-6.499e+05	-1.104e+06	0.0
191	19	3260.94	1052.57	-3.720e+05	-1.637e+05	-1.072e+06	0.0
191	27	6398.50	-2933.24	-4.252e+05	-8.329e+05	-1.658e+06	0.0
191	31	6398.50	-2933.24	-4.252e+05	-8.329e+05	-1.658e+06	0.0
191	32	260.98	-988.88	-3.603e+05	-4.667e+05	-5.483e+05	0.0
191	43	4325.82	-4947.93	-4.171e+05	-1.177e+06	-1.294e+06	0.0
191	59	5506.20	-2645.79	-4.129e+05	-7.809e+05	-1.506e+06	0.0

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191	63	5506.20	-2645.79	-4.129e+05	-7.809e+05	-1.506e+06	0.0
191	64	1153.28	-1276.34	-3.726e+05	-5.187e+05	-7.002e+05	0.0
191	75	4029.06	-4087.53	-4.079e+05	-1.036e+06	-1.239e+06	0.0
191	87	3327.70	-1959.87	-3.926e+05	-6.494e+05	-1.103e+06	0.0
191	88	3313.81	-1357.06	-3.885e+05	-5.522e+05	-1.096e+06	0.0
191	89	3327.03	-1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
191	90	3327.03	-1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
<b>Nodo</b>		<b>Azione X</b>	<b>Azione Y</b>	<b>Azione Z</b>	<b>Azione RX</b>	<b>Azione RY</b>	<b>Azione RZ</b>
		-6914.18	-6914.19	-5.766e+05	-1.829e+06	-1.829e+06	0.0
		6914.18	9765.54	-3.298e+05	2.466e+06	1.829e+06	0.0
<b>Nodo</b>	<b>Cmb</b>	<b>Azione X</b>	<b>Azione Y</b>	<b>Azione Z</b>	<b>Azione RX</b>	<b>Azione RY</b>	<b>Azione RZ</b>
		daN	daN	daN	daN cm	daN cm	daN cm
63	11	5045.17	4429.93	-5.142e+05	6.998e+05	-1.657e+06	0.0
	28	742.04	876.25	-3.624e+05	1.517e+05	-7.074e+05	0.0
	43	4753.93	-2920.83	-4.037e+05	-5.056e+05	-1.437e+06	0.0
	11	5045.17	4429.93	-5.142e+05	6.998e+05	-1.657e+06	0.0
	23	6914.18	-876.25	-4.259e+05	-1.517e+05	-1.829e+06	0.0
	24	742.04	876.25	-3.624e+05	1.517e+05	-7.074e+05	0.0
71	11	4561.01	7076.97	-5.445e+05	1.576e+06	-1.496e+06	0.0
	33	260.98	988.88	-3.603e+05	4.667e+05	-5.483e+05	0.0
	41	2333.66	-1025.80	-3.684e+05	1.223e+05	-9.123e+05	0.0
	11	4561.01	7076.97	-5.445e+05	1.576e+06	-1.496e+06	0.0
	22	6398.50	2933.24	-4.252e+05	8.329e+05	-1.658e+06	0.0
	25	260.98	988.88	-3.603e+05	4.667e+05	-5.483e+05	0.0
83	11	2779.42	9033.39	-5.672e+05	2.223e+06	-9.058e+05	0.0
	41	988.88	260.98	-3.603e+05	5.483e+05	-4.667e+05	0.0
	41	988.88	260.98	-3.603e+05	5.483e+05	-4.667e+05	0.0
	11	2779.42	9033.39	-5.672e+05	2.223e+06	-9.058e+05	0.0
	22	4947.93	4325.83	-4.171e+05	1.294e+06	-1.177e+06	0.0
	25	-1025.80	2333.66	-3.684e+05	9.123e+05	-1.223e+05	0.0
95	11	58.97	9765.54	-5.766e+05	2.466e+06	-5321.89	0.0
	45	-876.25	742.04	-3.624e+05	7.074e+05	1.517e+05	0.0
	43	876.25	742.04	-3.624e+05	7.074e+05	-1.517e+05	0.0
	11	58.97	9765.54	-5.766e+05	2.466e+06	-5321.89	0.0
	23	2920.83	2902.29	-3.847e+05	1.100e+06	-5.056e+05	0.0
	24	-2920.83	4753.94	-4.037e+05	1.437e+06	5.056e+05	0.0
107	11	-2655.86	9023.44	-5.654e+05	2.220e+06	8.933e+05	0.0
	39	-988.88	260.98	-3.603e+05	5.483e+05	4.667e+05	0.0
	39	-988.88	260.98	-3.603e+05	5.483e+05	4.667e+05	0.0
	11	-2655.86	9023.44	-5.654e+05	2.220e+06	8.933e+05	0.0
	27	1025.80	2333.66	-3.684e+05	9.123e+05	1.223e+05	0.0
	28	-4947.93	4325.83	-4.171e+05	1.294e+06	1.177e+06	0.0
119	11	-4426.80	7066.87	-5.413e+05	1.573e+06	1.480e+06	0.0
	23	-260.98	988.88	-3.603e+05	4.667e+05	5.483e+05	0.0
	39	-2333.66	-1025.80	-3.684e+05	1.223e+05	9.123e+05	0.0
	11	-4426.80	7066.87	-5.413e+05	1.573e+06	1.480e+06	0.0
	27	-260.98	988.88	-3.603e+05	4.667e+05	5.483e+05	0.0
	28	-6398.50	2933.24	-4.252e+05	8.329e+05	1.658e+06	0.0
131	3	-4978.35	-1.65e-04	-5.125e+05	-0.04	1.650e+06	0.0
	30	-742.04	876.25	-3.624e+05	1.517e+05	7.074e+05	0.0
	39	-2902.29	-2920.83	-3.847e+05	-5.056e+05	1.100e+06	0.0
	12	-3755.21	4429.93	-3.922e+05	6.998e+05	1.259e+06	0.0
	23	-742.04	-876.25	-3.624e+05	-1.517e+05	7.074e+05	0.0
	24	-6914.18	876.25	-4.259e+05	1.517e+05	1.829e+06	0.0
143	3	-4330.22	-2550.30	-5.106e+05	-8.450e+05	1.435e+06	0.0
	12	-3093.70	2568.69	-3.585e+05	8.244e+04	1.040e+06	0.0
	45	-4325.83	-4947.93	-4.171e+05	-1.177e+06	1.294e+06	0.0
	12	-3093.70	2568.69	-3.585e+05	8.244e+04	1.040e+06	0.0
	22	-260.98	-988.88	-3.603e+05	-4.667e+05	5.483e+05	0.0
	25	-6398.50	-2933.24	-4.252e+05	-8.329e+05	1.658e+06	0.0
155	3	-2550.29	-4330.23	-5.106e+05	-1.435e+06	8.450e+05	0.0
	12	-1728.85	1378.68	-3.358e+05	-3.129e+05	5.881e+05	0.0
	45	-2933.24	-6398.50	-4.252e+05	-1.658e+06	8.329e+05	0.0
	12	-1728.85	1378.68	-3.358e+05	-3.129e+05	5.881e+05	0.0
	22	1025.80	-2333.66	-3.684e+05	-9.123e+05	1.223e+05	0.0
	25	-4947.93	-4325.83	-4.171e+05	-1.294e+06	1.177e+06	0.0
167	3	1.65e-04	-4978.35	-5.125e+05	-1.650e+06	-0.04	0.0

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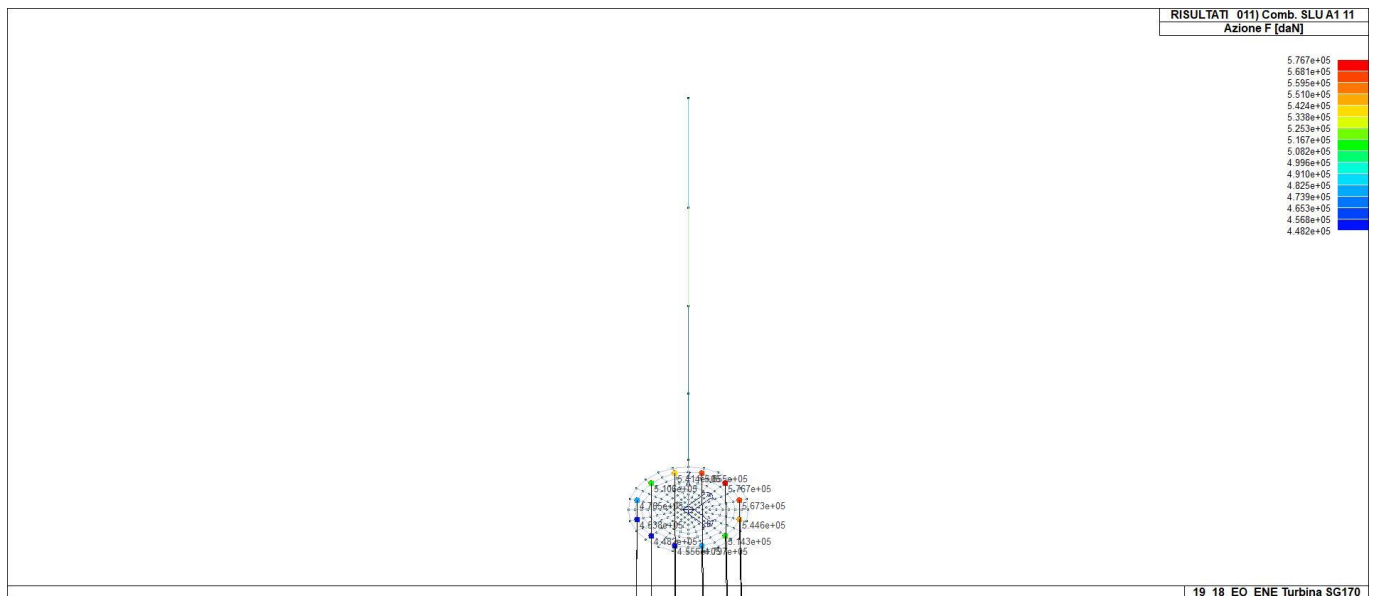


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	12	58.97	965.15	-3.298e+05	-4.504e+05	-5321.96	0.0
	43	876.25	-6914.19	-4.259e+05	-1.829e+06	-1.517e+05	0.0
	12	58.97	965.15	-3.298e+05	-4.504e+05	-5321.96	0.0
	22	2920.83	-2902.29	-3.847e+05	-1.100e+06	-5.056e+05	0.0
	25	-2920.83	-4753.94	-4.037e+05	-1.437e+06	5.056e+05	0.0
179	3	2550.29	-4330.23	-5.106e+05	-1.435e+06	-8.450e+05	0.0
	12	1852.42	1368.73	-3.377e+05	-3.162e+05	-6.005e+05	0.0
	43	2933.24	-6398.50	-4.252e+05	-1.658e+06	-8.329e+05	0.0
	12	1852.42	1368.73	-3.377e+05	-3.162e+05	-6.005e+05	0.0
	27	4947.93	-4325.83	-4.171e+05	-1.294e+06	-1.177e+06	0.0
	28	-1025.80	-2333.66	-3.684e+05	-9.123e+05	-1.223e+05	0.0
191	3	4330.22	-2550.30	-5.106e+05	-8.450e+05	-1.435e+06	0.0
	32	260.98	-988.88	-3.603e+05	-4.667e+05	-5.483e+05	0.0
	43	4325.82	-4947.93	-4.171e+05	-1.177e+06	-1.294e+06	0.0
	12	3227.90	2558.59	-3.617e+05	7.913e+04	-1.056e+06	0.0
	27	6398.50	-2933.24	-4.252e+05	-8.329e+05	-1.658e+06	0.0
	28	260.98	-988.88	-3.603e+05	-4.667e+05	-5.483e+05	0.0



42\_RIS\_REAZIONI\_011\_Comb. SLU A1 11

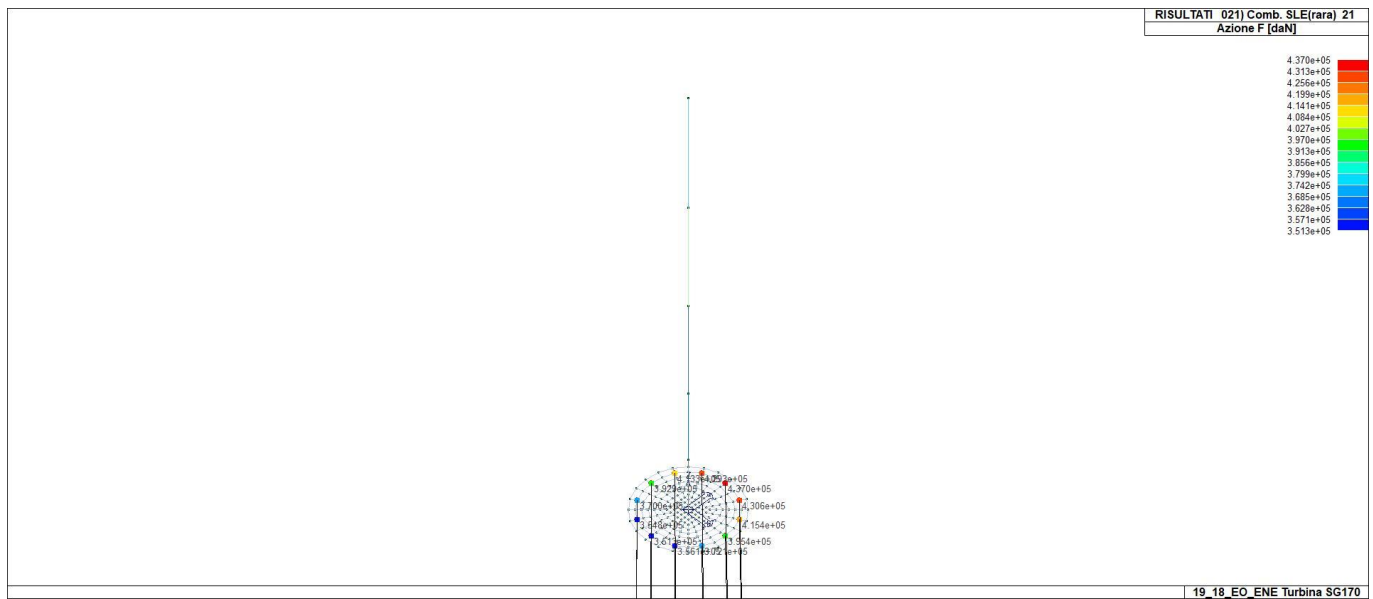
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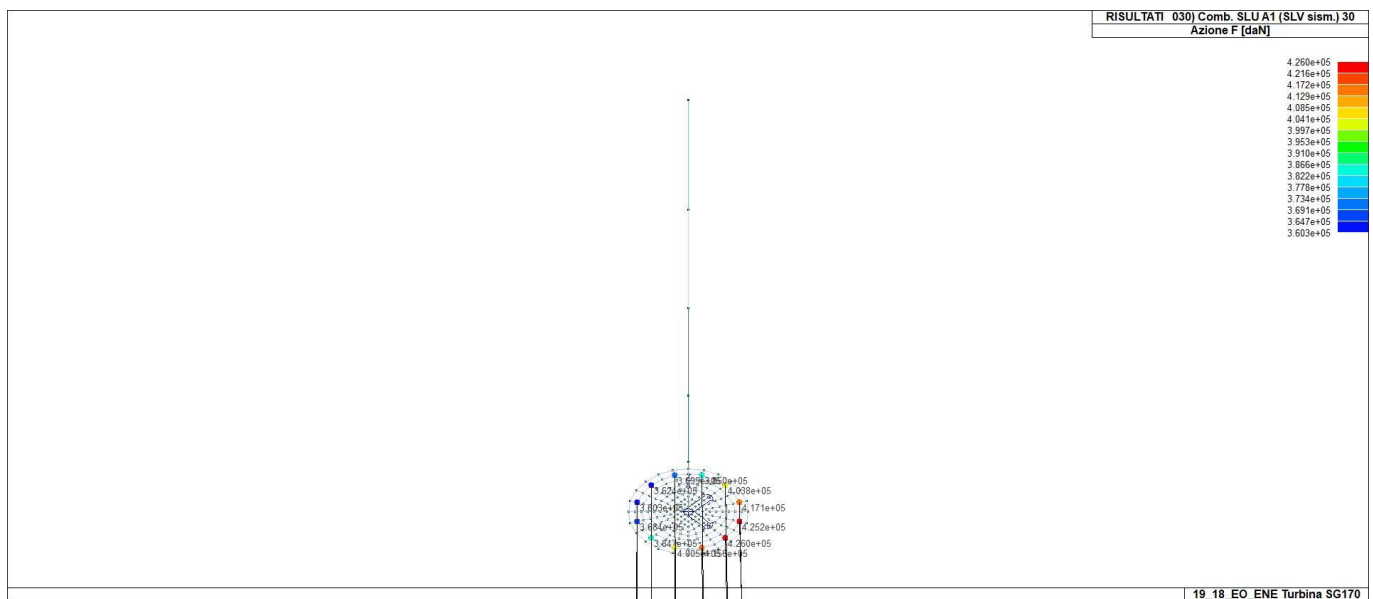


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42\_RIS\_REAZIONI\_021\_Comb. SLE(rara) 21



42\_RIS\_REAZIONI\_030\_Comb. SLU A1 (SLV sism.) 30

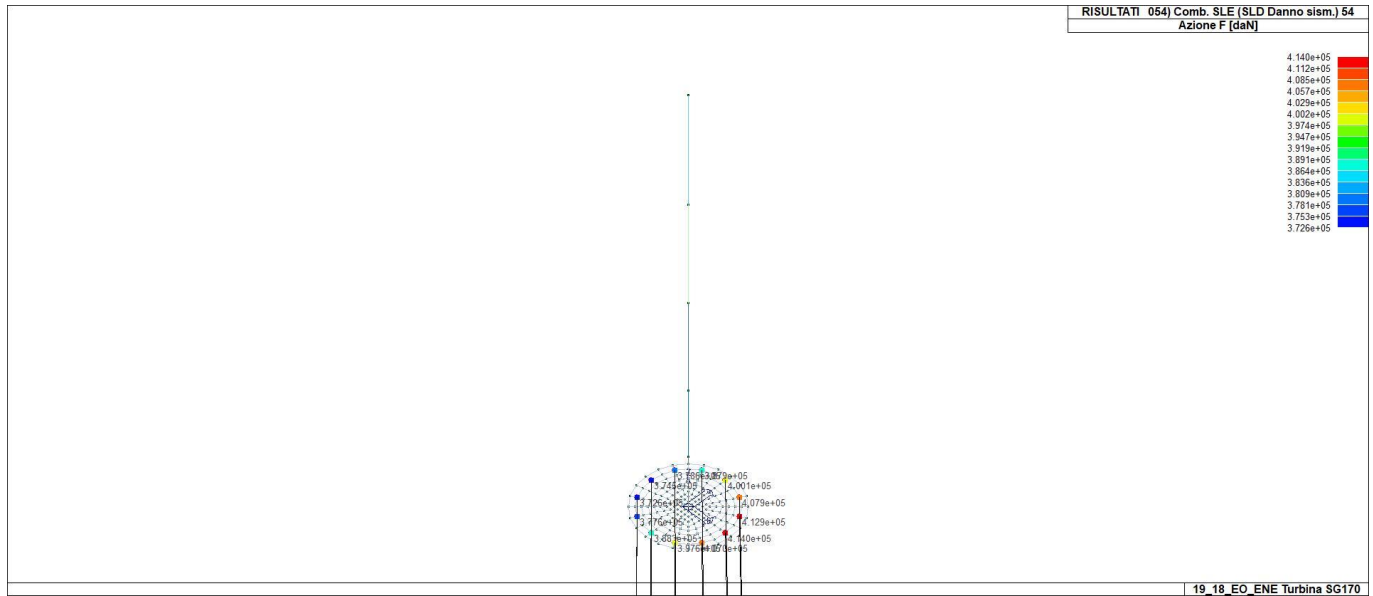
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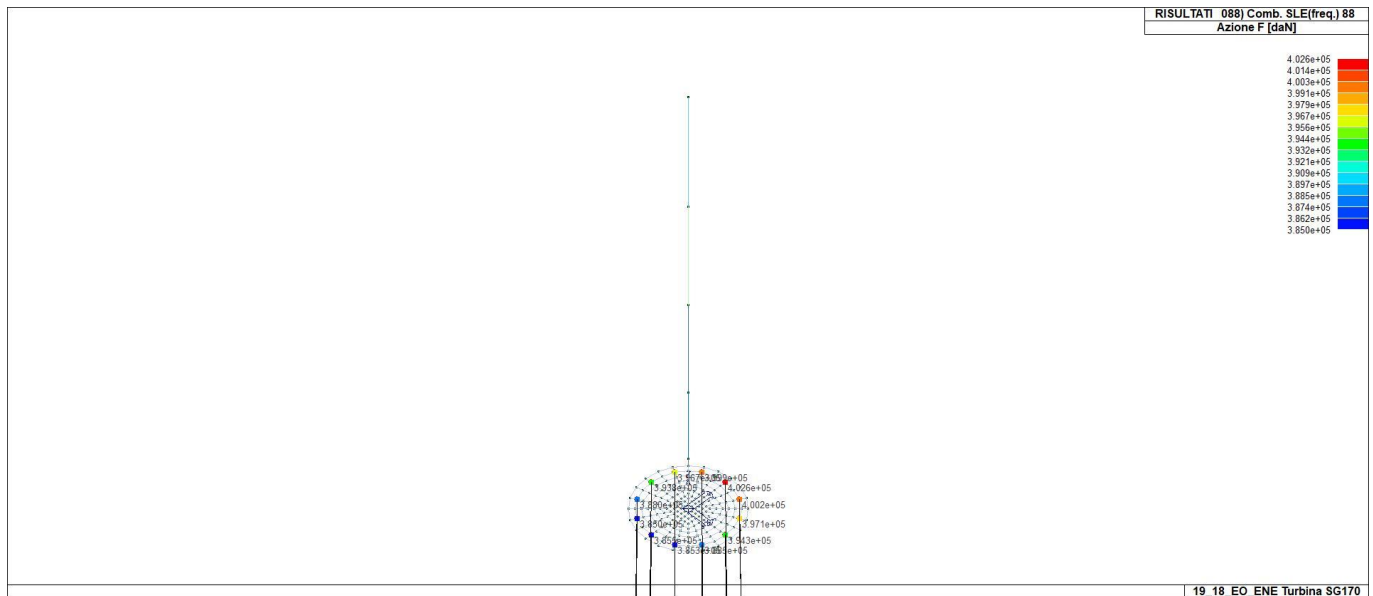


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42\_RIS\_REAZIONI\_054\_Comb. SLE (SLD Danno sism.) 54



42\_RIS\_REAZIONI\_088\_Comb. SLE(freq.) 88

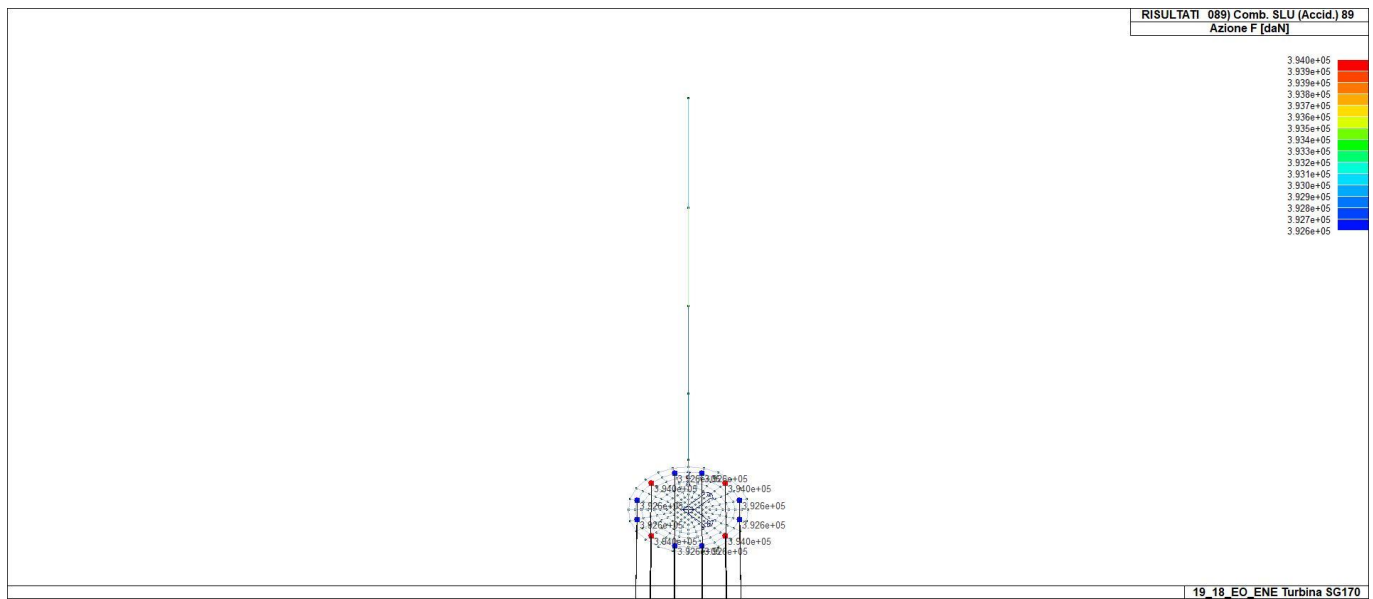
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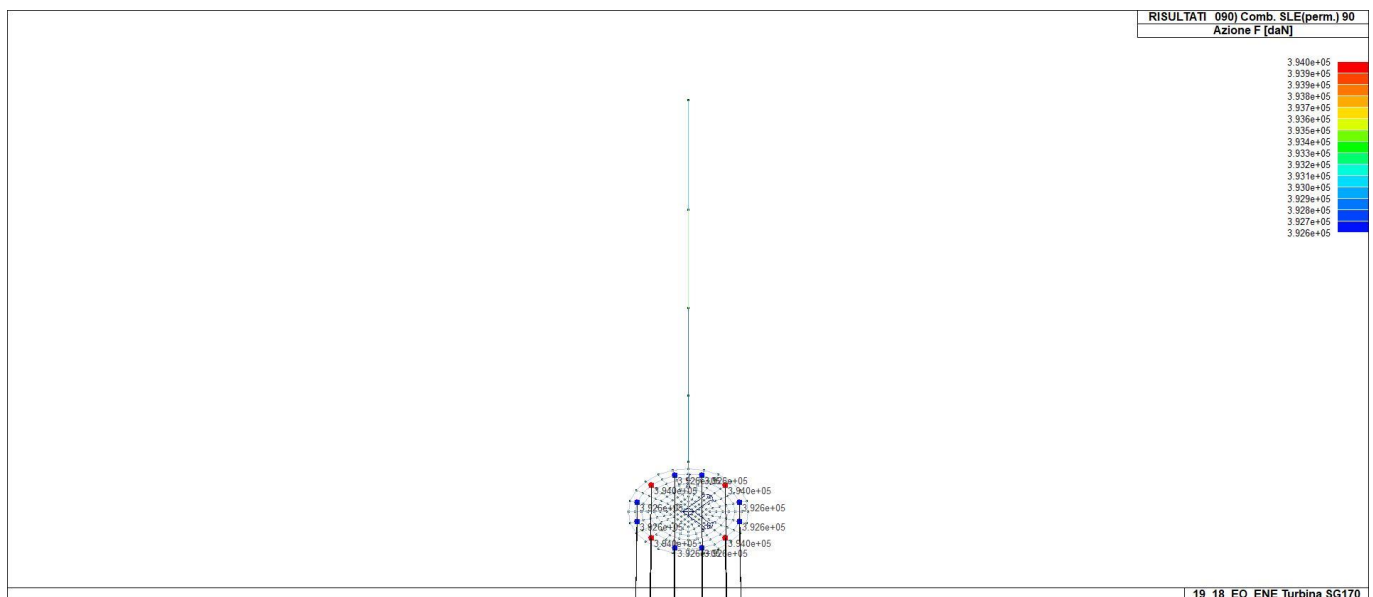


SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



42\_RIS\_REAZIONI\_089\_Comb. SLU (Accid.) 89



42\_RIS\_REAZIONI\_090\_Comb. SLE(perm.) 90

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## 17 RISULTATI OPERE DI FONDAZIONE

### 17.1 LEGENDA RISULTATI OPERE DI FONDAZIONE

Il controllo dei risultati delle analisi condotte, per quanto concerne le opere di fondazione, è possibile in relazione alle tabelle sotto riportate.

La prima tabella è riferita alle fondazioni tipo palo e plinto su pali.

Per questo tipo di fondazione vengono riportate le sei componenti di sollecitazione (espresse nel riferimento globale della struttura) per ogni palo componente l'opera.

In particolare viene riportato:

<b>Nodo</b>	numero del nodo a cui è applicato il plinto
<b>Tipo</b>	codice corrispondente al nome assegnato al tipo di plinto di fondazione: 3) palo singolo (PALO) 4) plinto su palo 5) plinto su due pali (PL.2P) 6) plinto su tre pali (PL.3P) 7) plinto su quattro pali (PL.4P) 8) plinto rettangolare su cinque pali (PL.5P.R) 9) plinto pentagonale su cinque pali (PL.5P) 10) plinto su sei pali (PL.6P)
<b>Palo</b>	numero del palo
<b>Comb.</b>	combinazione di carico in cui si verificano le sei componenti di sollecitazione.
<b>Quota</b>	quota assoluta della sezione del palo per cui si riportano le sei componenti di sollecitazione.

L'azione Fz ( corrispondente allo sforzo normale nel palo) è costante poiché il peso del palo stesso non è considerato nella modellazione.

La seconda tabella è riferita alle fondazioni tipo plinto su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni nei quattro vertici dell'impronta sul terreno.

In particolare viene riportato:

<b>Nodo</b>	numero del nodo a cui è applicato il plinto
<b>Tipo</b>	Codice identificativo del nome assegnato al plinto
<b>area</b>	area dell'impronta del plinto
<b>Wink O</b> <b>Wink V</b>	coefficienti di Winkler (orizzontale e verticale) adottati
<b>Comb</b>	Combinazione di carico in cui si verificano i valori riportati
<b>Pt (P1 P2 P3 P4)</b>	valori di pressione nei vertici

La terza tabella è riferita alle fondazioni tipo platea su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni in ogni vertice (nodo) degli elementi costituenti la platea.

La quarta tabella è riferita alle fondazioni tipo trave su suolo elastico.

Per questo tipo di fondazione vengono riportate le pressioni alle estremità dell'elemento e la massima (in valore assoluto) pressione lungo lo sviluppo dell'elemento.

Vengono inoltre riportati, con funzione statistica, i valori massimo e minimo delle pressioni che compaiono nella tabella.

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Con riferimento al Documento di Affidabilità "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Settembre 2014, disponibile per il download sul sito [www.2si.it](http://www.2si.it), si segnalano i seguenti esempi applicativi:

Test N°	Titolo
105	PLINTO SUPERFICIALE
106	PLINTO SUPERFICIALE
107	PLINTO SUPERFICIALE
108	PLINTO SUPERFICIALE
109	PLINTO SUPERFICIALE
110	PLINTO SUPERFICIALE
111	PLINTO SUPERFICIALE
112	PLINTO SUPERFICIALE
113	PLINTO SUPERFICIALE
114	PLINTO SUPERFICIALE
115	PLINTO SUPERFICIALE
116	PLINTO SUPERFICIALE
117	PLINTO SUPERFICIALE
118	PLINTO SUPERFICIALE
119	PLINTO SUPERFICIALE
120	PLINTO SUPERFICIALE
121	PLINTO SUPERFICIALE
122	PLINTO SUPERFICIALE
123	PLINTO SUPERFICIALE
124	FONDAZIONE NASTRIFORME
125	CALCOLO DEI K DI WINKLER

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				cm	daN	daN	daN	daN cm	daN cm	daN cm
63	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	3824.98	1.27e-04	-3.940e+05	-0.03	-1.267e+06	0.0
				-200.00	2508.03	6.63e-05	-3.916e+05	-9.56e-03	-5.872e+05	0.0
				-400.00	1297.58	2.59e-05	-3.883e+05	1.48e-03	-1.492e+05	0.0
				-600.00	442.77	2.44e-06	-3.839e+05	5.28e-03	6.234e+04	0.0
				-800.00	-14.49	-7.23e-06	-3.788e+05	5.15e-03	1.236e+05	0.0
				-1000.00	-182.23	-8.71e-06	-3.731e+05	3.56e-03	1.095e+05	0.0
				-1200.00	-190.16	-6.65e-06	-3.671e+05	1.90e-03	7.140e+04	0.0
				-1400.00	-135.79	-3.88e-06	-3.609e+05	7.13e-04	3.574e+04	0.0
				-1600.00	-74.58	-1.68e-06	-3.548e+05	5.84e-05	1.176e+04	0.0
				-1800.00	-29.28	0.0	-3.489e+05	-2.00e-04	-635.76	0.0
				-2000.00	-3.52	0.0	-3.435e+05	-2.35e-04	-4977.85	0.0
				-2200.00	7.24	0.0	-3.387e+05	-1.75e-04	-4996.09	0.0
				-2400.00	9.14	0.0	-3.347e+05	-9.93e-05	-3377.15	0.0
				-2600.00	6.91	0.0	-3.318e+05	-4.12e-05	-1631.07	0.0
				-2800.00	3.18	0.0	-3.300e+05	-9.12e-06	-426.77	0.0
				-3000.00	1.09	0.0	-3.296e+05	0.0	0.0	0.0
		1	11	0.0	5045.17	4429.93	-5.142e+05	-6.998e+05	-1.657e+06	0.0
				-200.00	3287.52	1795.35	-5.111e+05	-3.201e+04	-7.625e+05	0.0
				-400.00	1690.70	381.19	-5.067e+05	2.461e+05	-1.890e+05	0.0
				-600.00	569.19	-285.77	-5.011e+05	2.809e+05	8.610e+04	0.0
				-800.00	-27.26	-455.43	-4.944e+05	2.108e+05	1.643e+05	0.0
				-1000.00	-243.56	-383.19	-4.870e+05	1.216e+05	1.444e+05	0.0
				-1200.00	-251.21	-241.14	-4.791e+05	5.195e+04	9.360e+04	0.0
				-1400.00	-178.34	-115.66	-4.710e+05	1.048e+04	4.657e+04	0.0
				-1600.00	-97.40	-34.22	-4.630e+05	-8008.85	1.511e+04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1800.00	-37.87	6.22	-4.553e+05	-1.240e+04	-1055.02	0.0
				-2000.00	-4.21	19.17	-4.482e+05	-1.025e+04	-6649.11	0.0
				-2200.00	9.73	17.95	-4.420e+05	-6369.24	-6600.70	0.0
				-2400.00	12.07	11.77	-4.368e+05	-3065.94	-4438.79	0.0
				-2600.00	9.06	5.58	-4.330e+05	-1039.96	-2135.63	0.0
				-2800.00	4.15	1.39	-4.307e+05	-164.37	-556.78	0.0
				-3000.00	1.42	0.25	-4.302e+05	0.0	0.0	0.0
		1	15	0.0	3824.98	1.27e-04	-3.940e+05	-0.03	-1.267e+06	0.0
				-200.00	2508.03	6.63e-05	-3.916e+05	-9.56e-03	-5.872e+05	0.0
				-400.00	1297.58	2.59e-05	-3.883e+05	1.48e-03	-1.492e+05	0.0
				-600.00	442.77	2.44e-06	-3.839e+05	5.28e-03	6.234e+04	0.0
				-800.00	-14.49	-7.23e-06	-3.788e+05	5.15e-03	1.236e+05	0.0
				-1000.00	-182.23	-8.71e-06	-3.731e+05	3.56e-03	1.095e+05	0.0
				-1200.00	-190.16	-6.65e-06	-3.671e+05	1.90e-03	7.140e+04	0.0
				-1400.00	-135.79	-3.88e-06	-3.609e+05	7.13e-04	3.574e+04	0.0
				-1600.00	-74.58	-1.68e-06	-3.548e+05	5.84e-05	1.176e+04	0.0
				-1800.00	-29.28	0.0	-3.489e+05	-2.00e-04	-635.76	0.0
				-2000.00	-3.52	0.0	-3.435e+05	-2.35e-04	-4977.85	0.0
				-2200.00	7.24	0.0	-3.387e+05	-1.75e-04	-4996.09	0.0
				-2400.00	9.14	0.0	-3.347e+05	-9.93e-05	-3377.15	0.0
				-2600.00	6.91	0.0	-3.318e+05	-4.12e-05	-1631.07	0.0
				-2800.00	3.18	0.0	-3.300e+05	-9.12e-06	-426.77	0.0
				-3000.00	1.09	0.0	-3.296e+05	0.0	0.0	0.0
		1	21	0.0	3873.44	2953.29	-3.954e+05	-4.665e+05	-1.274e+06	0.0
				-200.00	2526.08	1196.90	-3.929e+05	-2.134e+04	-5.866e+05	0.0
				-400.00	1300.14	254.13	-3.896e+05	1.640e+05	-1.459e+05	0.0
				-600.00	438.50	-190.51	-3.852e+05	1.873e+05	6.571e+04	0.0
				-800.00	-20.11	-303.62	-3.801e+05	1.406e+05	1.260e+05	0.0
				-1000.00	-186.67	-255.46	-3.744e+05	8.110e+04	1.109e+05	0.0
				-1200.00	-192.83	-160.76	-3.683e+05	3.463e+04	7.192e+04	0.0
				-1400.00	-137.00	-77.11	-3.621e+05	6984.66	3.581e+04	0.0
				-1600.00	-74.88	-22.82	-3.560e+05	-5339.23	1.164e+04	0.0
				-1800.00	-29.15	4.14	-3.501e+05	-8263.60	-788.11	0.0
				-2000.00	-3.28	12.78	-3.446e+05	-6834.23	-5096.45	0.0
				-2200.00	7.45	11.97	-3.398e+05	-4246.16	-5066.61	0.0
				-2400.00	9.27	7.84	-3.358e+05	-2043.96	-3409.48	0.0
				-2600.00	6.96	3.72	-3.329e+05	-693.31	-1641.23	0.0
				-2800.00	3.19	0.93	-3.311e+05	-109.58	-428.09	0.0
				-3000.00	1.09	0.17	-3.307e+05	0.0	0.0	0.0
		1	23	0.0	6914.18	-876.25	-4.259e+05	1.517e+05	-1.829e+06	0.0
				-200.00	3867.01	-374.30	-4.233e+05	1.753e+04	-6.720e+05	0.0
				-400.00	1671.58	-94.78	-4.197e+05	-4.143e+04	-1.797e+04	0.0
				-600.00	320.51	42.72	-4.150e+05	-5.196e+04	2.381e+05	0.0
				-800.00	-289.78	82.50	-4.095e+05	-4.054e+04	2.641e+05	0.0
				-1000.00	-432.85	72.82	-4.033e+05	-2.415e+04	1.949e+05	0.0
				-1200.00	-356.30	47.34	-3.968e+05	-1.081e+04	1.106e+05	0.0
				-1400.00	-220.46	23.60	-3.901e+05	-2606.74	4.603e+04	0.0
				-1600.00	-103.47	7.67	-3.835e+05	1210.31	8264.66	0.0
				-1800.00	-28.81	-0.54	-3.771e+05	2250.34	-8155.20	0.0
				-2000.00	7.61	-3.39	-3.713e+05	1950.21	-1.169e+04	0.0
				-2200.00	18.83	-3.39	-3.661e+05	1249.77	-9381.44	0.0
				-2400.00	17.23	-2.31	-3.618e+05	621.06	-5596.71	0.0
				-2600.00	11.03	-1.14	-3.586e+05	220.38	-2438.18	0.0
				-2800.00	4.37	-0.32	-3.567e+05	38.21	-573.21	0.0
				-3000.00	1.36	-0.07	-3.563e+05	0.0	0.0	0.0
		1	28	0.0	742.04	876.25	-3.624e+05	-1.517e+05	-7.074e+05	0.0
				-200.00	1153.16	374.30	-3.602e+05	-1.753e+04	-5.033e+05	0.0
				-400.00	925.71	94.78	-3.572e+05	4.143e+04	-2.806e+05	0.0
				-600.00	565.76	-42.72	-3.532e+05	5.196e+04	-1.133e+05	0.0
				-800.00	260.77	-82.50	-3.485e+05	4.054e+04	-1.672e+04	0.0
				-1000.00	68.09	-72.82	-3.432e+05	2.415e+04	2.438e+04	0.0
				-1200.00	-24.33	-47.34	-3.377e+05	1.081e+04	3.232e+04	0.0
				-1400.00	-51.35	-23.60	-3.320e+05	2606.74	2.551e+04	0.0
				-1600.00	-45.81	-7.67	-3.263e+05	-1210.31	1.528e+04	0.0
				-1800.00	-29.79	0.54	-3.209e+05	-2250.34	6882.65	0.0
				-2000.00	-14.65	3.39	-3.159e+05	-1950.21	1730.07	0.0
				-2200.00	-4.34	3.39	-3.115e+05	-1249.77	-618.93	0.0
				-2400.00	1.06	2.31	-3.079e+05	-621.06	-1163.12	0.0

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società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2600.00	2.80	1.14	-3.052e+05	-220.38	-826.64	0.0
				-2800.00	1.99	0.32	-3.035e+05	-38.21	-281.03	0.0
				-3000.00	0.82	0.07	-3.032e+05	0.0	0.0	0.0
		1	35	0.0	6914.18	-876.25	-4.259e+05	1.517e+05	-1.829e+06	0.0
				-200.00	3867.01	-374.30	-4.233e+05	1.753e+04	-6.720e+05	0.0
				-400.00	1671.58	-94.78	-4.197e+05	-4.143e+04	-1.797e+04	0.0
				-600.00	320.51	42.72	-4.150e+05	-5.196e+04	2.381e+05	0.0
				-800.00	-289.78	82.50	-4.095e+05	-4.054e+04	2.641e+05	0.0
				-1000.00	-432.85	72.82	-4.033e+05	-2.415e+04	1.949e+05	0.0
				-1200.00	-356.30	47.34	-3.968e+05	-1.081e+04	1.106e+05	0.0
				-1400.00	-220.46	23.60	-3.901e+05	-2606.74	4.603e+04	0.0
				-1600.00	-103.47	7.67	-3.835e+05	1210.31	8264.66	0.0
				-1800.00	-28.81	-0.54	-3.771e+05	2250.34	-8155.20	0.0
				-2000.00	7.61	-3.39	-3.713e+05	1950.21	-1.169e+04	0.0
				-2200.00	18.83	-3.39	-3.661e+05	1249.77	-9381.44	0.0
				-2400.00	17.23	-2.31	-3.618e+05	621.06	-5596.71	0.0
				-2600.00	11.03	-1.14	-3.586e+05	220.38	-2438.18	0.0
				-2800.00	4.37	-0.32	-3.567e+05	38.21	-573.21	0.0
				-3000.00	1.36	-0.07	-3.563e+05	0.0	0.0	0.0
		1	44	0.0	2902.29	2920.83	-3.847e+05	-5.056e+05	-1.100e+06	0.0
				-200.00	2103.01	1247.65	-3.823e+05	-5.844e+04	-5.624e+05	0.0
				-400.00	1186.76	315.95	-3.791e+05	1.381e+05	-1.887e+05	0.0
				-600.00	479.92	-142.41	-3.748e+05	1.732e+05	9672.01	0.0
				-800.00	68.08	-275.01	-3.698e+05	1.351e+05	8.156e+04	0.0
				-1000.00	-107.24	-242.74	-3.643e+05	8.051e+04	8.404e+04	0.0
				-1200.00	-140.52	-157.79	-3.584e+05	3.602e+04	5.972e+04	0.0
				-1400.00	-110.54	-78.66	-3.523e+05	8689.13	3.270e+04	0.0
				-1600.00	-65.99	-25.57	-3.463e+05	-4034.37	1.283e+04	0.0
				-1800.00	-29.45	1.79	-3.406e+05	-7501.15	1619.40	0.0
				-2000.00	-6.86	11.30	-3.353e+05	-6500.69	-2968.33	0.0
				-2200.00	3.77	11.28	-3.306e+05	-4165.91	-3685.81	0.0
				-2400.00	6.72	7.69	-3.268e+05	-2070.20	-2714.88	0.0
				-2600.00	5.68	3.82	-3.239e+05	-734.60	-1390.68	0.0
				-2800.00	2.82	1.05	-3.222e+05	-127.38	-383.29	0.0
				-3000.00	1.01	0.22	-3.218e+05	0.0	0.0	0.0
		1	55	0.0	6015.11	-625.83	-4.139e+05	1.119e+05	-1.675e+06	0.0
				-200.00	3484.94	-272.45	-4.114e+05	1.551e+04	-6.552e+05	0.0
				-400.00	1576.32	-72.87	-4.079e+05	-2.766e+04	-6.123e+04	0.0
				-600.00	365.77	26.83	-4.033e+05	-3.615e+04	1.844e+05	0.0
				-800.00	-204.35	56.90	-3.979e+05	-2.864e+04	2.224e+05	0.0
				-1000.00	-357.82	51.22	-3.920e+05	-1.727e+04	1.701e+05	0.0
				-1200.00	-307.70	33.71	-3.856e+05	-7860.49	9.956e+04	0.0
				-1400.00	-196.32	17.05	-3.791e+05	-2004.42	4.341e+04	0.0
				-1600.00	-95.70	5.72	-3.727e+05	764.63	9545.00	0.0
				-1800.00	-29.43	-0.20	-3.665e+05	1553.45	-5825.48	0.0
				-2000.00	4.09	-2.31	-3.608e+05	1372.18	-9684.94	0.0
				-2200.00	15.34	-2.37	-3.558e+05	889.92	-8098.07	0.0
				-2400.00	14.86	-1.64	-3.516e+05	447.47	-4960.98	0.0
				-2600.00	9.86	-0.83	-3.485e+05	161.32	-2213.57	0.0
				-2800.00	4.05	-0.24	-3.467e+05	28.81	-534.58	0.0
				-3000.00	1.30	-0.05	-3.463e+05	0.0	0.0	0.0
		1	59	0.0	6015.11	-625.83	-4.139e+05	1.119e+05	-1.675e+06	0.0
				-200.00	3484.94	-272.45	-4.114e+05	1.551e+04	-6.552e+05	0.0
				-400.00	1576.32	-72.87	-4.079e+05	-2.766e+04	-6.123e+04	0.0
				-600.00	365.77	26.83	-4.033e+05	-3.615e+04	1.844e+05	0.0
				-800.00	-204.35	56.90	-3.979e+05	-2.864e+04	2.224e+05	0.0
				-1000.00	-357.82	51.22	-3.920e+05	-1.727e+04	1.701e+05	0.0
				-1200.00	-307.70	33.71	-3.856e+05	-7860.49	9.956e+04	0.0
				-1400.00	-196.32	17.05	-3.791e+05	-2004.42	4.341e+04	0.0
				-1600.00	-95.70	5.72	-3.727e+05	764.63	9545.00	0.0
				-1800.00	-29.43	-0.20	-3.665e+05	1553.45	-5825.48	0.0
				-2000.00	4.09	-2.31	-3.608e+05	1372.18	-9684.94	0.0
				-2200.00	15.34	-2.37	-3.558e+05	889.92	-8098.07	0.0
				-2400.00	14.86	-1.64	-3.516e+05	447.47	-4960.98	0.0
				-2600.00	9.86	-0.83	-3.485e+05	161.32	-2213.57	0.0
				-2800.00	4.05	-0.24	-3.467e+05	28.81	-534.58	0.0
				-3000.00	1.30	-0.05	-3.463e+05	0.0	0.0	0.0
		1	68	0.0	1641.12	625.83	-3.745e+05	-1.119e+05	-8.617e+05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-200.00	1535.24	272.45	-3.721e+05	-1.551e+04	-5.202e+05	0.0
				-400.00	1020.97	72.87	-3.690e+05	2.766e+04	-2.373e+05	0.0
				-600.00	520.50	-26.83	-3.649e+05	3.615e+04	-5.965e+04	0.0
				-800.00	175.33	-56.90	-3.600e+05	2.864e+04	2.499e+04	0.0
				-1000.00	-6.94	-51.22	-3.546e+05	1.727e+04	4.915e+04	0.0
				-1200.00	-72.94	-33.71	-3.488e+05	7860.49	4.336e+04	0.0
				-1400.00	-75.48	-17.05	-3.430e+05	2004.42	2.813e+04	0.0
				-1600.00	-53.58	-5.72	-3.371e+05	-764.63	1.400e+04	0.0
				-1800.00	-29.17	0.20	-3.316e+05	-1553.45	4552.93	0.0
				-2000.00	-11.13	2.31	-3.264e+05	-1372.18	-278.93	0.0
				-2200.00	-0.85	2.37	-3.218e+05	-889.92	-1902.30	0.0
				-2400.00	3.43	1.64	-3.181e+05	-447.47	-1798.86	0.0
				-2600.00	3.97	0.83	-3.153e+05	-161.32	-1051.25	0.0
				-2800.00	2.31	0.24	-3.136e+05	-28.81	-319.65	0.0
				-3000.00	0.89	0.05	-3.133e+05	0.0	0.0	0.0
		1	76	0.0	3172.01	2086.11	-3.883e+05	-3.729e+05	-1.146e+06	0.0
				-200.00	2217.63	908.16	-3.859e+05	-5.170e+04	-5.674e+05	0.0
				-400.00	1215.34	242.90	-3.826e+05	9.220e+04	-1.757e+05	0.0
				-600.00	466.34	-89.44	-3.783e+05	1.205e+05	2.578e+04	0.0
				-800.00	42.45	-189.67	-3.733e+05	9.546e+04	9.408e+04	0.0
				-1000.00	-129.75	-170.72	-3.677e+05	5.758e+04	9.148e+04	0.0
				-1200.00	-155.10	-112.37	-3.617e+05	2.620e+04	6.303e+04	0.0
				-1400.00	-117.78	-56.82	-3.556e+05	6681.41	3.348e+04	0.0
				-1600.00	-68.32	-19.06	-3.496e+05	-2548.77	1.244e+04	0.0
				-1800.00	-29.26	0.66	-3.438e+05	-5178.17	920.48	0.0
				-2000.00	-5.81	7.71	-3.384e+05	-4573.93	-3571.03	0.0
				-2200.00	4.82	7.91	-3.337e+05	-2966.41	-4070.82	0.0
				-2400.00	7.43	5.47	-3.298e+05	-1491.57	-2905.60	0.0
				-2600.00	6.03	2.76	-3.269e+05	-537.72	-1458.06	0.0
				-2800.00	2.92	0.79	-3.252e+05	-96.05	-394.88	0.0
				-3000.00	1.03	0.17	-3.248e+05	0.0	0.0	0.0
		1	86	0.0	3824.98	1.27e-04	-3.940e+05	-0.03	-1.267e+06	0.0
				-200.00	2508.03	6.63e-05	-3.916e+05	-9.56e-03	-5.872e+05	0.0
				-400.00	1297.58	2.59e-05	-3.883e+05	1.48e-03	-1.492e+05	0.0
				-600.00	442.77	2.44e-06	-3.839e+05	5.28e-03	6.234e+04	0.0
				-800.00	-14.49	-7.23e-06	-3.788e+05	5.15e-03	1.236e+05	0.0
				-1000.00	-182.23	-8.71e-06	-3.731e+05	3.56e-03	1.095e+05	0.0
				-1200.00	-190.16	-6.65e-06	-3.671e+05	1.90e-03	7.140e+04	0.0
				-1400.00	-135.79	-3.88e-06	-3.609e+05	7.13e-04	3.574e+04	0.0
				-1600.00	-74.58	-1.68e-06	-3.548e+05	5.84e-05	1.176e+04	0.0
				-1800.00	-29.28	0.0	-3.489e+05	-2.00e-04	-635.76	0.0
				-2000.00	-3.52	0.0	-3.435e+05	-2.35e-04	-4977.85	0.0
				-2200.00	7.24	0.0	-3.387e+05	-1.75e-04	-4996.09	0.0
				-2400.00	9.14	0.0	-3.347e+05	-9.93e-05	-3377.15	0.0
				-2600.00	6.91	0.0	-3.318e+05	-4.12e-05	-1631.07	0.0
				-2800.00	3.18	0.0	-3.300e+05	-9.12e-06	-426.77	0.0
				-3000.00	1.09	0.0	-3.296e+05	0.0	0.0	0.0
		1	88	0.0	3834.28	590.66	-3.943e+05	-9.330e+04	-1.269e+06	0.0
				-200.00	2511.38	239.38	-3.918e+05	-4268.40	-5.870e+05	0.0
				-400.00	1297.96	50.83	-3.885e+05	3.281e+04	-1.485e+05	0.0
				-600.00	441.87	-38.10	-3.842e+05	3.746e+04	6.301e+04	0.0
				-800.00	-15.62	-60.72	-3.790e+05	2.811e+04	1.240e+05	0.0
				-1000.00	-183.10	-51.09	-3.734e+05	1.622e+04	1.098e+05	0.0
				-1200.00	-190.67	-32.15	-3.673e+05	6926.75	7.150e+04	0.0
				-1400.00	-136.02	-15.42	-3.611e+05	1396.93	3.575e+04	0.0
				-1600.00	-74.63	-4.56	-3.550e+05	-1067.85	1.174e+04	0.0
				-1800.00	-29.25	0.83	-3.491e+05	-1652.72	-666.16	0.0
				-2000.00	-3.47	2.56	-3.437e+05	-1366.85	-5001.06	0.0
				-2200.00	7.28	2.39	-3.389e+05	-849.23	-5009.68	0.0
				-2400.00	9.16	1.57	-3.349e+05	-408.79	-3383.27	0.0
				-2600.00	6.92	0.74	-3.320e+05	-138.66	-1632.94	0.0
				-2800.00	3.18	0.19	-3.302e+05	-21.92	-426.99	0.0
				-3000.00	1.09	0.03	-3.298e+05	0.0	0.0	0.0
		1	89	0.0	3824.98	1.27e-04	-3.940e+05	-0.03	-1.267e+06	0.0
				-200.00	2508.03	6.63e-05	-3.916e+05	-9.56e-03	-5.872e+05	0.0
				-400.00	1297.58	2.59e-05	-3.883e+05	1.48e-03	-1.492e+05	0.0
				-600.00	442.77	2.44e-06	-3.839e+05	5.28e-03	6.234e+04	0.0
				-800.00	-14.49	-7.23e-06	-3.788e+05	5.15e-03	1.236e+05	0.0

**PROJETO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1000.00	-182.23	-8.71e-06	-3.731e+05	3.56e-03	1.095e+05	0.0
				-1200.00	-190.16	-6.65e-06	-3.671e+05	1.90e-03	7.140e+04	0.0
				-1400.00	-135.79	-3.88e-06	-3.609e+05	7.13e-04	3.574e+04	0.0
				-1600.00	-74.58	-1.68e-06	-3.548e+05	5.84e-05	1.176e+04	0.0
				-1800.00	-29.28	0.0	-3.489e+05	-2.00e-04	-635.76	0.0
				-2000.00	-3.52	0.0	-3.435e+05	2.35e-04	-4977.85	0.0
				-2200.00	7.24	0.0	-3.387e+05	-1.75e-04	-4996.09	0.0
				-2400.00	9.14	0.0	-3.347e+05	-9.93e-05	-3377.15	0.0
				-2600.00	6.91	0.0	-3.318e+05	-4.12e-05	-1631.07	0.0
				-2800.00	3.18	0.0	-3.300e+05	-9.12e-06	-426.77	0.0
				-3000.00	1.09	0.0	-3.296e+05	0.0	0.0	0.0
		1	90	0.0	3824.98	1.27e-04	-3.940e+05	-0.03	-1.267e+06	0.0
				-200.00	2508.03	6.63e-05	-3.916e+05	-9.56e-03	-5.872e+05	0.0
				-400.00	1297.58	2.59e-05	-3.883e+05	1.48e-03	-1.492e+05	0.0
				-600.00	442.77	2.44e-06	-3.839e+05	5.28e-03	6.234e+04	0.0
				-800.00	-14.49	-7.23e-06	-3.788e+05	5.15e-03	1.236e+05	0.0
				-1000.00	-182.23	-8.71e-06	-3.731e+05	3.56e-03	1.095e+05	0.0
				-1200.00	-190.16	-6.65e-06	-3.671e+05	1.90e-03	7.140e+04	0.0
				-1400.00	-135.79	-3.88e-06	-3.609e+05	7.13e-04	3.574e+04	0.0
				-1600.00	-74.58	-1.68e-06	-3.548e+05	5.84e-05	1.176e+04	0.0
				-1800.00	-29.28	0.0	-3.489e+05	-2.00e-04	-635.76	0.0
				-2000.00	-3.52	0.0	-3.435e+05	2.35e-04	-4977.85	0.0
				-2200.00	7.24	0.0	-3.387e+05	-1.75e-04	-4996.09	0.0
				-2400.00	9.14	0.0	-3.347e+05	-9.93e-05	-3377.15	0.0
				-2600.00	6.91	0.0	-3.318e+05	-4.12e-05	-1631.07	0.0
				-2800.00	3.18	0.0	-3.300e+05	-9.12e-06	-426.77	0.0
				-3000.00	1.09	0.0	-3.296e+05	0.0	0.0	0.0
71	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	3327.03	1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	1284.83	-3.901e+05	-3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	664.73	-3.868e+05	-7.642e+04	-1.297e+05	0.0
				-600.00	385.14	226.83	-3.825e+05	3.194e+04	5.422e+04	0.0
				-800.00	-12.60	-7.42	-3.774e+05	6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	-93.35	-3.717e+05	5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	-97.42	-3.657e+05	3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	-69.56	-3.596e+05	1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	-38.21	-3.534e+05	6026.22	1.023e+04	0.0
				-1800.00	-25.46	-15.00	-3.476e+05	-325.63	-552.87	0.0
				-2000.00	-3.06	-1.80	-3.422e+05	-2550.05	-4329.77	0.0
				-2200.00	6.30	3.71	-3.374e+05	-2559.41	-4345.68	0.0
				-2400.00	7.95	4.68	-3.335e+05	-1730.06	-2937.51	0.0
				-2600.00	6.01	3.54	-3.305e+05	-835.58	-1418.74	0.0
				-2800.00	2.76	1.63	-3.288e+05	-218.63	-371.21	0.0
				-3000.00	0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	11	0.0	4561.01	7076.97	-5.445e+05	-1.576e+06	-1.496e+06	0.0
				-200.00	2968.59	3530.17	-5.412e+05	-4.379e+05	-6.873e+05	0.0
				-400.00	1524.97	1278.32	-5.366e+05	1.431e+05	-1.695e+05	0.0
				-600.00	512.09	20.04	-5.306e+05	3.242e+05	7.849e+04	0.0
				-800.00	-26.01	-465.79	-5.235e+05	2.964e+05	1.487e+05	0.0
				-1000.00	-220.72	-509.44	-5.156e+05	1.974e+05	1.305e+05	0.0
				-1200.00	-227.17	-372.76	-5.073e+05	1.013e+05	8.453e+04	0.0
				-1400.00	-161.10	-209.60	-4.987e+05	3.519e+04	4.201e+04	0.0
				-1600.00	-87.89	-85.79	-4.903e+05	115.39	1.360e+04	0.0
				-1800.00	-34.11	-14.01	-4.821e+05	-1.284e+04	-989.93	0.0
				-2000.00	-3.74	16.75	-4.746e+05	-1.370e+04	-6024.94	0.0
				-2200.00	8.82	22.97	-4.680e+05	-9827.17	-5969.07	0.0
				-2400.00	10.92	18.09	-4.625e+05	-5402.43	-4010.20	0.0
				-2600.00	8.19	10.35	-4.585e+05	-2168.09	-1928.05	0.0
				-2800.00	3.74	3.59	-4.560e+05	-459.46	-502.33	0.0
				-3000.00	1.28	1.00	-4.555e+05	0.0	0.0	0.0
		1	15	0.0	3327.03	1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	1284.83	-3.901e+05	-3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	664.73	-3.868e+05	-7.642e+04	-1.297e+05	0.0
				-600.00	385.14	226.83	-3.825e+05	3.194e+04	5.422e+04	0.0
				-800.00	-12.60	-7.42	-3.774e+05	6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	-93.35	-3.717e+05	5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	-97.42	-3.657e+05	3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	-69.56	-3.596e+05	1.831e+04	3.109e+04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1600.00	-64.87	-38.21	-3.534e+05	6026.22	1.023e+04	0.0
				-1800.00	-25.46	-15.00	-3.476e+05	-325.63	-552.87	0.0
				-2000.00	-3.06	-1.80	-3.422e+05	-2550.05	-4329.77	0.0
				-2200.00	6.30	3.71	-3.374e+05	-2559.41	-4345.68	0.0
				-2400.00	7.95	4.68	-3.335e+05	-1730.06	-2937.51	0.0
				-2600.00	6.01	3.54	-3.305e+05	-835.58	-1418.74	0.0
				-2800.00	2.76	1.63	-3.288e+05	-218.63	-371.21	0.0
				-3000.00	0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	21	0.0	3484.28	4979.24	-4.154e+05	-1.137e+06	-1.144e+06	0.0
				-200.00	2269.93	2524.76	-4.128e+05	-3.320e+05	-5.263e+05	0.0
				-400.00	1167.13	940.84	-4.093e+05	8.524e+04	-1.303e+05	0.0
				-600.00	392.75	43.61	-4.047e+05	2.204e+05	5.956e+04	0.0
				-800.00	-19.02	-311.52	-3.993e+05	2.061e+05	1.135e+05	0.0
				-1000.00	-168.28	-352.07	-3.933e+05	1.391e+05	9.970e+04	0.0
				-1200.00	-173.50	-261.49	-3.870e+05	7.243e+04	6.463e+04	0.0
				-1400.00	-123.15	-149.01	-3.804e+05	2.590e+04	3.215e+04	0.0
				-1600.00	-67.24	-62.29	-3.740e+05	880.42	1.043e+04	0.0
				-1800.00	-26.14	-11.34	-3.678e+05	-8606.22	-733.67	0.0
				-2000.00	-2.90	10.93	-3.621e+05	-9473.08	-4593.93	0.0
				-2200.00	6.72	15.81	-3.570e+05	-6892.70	-4558.80	0.0
				-2400.00	8.34	12.68	-3.528e+05	-3832.29	-3065.13	0.0
				-2600.00	6.26	7.37	-3.497e+05	-1556.80	-1474.53	0.0
				-2800.00	2.86	2.61	-3.479e+05	-335.46	-384.38	0.0
				-3000.00	0.98	0.74	-3.475e+05	0.0	0.0	0.0
		1	22	0.0	6398.50	2933.24	-4.252e+05	-8.329e+05	-1.658e+06	0.0
				-200.00	3528.46	1722.48	-4.225e+05	-3.330e+05	-5.926e+05	0.0
				-400.00	1496.22	792.01	-4.190e+05	-3.857e+04	2294.88	0.0
				-600.00	260.52	194.97	-4.143e+05	8.560e+04	2.298e+05	0.0
				-800.00	-287.99	-90.53	-4.088e+05	1.070e+05	2.474e+05	0.0
				-1000.00	-408.35	-170.91	-4.026e+05	8.305e+04	1.801e+05	0.0
				-1200.00	-330.67	-149.61	-3.961e+05	4.919e+04	1.010e+05	0.0
				-1400.00	-202.14	-96.60	-3.894e+05	2.181e+04	4.120e+04	0.0
				-1600.00	-93.40	-47.75	-3.828e+05	5104.38	6670.68	0.0
				-1800.00	-24.85	-15.19	-3.765e+05	-2598.35	-8073.83	0.0
				-2000.00	8.09	1.51	-3.706e+05	-4629.54	-1.102e+04	0.0
				-2200.00	17.86	7.28	-3.654e+05	-3936.87	-8708.09	0.0
				-2400.00	16.00	7.22	-3.612e+05	-2436.78	-5141.09	0.0
				-2600.00	10.09	4.86	-3.580e+05	-1097.09	-2217.96	0.0
				-2800.00	3.94	2.02	-3.561e+05	-267.55	-515.55	0.0
				-3000.00	1.22	0.65	-3.557e+05	0.0	0.0	0.0
		1	30	0.0	6398.50	2933.24	-4.252e+05	-8.329e+05	-1.658e+06	0.0
				-200.00	3528.46	1722.48	-4.225e+05	-3.330e+05	-5.926e+05	0.0
				-400.00	1496.22	792.01	-4.190e+05	-3.857e+04	2294.88	0.0
				-600.00	260.52	194.97	-4.143e+05	8.560e+04	2.298e+05	0.0
				-800.00	-287.99	-90.53	-4.088e+05	1.070e+05	2.474e+05	0.0
				-1000.00	-408.35	-170.91	-4.026e+05	8.305e+04	1.801e+05	0.0
				-1200.00	-330.67	-149.61	-3.961e+05	4.919e+04	1.010e+05	0.0
				-1400.00	-202.14	-96.60	-3.894e+05	2.181e+04	4.120e+04	0.0
				-1600.00	-93.40	-47.75	-3.828e+05	5104.38	6670.68	0.0
				-1800.00	-24.85	-15.19	-3.765e+05	-2598.35	-8073.83	0.0
				-2000.00	8.09	1.51	-3.706e+05	-4629.54	-1.102e+04	0.0
				-2200.00	17.86	7.28	-3.654e+05	-3936.87	-8708.09	0.0
				-2400.00	16.00	7.22	-3.612e+05	-2436.78	-5141.09	0.0
				-2600.00	10.09	4.86	-3.580e+05	-1097.09	-2217.96	0.0
				-2800.00	3.94	2.02	-3.561e+05	-267.55	-515.55	0.0
				-3000.00	1.22	0.65	-3.557e+05	0.0	0.0	0.0
		1	33	0.0	260.98	988.88	-3.603e+05	-4.667e+05	-5.483e+05	0.0
				-200.00	838.17	849.26	-3.581e+05	-2.691e+05	-4.297e+05	0.0
				-400.00	762.96	538.54	-3.550e+05	-1.144e+05	-2.620e+05	0.0
				-600.00	510.38	259.05	-3.511e+05	-2.168e+04	-1.213e+05	0.0
				-800.00	262.76	75.67	-3.464e+05	1.969e+04	-3.229e+04	0.0
				-1000.00	91.07	-15.95	-3.412e+05	2.926e+04	1.060e+04	0.0
				-1200.00	-0.40	-45.38	-3.357e+05	2.402e+04	2.335e+04	0.0
				-1400.00	-34.28	-42.64	-3.300e+05	1.484e+04	2.103e+04	0.0
				-1600.00	-36.45	-28.72	-3.244e+05	6957.84	1.381e+04	0.0
				-1800.00	-26.12	-14.83	-3.190e+05	1946.56	6967.19	0.0
				-2000.00	-14.22	-5.12	-3.141e+05	-474.70	2357.89	0.0
				-2200.00	-5.26	0.14	-3.097e+05	-1186.11	9.65	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2400.00	-0.09	2.15	-3.060e+05	-1026.16	-738.72	0.0
				-2600.00	1.93	2.22	-3.033e+05	-575.42	-621.84	0.0
				-2800.00	1.59	1.23	-3.017e+05	-170.06	-227.48	0.0
				-3000.00	0.69	0.47	-3.014e+05	0.0	0.0	0.0
		1	38	0.0	4325.83	4947.93	-4.171e+05	-1.177e+06	-1.294e+06	0.0
				-200.00	2635.70	2576.88	-4.145e+05	-3.697e+05	-5.468e+05	0.0
				-400.00	1264.54	1003.68	-4.110e+05	5.903e+04	-9.291e+04	0.0
				-600.00	356.25	92.28	-4.064e+05	2.062e+05	1.083e+05	0.0
				-800.00	-95.76	-282.67	-4.010e+05	2.006e+05	1.520e+05	0.0
				-1000.00	-237.24	-339.31	-3.949e+05	1.386e+05	1.229e+05	0.0
				-1200.00	-218.84	-258.57	-3.885e+05	7.386e+04	7.518e+04	0.0
				-1400.00	-146.04	-150.62	-3.820e+05	2.763e+04	3.483e+04	0.0
				-1600.00	-74.91	-65.10	-3.755e+05	2200.85	9389.19	0.0
				-1800.00	-25.85	-13.73	-3.693e+05	-7837.46	-2828.69	0.0
				-2000.00	0.23	9.43	-3.635e+05	-9138.53	-6441.43	0.0
				-2200.00	9.92	15.12	-3.585e+05	-6813.62	-5755.77	0.0
				-2400.00	10.55	12.53	-3.543e+05	-3860.01	-3666.40	0.0
				-2600.00	7.37	7.48	-3.512e+05	-1599.06	-1691.01	0.0
				-2800.00	3.18	2.73	-3.493e+05	-353.57	-422.95	0.0
				-3000.00	1.05	0.80	-3.489e+05	0.0	0.0	0.0
		1	54	0.0	5506.20	2645.79	-4.129e+05	-7.809e+05	-1.506e+06	0.0
				-200.00	3151.00	1596.54	-4.104e+05	-3.254e+05	-5.769e+05	0.0
				-400.00	1403.43	757.72	-4.069e+05	-5.096e+04	-4.129e+04	0.0
				-600.00	306.68	206.71	-4.023e+05	6.915e+04	1.762e+05	0.0
				-800.00	-202.52	-64.71	-3.970e+05	9.392e+04	2.059e+05	0.0
				-1000.00	-333.62	-147.51	-3.910e+05	7.511e+04	1.555e+05	0.0
				-1200.00	-282.40	-134.14	-3.847e+05	4.555e+04	9.005e+04	0.0
				-1400.00	-178.25	-88.74	-3.782e+05	2.087e+04	3.865e+04	0.0
				-1600.00	-85.76	-45.09	-3.718e+05	5439.82	7975.01	0.0
				-1800.00	-25.53	-15.25	-3.656e+05	-1893.32	-5743.55	0.0
				-2000.00	4.56	0.46	-3.599e+05	-4002.55	-9023.67	0.0
				-2200.00	14.38	6.20	-3.549e+05	-3528.54	-7433.49	0.0
				-2400.00	13.64	6.47	-3.507e+05	-2230.63	-4511.46	0.0
				-2600.00	8.94	4.47	-3.476e+05	-1022.38	-1996.37	0.0
				-2800.00	3.63	1.91	-3.458e+05	-254.07	-477.73	0.0
				-3000.00	1.15	0.63	-3.454e+05	0.0	0.0	0.0
		1	62	0.0	5506.20	2645.79	-4.129e+05	-7.809e+05	-1.506e+06	0.0
				-200.00	3151.00	1596.54	-4.104e+05	-3.254e+05	-5.769e+05	0.0
				-400.00	1403.43	757.72	-4.069e+05	-5.096e+04	-4.129e+04	0.0
				-600.00	306.68	206.71	-4.023e+05	6.915e+04	1.762e+05	0.0
				-800.00	-202.52	-64.71	-3.970e+05	9.392e+04	2.059e+05	0.0
				-1000.00	-333.62	-147.51	-3.910e+05	7.511e+04	1.555e+05	0.0
				-1200.00	-282.40	-134.14	-3.847e+05	4.555e+04	9.005e+04	0.0
				-1400.00	-178.25	-88.74	-3.782e+05	2.087e+04	3.865e+04	0.0
				-1600.00	-85.76	-45.09	-3.718e+05	5439.82	7975.01	0.0
				-1800.00	-25.53	-15.25	-3.656e+05	-1893.32	-5743.55	0.0
				-2000.00	4.56	0.46	-3.599e+05	-4002.55	-9023.67	0.0
				-2200.00	14.38	6.20	-3.549e+05	-3528.54	-7433.49	0.0
				-2400.00	13.64	6.47	-3.507e+05	-2230.63	-4511.46	0.0
				-2600.00	8.94	4.47	-3.476e+05	-1022.38	-1996.37	0.0
				-2800.00	3.63	1.91	-3.458e+05	-254.07	-477.73	0.0
				-3000.00	1.15	0.63	-3.454e+05	0.0	0.0	0.0
		1	65	0.0	1153.28	1276.34	-3.726e+05	-5.187e+05	-7.002e+05	0.0
				-200.00	1215.64	975.21	-3.703e+05	-2.767e+05	-4.454e+05	0.0
				-400.00	855.75	572.83	-3.671e+05	-1.020e+05	-2.184e+05	0.0
				-600.00	464.22	247.31	-3.630e+05	-5224.51	-6.766e+04	0.0
				-800.00	177.29	49.85	-3.582e+05	3.279e+04	9215.30	0.0
				-1000.00	16.35	-39.35	-3.528e+05	3.720e+04	3.518e+04	0.0
				-1200.00	-48.68	-60.85	-3.471e+05	2.766e+04	3.426e+04	0.0
				-1400.00	-58.17	-50.50	-3.412e+05	1.578e+04	2.358e+04	0.0
				-1600.00	-44.08	-31.39	-3.354e+05	6622.40	1.251e+04	0.0
				-1800.00	-25.44	-14.77	-3.299e+05	1241.53	4636.91	0.0
				-2000.00	-10.69	-4.07	-3.247e+05	-1101.69	357.07	0.0
				-2200.00	-1.78	1.22	-3.202e+05	-1594.43	-1264.95	0.0
				-2400.00	2.26	2.90	-3.165e+05	-1232.30	-1368.34	0.0
				-2600.00	3.09	2.61	-3.137e+05	-650.13	-843.43	0.0
				-2800.00	1.90	1.34	-3.120e+05	-183.54	-265.30	0.0
				-3000.00	0.75	0.49	-3.117e+05	0.0	0.0	0.0

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SR EN ISO 9001:2015 Certificate No. Q204  
SR EN ISO 14001:2015 Certificate No. E81  
SR EN ISO/IEC 27001:2017 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
		1	70	0.0	4029.06	4087.53	-4.079e+05	-1.036e+06	-1.239e+06	0.0
				-200.00	2503.61	2220.51	-4.053e+05	-3.590e+05	-5.378e+05	0.0
				-400.00	1227.04	921.89	-4.019e+05	1.414e+04	-1.049e+05	0.0
				-600.00	366.88	142.26	-3.974e+05	1.531e+05	9.168e+04	0.0
				-800.00	-69.93	-197.25	-3.921e+05	1.601e+05	1.386e+05	0.0
				-1000.00	-213.41	-266.07	-3.862e+05	1.149e+05	1.147e+05	0.0
				-1200.00	-202.91	-211.88	-3.800e+05	6.356e+04	7.138e+04	0.0
				-1400.00	-137.85	-127.87	-3.736e+05	2.539e+04	3.380e+04	0.0
				-1600.00	-72.06	-58.09	-3.672e+05	3606.83	9695.16	0.0
				-1800.00	-25.84	-14.66	-3.611e+05	-5510.57	-2122.56	0.0
				-2000.00	-0.81	5.87	-3.555e+05	-7178.49	-5802.48	0.0
				-2200.00	8.82	11.70	-3.506e+05	-5580.60	-5335.30	0.0
				-2400.00	9.77	10.25	-3.465e+05	-3258.68	-3452.00	0.0
				-2600.00	6.97	6.38	-3.434e+05	-1391.20	-1612.29	0.0
				-2800.00	3.06	2.45	-3.416e+05	-319.36	-408.43	0.0
				-3000.00	1.02	0.75	-3.412e+05	0.0	0.0	0.0
		1	86	0.0	3327.03	1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	1284.83	-3.901e+05	-3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	664.73	-3.868e+05	-7.642e+04	-1.297e+05	0.0
				-600.00	385.14	226.83	-3.825e+05	3.194e+04	5.422e+04	0.0
				-800.00	-12.60	-7.42	-3.774e+05	6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	-93.35	-3.717e+05	5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	-97.42	-3.657e+05	3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	-69.56	-3.596e+05	1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	-38.21	-3.534e+05	6026.22	1.023e+04	0.0
				-1800.00	-25.46	-15.00	-3.476e+05	-325.63	-552.87	0.0
				-2000.00	-3.06	-1.80	-3.422e+05	-2550.05	-4329.77	0.0
				-2200.00	6.30	3.71	-3.374e+05	-2559.41	-4345.68	0.0
				-2400.00	7.95	4.68	-3.335e+05	-1730.06	-2937.51	0.0
				-2600.00	6.01	3.54	-3.305e+05	-835.58	-1418.74	0.0
				-2800.00	2.76	1.63	-3.288e+05	-218.63	-371.21	0.0
				-3000.00	0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	3358.14	2563.23	-3.971e+05	-7.468e+05	-1.111e+06	0.0
				-200.00	2198.99	1532.68	-3.947e+05	-3.070e+05	-5.138e+05	0.0
				-400.00	1136.25	719.89	-3.913e+05	-4.408e+04	-1.299e+05	0.0
				-600.00	386.62	190.16	-3.869e+05	6.963e+04	5.528e+04	0.0
				-800.00	-13.89	-68.24	-3.818e+05	9.185e+04	1.087e+05	0.0
				-1000.00	-160.45	-145.09	-3.760e+05	7.270e+04	9.615e+04	0.0
				-1200.00	-167.01	-130.22	-3.699e+05	4.374e+04	6.260e+04	0.0
				-1400.00	-119.11	-85.45	-3.637e+05	1.983e+04	3.130e+04	0.0
				-1600.00	-65.34	-43.02	-3.575e+05	4996.45	1.027e+04	0.0
				-1800.00	-25.60	-14.26	-3.516e+05	-1981.72	-588.98	0.0
				-2000.00	-3.03	0.74	-3.461e+05	-3934.40	-4382.16	0.0
				-2200.00	6.38	6.13	-3.413e+05	-3425.81	-4387.86	0.0
				-2400.00	8.02	6.28	-3.373e+05	-2150.33	-2962.73	0.0
				-2600.00	6.06	4.30	-3.343e+05	-979.74	-1429.76	0.0
				-2800.00	2.78	1.82	-3.326e+05	-241.97	-373.81	0.0
				-3000.00	0.96	0.60	-3.322e+05	0.0	0.0	0.0
		1	89	0.0	3327.03	1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	1284.83	-3.901e+05	-3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	664.73	-3.868e+05	-7.642e+04	-1.297e+05	0.0
				-600.00	385.14	226.83	-3.825e+05	3.194e+04	5.422e+04	0.0
				-800.00	-12.60	-7.42	-3.774e+05	6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	-93.35	-3.717e+05	5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	-97.42	-3.657e+05	3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	-69.56	-3.596e+05	1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	-38.21	-3.534e+05	6026.22	1.023e+04	0.0
				-1800.00	-25.46	-15.00	-3.476e+05	-325.63	-552.87	0.0
				-2000.00	-3.06	-1.80	-3.422e+05	-2550.05	-4329.77	0.0
				-2200.00	6.30	3.71	-3.374e+05	-2559.41	-4345.68	0.0
				-2400.00	7.95	4.68	-3.335e+05	-1730.06	-2937.51	0.0
				-2600.00	6.01	3.54	-3.305e+05	-835.58	-1418.74	0.0
				-2800.00	2.76	1.63	-3.288e+05	-218.63	-371.21	0.0
				-3000.00	0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	3327.03	1959.47	-3.926e+05	-6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	1284.83	-3.901e+05	-3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	664.73	-3.868e+05	-7.642e+04	-1.297e+05	0.0
				-600.00	385.14	226.83	-3.825e+05	3.194e+04	5.422e+04	0.0

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-800.00	-12.60	-7.42	-3.774e+05	6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	-93.35	-3.717e+05	5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	-97.42	-3.657e+05	3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	-69.56	-3.596e+05	1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	-38.21	-3.534e+05	6026.22	1.023e+04	0.0
				-1800.00	-25.46	-15.00	-3.476e+05	-325.63	-552.87	0.0
				-2000.00	-3.06	-1.80	-3.422e+05	-2550.05	-4329.77	0.0
				-2200.00	6.30	3.71	-3.374e+05	-2559.41	-4345.68	0.0
				-2400.00	7.95	4.68	-3.335e+05	-1730.06	-2937.51	0.0
				-2600.00	6.01	3.54	-3.305e+05	-835.58	-1418.74	0.0
				-2800.00	2.76	1.63	-3.288e+05	-218.63	-371.21	0.0
				-3000.00	0.95	0.56	-3.284e+05	0.0	0.0	0.0
83	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	1959.47	3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	2181.54	-3.901e+05	-5.108e+05	-3.008e+05	0.0
				-400.00	664.73	1128.67	-3.868e+05	-1.297e+05	-7.642e+04	0.0
				-600.00	226.83	385.14	-3.825e+05	5.422e+04	3.194e+04	0.0
				-800.00	-7.42	-12.60	-3.774e+05	1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	-158.51	-3.717e+05	9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	-165.40	-3.657e+05	6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	-118.12	-3.596e+05	3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	-64.87	-3.534e+05	1.023e+04	6026.21	0.0
				-1800.00	-15.00	-25.46	-3.476e+05	-552.87	-325.63	0.0
				-2000.00	-1.80	-3.06	-3.422e+05	-4329.77	-2550.05	0.0
				-2200.00	3.71	6.30	-3.374e+05	-4345.68	-2559.41	0.0
				-2400.00	4.68	7.95	-3.335e+05	-2937.51	-1730.06	0.0
				-2600.00	3.54	6.01	-3.305e+05	-1418.74	-835.58	0.0
				-2800.00	1.63	2.76	-3.288e+05	-371.21	-218.63	0.0
				-3000.00	0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	11	0.0	2779.42	9033.39	-5.672e+05	-2.223e+06	-9.058e+05	0.0
				-200.00	1800.53	4811.47	-5.637e+05	-7.373e+05	-4.139e+05	0.0
				-400.00	920.71	1940.48	-5.590e+05	6.742e+04	-1.001e+05	0.0
				-600.00	305.95	245.42	-5.527e+05	3.564e+05	4.943e+04	0.0
				-800.00	-19.20	-473.80	-5.453e+05	3.597e+05	9.114e+04	0.0
				-1000.00	-135.82	-602.88	-5.371e+05	2.535e+05	7.948e+04	0.0
				-1200.00	-138.59	-470.05	-5.284e+05	1.378e+05	5.127e+04	0.0
				-1400.00	-97.85	-279.00	-5.195e+05	5.343e+04	2.536e+04	0.0
				-1600.00	-53.16	-123.87	-5.107e+05	6102.51	8120.09	0.0
				-1800.00	-20.48	-28.93	-5.022e+05	-1.319e+04	-692.47	0.0
				-2000.00	-2.10	14.98	-4.944e+05	-1.625e+04	-3705.85	0.0
				-2200.00	5.45	26.68	-4.875e+05	-1.238e+04	-3641.94	0.0
				-2400.00	6.66	22.76	-4.818e+05	-7128.63	-2437.29	0.0
				-2600.00	4.97	13.88	-4.776e+05	-3001.20	-1168.43	0.0
				-2800.00	2.26	5.21	-4.751e+05	-677.29	-303.59	0.0
				-3000.00	0.77	1.56	-4.745e+05	0.0	0.0	0.0
		1	15	0.0	1959.47	3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	2181.54	-3.901e+05	-5.108e+05	-3.008e+05	0.0
				-400.00	664.73	1128.67	-3.868e+05	-1.297e+05	-7.642e+04	0.0
				-600.00	226.83	385.14	-3.825e+05	5.422e+04	3.194e+04	0.0
				-800.00	-7.42	-12.60	-3.774e+05	1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	-158.51	-3.717e+05	9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	-165.40	-3.657e+05	6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	-118.12	-3.596e+05	3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	-64.87	-3.534e+05	1.023e+04	6026.21	0.0
				-1800.00	-15.00	-25.46	-3.476e+05	-552.87	-325.63	0.0
				-2000.00	-1.80	-3.06	-3.422e+05	-4329.77	-2550.05	0.0
				-2200.00	3.71	6.30	-3.374e+05	-4345.68	-2559.41	0.0
				-2400.00	4.68	7.95	-3.335e+05	-2937.51	-1730.06	0.0
				-2600.00	3.54	6.01	-3.305e+05	-1418.74	-835.58	0.0
				-2800.00	1.63	2.76	-3.288e+05	-371.21	-218.63	0.0
				-3000.00	0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	21	0.0	2114.21	6465.86	-4.305e+05	-1.629e+06	-6.904e+05	0.0
				-200.00	1371.66	3498.52	-4.278e+05	-5.597e+05	-3.160e+05	0.0
				-400.00	702.44	1444.14	-4.242e+05	2.765e+04	-7.693e+04	0.0
				-600.00	234.21	214.96	-4.195e+05	2.448e+05	3.721e+04	0.0
				-800.00	-13.79	-317.55	-4.139e+05	2.541e+05	6.920e+04	0.0
				-1000.00	-103.00	-423.05	-4.077e+05	1.817e+05	6.047e+04	0.0
				-1200.00	-105.38	-335.42	-4.011e+05	1.002e+05	3.906e+04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
 Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
 Partita Iva : 02658050733  
 Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
 Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
 Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
 Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1400.00	-74.51	-201.75	-3.943e+05	3.977e+04	1.935e+04	0.0
				-1600.00	-40.53	-91.23	-3.876e+05	5432.62	6216.89	0.0
				-1800.00	-15.65	-22.68	-3.812e+05	-8863.95	-505.07	0.0
				-2000.00	-1.64	9.58	-3.753e+05	-1.141e+04	-2810.57	0.0
				-2200.00	4.13	18.63	-3.700e+05	-8835.02	-2769.21	0.0
				-2400.00	5.07	16.24	-3.657e+05	-5144.09	-1855.54	0.0
				-2600.00	3.78	10.05	-3.625e+05	-2189.96	-890.37	0.0
				-2800.00	1.73	3.84	-3.605e+05	-501.02	-231.54	0.0
				-3000.00	0.59	1.17	-3.601e+05	0.0	0.0	0.0
		1	22	0.0	4947.93	4325.83	-4.171e+05	-1.294e+06	-1.177e+06	0.0
				-200.00	2576.88	2635.70	-4.145e+05	-5.468e+05	-3.697e+05	0.0
				-400.00	1003.68	1264.54	-4.110e+05	-9.291e+04	5.903e+04	0.0
				-600.00	92.28	356.25	-4.064e+05	1.083e+05	2.062e+05	0.0
				-800.00	-282.67	-95.76	-4.010e+05	1.520e+05	2.006e+05	0.0
				-1000.00	-339.31	-237.24	-3.949e+05	1.229e+05	1.386e+05	0.0
				-1200.00	-258.57	-218.84	-3.885e+05	7.518e+04	7.386e+04	0.0
				-1400.00	-150.62	-146.04	-3.820e+05	3.483e+04	2.763e+04	0.0
				-1600.00	-65.10	-74.91	-3.755e+05	9389.19	2200.85	0.0
				-1800.00	-13.73	-25.85	-3.693e+05	-2828.69	-7837.46	0.0
				-2000.00	9.43	0.23	-3.635e+05	-6441.43	-9138.53	0.0
				-2200.00	15.12	9.92	-3.585e+05	-5755.78	-6813.62	0.0
				-2400.00	12.53	10.55	-3.543e+05	-3666.40	-3860.01	0.0
				-2600.00	7.48	7.37	-3.512e+05	-1691.01	-1599.05	0.0
				-2800.00	2.73	3.18	-3.493e+05	-422.95	-353.57	0.0
				-3000.00	0.80	1.05	-3.489e+05	0.0	0.0	0.0
		1	38	0.0	2933.24	6398.50	-4.252e+05	-1.658e+06	-8.329e+05	0.0
				-200.00	1722.48	3528.47	-4.225e+05	-5.926e+05	-3.330e+05	0.0
				-400.00	792.01	1496.22	-4.190e+05	2294.85	-3.857e+04	0.0
				-600.00	194.97	260.52	-4.143e+05	2.298e+05	8.560e+04	0.0
				-800.00	-90.53	-287.99	-4.088e+05	2.474e+05	1.070e+05	0.0
				-1000.00	-170.91	-408.35	-4.026e+05	1.801e+05	8.305e+04	0.0
				-1200.00	-149.61	-330.67	-3.961e+05	1.010e+05	4.919e+04	0.0
				-1400.00	-96.60	-202.14	-3.894e+05	4.120e+04	2.181e+04	0.0
				-1600.00	-47.75	-93.40	-3.828e+05	6670.68	5104.37	0.0
				-1800.00	-15.19	-24.85	-3.765e+05	-8073.83	-2598.35	0.0
				-2000.00	1.51	8.09	-3.706e+05	-1.102e+04	-4629.54	0.0
				-2200.00	7.28	17.86	-3.654e+05	-8708.09	-3936.87	0.0
				-2400.00	7.22	16.00	-3.612e+05	-5141.09	-2436.77	0.0
				-2600.00	4.86	10.09	-3.580e+05	-2217.96	-1097.09	0.0
				-2800.00	2.02	3.94	-3.561e+05	-515.55	-267.55	0.0
				-3000.00	0.65	1.22	-3.557e+05	0.0	0.0	0.0
		1	41	0.0	988.88	260.98	-3.603e+05	-5.483e+05	-4.667e+05	0.0
				-200.00	849.26	838.17	-3.581e+05	-4.297e+05	-2.691e+05	0.0
				-400.00	538.54	762.96	-3.550e+05	-2.620e+05	-1.144e+05	0.0
				-600.00	259.05	510.38	-3.511e+05	-1.213e+05	-2.168e+04	0.0
				-800.00	75.67	262.76	-3.464e+05	-3.229e+04	1.969e+04	0.0
				-1000.00	-15.95	91.07	-3.412e+05	1.060e+04	2.926e+04	0.0
				-1200.00	-45.38	-0.40	-3.357e+05	2.335e+04	2.402e+04	0.0
				-1400.00	-42.64	-34.28	-3.300e+05	2.103e+04	1.484e+04	0.0
				-1600.00	-28.72	-36.45	-3.244e+05	1.381e+04	6957.84	0.0
				-1800.00	-14.83	-26.12	-3.190e+05	6967.19	1946.56	0.0
				-2000.00	-5.12	-14.22	-3.141e+05	2357.89	-474.70	0.0
				-2200.00	0.14	-5.26	-3.097e+05	9.65	-1186.11	0.0
				-2400.00	2.15	-0.09	-3.060e+05	-738.72	-1026.16	0.0
				-2600.00	2.22	1.93	-3.033e+05	-621.84	-575.42	0.0
				-2800.00	1.23	1.59	-3.017e+05	-227.48	-170.06	0.0
				-3000.00	0.47	0.69	-3.014e+05	0.0	0.0	0.0
		1	54	0.0	4087.53	4029.06	-4.079e+05	-1.239e+06	-1.036e+06	0.0
				-200.00	2220.51	2503.61	-4.053e+05	-5.378e+05	-3.590e+05	0.0
				-400.00	921.89	1227.04	-4.019e+05	-1.049e+05	1.414e+04	0.0
				-600.00	142.26	366.88	-3.974e+05	9.168e+04	1.531e+05	0.0
				-800.00	-197.25	-69.93	-3.921e+05	1.386e+05	1.601e+05	0.0
				-1000.00	-266.07	-213.41	-3.862e+05	1.147e+05	1.149e+05	0.0
				-1200.00	-211.88	-202.91	-3.800e+05	7.138e+04	6.356e+04	0.0
				-1400.00	-127.87	-137.85	-3.736e+05	3.380e+04	2.539e+04	0.0
				-1600.00	-58.09	-72.06	-3.672e+05	9695.16	3606.82	0.0
				-1800.00	-14.66	-25.84	-3.611e+05	-2122.56	-5510.57	0.0
				-2000.00	5.87	-0.81	-3.555e+05	-5802.49	-7178.48	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2200.00	11.70	8.82	-3.506e+05	-5335.30	-5580.60	0.0
				-2400.00	10.25	9.77	-3.465e+05	-3452.00	-3258.68	0.0
				-2600.00	6.38	6.97	-3.434e+05	-1612.29	-1391.20	0.0
				-2800.00	2.45	3.06	-3.416e+05	-408.43	-319.36	0.0
				-3000.00	0.75	1.02	-3.412e+05	0.0	0.0	0.0
		1	70	0.0	2645.79	5506.21	-4.129e+05	-1.506e+06	-7.809e+05	0.0
				-200.00	1596.53	3151.00	-4.104e+05	-5.769e+05	-3.254e+05	0.0
				-400.00	757.72	1403.43	-4.069e+05	-4.129e+04	-5.096e+04	0.0
				-600.00	206.71	306.68	-4.023e+05	1.762e+05	6.915e+04	0.0
				-800.00	-64.71	-202.52	-3.970e+05	2.059e+05	9.392e+04	0.0
				-1000.00	-147.51	-333.62	-3.910e+05	1.555e+05	7.511e+04	0.0
				-1200.00	-134.14	-282.40	-3.847e+05	9.005e+04	4.555e+04	0.0
				-1400.00	-88.74	-178.25	-3.782e+05	3.865e+04	2.087e+04	0.0
				-1600.00	-45.09	-85.76	-3.718e+05	7975.01	5439.82	0.0
				-1800.00	-15.25	-25.53	-3.656e+05	-5743.55	-1893.32	0.0
				-2000.00	0.46	4.56	-3.599e+05	-9023.67	-4002.55	0.0
				-2200.00	6.20	14.38	-3.549e+05	-7433.49	-3528.54	0.0
				-2400.00	6.47	13.64	-3.507e+05	-4511.47	-2230.63	0.0
				-2600.00	4.47	8.94	-3.476e+05	-1996.37	-1022.38	0.0
				-2800.00	1.91	3.63	-3.458e+05	-477.73	-254.07	0.0
				-3000.00	0.63	1.15	-3.454e+05	0.0	0.0	0.0
		1	73	0.0	1276.33	1153.28	-3.726e+05	-7.002e+05	-5.187e+05	0.0
				-200.00	975.21	1215.64	-3.703e+05	-4.454e+05	-2.767e+05	0.0
				-400.00	572.83	855.75	-3.671e+05	-2.184e+05	-1.020e+05	0.0
				-600.00	247.31	464.22	-3.630e+05	-6.766e+04	-5224.54	0.0
				-800.00	49.85	177.29	-3.582e+05	9215.35	3.279e+04	0.0
				-1000.00	-39.35	16.35	-3.528e+05	3.518e+04	3.720e+04	0.0
				-1200.00	-60.85	-48.68	-3.471e+05	3.426e+04	2.766e+04	0.0
				-1400.00	-50.50	-58.17	-3.412e+05	2.358e+04	1.578e+04	0.0
				-1600.00	-31.39	-44.08	-3.354e+05	1.251e+04	6622.39	0.0
				-1800.00	-14.77	-25.44	-3.299e+05	4636.91	1241.53	0.0
				-2000.00	-4.07	-10.69	-3.247e+05	357.07	-1101.68	0.0
				-2200.00	1.22	-1.78	-3.202e+05	-1264.95	-1594.43	0.0
				-2400.00	2.90	2.26	-3.165e+05	-1368.35	-1232.30	0.0
				-2600.00	2.61	3.09	-3.137e+05	-843.43	-650.13	0.0
				-2800.00	1.34	1.90	-3.120e+05	-265.30	-183.54	0.0
				-3000.00	0.49	0.75	-3.117e+05	0.0	0.0	0.0
		1	86	0.0	1959.47	3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	2181.54	-3.901e+05	-5.108e+05	-3.008e+05	0.0
				-400.00	664.73	1128.67	-3.868e+05	-1.297e+05	-7.642e+04	0.0
				-600.00	226.83	385.14	-3.825e+05	5.422e+04	3.194e+04	0.0
				-800.00	-7.42	-12.60	-3.774e+05	1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	-158.51	-3.717e+05	9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	-165.40	-3.657e+05	6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	-118.12	-3.596e+05	3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	-64.87	-3.534e+05	1.023e+04	6026.21	0.0
				-1800.00	-15.00	-25.46	-3.476e+05	-552.87	-325.63	0.0
				-2000.00	-1.80	-3.06	-3.422e+05	-4329.77	-2550.05	0.0
				-2200.00	3.71	6.30	-3.374e+05	-4345.68	-2559.41	0.0
				-2400.00	4.68	7.95	-3.335e+05	-2937.51	-1730.06	0.0
				-2600.00	3.54	6.01	-3.305e+05	-1418.74	-835.58	0.0
				-2800.00	1.63	2.76	-3.288e+05	-371.21	-218.63	0.0
				-3000.00	0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	1990.22	3954.46	-4.001e+05	-1.208e+06	-6.574e+05	0.0
				-200.00	1302.06	2444.71	-3.977e+05	-5.205e+05	-3.038e+05	0.0
				-400.00	672.21	1191.65	-3.943e+05	-9.826e+04	-7.651e+04	0.0
				-600.00	228.28	351.06	-3.899e+05	9.234e+04	3.299e+04	0.0
				-800.00	-8.70	-73.59	-3.847e+05	1.368e+05	6.448e+04	0.0
				-1000.00	-95.27	-211.40	-3.789e+05	1.125e+05	5.698e+04	0.0
				-1200.00	-99.00	-199.39	-3.728e+05	6.971e+04	3.707e+04	0.0
				-1400.00	-70.55	-134.83	-3.665e+05	3.282e+04	1.852e+04	0.0
				-1600.00	-38.67	-70.14	-3.603e+05	9271.15	6063.74	0.0
				-1800.00	-15.13	-24.91	-3.543e+05	-2215.03	-361.48	0.0
				-2000.00	-1.77	-0.53	-3.488e+05	-5745.75	-2601.89	0.0
				-2200.00	3.79	8.76	-3.439e+05	-5243.10	-2601.11	0.0
				-2400.00	4.76	9.60	-3.399e+05	-3378.53	-1754.98	0.0
				-2600.00	3.59	6.82	-3.369e+05	-1572.84	-846.45	0.0
				-2800.00	1.65	2.98	-3.351e+05	-397.14	-221.19	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-3000.00	0.57	0.99	-3.347e+05	0.0	0.0	0.0
		1	89	0.0	1959.47	3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	2181.54	-3.901e+05	-5.108e+05	-3.008e+05	0.0
				-400.00	664.73	1128.67	-3.868e+05	-1.297e+05	-7.642e+04	0.0
				-600.00	226.83	385.14	-3.825e+05	5.422e+04	3.194e+04	0.0
				-800.00	-7.42	-12.60	-3.774e+05	1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	-158.51	-3.717e+05	9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	-165.40	-3.657e+05	6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	-118.12	-3.596e+05	3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	-64.87	-3.534e+05	1.023e+04	6026.21	0.0
				-1800.00	-15.00	-25.46	-3.476e+05	-552.87	-325.63	0.0
				-2000.00	-1.80	-3.06	-3.422e+05	-4329.77	-2550.05	0.0
				-2200.00	3.71	6.30	-3.374e+05	-4345.68	-2559.41	0.0
				-2400.00	4.68	7.95	-3.335e+05	-2937.51	-1730.06	0.0
				-2600.00	3.54	6.01	-3.305e+05	-1418.74	-835.58	0.0
				-2800.00	1.63	2.76	-3.288e+05	-371.21	-218.63	0.0
				-3000.00	0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	1959.47	3327.03	-3.926e+05	-1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	2181.54	-3.901e+05	-5.108e+05	-3.008e+05	0.0
				-400.00	664.73	1128.67	-3.868e+05	-1.297e+05	-7.642e+04	0.0
				-600.00	226.83	385.14	-3.825e+05	5.422e+04	3.194e+04	0.0
				-800.00	-7.42	-12.60	-3.774e+05	1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	-158.51	-3.717e+05	9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	-165.40	-3.657e+05	6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	-118.12	-3.596e+05	3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	-64.87	-3.534e+05	1.023e+04	6026.21	0.0
				-1800.00	-15.00	-25.46	-3.476e+05	-552.87	-325.63	0.0
				-2000.00	-1.80	-3.06	-3.422e+05	-4329.77	-2550.05	0.0
				-2200.00	3.71	6.30	-3.374e+05	-4345.68	-2559.41	0.0
				-2400.00	4.68	7.95	-3.335e+05	-2937.51	-1730.06	0.0
				-2600.00	3.54	6.01	-3.305e+05	-1418.74	-835.58	0.0
				-2800.00	1.63	2.76	-3.288e+05	-371.21	-218.63	0.0
				-3000.00	0.56	0.95	-3.284e+05	0.0	0.0	0.0
95	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	-1.27e-04	3824.98	-3.940e+05	-1.267e+06	0.03	0.0
				-200.00	-6.63e-05	2508.03	-3.916e+05	-5.872e+05	9.56e-03	0.0
				-400.00	-2.59e-05	1297.58	-3.883e+05	-1.492e+05	-1.48e-03	0.0
				-600.00	-2.44e-06	442.77	-3.839e+05	6.234e+04	-5.28e-03	0.0
				-800.00	7.23e-06	-14.49	-3.788e+05	1.236e+05	-5.15e-03	0.0
				-1000.00	8.71e-06	-182.23	-3.731e+05	1.095e+05	-3.56e-03	0.0
				-1200.00	6.65e-06	-190.16	-3.671e+05	7.140e+04	-1.90e-03	0.0
				-1400.00	3.88e-06	-135.79	-3.609e+05	3.574e+04	-7.13e-04	0.0
				-1600.00	1.68e-06	-74.58	-3.548e+05	1.176e+04	-5.84e-05	0.0
				-1800.00	0.0	-29.28	-3.489e+05	-635.76	2.00e-04	0.0
				-2000.00	0.0	-3.52	-3.435e+05	-4977.85	2.35e-04	0.0
				-2200.00	0.0	7.24	-3.387e+05	-4996.09	1.75e-04	0.0
				-2400.00	0.0	9.14	-3.347e+05	-3377.15	9.93e-05	0.0
				-2600.00	0.0	6.91	-3.318e+05	-1631.07	4.12e-05	0.0
				-2800.00	0.0	3.18	-3.300e+05	-426.77	9.12e-06	0.0
				-3000.00	0.0	1.09	-3.296e+05	0.0	0.0	0.0
		1	11	0.0	58.97	9765.54	-5.766e+05	-2.466e+06	-5321.89	0.0
				-200.00	18.13	5290.85	-5.730e+05	-8.493e+05	2943.16	0.0
				-400.00	-0.76	2188.15	-5.682e+05	3.913e+04	5452.97	0.0
				-600.00	-7.96	329.67	-5.618e+05	3.685e+05	4825.40	0.0
				-800.00	-8.34	-476.85	-5.543e+05	3.834e+05	3158.93	0.0
				-1000.00	-6.00	-637.87	-5.460e+05	2.744e+05	1592.33	0.0
				-1200.00	-3.32	-506.46	-5.371e+05	1.515e+05	531.77	0.0
				-1400.00	-1.32	-304.97	-5.281e+05	6.025e+04	-21.29	0.0
				-1600.00	-0.18	-138.11	-5.191e+05	8340.57	-219.09	0.0
				-1800.00	0.29	-34.51	-5.105e+05	-1.331e+04	-225.63	0.0
				-2000.00	0.38	14.33	-5.026e+05	-1.721e+04	-159.79	0.0
				-2200.00	0.29	28.08	-4.956e+05	-1.334e+04	-87.82	0.0
				-2400.00	0.16	24.51	-4.898e+05	-7774.53	-36.42	0.0
				-2600.00	0.06	15.20	-4.854e+05	-3312.87	-9.43	0.0
				-2800.00	6.70e-03	5.82	-4.829e+05	-758.77	-0.47	0.0
				-3000.00	-1.97e-03	1.77	-4.823e+05	0.0	0.0	0.0
		1	12	0.0	58.97	8615.10	-4.582e+05	-2.084e+06	-5321.90	0.0
				-200.00	18.13	4536.51	-4.554e+05	-6.727e+05	2943.16	0.0

PROJETTO engineering s.r.l.  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-400.00	-0.76	1797.87	-4.515e+05	8.400e+04	5452.97	0.0
				-600.00	-7.96	196.50	-4.465e+05	3.497e+05	4825.40	0.0
				-800.00	-8.34	-472.49	-4.405e+05	3.462e+05	3158.93	0.0
				-1000.00	-6.00	-583.06	-4.339e+05	2.415e+05	1592.33	0.0
				-1200.00	-3.32	-449.27	-4.269e+05	1.300e+05	531.77	0.0
				-1400.00	-1.32	-264.13	-4.197e+05	4.950e+04	-21.29	0.0
				-1600.00	-0.18	-115.68	-4.125e+05	4802.56	-219.09	0.0
				-1800.00	0.29	-25.70	-4.057e+05	-1.312e+04	-225.63	0.0
				-2000.00	0.38	15.38	-3.994e+05	-1.571e+04	-159.79	0.0
				-2200.00	0.29	25.90	-3.938e+05	-1.184e+04	-87.82	0.0
				-2400.00	0.16	21.77	-3.892e+05	-6758.79	-36.42	0.0
				-2600.00	0.06	13.12	-3.858e+05	-2822.29	-9.43	0.0
				-2800.00	6.70e-03	4.86	-3.837e+05	-630.41	-0.47	0.0
				-3000.00	-1.97e-03	1.44	-3.833e+05	0.0	0.0	0.0
		1	15	0.0	-1.27e-04	3824.98	-3.940e+05	-1.267e+06	0.03	0.0
				-200.00	-6.63e-05	2508.03	-3.916e+05	-5.872e+05	9.56e-03	0.0
				-400.00	-2.59e-05	1297.58	-3.883e+05	-1.492e+05	-1.48e-03	0.0
				-600.00	-2.44e-06	442.77	-3.839e+05	6.234e+04	-5.28e-03	0.0
				-800.00	7.23e-06	-14.49	-3.788e+05	1.236e+05	-5.15e-03	0.0
				-1000.00	8.71e-06	-182.23	-3.731e+05	1.095e+05	-3.56e-03	0.0
				-1200.00	6.65e-06	-190.16	-3.671e+05	7.140e+04	-1.90e-03	0.0
				-1400.00	3.88e-06	-135.79	-3.609e+05	3.574e+04	-7.13e-04	0.0
				-1600.00	1.68e-06	-74.58	-3.548e+05	1.176e+04	-5.84e-05	0.0
				-1800.00	0.0	-29.28	-3.489e+05	-635.76	2.00e-04	0.0
				-2000.00	0.0	-3.52	-3.435e+05	-4977.85	2.35e-04	0.0
				-2200.00	0.0	7.24	-3.387e+05	-4996.09	1.75e-04	0.0
				-2400.00	0.0	9.14	-3.347e+05	-3377.15	9.93e-05	0.0
				-2600.00	0.0	6.91	-3.318e+05	-1631.07	4.12e-05	0.0
				-2800.00	0.0	3.18	-3.300e+05	-426.77	9.12e-06	0.0
				-3000.00	0.0	1.09	-3.296e+05	0.0	0.0	0.0
		1	19	0.0	39.32	7018.40	-4.368e+05	-1.812e+06	-3547.92	0.0
				-200.00	12.09	3860.35	-4.341e+05	-6.442e+05	1962.11	0.0
				-400.00	-0.50	1631.11	-4.304e+05	6275.97	3635.31	0.0
				-600.00	-5.30	278.59	-4.256e+05	2.539e+05	3216.93	0.0
				-800.00	-5.56	-319.83	-4.199e+05	2.720e+05	2105.95	0.0
				-1000.00	-4.00	-449.45	-4.136e+05	1.975e+05	1061.55	0.0
				-1200.00	-2.21	-362.90	-4.069e+05	1.105e+05	354.51	0.0
				-1400.00	-0.88	-221.35	-4.001e+05	4.492e+04	-14.19	0.0
				-1600.00	-0.12	-101.98	-3.933e+05	7122.79	-146.06	0.0
				-1800.00	0.19	-26.89	-3.868e+05	-8960.68	-150.42	0.0
				-2000.00	0.25	9.08	-3.808e+05	-1.213e+04	-106.53	0.0
				-2200.00	0.19	19.68	-3.754e+05	-9556.97	-58.55	0.0
				-2400.00	0.11	17.56	-3.711e+05	-5631.58	-24.28	0.0
				-2600.00	0.04	11.05	-3.678e+05	-2425.22	-6.29	0.0
				-2800.00	4.46e-03	4.30	-3.658e+05	-562.53	-0.32	0.0
				-3000.00	-1.31e-03	1.32	-3.654e+05	0.0	0.0	0.0
		1	21	0.0	39.32	7020.36	-4.369e+05	-1.813e+06	-3547.92	0.0
				-200.00	12.09	3861.64	-4.342e+05	-6.445e+05	1962.11	0.0
				-400.00	-0.50	1631.77	-4.305e+05	6199.56	3635.31	0.0
				-600.00	-5.30	278.82	-4.257e+05	2.540e+05	3216.93	0.0
				-800.00	-5.56	-319.83	-4.200e+05	2.721e+05	2105.95	0.0
				-1000.00	-4.00	-449.54	-4.137e+05	1.975e+05	1061.55	0.0
				-1200.00	-2.21	-362.99	-4.070e+05	1.105e+05	354.51	0.0
				-1400.00	-0.88	-221.42	-4.002e+05	4.493e+04	-14.19	0.0
				-1600.00	-0.12	-102.02	-3.934e+05	7128.81	-146.06	0.0
				-1800.00	0.19	-26.91	-3.869e+05	-8961.00	-150.42	0.0
				-2000.00	0.25	9.08	-3.808e+05	-1.214e+04	-106.53	0.0
				-2200.00	0.19	19.68	-3.755e+05	-9559.53	-58.55	0.0
				-2400.00	0.11	17.56	-3.711e+05	-5633.31	-24.28	0.0
				-2600.00	0.04	11.05	-3.679e+05	-2426.06	-6.29	0.0
				-2800.00	4.46e-03	4.30	-3.659e+05	-562.75	-0.32	0.0
				-3000.00	-1.31e-03	1.32	-3.655e+05	0.0	0.0	0.0
		1	24	0.0	-2920.83	4753.94	-4.037e+05	-1.437e+06	5.056e+05	0.0
				-200.00	-1247.65	2917.17	-4.012e+05	-6.130e+05	5.844e+04	0.0
				-400.00	-315.95	1410.53	-3.978e+05	-1.099e+05	-1.381e+05	0.0
				-600.00	142.41	406.35	-3.934e+05	1.151e+05	-1.732e+05	0.0
				-800.00	275.01	-97.09	-3.881e+05	1.658e+05	-1.351e+05	0.0
				-1000.00	242.74	-257.52	-3.823e+05	1.352e+05	-8.051e+04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1200.00	157.79	-240.11	-3.761e+05	8.320e+04	-3.602e+04	0.0
				-1400.00	78.66	-161.27	-3.698e+05	3.885e+04	-8689.13	0.0
				-1600.00	25.57	-83.29	-3.635e+05	1.072e+04	4034.37	0.0
				-1800.00	-1.79	-29.15	-3.575e+05	-2891.95	7501.15	0.0
				-2000.00	-11.30	-0.18	-3.519e+05	-6995.54	6500.69	0.0
				-2200.00	-11.28	10.72	-3.470e+05	-6314.57	4165.91	0.0
				-2400.00	-7.69	11.57	-3.429e+05	-4044.96	2070.20	0.0
				-2600.00	-3.82	8.15	-3.399e+05	-1874.14	734.60	0.0
				-2800.00	-1.05	3.54	-3.381e+05	-470.94	127.38	0.0
				-3000.00	-0.22	1.17	-3.377e+05	0.0	0.0	0.0
		1	42	0.0	876.25	6914.19	-4.259e+05	-1.829e+06	-1.517e+05	0.0
				-200.00	374.30	3867.01	-4.233e+05	-6.720e+05	-1.753e+04	0.0
				-400.00	94.78	1671.58	-4.197e+05	-1.797e+04	4.143e+04	0.0
				-600.00	-42.72	320.51	-4.150e+05	2.381e+05	5.196e+04	0.0
				-800.00	-82.50	-289.78	-4.095e+05	2.641e+05	4.054e+04	0.0
				-1000.00	-72.82	-432.85	-4.033e+05	1.949e+05	2.415e+04	0.0
				-1200.00	-47.34	-356.30	-3.968e+05	1.106e+05	1.081e+04	0.0
				-1400.00	-23.60	-220.46	-3.901e+05	4.603e+04	2606.74	0.0
				-1600.00	-7.67	-103.47	-3.835e+05	8264.66	-1210.31	0.0
				-1800.00	0.54	-28.81	-3.771e+05	-8155.20	-2250.34	0.0
				-2000.00	3.39	7.61	-3.713e+05	-1.169e+04	-1950.21	0.0
				-2200.00	3.39	18.83	-3.661e+05	-9381.45	-1249.77	0.0
				-2400.00	2.31	17.23	-3.618e+05	-5596.71	621.06	0.0
				-2600.00	1.14	11.03	-3.586e+05	-2438.18	-220.38	0.0
				-2800.00	0.32	4.37	-3.567e+05	-573.21	-38.21	0.0
				-3000.00	0.07	1.36	-3.563e+05	0.0	0.0	0.0
		1	44	0.0	-876.25	6914.19	-4.259e+05	-1.829e+06	1.517e+05	0.0
				-200.00	-374.30	3867.01	-4.233e+05	-6.720e+05	1.753e+04	0.0
				-400.00	-94.78	1671.58	-4.197e+05	-1.797e+04	-4.143e+04	0.0
				-600.00	42.72	320.51	-4.150e+05	2.381e+05	-5.196e+04	0.0
				-800.00	82.50	-289.78	-4.095e+05	2.641e+05	-4.054e+04	0.0
				-1000.00	72.82	-432.85	-4.033e+05	1.949e+05	-2.415e+04	0.0
				-1200.00	47.34	-356.30	-3.968e+05	1.106e+05	-1.081e+04	0.0
				-1400.00	23.60	-220.46	-3.901e+05	4.603e+04	-2606.74	0.0
				-1600.00	7.67	-103.47	-3.835e+05	8264.66	1210.31	0.0
				-1800.00	-0.54	-28.81	-3.771e+05	-8155.20	2250.34	0.0
				-2000.00	-3.39	7.61	-3.713e+05	-1.169e+04	1950.21	0.0
				-2200.00	-3.39	18.83	-3.661e+05	-9381.45	1249.77	0.0
				-2400.00	-2.31	17.23	-3.618e+05	-5596.71	621.06	0.0
				-2600.00	-1.14	11.03	-3.586e+05	-2438.18	220.38	0.0
				-2800.00	-0.32	4.37	-3.567e+05	-573.21	38.21	0.0
				-3000.00	-0.07	1.36	-3.563e+05	0.0	0.0	0.0
		1	45	0.0	-876.25	742.04	-3.624e+05	-7.074e+05	1.517e+05	0.0
				-200.00	-374.30	1153.16	-3.602e+05	-5.033e+05	1.753e+04	0.0
				-400.00	-94.78	925.71	-3.572e+05	-2.806e+05	-4.143e+04	0.0
				-600.00	42.72	565.76	-3.532e+05	-1.133e+05	-5.196e+04	0.0
				-800.00	82.50	260.77	-3.485e+05	-1.672e+04	-4.054e+04	0.0
				-1000.00	72.82	68.09	-3.432e+05	2.438e+04	-2.415e+04	0.0
				-1200.00	47.34	-24.33	-3.377e+05	3.232e+04	-1.081e+04	0.0
				-1400.00	23.60	-51.35	-3.320e+05	2.551e+04	-2606.74	0.0
				-1600.00	7.67	-45.81	-3.263e+05	1.528e+04	1210.31	0.0
				-1800.00	-0.54	-29.79	-3.209e+05	6882.65	2250.34	0.0
				-2000.00	-3.39	-14.65	-3.159e+05	1730.07	1950.21	0.0
				-2200.00	-3.39	-4.34	-3.115e+05	-618.93	1249.77	0.0
				-2400.00	-2.31	1.06	-3.079e+05	-1163.13	621.06	0.0
				-2600.00	-1.14	2.80	-3.052e+05	-826.64	220.38	0.0
				-2800.00	-0.32	1.99	-3.035e+05	-281.03	38.21	0.0
				-3000.00	-0.07	0.82	-3.032e+05	0.0	0.0	0.0
		1	56	0.0	-2086.11	4484.21	-4.001e+05	-1.390e+06	3.729e+05	0.0
				-200.00	-908.16	2802.54	-3.976e+05	-6.079e+05	5.170e+04	0.0
				-400.00	-242.90	1381.95	-3.943e+05	-1.229e+05	-9.220e+04	0.0
				-600.00	89.44	419.92	-3.899e+05	9.901e+04	-1.205e+05	0.0
				-800.00	189.67	-71.46	-3.847e+05	1.533e+05	-9.546e+04	0.0
				-1000.00	170.72	-235.01	-3.789e+05	1.278e+05	-5.758e+04	0.0
				-1200.00	112.37	-225.53	-3.727e+05	7.989e+04	-2.620e+04	0.0
				-1400.00	56.82	-154.03	-3.665e+05	3.807e+04	-6681.41	0.0
				-1600.00	19.06	-80.96	-3.602e+05	1.110e+04	2548.77	0.0
				-1800.00	-0.66	-29.34	-3.543e+05	-2193.04	5178.17	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2000.00	-7.71	-1.24	-3.488e+05	-6392.84	4573.93	0.0
				-2200.00	-7.91	9.67	-3.439e+05	-5929.56	2966.41	0.0
				-2400.00	-5.47	10.86	-3.399e+05	-3854.24	1491.57	0.0
				-2600.00	-2.76	7.79	-3.369e+05	-1806.76	537.72	0.0
				-2800.00	-0.79	3.44	-3.351e+05	-459.36	96.05	0.0
				-3000.00	-0.17	1.15	-3.347e+05	0.0	0.0	0.0
		1	74	0.0	625.83	6015.11	-4.139e+05	-1.675e+06	-1.119e+05	0.0
				-200.00	272.45	3484.94	-4.114e+05	-6.552e+05	-1.551e+04	0.0
				-400.00	72.87	1576.32	-4.079e+05	-6.123e+04	-2.766e+04	0.0
				-600.00	-26.83	365.77	-4.033e+05	1.844e+05	3.615e+04	0.0
				-800.00	-56.90	-204.35	-3.979e+05	2.224e+05	2.864e+04	0.0
				-1000.00	-51.22	-357.82	-3.920e+05	1.701e+05	1.727e+04	0.0
				-1200.00	-33.71	-307.70	-3.856e+05	9.956e+04	7860.49	0.0
				-1400.00	-17.05	-196.32	-3.791e+05	4.341e+04	2004.42	0.0
				-1600.00	-5.72	-95.70	-3.727e+05	9545.01	-764.63	0.0
				-1800.00	0.20	-29.43	-3.665e+05	-5825.48	-1553.45	0.0
				-2000.00	2.31	4.09	-3.608e+05	-9684.94	-1372.18	0.0
				-2200.00	2.37	15.34	-3.558e+05	-8098.08	-889.92	0.0
				-2400.00	1.64	14.86	-3.516e+05	-4960.98	-447.47	0.0
				-2600.00	0.83	9.86	-3.485e+05	-2213.57	-161.32	0.0
				-2800.00	0.24	4.05	-3.467e+05	-534.58	-28.81	0.0
				-3000.00	0.05	1.30	-3.463e+05	0.0	0.0	0.0
		1	76	0.0	-625.83	6015.11	-4.139e+05	-1.675e+06	-1.119e+05	0.0
				-200.00	-272.45	3484.94	-4.114e+05	-6.552e+05	-1.551e+04	0.0
				-400.00	-72.87	1576.32	-4.079e+05	-6.123e+04	-2.766e+04	0.0
				-600.00	26.83	365.77	-4.033e+05	1.844e+05	-3.615e+04	0.0
				-800.00	56.90	-204.35	-3.979e+05	2.224e+05	-2.864e+04	0.0
				-1000.00	51.22	-357.82	-3.920e+05	1.701e+05	-1.727e+04	0.0
				-1200.00	33.71	-307.70	-3.856e+05	9.956e+04	-7860.49	0.0
				-1400.00	17.05	-196.32	-3.791e+05	4.341e+04	-2004.42	0.0
				-1600.00	5.72	-95.70	-3.727e+05	9545.01	764.63	0.0
				-1800.00	-0.20	-29.43	-3.665e+05	-5825.48	1553.45	0.0
				-2000.00	-2.31	4.09	-3.608e+05	-9684.94	1372.18	0.0
				-2200.00	-2.37	15.34	-3.558e+05	-8098.08	889.92	0.0
				-2400.00	-1.64	14.86	-3.516e+05	-4960.98	447.47	0.0
				-2600.00	-0.83	9.86	-3.485e+05	-2213.57	161.32	0.0
				-2800.00	-0.24	4.05	-3.467e+05	-534.58	28.81	0.0
				-3000.00	-0.05	1.30	-3.463e+05	0.0	0.0	0.0
		1	77	0.0	-625.83	1641.12	-3.745e+05	-8.617e+05	-1.119e+05	0.0
				-200.00	-272.45	1535.24	-3.721e+05	-5.202e+05	-1.551e+04	0.0
				-400.00	-72.87	1020.97	-3.690e+05	-2.373e+05	-2.766e+04	0.0
				-600.00	26.83	520.50	-3.649e+05	-5.965e+04	-3.615e+04	0.0
				-800.00	56.90	175.33	-3.600e+05	2.499e+04	-2.864e+04	0.0
				-1000.00	51.22	-6.94	-3.546e+05	4.915e+04	-1.727e+04	0.0
				-1200.00	33.71	-72.94	-3.488e+05	4.336e+04	-7860.49	0.0
				-1400.00	17.05	-75.48	-3.430e+05	2.813e+04	-2004.42	0.0
				-1600.00	5.72	-53.58	-3.371e+05	1.400e+04	764.63	0.0
				-1800.00	-0.20	-29.17	-3.316e+05	4552.93	1553.45	0.0
				-2000.00	-2.31	-11.13	-3.264e+05	-278.93	1372.18	0.0
				-2200.00	-2.37	-0.85	-3.218e+05	-1902.30	889.92	0.0
				-2400.00	-1.64	3.43	-3.181e+05	-1798.86	447.47	0.0
				-2600.00	-0.83	3.97	-3.153e+05	-1051.25	161.32	0.0
				-2800.00	-0.24	2.31	-3.136e+05	-319.65	28.81	0.0
				-3000.00	-0.05	0.89	-3.133e+05	0.0	0.0	0.0
		1	86	0.0	-1.27e-04	3824.98	-3.940e+05	-1.267e+06	0.03	0.0
				-200.00	-6.63e-05	2508.03	-3.916e+05	-5.872e+05	9.56e-03	0.0
				-400.00	-2.59e-05	1297.58	-3.883e+05	-1.492e+05	-1.48e-03	0.0
				-600.00	-2.44e-06	442.77	-3.839e+05	6.234e+04	-5.28e-03	0.0
				-800.00	7.23e-06	-14.49	-3.788e+05	1.236e+05	-5.15e-03	0.0
				-1000.00	8.71e-06	-182.23	-3.731e+05	1.095e+05	-3.56e-03	0.0
				-1200.00	6.65e-06	-190.16	-3.671e+05	7.140e+04	-1.90e-03	0.0
				-1400.00	3.88e-06	-135.79	-3.609e+05	3.574e+04	-7.13e-04	0.0
				-1600.00	1.68e-06	-74.58	-3.548e+05	1.176e+04	-5.84e-05	0.0
				-1800.00	0.0	-29.28	-3.489e+05	-635.76	2.00e-04	0.0
				-2000.00	0.0	-3.52	-3.435e+05	-4977.85	2.35e-04	0.0
				-2200.00	0.0	7.24	-3.387e+05	-4996.09	1.75e-04	0.0
				-2400.00	0.0	9.14	-3.347e+05	-3377.15	9.93e-05	0.0
				-2600.00	0.0	6.91	-3.318e+05	-1631.07	4.12e-05	0.0

**PROGETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2800.00	0.0	3.18	-3.300e+05	-426.77	9.12e-06	0.0
				-3000.00	0.0	1.09	-3.296e+05	0.0	0.0	0.0
		1	88	0.0	7.86	4463.66	-4.026e+05	-1.376e+06	-709.56	0.0
				-200.00	2.42	2778.50	-4.001e+05	-5.986e+05	392.43	0.0
				-400.00	-0.10	1364.29	-3.967e+05	-1.181e+05	727.06	0.0
				-600.00	-1.06	409.93	-3.923e+05	1.007e+05	643.38	0.0
				-800.00	-1.11	-75.56	-3.870e+05	1.533e+05	421.19	0.0
				-1000.00	-0.80	-235.68	-3.812e+05	1.271e+05	212.31	0.0
				-1200.00	-0.44	-224.71	-3.750e+05	7.921e+04	70.90	0.0
				-1400.00	-0.18	-152.90	-3.687e+05	3.758e+04	-2.84	0.0
				-1600.00	-0.02	-80.06	-3.625e+05	1.084e+04	-29.21	0.0
				-1800.00	0.04	-28.80	-3.565e+05	-2300.74	-30.08	0.0
				-2000.00	0.05	-1.00	-3.509e+05	-6408.85	-21.31	0.0
				-2200.00	0.04	9.73	-3.460e+05	-5908.27	-11.71	0.0
				-2400.00	0.02	10.82	-3.420e+05	-3828.04	-4.86	0.0
				-2600.00	8.22e-03	7.73	-3.390e+05	-1789.90	-1.26	0.0
				-2800.00	8.93e-04	3.40	-3.372e+05	-453.92	-0.06	0.0
				-3000.00	-2.62e-04	1.14	-3.368e+05	0.0	0.0	0.0
		1	89	0.0	-1.27e-04	3824.98	-3.940e+05	-1.267e+06	0.03	0.0
				-200.00	-6.63e-05	2508.03	-3.916e+05	-5.872e+05	9.56e-03	0.0
				-400.00	-2.59e-05	1297.58	-3.883e+05	-1.492e+05	-1.48e-03	0.0
				-600.00	-2.44e-06	442.77	-3.839e+05	6.234e+04	-5.28e-03	0.0
				-800.00	7.23e-06	-14.49	-3.788e+05	1.236e+05	-5.15e-03	0.0
				-1000.00	8.71e-06	-182.23	-3.731e+05	1.095e+05	-3.56e-03	0.0
				-1200.00	6.65e-06	-190.16	-3.671e+05	7.140e+04	-1.90e-03	0.0
				-1400.00	3.88e-06	-135.79	-3.609e+05	3.574e+04	-7.13e-04	0.0
				-1600.00	1.68e-06	-74.58	-3.548e+05	1.176e+04	-5.84e-05	0.0
				-1800.00	0.0	-29.28	-3.489e+05	-635.76	2.00e-04	0.0
				-2000.00	0.0	-3.52	-3.435e+05	-4977.85	2.35e-04	0.0
				-2200.00	0.0	7.24	-3.387e+05	-4996.09	1.75e-04	0.0
				-2400.00	0.0	9.14	-3.347e+05	-3377.15	9.93e-05	0.0
				-2600.00	0.0	6.91	-3.318e+05	-1631.07	4.12e-05	0.0
				-2800.00	0.0	3.18	-3.300e+05	-426.77	9.12e-06	0.0
				-3000.00	0.0	1.09	-3.296e+05	0.0	0.0	0.0
		1	90	0.0	-1.27e-04	3824.98	-3.940e+05	-1.267e+06	0.03	0.0
				-200.00	-6.63e-05	2508.03	-3.916e+05	-5.872e+05	9.56e-03	0.0
				-400.00	-2.59e-05	1297.58	-3.883e+05	-1.492e+05	-1.48e-03	0.0
				-600.00	-2.44e-06	442.77	-3.839e+05	6.234e+04	-5.28e-03	0.0
				-800.00	7.23e-06	-14.49	-3.788e+05	1.236e+05	-5.15e-03	0.0
				-1000.00	8.71e-06	-182.23	-3.731e+05	1.095e+05	-3.56e-03	0.0
				-1200.00	6.65e-06	-190.16	-3.671e+05	7.140e+04	-1.90e-03	0.0
				-1400.00	3.88e-06	-135.79	-3.609e+05	3.574e+04	-7.13e-04	0.0
				-1600.00	1.68e-06	-74.58	-3.548e+05	1.176e+04	-5.84e-05	0.0
				-1800.00	0.0	-29.28	-3.489e+05	-635.76	2.00e-04	0.0
				-2000.00	0.0	-3.52	-3.435e+05	-4977.85	2.35e-04	0.0
				-2200.00	0.0	7.24	-3.387e+05	-4996.09	1.75e-04	0.0
				-2400.00	0.0	9.14	-3.347e+05	-3377.15	9.93e-05	0.0
				-2600.00	0.0	6.91	-3.318e+05	-1631.07	4.12e-05	0.0
				-2800.00	0.0	3.18	-3.300e+05	-426.77	9.12e-06	0.0
				-3000.00	0.0	1.09	-3.296e+05	0.0	0.0	0.0
107	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	-1959.47	3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	2181.54	-3.901e+05	-5.108e+05	3.008e+05	0.0
				-400.00	-664.73	1128.67	-3.868e+05	-1.297e+05	7.642e+04	0.0
				-600.00	-226.83	385.14	-3.825e+05	5.422e+04	-3.194e+04	0.0
				-800.00	7.42	-12.60	-3.774e+05	1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	-158.51	-3.717e+05	9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	-165.40	-3.657e+05	6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	-118.12	-3.596e+05	3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	-64.87	-3.534e+05	1.023e+04	-6026.21	0.0
				-1800.00	15.00	-25.46	-3.476e+05	-552.87	325.63	0.0
				-2000.00	1.80	-3.06	-3.422e+05	-4329.77	2550.05	0.0
				-2200.00	-3.71	6.30	-3.374e+05	-4345.68	2559.41	0.0
				-2400.00	-4.68	7.95	-3.335e+05	-2937.51	1730.06	0.0
				-2600.00	-3.54	6.01	-3.305e+05	-1418.74	835.58	0.0
				-2800.00	-1.63	2.76	-3.288e+05	-371.21	218.63	0.0
				-3000.00	-0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	11	0.0	-2655.86	9023.44	-5.654e+05	-2.220e+06	8.933e+05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della  
potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria  
(TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-200.00	-1760.61	4805.01	-5.619e+05	-7.358e+05	4.189e+05	0.0
				-400.00	-920.36	1937.16	-5.571e+05	6.779e+04	1.108e+05	0.0
				-600.00	-321.24	244.31	-5.509e+05	3.562e+05	-3.968e+04	0.0
				-800.00	2.48	-473.74	-5.435e+05	3.594e+05	-8.464e+04	0.0
				-1000.00	123.56	-602.40	-5.354e+05	2.532e+05	-7.614e+04	0.0
				-1200.00	131.68	-469.55	-5.267e+05	1.376e+05	-5.011e+04	0.0
				-1400.00	95.01	-278.65	-5.178e+05	5.334e+04	-2.535e+04	0.0
				-1600.00	52.68	-123.68	-5.090e+05	6073.12	-8541.66	0.0
				-1800.00	21.02	-28.86	-5.006e+05	-1.318e+04	239.92	0.0
				-2000.00	2.85	14.99	-4.928e+05	-1.624e+04	3378.81	0.0
				-2200.00	-4.86	26.66	-4.859e+05	-1.237e+04	3458.94	0.0
				-2400.00	-6.32	22.74	-4.803e+05	-7119.90	2359.52	0.0
				-2600.00	-4.84	13.86	-4.760e+05	-2997.00	1147.20	0.0
				-2800.00	-2.24	5.20	-4.735e+05	-676.20	302.03	0.0
				-3000.00	-0.78	1.56	-4.730e+05	0.0	0.0	0.0
		1	15	0.0	-1959.47	3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	2181.54	-3.901e+05	-5.108e+05	3.008e+05	0.0
				-400.00	-664.73	1128.67	-3.868e+05	-1.297e+05	7.642e+04	0.0
				-600.00	-226.83	385.14	-3.825e+05	5.422e+04	-3.194e+04	0.0
				-800.00	7.42	-12.60	-3.774e+05	1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	-158.51	-3.717e+05	9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	-165.40	-3.657e+05	6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	-118.12	-3.596e+05	3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	-64.87	-3.534e+05	1.023e+04	-6026.21	0.0
				-1800.00	15.00	-25.46	-3.476e+05	-552.87	325.63	0.0
				-2000.00	1.80	-3.06	-3.422e+05	-4329.77	2550.05	0.0
				-2200.00	-3.71	6.30	-3.374e+05	-4345.68	2559.41	0.0
				-2400.00	-4.68	7.95	-3.335e+05	-2937.51	1730.06	0.0
				-2600.00	-3.54	6.01	-3.305e+05	-1418.74	835.58	0.0
				-2800.00	-1.63	2.76	-3.288e+05	-371.21	218.63	0.0
				-3000.00	-0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	21	0.0	-2031.83	6459.23	-4.293e+05	-1.627e+06	6.821e+05	0.0
				-200.00	-1345.05	3494.21	-4.266e+05	-5.587e+05	3.194e+05	0.0
				-400.00	-702.20	1441.93	-4.230e+05	2.789e+04	8.406e+04	0.0
				-600.00	-244.40	214.23	-4.183e+05	2.447e+05	-3.071e+04	0.0
				-800.00	2.65	-317.51	-4.127e+05	2.539e+05	-6.487e+04	0.0
				-1000.00	94.82	-422.73	-4.065e+05	1.815e+05	-5.824e+04	0.0
				-1200.00	100.77	-335.09	-3.999e+05	1.000e+05	-3.828e+04	0.0
				-1400.00	72.61	-201.52	-3.932e+05	3.970e+04	-1.934e+04	0.0
				-1600.00	40.22	-91.10	-3.865e+05	5413.03	-6497.93	0.0
				-1800.00	16.01	-22.63	-3.801e+05	-8862.42	203.36	0.0
				-2000.00	2.14	9.59	-3.742e+05	-1.140e+04	2592.55	0.0
				-2200.00	-3.74	18.62	-3.690e+05	-8826.34	2647.21	0.0
				-2400.00	-4.84	16.22	-3.646e+05	-5138.27	1803.69	0.0
				-2600.00	-3.70	10.04	-3.614e+05	-2187.17	876.21	0.0
				-2800.00	-1.71	3.84	-3.595e+05	-500.29	230.50	0.0
				-3000.00	-0.59	1.17	-3.591e+05	0.0	0.0	0.0
		1	28	0.0	-4947.93	4325.83	-4.171e+05	-1.294e+06	1.177e+06	0.0
				-200.00	-2576.88	2635.71	-4.145e+05	-5.468e+05	3.697e+05	0.0
				-400.00	-1003.68	1264.54	-4.110e+05	-9.291e+04	-5.903e+04	0.0
				-600.00	-92.28	356.25	-4.064e+05	1.083e+05	-2.062e+05	0.0
				-800.00	282.67	-95.76	-4.010e+05	1.520e+05	-2.006e+05	0.0
				-1000.00	339.31	-237.24	-3.949e+05	1.229e+05	-1.386e+05	0.0
				-1200.00	258.57	-218.84	-3.885e+05	7.518e+04	-7.386e+04	0.0
				-1400.00	150.62	-146.04	-3.820e+05	3.483e+04	-2.763e+04	0.0
				-1600.00	65.10	-74.91	-3.755e+05	9389.19	-2200.85	0.0
				-1800.00	13.73	-25.85	-3.693e+05	-2828.69	7837.46	0.0
				-2000.00	-9.43	0.23	-3.635e+05	-6441.43	9138.53	0.0
				-2200.00	-15.12	9.92	-3.585e+05	-5755.78	6813.62	0.0
				-2400.00	-12.53	10.55	-3.543e+05	-3666.40	3860.01	0.0
				-2600.00	-7.48	7.37	-3.512e+05	-1691.01	1599.05	0.0
				-2800.00	-2.73	3.18	-3.493e+05	-422.95	353.57	0.0
				-3000.00	-0.80	1.05	-3.489e+05	0.0	0.0	0.0
		1	39	0.0	-988.88	260.98	-3.603e+05	-5.483e+05	4.667e+05	0.0
				-200.00	-849.26	838.17	-3.581e+05	-4.297e+05	2.691e+05	0.0
				-400.00	-538.54	762.96	-3.550e+05	-2.620e+05	1.144e+05	0.0
				-600.00	-259.05	510.38	-3.511e+05	-1.213e+05	2.168e+04	0.0
				-800.00	-75.67	262.76	-3.464e+05	-3.229e+04	-1.969e+04	0.0

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Partita Iva: 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1000.00	15.95	91.07	-3.412e+05	1.060e+04	-2.926e+04	0.0
				-1200.00	45.38	-0.40	-3.357e+05	2.335e+04	-2.402e+04	0.0
				-1400.00	42.64	-34.28	-3.300e+05	2.103e+04	-1.484e+04	0.0
				-1600.00	28.72	-36.45	-3.244e+05	1.381e+04	-6957.84	0.0
				-1800.00	14.83	-26.12	-3.190e+05	6967.19	-1946.56	0.0
				-2000.00	5.12	-14.22	-3.141e+05	2357.89	474.70	0.0
				-2200.00	-0.14	-5.26	-3.097e+05	9.64	1186.11	0.0
				-2400.00	-2.15	-0.09	-3.060e+05	-738.72	1026.16	0.0
				-2600.00	-2.22	1.93	-3.033e+05	-621.84	575.42	0.0
				-2800.00	-1.23	1.59	-3.017e+05	-227.48	170.06	0.0
				-3000.00	-0.47	0.69	-3.014e+05	0.0	0.0	0.0
		1	40	0.0	-2933.24	6398.50	-4.252e+05	-1.658e+06	8.329e+05	0.0
				-200.00	-1722.48	3528.47	-4.225e+05	-5.926e+05	3.330e+05	0.0
				-400.00	-792.01	1496.22	-4.190e+05	2294.80	3.857e+04	0.0
				-600.00	-194.97	260.52	-4.143e+05	2.298e+05	-8.560e+04	0.0
				-800.00	90.53	-287.99	-4.088e+05	2.474e+05	-1.070e+05	0.0
				-1000.00	170.91	-408.35	-4.026e+05	1.801e+05	-8.305e+04	0.0
				-1200.00	149.61	-330.67	-3.961e+05	1.010e+05	-4.919e+04	0.0
				-1400.00	96.60	-202.14	-3.894e+05	4.120e+04	-2.181e+04	0.0
				-1600.00	47.75	-93.40	-3.828e+05	6670.68	-5104.37	0.0
				-1800.00	15.19	-24.85	-3.765e+05	-8073.83	2598.35	0.0
				-2000.00	-1.51	8.09	-3.706e+05	-1.102e+04	4629.54	0.0
				-2200.00	-7.28	17.86	-3.654e+05	-8708.09	3936.87	0.0
				-2400.00	-7.22	16.00	-3.612e+05	-5141.09	2436.77	0.0
				-2600.00	-4.86	10.09	-3.580e+05	-2217.96	1097.09	0.0
				-2800.00	-2.02	3.94	-3.561e+05	-515.55	267.55	0.0
				-3000.00	-0.65	1.22	-3.557e+05	0.0	0.0	0.0
		1	60	0.0	-4087.53	4029.06	-4.079e+05	-1.239e+06	1.036e+06	0.0
				-200.00	-2220.51	2503.61	-4.053e+05	-5.378e+05	3.590e+05	0.0
				-400.00	-921.89	1227.05	-4.019e+05	-1.049e+05	-1.414e+04	0.0
				-600.00	-142.26	366.88	-3.974e+05	9.168e+04	-1.531e+05	0.0
				-800.00	197.25	-69.93	-3.921e+05	1.386e+05	-1.601e+05	0.0
				-1000.00	266.07	-213.41	-3.862e+05	1.147e+05	-1.149e+05	0.0
				-1200.00	211.88	-202.91	-3.800e+05	7.138e+04	-6.356e+04	0.0
				-1400.00	127.87	-137.85	-3.736e+05	3.380e+04	-2.539e+04	0.0
				-1600.00	58.09	-72.06	-3.672e+05	9695.16	-3606.82	0.0
				-1800.00	14.66	-25.84	-3.611e+05	-2122.56	5510.57	0.0
				-2000.00	-5.87	-0.81	-3.555e+05	-5802.49	7178.48	0.0
				-2200.00	-11.70	8.82	-3.506e+05	-5335.30	5580.60	0.0
				-2400.00	-10.25	9.77	-3.465e+05	-3452.00	3258.68	0.0
				-2600.00	-6.38	6.97	-3.434e+05	-1612.29	1391.20	0.0
				-2800.00	-2.45	3.06	-3.416e+05	-408.43	319.36	0.0
				-3000.00	-0.75	1.02	-3.412e+05	0.0	0.0	0.0
		1	71	0.0	-1276.34	1153.28	-3.726e+05	-7.002e+05	5.187e+05	0.0
				-200.00	-975.21	1215.64	-3.703e+05	-4.454e+05	2.767e+05	0.0
				-400.00	-572.83	855.75	-3.671e+05	-2.184e+05	1.020e+05	0.0
				-600.00	-247.31	464.22	-3.630e+05	-6.766e+04	5224.53	0.0
				-800.00	-49.85	177.29	-3.582e+05	9215.37	-3.279e+04	0.0
				-1000.00	39.35	16.35	-3.528e+05	3.518e+04	-3.720e+04	0.0
				-1200.00	60.85	-48.68	-3.471e+05	3.426e+04	-2.766e+04	0.0
				-1400.00	50.50	-58.17	-3.412e+05	2.358e+04	-1.578e+04	0.0
				-1600.00	31.39	-44.08	-3.354e+05	1.251e+04	-6622.39	0.0
				-1800.00	14.77	-25.44	-3.299e+05	4636.91	-1241.53	0.0
				-2000.00	4.07	-10.69	-3.247e+05	357.07	1101.68	0.0
				-2200.00	-1.22	-1.78	-3.202e+05	-1264.95	1594.43	0.0
				-2400.00	-2.90	2.26	-3.165e+05	-1368.35	1232.30	0.0
				-2600.00	-2.61	3.09	-3.137e+05	-843.43	650.13	0.0
				-2800.00	-1.34	1.90	-3.120e+05	-265.30	183.54	0.0
				-3000.00	-0.49	0.75	-3.117e+05	0.0	0.0	0.0
		1	72	0.0	-2645.79	5506.21	-4.129e+05	-1.506e+06	7.809e+05	0.0
				-200.00	-1596.53	3151.00	-4.104e+05	-5.769e+05	3.254e+05	0.0
				-400.00	-757.72	1403.43	-4.069e+05	-4.129e+04	5.096e+04	0.0
				-600.00	-206.71	306.68	-4.023e+05	1.762e+05	-6.915e+04	0.0
				-800.00	64.71	-202.52	-3.970e+05	2.059e+05	-9.392e+04	0.0
				-1000.00	147.51	-333.62	-3.910e+05	1.555e+05	-7.511e+04	0.0
				-1200.00	134.14	-282.40	-3.847e+05	9.005e+04	-4.555e+04	0.0
				-1400.00	88.74	-178.25	-3.782e+05	3.865e+04	-2.087e+04	0.0
				-1600.00	45.09	-85.76	-3.718e+05	7975.02	-5439.82	0.0

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 Partita Iva : 02658050733  
 Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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 Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
 Certificate No. Q204 Certificate No. E81 Certificate No. ED1

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1800.00	15.25	-25.53	-3.656e+05	-5743.55	1893.32	0.0
				-2000.00	-0.46	4.56	-3.599e+05	-9023.68	4002.55	0.0
				-2200.00	-6.20	14.38	-3.549e+05	-7433.50	3528.54	0.0
				-2400.00	-6.47	13.64	-3.507e+05	-4511.47	2230.63	0.0
				-2600.00	-4.47	8.94	-3.476e+05	-1996.37	1022.38	0.0
				-2800.00	-1.91	3.63	-3.458e+05	-477.73	254.07	0.0
				-3000.00	-0.63	1.15	-3.454e+05	0.0	0.0	0.0
		1	86	0.0	-1959.47	3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	2181.54	-3.901e+05	-5.108e+05	3.008e+05	0.0
				-400.00	-664.73	1128.67	-3.868e+05	-1.297e+05	7.642e+04	0.0
				-600.00	-226.83	385.14	-3.825e+05	5.422e+04	-3.194e+04	0.0
				-800.00	7.42	-12.60	-3.774e+05	1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	-158.51	-3.717e+05	9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	-165.40	-3.657e+05	6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	-118.12	-3.596e+05	3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	-64.87	-3.534e+05	1.023e+04	-6026.21	0.0
				-1800.00	15.00	-25.46	-3.476e+05	-552.87	325.63	0.0
				-2000.00	1.80	-3.06	-3.422e+05	-4329.77	2550.05	0.0
				-2200.00	-3.71	6.30	-3.374e+05	-4345.68	2559.41	0.0
				-2400.00	-4.68	7.95	-3.335e+05	-2937.51	1730.06	0.0
				-2600.00	-3.54	6.01	-3.305e+05	-1418.74	835.58	0.0
				-2800.00	-1.63	2.76	-3.288e+05	-371.21	218.63	0.0
				-3000.00	-0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	-1973.74	3953.13	-3.999e+05	-1.207e+06	6.558e+05	0.0
				-200.00	-1296.74	2443.85	-3.974e+05	-5.203e+05	3.045e+05	0.0
				-400.00	-672.16	1191.21	-3.940e+05	-9.821e+04	7.794e+04	0.0
				-600.00	-230.32	350.92	-3.896e+05	9.232e+04	-3.169e+04	0.0
				-800.00	6.47	-73.58	-3.844e+05	1.368e+05	-6.361e+04	0.0
				-1000.00	93.64	-211.34	-3.787e+05	1.125e+05	-5.653e+04	0.0
				-1200.00	98.08	-199.32	-3.725e+05	6.968e+04	-3.691e+04	0.0
				-1400.00	70.17	-134.78	-3.663e+05	3.281e+04	-1.852e+04	0.0
				-1600.00	38.60	-70.11	-3.600e+05	9267.23	-6119.95	0.0
				-1800.00	15.20	-24.90	-3.541e+05	-2214.72	301.14	0.0
				-2000.00	1.87	-0.53	-3.486e+05	-5743.99	2558.29	0.0
				-2200.00	-3.71	8.76	-3.437e+05	-5241.37	2576.71	0.0
				-2400.00	-4.71	9.60	-3.397e+05	-3377.36	1744.61	0.0
				-2600.00	-3.57	6.81	-3.367e+05	-1572.28	843.62	0.0
				-2800.00	-1.64	2.98	-3.349e+05	-396.99	220.98	0.0
				-3000.00	-0.57	0.99	-3.345e+05	0.0	0.0	0.0
		1	89	0.0	-1959.47	3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	2181.54	-3.901e+05	-5.108e+05	3.008e+05	0.0
				-400.00	-664.73	1128.67	-3.868e+05	-1.297e+05	7.642e+04	0.0
				-600.00	-226.83	385.14	-3.825e+05	5.422e+04	-3.194e+04	0.0
				-800.00	7.42	-12.60	-3.774e+05	1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	-158.51	-3.717e+05	9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	-165.40	-3.657e+05	6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	-118.12	-3.596e+05	3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	-64.87	-3.534e+05	1.023e+04	-6026.21	0.0
				-1800.00	15.00	-25.46	-3.476e+05	-552.87	325.63	0.0
				-2000.00	1.80	-3.06	-3.422e+05	-4329.77	2550.05	0.0
				-2200.00	-3.71	6.30	-3.374e+05	-4345.68	2559.41	0.0
				-2400.00	-4.68	7.95	-3.335e+05	-2937.51	1730.06	0.0
				-2600.00	-3.54	6.01	-3.305e+05	-1418.74	835.58	0.0
				-2800.00	-1.63	2.76	-3.288e+05	-371.21	218.63	0.0
				-3000.00	-0.56	0.95	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	-1959.47	3327.03	-3.926e+05	-1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	2181.54	-3.901e+05	-5.108e+05	3.008e+05	0.0
				-400.00	-664.73	1128.67	-3.868e+05	-1.297e+05	7.642e+04	0.0
				-600.00	-226.83	385.14	-3.825e+05	5.422e+04	-3.194e+04	0.0
				-800.00	7.42	-12.60	-3.774e+05	1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	-158.51	-3.717e+05	9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	-165.40	-3.657e+05	6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	-118.12	-3.596e+05	3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	-64.87	-3.534e+05	1.023e+04	-6026.21	0.0
				-1800.00	15.00	-25.46	-3.476e+05	-552.87	325.63	0.0
				-2000.00	1.80	-3.06	-3.422e+05	-4329.77	2550.05	0.0
				-2200.00	-3.71	6.30	-3.374e+05	-4345.68	2559.41	0.0
				-2400.00	-4.68	7.95	-3.335e+05	-2937.51	1730.06	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2600.00	-3.54	6.01	-3.305e+05	-1418.74	835.58	0.0
				-2800.00	-1.63	2.76	-3.288e+05	-371.21	218.63	0.0
				-3000.00	-0.56	0.95	-3.284e+05	0.0	0.0	0.0
119	Palo di fondazione turbina SG170-PALO D 100.00	1	5	0.0	-3327.03	1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	1284.83	-3.901e+05	-3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	664.73	-3.868e+05	-7.642e+04	1.297e+05	0.0
				-600.00	-385.14	226.83	-3.825e+05	3.194e+04	-5.422e+04	0.0
				-800.00	12.60	-7.42	-3.774e+05	6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	-93.35	-3.717e+05	5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	-97.42	-3.657e+05	3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	-69.56	-3.596e+05	1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	-38.21	-3.534e+05	6026.22	-1.023e+04	0.0
				-1800.00	25.46	-15.00	-3.476e+05	-325.63	552.87	0.0
				-2000.00	3.06	-1.80	-3.422e+05	-2550.05	4329.77	0.0
				-2200.00	-6.30	3.71	-3.374e+05	-2559.41	4345.67	0.0
				-2400.00	-7.95	4.68	-3.335e+05	-1730.06	2937.51	0.0
				-2600.00	-6.01	3.54	-3.305e+05	-835.58	1418.74	0.0
				-2800.00	-2.76	1.63	-3.288e+05	-218.63	371.21	0.0
				-3000.00	-0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	11	0.0	-4426.80	7066.87	-5.413e+05	-1.573e+06	1.480e+06	0.0
				-200.00	-2921.75	3523.60	-5.380e+05	-4.364e+05	6.907e+05	0.0
				-400.00	-1521.06	1274.95	-5.334e+05	1.435e+05	1.798e+05	0.0
				-600.00	-526.19	18.91	-5.275e+05	3.241e+05	-6.856e+04	0.0
				-800.00	9.22	-465.73	-5.204e+05	2.961e+05	-1.419e+05	0.0
				-1000.00	207.94	-508.95	-5.126e+05	1.971e+05	-1.268e+05	0.0
				-1200.00	219.72	-372.25	-5.043e+05	1.012e+05	-8.316e+04	0.0
				-1400.00	157.87	-209.25	-4.958e+05	3.510e+04	-4.190e+04	0.0
				-1600.00	87.21	-85.60	-4.874e+05	85.39	-1.399e+04	0.0
				-1800.00	34.57	-13.94	-4.793e+05	-1.284e+04	534.99	0.0
				-2000.00	4.47	16.76	-4.718e+05	-1.369e+04	5683.81	0.0
				-2200.00	-8.21	22.95	-4.653e+05	-9813.95	5772.14	0.0
				-2400.00	-10.55	18.06	-4.598e+05	-5393.55	3923.07	0.0
				-2600.00	-8.03	10.33	-4.558e+05	-2163.82	1902.33	0.0
				-2800.00	-3.72	3.58	-4.533e+05	-458.35	499.60	0.0
				-3000.00	-1.28	1.00	-4.528e+05	0.0	0.0	0.0
		1	15	0.0	-3327.03	1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	1284.83	-3.901e+05	-3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	664.73	-3.868e+05	-7.642e+04	1.297e+05	0.0
				-600.00	-385.14	226.83	-3.825e+05	3.194e+04	-5.422e+04	0.0
				-800.00	12.60	-7.42	-3.774e+05	6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	-93.35	-3.717e+05	5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	-97.42	-3.657e+05	3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	-69.56	-3.596e+05	1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	-38.21	-3.534e+05	6026.22	-1.023e+04	0.0
				-1800.00	25.46	-15.00	-3.476e+05	-325.63	552.87	0.0
				-2000.00	3.06	-1.80	-3.422e+05	-2550.05	4329.77	0.0
				-2200.00	-6.30	3.71	-3.374e+05	-2559.41	4345.67	0.0
				-2400.00	-7.95	4.68	-3.335e+05	-1730.06	2937.51	0.0
				-2600.00	-6.01	3.54	-3.305e+05	-835.58	1418.74	0.0
				-2800.00	-2.76	1.63	-3.288e+05	-218.63	371.21	0.0
				-3000.00	-0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	21	0.0	-3394.80	4972.51	-4.132e+05	-1.135e+06	1.134e+06	0.0
				-200.00	-2238.71	2520.38	-4.107e+05	-3.310e+05	5.286e+05	0.0
				-400.00	-1164.53	938.60	-4.072e+05	8.549e+04	1.372e+05	0.0
				-600.00	-402.14	42.85	-4.026e+05	2.203e+05	-5.293e+04	0.0
				-800.00	7.83	-311.48	-3.973e+05	2.058e+05	-1.089e+05	0.0
				-1000.00	159.76	-351.74	-3.913e+05	1.389e+05	-9.727e+04	0.0
				-1200.00	168.53	-261.16	-3.850e+05	7.231e+04	-6.372e+04	0.0
				-1400.00	121.00	-148.77	-3.785e+05	2.584e+04	-3.208e+04	0.0
				-1600.00	66.79	-62.16	-3.720e+05	860.43	-1.069e+04	0.0
				-1800.00	26.44	-11.29	-3.659e+05	-8604.72	430.38	0.0
				-2000.00	3.39	10.93	-3.602e+05	-9464.17	4366.51	0.0
				-2200.00	-6.31	15.79	-3.552e+05	-6883.89	4427.52	0.0
				-2400.00	-8.10	12.67	-3.510e+05	-3826.38	3007.05	0.0
				-2600.00	-6.16	7.36	-3.479e+05	-1553.96	1457.39	0.0
				-2800.00	-2.85	2.61	-3.461e+05	-334.71	382.56	0.0
				-3000.00	-0.98	0.74	-3.457e+05	0.0	0.0	0.0

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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
		1	23	0.0	-260.98	988.88	-3.603e+05	-4.667e+05	5.483e+05	0.0
				-200.00	-838.17	849.26	-3.581e+05	-2.691e+05	4.297e+05	0.0
				-400.00	-762.96	538.54	-3.550e+05	-1.144e+05	2.620e+05	0.0
				-600.00	-510.38	259.05	-3.511e+05	-2.168e+04	1.213e+05	0.0
				-800.00	-262.76	75.67	-3.464e+05	1.969e+04	3.229e+04	0.0
				-1000.00	-91.07	-15.95	-3.412e+05	2.926e+04	-1.060e+04	0.0
				-1200.00	0.40	-45.38	-3.357e+05	2.402e+04	-2.335e+04	0.0
				-1400.00	34.28	-42.64	-3.300e+05	1.484e+04	-2.103e+04	0.0
				-1600.00	36.45	-28.72	-3.244e+05	6957.84	-1.381e+04	0.0
				-1800.00	26.12	-14.83	-3.190e+05	1946.56	-6967.19	0.0
				-2000.00	14.22	-5.12	-3.141e+05	-474.70	-2357.89	0.0
				-2200.00	5.26	0.14	-3.097e+05	-1186.11	-9.65	0.0
				-2400.00	0.09	2.15	-3.060e+05	-1026.16	738.72	0.0
				-2600.00	-1.93	2.22	-3.033e+05	-575.42	621.84	0.0
				-2800.00	-1.59	1.23	-3.017e+05	-170.06	227.48	0.0
				-3000.00	-0.69	0.47	-3.014e+05	0.0	0.0	0.0
		1	28	0.0	-6398.50	2933.24	-4.252e+05	-8.329e+05	1.658e+06	0.0
				-200.00	-3528.46	1722.48	-4.225e+05	-3.330e+05	5.926e+05	0.0
				-400.00	-1496.22	792.01	-4.190e+05	-3.857e+04	-2294.94	0.0
				-600.00	-260.52	194.97	-4.143e+05	8.560e+04	-2.298e+05	0.0
				-800.00	287.99	-90.53	-4.088e+05	1.070e+05	-2.474e+05	0.0
				-1000.00	408.35	-170.91	-4.026e+05	8.305e+04	-1.801e+05	0.0
				-1200.00	330.67	-149.61	-3.961e+05	4.919e+04	-1.010e+05	0.0
				-1400.00	202.14	-96.60	-3.894e+05	2.181e+04	-4.120e+04	0.0
				-1600.00	93.40	-47.75	-3.828e+05	5104.38	-6670.67	0.0
				-1800.00	24.85	-15.19	-3.765e+05	-2598.35	8073.83	0.0
				-2000.00	-8.09	1.51	-3.706e+05	-4629.54	1.102e+04	0.0
				-2200.00	-17.86	7.28	-3.654e+05	-3936.87	8708.09	0.0
				-2400.00	-16.00	7.22	-3.612e+05	-2436.78	5141.09	0.0
				-2600.00	-10.09	4.86	-3.580e+05	-1097.09	2217.96	0.0
				-2800.00	-3.94	2.02	-3.561e+05	-267.55	515.55	0.0
				-3000.00	-1.22	0.65	-3.557e+05	0.0	0.0	0.0
		1	32	0.0	-6398.50	2933.24	-4.252e+05	-8.329e+05	1.658e+06	0.0
				-200.00	-3528.46	1722.48	-4.225e+05	-3.330e+05	5.926e+05	0.0
				-400.00	-1496.22	792.01	-4.190e+05	-3.857e+04	-2294.94	0.0
				-600.00	-260.52	194.97	-4.143e+05	8.560e+04	-2.298e+05	0.0
				-800.00	287.99	-90.53	-4.088e+05	1.070e+05	-2.474e+05	0.0
				-1000.00	408.35	-170.91	-4.026e+05	8.305e+04	-1.801e+05	0.0
				-1200.00	330.67	-149.61	-3.961e+05	4.919e+04	-1.010e+05	0.0
				-1400.00	202.14	-96.60	-3.894e+05	2.181e+04	-4.120e+04	0.0
				-1600.00	93.40	-47.75	-3.828e+05	5104.38	-6670.67	0.0
				-1800.00	24.85	-15.19	-3.765e+05	-2598.35	8073.83	0.0
				-2000.00	-8.09	1.51	-3.706e+05	-4629.54	1.102e+04	0.0
				-2200.00	-17.86	7.28	-3.654e+05	-3936.87	8708.09	0.0
				-2400.00	-16.00	7.22	-3.612e+05	-2436.78	5141.09	0.0
				-2600.00	-10.09	4.86	-3.580e+05	-1097.09	2217.96	0.0
				-2800.00	-3.94	2.02	-3.561e+05	-267.55	515.55	0.0
				-3000.00	-1.22	0.65	-3.557e+05	0.0	0.0	0.0
		1	40	0.0	-4325.82	4947.93	-4.171e+05	-1.177e+06	1.294e+06	0.0
				-200.00	-2635.70	2576.88	-4.145e+05	-3.697e+05	5.468e+05	0.0
				-400.00	-1264.53	1003.68	-4.110e+05	5.903e+04	9.291e+04	0.0
				-600.00	-356.25	92.28	-4.064e+05	2.062e+05	-1.083e+05	0.0
				-800.00	95.76	-282.67	-4.010e+05	2.006e+05	-1.520e+05	0.0
				-1000.00	237.24	-339.31	-3.949e+05	1.386e+05	-1.229e+05	0.0
				-1200.00	218.84	-258.57	-3.885e+05	7.386e+04	-7.518e+04	0.0
				-1400.00	146.04	-150.62	-3.820e+05	2.763e+04	-3.483e+04	0.0
				-1600.00	74.91	-65.10	-3.755e+05	2200.85	-9389.18	0.0
				-1800.00	25.85	-13.73	-3.693e+05	-7837.46	2828.69	0.0
				-2000.00	-0.23	9.43	-3.635e+05	-9138.53	6441.43	0.0
				-2200.00	-9.92	15.12	-3.585e+05	-6813.62	5755.77	0.0
				-2400.00	-10.55	12.53	-3.543e+05	-3860.01	3666.40	0.0
				-2600.00	-7.37	7.48	-3.512e+05	-1599.06	1691.01	0.0
				-2800.00	-3.18	2.73	-3.493e+05	-353.57	422.95	0.0
				-3000.00	-1.05	0.80	-3.489e+05	0.0	0.0	0.0
		1	60	0.0	-5506.20	2645.79	-4.129e+05	-7.809e+05	1.506e+06	0.0
				-200.00	-3151.00	1596.53	-4.104e+05	-3.254e+05	5.769e+05	0.0
				-400.00	-1403.43	757.72	-4.069e+05	-5.096e+04	4.129e+04	0.0
				-600.00	-306.68	206.71	-4.023e+05	6.915e+04	-1.762e+05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-800.00	202.52	-64.71	-3.970e+05	9.392e+04	-2.059e+05	0.0
				-1000.00	333.62	-147.51	-3.910e+05	7.511e+04	-1.555e+05	0.0
				-1200.00	282.40	-134.14	-3.847e+05	4.555e+04	-9.005e+04	0.0
				-1400.00	178.25	-88.74	-3.782e+05	2.087e+04	-3.865e+04	0.0
				-1600.00	85.76	-45.09	-3.718e+05	5439.82	-7975.00	0.0
				-1800.00	25.53	-15.25	-3.656e+05	-1893.32	5743.55	0.0
				-2000.00	-4.56	0.46	-3.599e+05	-4002.55	9023.67	0.0
				-2200.00	-14.38	6.20	-3.549e+05	-3528.54	7433.49	0.0
				-2400.00	-13.64	6.47	-3.507e+05	-2230.63	4511.46	0.0
				-2600.00	-8.94	4.47	-3.476e+05	-1022.38	1996.37	0.0
				-2800.00	-3.63	1.91	-3.458e+05	-254.07	477.73	0.0
				-3000.00	-1.15	0.63	-3.454e+05	0.0	0.0	0.0
		1	63	0.0	-1153.28	1276.34	-3.726e+05	-5.187e+05	7.002e+05	0.0
				-200.00	-1215.64	975.21	-3.703e+05	-2.767e+05	4.454e+05	0.0
				-400.00	-855.75	572.83	-3.671e+05	-1.020e+05	2.184e+05	0.0
				-600.00	-464.22	247.31	-3.630e+05	-5224.52	6.766e+04	0.0
				-800.00	-177.29	49.85	-3.582e+05	3.279e+04	-9215.28	0.0
				-1000.00	-16.35	-39.35	-3.528e+05	3.720e+04	-3.518e+04	0.0
				-1200.00	48.68	-60.85	-3.471e+05	2.766e+04	-3.426e+04	0.0
				-1400.00	58.17	-50.50	-3.412e+05	1.578e+04	-2.358e+04	0.0
				-1600.00	44.08	-31.39	-3.354e+05	6622.40	-1.251e+04	0.0
				-1800.00	25.44	-14.77	-3.299e+05	1241.53	-4636.91	0.0
				-2000.00	10.69	-4.07	-3.247e+05	-1101.69	-357.07	0.0
				-2200.00	1.78	1.22	-3.202e+05	-1594.43	1264.95	0.0
				-2400.00	-2.26	2.90	-3.165e+05	-1232.30	1368.34	0.0
				-2600.00	-3.09	2.61	-3.137e+05	-650.13	843.43	0.0
				-2800.00	-1.90	1.34	-3.120e+05	-183.54	265.30	0.0
				-3000.00	-0.75	0.49	-3.117e+05	0.0	0.0	0.0
		1	64	0.0	-5506.20	2645.79	-4.129e+05	-7.809e+05	1.506e+06	0.0
				-200.00	-3151.00	1596.53	-4.104e+05	-3.254e+05	5.769e+05	0.0
				-400.00	-1403.43	757.72	-4.069e+05	-5.096e+04	4.129e+04	0.0
				-600.00	-306.68	206.71	-4.023e+05	6.915e+04	-1.762e+05	0.0
				-800.00	202.52	-64.71	-3.970e+05	9.392e+04	-2.059e+05	0.0
				-1000.00	333.62	-147.51	-3.910e+05	7.511e+04	-1.555e+05	0.0
				-1200.00	282.40	-134.14	-3.847e+05	4.555e+04	-9.005e+04	0.0
				-1400.00	178.25	-88.74	-3.782e+05	2.087e+04	-3.865e+04	0.0
				-1600.00	85.76	-45.09	-3.718e+05	5439.82	-7975.00	0.0
				-1800.00	25.53	-15.25	-3.656e+05	-1893.32	5743.55	0.0
				-2000.00	-4.56	0.46	-3.599e+05	-4002.55	9023.67	0.0
				-2200.00	-14.38	6.20	-3.549e+05	-3528.54	7433.49	0.0
				-2400.00	-13.64	6.47	-3.507e+05	-2230.63	4511.46	0.0
				-2600.00	-8.94	4.47	-3.476e+05	-1022.38	1996.37	0.0
				-2800.00	-3.63	1.91	-3.458e+05	-254.07	477.73	0.0
				-3000.00	-1.15	0.63	-3.454e+05	0.0	0.0	0.0
		1	72	0.0	-4029.06	4087.53	-4.079e+05	-1.036e+06	1.239e+06	0.0
				-200.00	-2503.61	2220.51	-4.053e+05	-3.590e+05	5.378e+05	0.0
				-400.00	-1227.04	921.89	-4.019e+05	1.414e+04	1.049e+05	0.0
				-600.00	-366.88	142.26	-3.974e+05	1.531e+05	-9.168e+04	0.0
				-800.00	69.93	-197.25	-3.921e+05	1.601e+05	-1.386e+05	0.0
				-1000.00	213.41	-266.07	-3.862e+05	1.149e+05	-1.147e+05	0.0
				-1200.00	202.91	-211.88	-3.800e+05	6.356e+04	-7.138e+04	0.0
				-1400.00	137.85	-127.87	-3.736e+05	2.539e+04	-3.380e+04	0.0
				-1600.00	72.06	-58.09	-3.672e+05	3606.83	-9695.15	0.0
				-1800.00	25.84	-14.66	-3.611e+05	-5510.57	2122.56	0.0
				-2000.00	0.81	5.87	-3.555e+05	-7178.48	5802.48	0.0
				-2200.00	-8.82	11.70	-3.506e+05	-5580.60	5335.30	0.0
				-2400.00	-9.77	10.25	-3.465e+05	-3258.68	3452.00	0.0
				-2600.00	-6.97	6.38	-3.434e+05	-1391.20	1612.29	0.0
				-2800.00	-3.06	2.45	-3.416e+05	-319.36	408.43	0.0
				-3000.00	-1.02	0.75	-3.412e+05	0.0	0.0	0.0
		1	86	0.0	-3327.03	1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	1284.83	-3.901e+05	-3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	664.73	-3.868e+05	-7.642e+04	1.297e+05	0.0
				-600.00	-385.14	226.83	-3.825e+05	3.194e+04	-5.422e+04	0.0
				-800.00	12.60	-7.42	-3.774e+05	6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	-93.35	-3.717e+05	5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	-97.42	-3.657e+05	3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	-69.56	-3.596e+05	1.831e+04	-3.109e+04	0.0

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1600.00	64.87	-38.21	-3.534e+05	6026.22	-1.023e+04	0.0
				-1800.00	25.46	-15.00	-3.476e+05	-325.63	552.87	0.0
				-2000.00	3.06	-1.80	-3.422e+05	-2550.05	4329.77	0.0
				-2200.00	-6.30	3.71	-3.374e+05	-2559.41	4345.67	0.0
				-2400.00	-7.95	4.68	-3.335e+05	-1730.06	2937.51	0.0
				-2600.00	-6.01	3.54	-3.305e+05	-835.58	1418.74	0.0
				-2800.00	-2.76	1.63	-3.288e+05	-218.63	371.21	0.0
				-3000.00	-0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	-3340.24	2561.88	-3.967e+05	-7.464e+05	1.109e+06	0.0
				-200.00	-2192.75	1531.81	-3.942e+05	-3.068e+05	5.143e+05	0.0
				-400.00	-1135.73	719.44	-3.909e+05	-4.403e+04	1.312e+05	0.0
				-600.00	-388.50	190.01	-3.865e+05	6.961e+04	-5.396e+04	0.0
				-800.00	11.65	-68.23	-3.814e+05	9.181e+04	-1.078e+05	0.0
				-1000.00	158.74	-145.02	-3.756e+05	7.266e+04	-9.566e+04	0.0
				-1200.00	166.01	-130.15	-3.695e+05	4.372e+04	-6.242e+04	0.0
				-1400.00	118.68	-85.40	-3.633e+05	1.982e+04	-3.129e+04	0.0
				-1600.00	65.25	-42.99	-3.571e+05	4992.45	-1.032e+04	0.0
				-1800.00	25.66	-14.25	-3.512e+05	-1981.42	528.32	0.0
				-2000.00	3.13	0.74	-3.458e+05	-3932.62	4336.68	0.0
				-2200.00	-6.30	6.12	-3.409e+05	-3424.05	4361.60	0.0
				-2400.00	-7.98	6.28	-3.370e+05	-2149.15	2951.12	0.0
				-2600.00	-6.04	4.30	-3.340e+05	-979.17	1426.33	0.0
				-2800.00	-2.78	1.82	-3.322e+05	-241.82	373.44	0.0
				-3000.00	-0.96	0.60	-3.318e+05	0.0	0.0	0.0
		1	89	0.0	-3327.03	1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	1284.83	-3.901e+05	-3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	664.73	-3.868e+05	-7.642e+04	1.297e+05	0.0
				-600.00	-385.14	226.83	-3.825e+05	3.194e+04	-5.422e+04	0.0
				-800.00	12.60	-7.42	-3.774e+05	6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	-93.35	-3.717e+05	5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	-97.42	-3.657e+05	3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	-69.56	-3.596e+05	1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	-38.21	-3.534e+05	6026.22	-1.023e+04	0.0
				-1800.00	25.46	-15.00	-3.476e+05	-325.63	552.87	0.0
				-2000.00	3.06	-1.80	-3.422e+05	-2550.05	4329.77	0.0
				-2200.00	-6.30	3.71	-3.374e+05	-2559.41	4345.67	0.0
				-2400.00	-7.95	4.68	-3.335e+05	-1730.06	2937.51	0.0
				-2600.00	-6.01	3.54	-3.305e+05	-835.58	1418.74	0.0
				-2800.00	-2.76	1.63	-3.288e+05	-218.63	371.21	0.0
				-3000.00	-0.95	0.56	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	-3327.03	1959.47	-3.926e+05	-6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	1284.83	-3.901e+05	-3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	664.73	-3.868e+05	-7.642e+04	1.297e+05	0.0
				-600.00	-385.14	226.83	-3.825e+05	3.194e+04	-5.422e+04	0.0
				-800.00	12.60	-7.42	-3.774e+05	6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	-93.35	-3.717e+05	5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	-97.42	-3.657e+05	3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	-69.56	-3.596e+05	1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	-38.21	-3.534e+05	6026.22	-1.023e+04	0.0
				-1800.00	25.46	-15.00	-3.476e+05	-325.63	552.87	0.0
				-2000.00	3.06	-1.80	-3.422e+05	-2550.05	4329.77	0.0
				-2200.00	-6.30	3.71	-3.374e+05	-2559.41	4345.67	0.0
				-2400.00	-7.95	4.68	-3.335e+05	-1730.06	2937.51	0.0
				-2600.00	-6.01	3.54	-3.305e+05	-835.58	1418.74	0.0
				-2800.00	-2.76	1.63	-3.288e+05	-218.63	371.21	0.0
				-3000.00	-0.95	0.56	-3.284e+05	0.0	0.0	0.0
131	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	-4978.35	-1.65e-04	-5.125e+05	0.04	1.650e+06	0.0
				-200.00	-3264.29	-8.63e-05	-5.094e+05	0.01	7.643e+05	0.0
				-400.00	-1688.85	-3.37e-05	-5.051e+05	-1.93e-03	1.941e+05	0.0
				-600.00	-576.28	-3.17e-06	-4.994e+05	-6.87e-03	-8.114e+04	0.0
				-800.00	18.87	9.40e-06	-4.928e+05	-6.70e-03	-1.608e+05	0.0
				-1000.00	237.18	1.13e-05	-4.854e+05	-4.63e-03	-1.426e+05	0.0
				-1200.00	247.50	8.64e-06	-4.775e+05	-2.47e-03	-9.293e+04	0.0
				-1400.00	176.74	5.04e-06	-4.694e+05	-9.27e-04	-4.652e+04	0.0
				-1600.00	97.07	2.18e-06	-4.615e+05	-7.59e-05	-1.531e+04	0.0
				-1800.00	38.10	0.0	-4.538e+05	2.61e-04	827.46	0.0
				-2000.00	4.58	0.0	-4.468e+05	3.05e-04	6478.86	0.0

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Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2200.00	-9.42	0.0	-4.405e+05	2.28e-04	6502.60	0.0
				-2400.00	-11.89	0.0	-4.354e+05	1.29e-04	4395.48	0.0
				-2600.00	-8.99	0.0	-4.315e+05	5.36e-05	2122.90	0.0
				-2800.00	-4.13	0.0	-4.293e+05	1.19e-05	555.45	0.0
				-3000.00	-1.42	0.0	-4.288e+05	0.0	0.0	0.0
		1	12	0.0	-3755.21	4429.93	-3.922e+05	-6.998e+05	1.259e+06	0.0
				-200.00	-2482.88	1795.35	-3.898e+05	-3.201e+04	5.885e+05	0.0
				-400.00	-1294.74	381.19	-3.865e+05	2.461e+05	1.542e+05	0.0
				-600.00	-449.52	-285.77	-3.821e+05	2.809e+05	-5.733e+04	0.0
				-800.00	6.09	-455.43	-3.770e+05	2.108e+05	-1.201e+05	0.0
				-1000.00	175.71	-383.19	-3.714e+05	1.216e+05	-1.076e+05	0.0
				-1200.00	186.30	-241.14	-3.654e+05	5.195e+04	-7.067e+04	0.0
				-1400.00	134.09	-115.66	-3.592e+05	1.048e+04	-3.567e+04	0.0
				-1600.00	74.19	-34.22	-3.531e+05	-8008.85	-1.195e+04	0.0
				-1800.00	29.49	6.22	-3.472e+05	-1.240e+04	407.71	0.0
				-2000.00	3.89	19.17	-3.418e+05	-1.025e+04	4803.78	0.0
				-2200.00	-6.93	17.95	-3.371e+05	-6369.23	4894.15	0.0
				-2400.00	-8.95	11.77	-3.331e+05	-3065.94	3331.25	0.0
				-2600.00	-6.82	5.58	-3.302e+05	-1039.96	1617.09	0.0
				-2800.00	-3.16	1.39	-3.284e+05	-164.37	425.11	0.0
				-3000.00	-1.09	0.25	-3.281e+05	0.0	0.0	0.0
		1	17	0.0	-3828.90	-1.27e-04	-3.942e+05	0.03	1.269e+06	0.0
				-200.00	-2510.60	-6.64e-05	-3.918e+05	9.56e-03	5.878e+05	0.0
				-400.00	-1298.91	-2.59e-05	-3.885e+05	-1.48e-03	1.493e+05	0.0
				-600.00	-443.22	-2.44e-06	-3.841e+05	-5.29e-03	-6.241e+04	0.0
				-800.00	14.51	7.23e-06	-3.790e+05	-5.15e-03	-1.237e+05	0.0
				-1000.00	182.42	8.71e-06	-3.733e+05	-3.56e-03	-1.096e+05	0.0
				-1200.00	190.35	6.65e-06	-3.673e+05	-1.90e-03	-7.147e+04	0.0
				-1400.00	135.93	3.88e-06	-3.611e+05	-7.13e-04	-3.578e+04	0.0
				-1600.00	74.65	1.68e-06	-3.549e+05	-5.84e-05	-1.178e+04	0.0
				-1800.00	29.31	0.0	-3.491e+05	2.01e-04	636.41	0.0
				-2000.00	3.52	0.0	-3.436e+05	2.35e-04	4982.95	0.0
				-2200.00	-7.25	0.0	-3.388e+05	1.75e-04	5001.21	0.0
				-2400.00	-9.15	0.0	-3.349e+05	9.94e-05	3380.61	0.0
				-2600.00	-6.91	0.0	-3.319e+05	4.12e-05	1632.74	0.0
				-2800.00	-3.18	0.0	-3.302e+05	9.12e-06	427.20	0.0
				-3000.00	-1.09	0.0	-3.298e+05	0.0	0.0	0.0
		1	19	0.0	-3778.47	2953.29	-3.928e+05	-4.665e+05	1.262e+06	0.0
				-200.00	-2491.27	1196.90	-3.904e+05	-2.134e+04	5.881e+05	0.0
				-400.00	-1295.69	254.13	-3.871e+05	1.640e+05	1.525e+05	0.0
				-600.00	-447.27	-190.51	-3.827e+05	1.873e+05	-5.900e+04	0.0
				-800.00	8.89	-303.62	-3.776e+05	1.406e+05	-1.212e+05	0.0
				-1000.00	177.89	-255.46	-3.720e+05	8.110e+04	-1.083e+05	0.0
				-1200.00	187.59	-160.76	-3.659e+05	3.463e+04	-7.091e+04	0.0
				-1400.00	134.66	-77.11	-3.598e+05	6984.66	-3.569e+04	0.0
				-1600.00	74.32	-22.82	-3.537e+05	-5339.23	-1.189e+04	0.0
				-1800.00	29.42	4.14	-3.478e+05	-8263.60	483.73	0.0
				-2000.00	3.77	12.78	-3.424e+05	-6834.23	4861.80	0.0
				-2200.00	-7.03	11.97	-3.376e+05	-4246.16	4928.13	0.0
				-2400.00	-9.01	7.84	-3.337e+05	-2043.96	3346.55	0.0
				-2600.00	-6.85	3.72	-3.307e+05	-693.31	1621.75	0.0
				-2800.00	-3.17	0.93	-3.290e+05	-109.58	425.66	0.0
				-3000.00	-1.09	0.17	-3.286e+05	0.0	0.0	0.0
		1	24	0.0	-6914.18	876.25	-4.259e+05	-1.517e+05	1.829e+06	0.0
				-200.00	-3867.01	374.30	-4.233e+05	-1.753e+04	6.720e+05	0.0
				-400.00	-1671.58	94.78	-4.197e+05	4.143e+04	1.797e+04	0.0
				-600.00	-320.51	-42.72	-4.150e+05	5.196e+04	-2.381e+05	0.0
				-800.00	289.78	-82.50	-4.095e+05	4.054e+04	-2.641e+05	0.0
				-1000.00	432.85	-72.82	-4.033e+05	2.415e+04	-1.949e+05	0.0
				-1200.00	356.30	-47.34	-3.968e+05	1.081e+04	-1.106e+05	0.0
				-1400.00	220.46	-23.60	-3.901e+05	2606.74	-4.603e+04	0.0
				-1600.00	103.47	-7.67	-3.835e+05	-1210.31	-8264.66	0.0
				-1800.00	28.81	0.54	-3.771e+05	-2250.34	8155.20	0.0
				-2000.00	-7.61	3.39	-3.713e+05	-1950.21	1.169e+04	0.0
				-2200.00	-18.83	3.39	-3.661e+05	-1249.77	9381.44	0.0
				-2400.00	-17.23	2.31	-3.618e+05	-621.06	5596.71	0.0
				-2600.00	-11.03	1.14	-3.586e+05	-220.38	2438.18	0.0
				-2800.00	-4.37	0.32	-3.567e+05	-38.21	573.21	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-3000.00	-1.36	0.07	-3.563e+05	0.0	0.0	0.0
		1	30	0.0	-742.04	876.25	-3.624e+05	-1.517e+05	7.074e+05	0.0
				-200.00	-1153.16	374.30	-3.602e+05	-1.753e+04	5.033e+05	0.0
				-400.00	-925.71	94.78	-3.572e+05	4.143e+04	2.806e+05	0.0
				-600.00	-565.76	-42.72	-3.532e+05	5.196e+04	1.133e+05	0.0
				-800.00	-260.77	-82.50	-3.485e+05	4.054e+04	1.672e+04	0.0
				-1000.00	-68.09	-72.82	-3.432e+05	2.415e+04	-2.438e+04	0.0
				-1200.00	24.33	-47.34	-3.377e+05	1.081e+04	-3.232e+04	0.0
				-1400.00	51.35	-23.60	-3.320e+05	2606.74	-2.551e+04	0.0
				-1600.00	45.81	-7.67	-3.263e+05	-1210.31	-1.528e+04	0.0
				-1800.00	29.79	0.54	-3.209e+05	-2250.34	-6882.65	0.0
				-2000.00	14.65	3.39	-3.159e+05	-1950.21	-1730.07	0.0
				-2200.00	4.34	3.39	-3.115e+05	-1249.77	618.93	0.0
				-2400.00	-1.06	2.31	-3.079e+05	-621.06	1163.12	0.0
				-2600.00	-2.80	1.14	-3.052e+05	-220.38	826.64	0.0
				-2800.00	-1.99	0.32	-3.035e+05	-38.21	281.03	0.0
				-3000.00	-0.82	0.07	-3.032e+05	0.0	0.0	0.0
		1	33	0.0	-6914.18	-876.25	-4.259e+05	1.517e+05	1.829e+06	0.0
				-200.00	-3867.01	-374.30	-4.233e+05	1.753e+04	6.720e+05	0.0
				-400.00	-1671.58	-94.78	-4.197e+05	-4.143e+04	1.797e+04	0.0
				-600.00	-320.51	42.72	-4.150e+05	-5.196e+04	-2.381e+05	0.0
				-800.00	289.78	82.50	-4.095e+05	-4.054e+04	-2.641e+05	0.0
				-1000.00	432.85	72.82	-4.033e+05	-2.415e+04	-1.949e+05	0.0
				-1200.00	356.30	47.34	-3.968e+05	-1.081e+04	-1.106e+05	0.0
				-1400.00	220.46	23.60	-3.901e+05	-2606.74	-4.603e+04	0.0
				-1600.00	103.47	7.67	-3.835e+05	1210.31	-8264.66	0.0
				-1800.00	28.81	-0.54	-3.771e+05	2250.34	8155.20	0.0
				-2000.00	-7.61	-3.39	-3.713e+05	1950.21	1.169e+04	0.0
				-2200.00	-18.83	-3.39	-3.661e+05	1249.77	9381.44	0.0
				-2400.00	-17.23	-2.31	-3.618e+05	621.06	5596.71	0.0
				-2600.00	-11.03	-1.14	-3.586e+05	220.38	2438.18	0.0
				-2800.00	-4.37	-0.32	-3.567e+05	38.21	573.21	0.0
				-3000.00	-1.36	-0.07	-3.563e+05	0.0	0.0	0.0
		1	39	0.0	-2902.29	-2920.83	-3.847e+05	5.056e+05	1.100e+06	0.0
				-200.00	-2103.01	-1247.65	-3.823e+05	5.844e+04	5.624e+05	0.0
				-400.00	-1186.76	-315.95	-3.791e+05	-1.381e+05	1.887e+05	0.0
				-600.00	-479.92	142.41	-3.748e+05	-1.732e+05	-9672.01	0.0
				-800.00	-68.08	275.01	-3.698e+05	-1.351e+05	-8.156e+04	0.0
				-1000.00	107.24	242.74	-3.643e+05	-8.051e+04	-8.404e+04	0.0
				-1200.00	140.52	157.79	-3.584e+05	-3.602e+04	-5.972e+04	0.0
				-1400.00	110.54	78.66	-3.523e+05	-8689.13	-3.270e+04	0.0
				-1600.00	65.99	25.57	-3.463e+05	4034.37	-1.283e+04	0.0
				-1800.00	29.45	-1.79	-3.406e+05	7501.15	-1619.40	0.0
				-2000.00	6.86	-11.30	-3.353e+05	6500.69	2968.33	0.0
				-2200.00	-3.77	-11.28	-3.306e+05	4165.91	3685.81	0.0
				-2400.00	-6.72	-7.69	-3.268e+05	2070.20	2714.88	0.0
				-2600.00	-5.68	-3.82	-3.239e+05	734.60	1390.68	0.0
				-2800.00	-2.82	-1.05	-3.222e+05	127.38	383.29	0.0
				-3000.00	-1.01	-0.22	-3.218e+05	0.0	0.0	0.0
		1	54	0.0	-1641.12	625.83	-3.745e+05	-1.119e+05	8.617e+05	0.0
				-200.00	-1535.24	272.45	-3.721e+05	-1.551e+04	5.202e+05	0.0
				-400.00	-1020.97	72.87	-3.690e+05	2.766e+04	2.373e+05	0.0
				-600.00	-520.50	-26.83	-3.649e+05	3.615e+04	5.965e+04	0.0
				-800.00	-175.33	-56.90	-3.600e+05	2.864e+04	-2.499e+04	0.0
				-1000.00	6.94	-51.22	-3.546e+05	1.727e+04	-4.915e+04	0.0
				-1200.00	72.94	-33.71	-3.488e+05	7860.49	-4.336e+04	0.0
				-1400.00	75.48	-17.05	-3.430e+05	2004.42	-2.813e+04	0.0
				-1600.00	53.58	-5.72	-3.371e+05	-764.63	-1.400e+04	0.0
				-1800.00	29.17	0.20	-3.316e+05	-1553.45	-4552.93	0.0
				-2000.00	11.13	2.31	-3.264e+05	-1372.18	278.93	0.0
				-2200.00	0.85	2.37	-3.218e+05	-889.92	1902.30	0.0
				-2400.00	-3.43	1.64	-3.181e+05	-447.47	1798.86	0.0
				-2600.00	-3.97	0.83	-3.153e+05	-161.32	1051.25	0.0
				-2800.00	-2.31	0.24	-3.136e+05	-28.81	319.65	0.0
				-3000.00	-0.89	0.05	-3.133e+05	0.0	0.0	0.0
		1	56	0.0	-6015.11	625.83	-4.139e+05	-1.119e+05	1.675e+06	0.0
				-200.00	-3484.94	272.45	-4.114e+05	-1.551e+04	6.552e+05	0.0
				-400.00	-1576.32	72.87	-4.079e+05	2.766e+04	6.123e+04	0.0

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società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-600.00	-365.77	-26.83	-4.033e+05	3.615e+04	-1.844e+05	0.0
				-800.00	204.35	-56.90	-3.979e+05	2.864e+04	-2.224e+05	0.0
				-1000.00	357.82	-51.22	-3.920e+05	1.727e+04	-1.701e+05	0.0
				-1200.00	307.70	-33.71	-3.856e+05	7860.49	-9.956e+04	0.0
				-1400.00	196.32	-17.05	-3.791e+05	2004.42	-4.341e+04	0.0
				-1600.00	95.70	-5.72	-3.727e+05	764.63	-9545.00	0.0
				-1800.00	29.43	0.20	-3.665e+05	1553.45	5825.48	0.0
				-2000.00	-4.09	2.31	-3.608e+05	-1372.18	9684.94	0.0
				-2200.00	-15.34	2.37	-3.558e+05	-889.92	8098.07	0.0
				-2400.00	-14.86	1.64	-3.516e+05	-447.47	4960.98	0.0
				-2600.00	-9.86	0.83	-3.485e+05	-161.32	2213.57	0.0
				-2800.00	-4.05	0.24	-3.467e+05	-28.81	534.58	0.0
				-3000.00	-1.30	0.05	-3.463e+05	0.0	0.0	0.0
		1	57	0.0	-6015.11	-625.83	-4.139e+05	1.119e+05	1.675e+06	0.0
				-200.00	-3484.94	-272.45	-4.114e+05	1.551e+04	6.552e+05	0.0
				-400.00	-1576.32	-72.87	-4.079e+05	-2.766e+04	6.123e+04	0.0
				-600.00	-365.77	26.83	-4.033e+05	-3.615e+04	-1.844e+05	0.0
				-800.00	204.35	56.90	-3.979e+05	-2.864e+04	-2.224e+05	0.0
				-1000.00	357.82	51.22	-3.920e+05	-1.727e+04	-1.701e+05	0.0
				-1200.00	307.70	33.71	-3.856e+05	-7860.49	-9.956e+04	0.0
				-1400.00	196.32	17.05	-3.791e+05	-2004.42	-4.341e+04	0.0
				-1600.00	95.70	5.72	-3.727e+05	764.63	-9545.00	0.0
				-1800.00	29.43	-0.20	-3.665e+05	1553.45	5825.48	0.0
				-2000.00	-4.09	-2.31	-3.608e+05	1372.18	9684.94	0.0
				-2200.00	-15.34	-2.37	-3.558e+05	889.92	8098.07	0.0
				-2400.00	-14.86	-1.64	-3.516e+05	447.47	4960.98	0.0
				-2600.00	-9.86	-0.83	-3.485e+05	161.32	2213.57	0.0
				-2800.00	-4.05	-0.24	-3.467e+05	28.81	534.58	0.0
				-3000.00	-1.30	-0.05	-3.463e+05	0.0	0.0	0.0
		1	75	0.0	-3172.01	-2086.11	-3.883e+05	3.729e+05	1.146e+06	0.0
				-200.00	-2217.63	-908.16	-3.859e+05	5.170e+04	5.674e+05	0.0
				-400.00	-1215.34	-242.90	-3.826e+05	-9.220e+04	1.757e+05	0.0
				-600.00	-466.34	89.44	-3.783e+05	-1.205e+05	-2.578e+04	0.0
				-800.00	-42.45	189.67	-3.733e+05	-9.546e+04	-9.408e+04	0.0
				-1000.00	129.75	170.72	-3.677e+05	-5.758e+04	-9.148e+04	0.0
				-1200.00	155.10	112.37	-3.617e+05	-2.620e+04	-6.303e+04	0.0
				-1400.00	117.78	56.82	-3.556e+05	-6681.41	-3.348e+04	0.0
				-1600.00	68.32	19.06	-3.496e+05	2548.77	-1.244e+04	0.0
				-1800.00	29.26	-0.66	-3.438e+05	5178.17	-920.48	0.0
				-2000.00	5.81	-7.71	-3.384e+05	4573.93	3571.03	0.0
				-2200.00	-4.82	-7.91	-3.337e+05	2966.41	4070.82	0.0
				-2400.00	-7.43	-5.47	-3.298e+05	1491.57	2905.60	0.0
				-2600.00	-6.03	-2.76	-3.269e+05	537.72	1458.06	0.0
				-2800.00	-2.92	-0.79	-3.252e+05	96.05	394.88	0.0
				-3000.00	-1.03	-0.17	-3.248e+05	0.0	0.0	0.0
		1	87	0.0	-3825.76	-1.27e-04	-3.941e+05	0.03	1.268e+06	0.0
				-200.00	-2508.54	-6.63e-05	-3.916e+05	9.56e-03	5.873e+05	0.0
				-400.00	-1297.85	-2.59e-05	-3.883e+05	-1.48e-03	1.492e+05	0.0
				-600.00	-442.86	-2.44e-06	-3.840e+05	-5.28e-03	-6.235e+04	0.0
				-800.00	14.50	7.23e-06	-3.789e+05	-5.15e-03	-1.236e+05	0.0
				-1000.00	182.27	8.71e-06	-3.732e+05	-3.56e-03	-1.095e+05	0.0
				-1200.00	190.20	6.65e-06	-3.671e+05	-1.90e-03	-7.141e+04	0.0
				-1400.00	135.82	3.88e-06	-3.609e+05	-7.13e-04	-3.575e+04	0.0
				-1600.00	74.59	1.68e-06	-3.548e+05	-5.84e-05	-1.177e+04	0.0
				-1800.00	29.28	0.0	-3.489e+05	2.01e-04	635.89	0.0
				-2000.00	3.52	0.0	-3.435e+05	2.35e-04	4978.87	0.0
				-2200.00	-7.24	0.0	-3.387e+05	1.75e-04	4997.12	0.0
				-2400.00	-9.14	0.0	-3.347e+05	9.93e-05	3377.84	0.0
				-2600.00	-6.91	0.0	-3.318e+05	4.12e-05	1631.41	0.0
				-2800.00	-3.18	0.0	-3.300e+05	9.12e-06	426.85	0.0
				-3000.00	-1.09	0.0	-3.297e+05	0.0	0.0	0.0
		1	88	0.0	-3815.67	590.66	-3.938e+05	-9.330e+04	1.266e+06	0.0
				-200.00	-2504.68	239.38	-3.914e+05	-4268.38	5.874e+05	0.0
				-400.00	-1297.20	50.83	-3.880e+05	3.281e+04	1.498e+05	0.0
				-600.00	-443.67	-38.10	-3.837e+05	3.746e+04	-6.167e+04	0.0
				-800.00	13.37	-60.72	-3.786e+05	2.811e+04	-1.231e+05	0.0
				-1000.00	181.36	-51.09	-3.729e+05	1.622e+04	-1.093e+05	0.0
				-1200.00	189.65	-32.15	-3.668e+05	6926.75	-7.130e+04	0.0

**PROJETTO engineering s.r.l.**  
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Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1400.00	135.57	-15.42	-3.607e+05	1396.93	-3.573e+04	0.0
				-1600.00	74.53	-4.56	-3.545e+05	-1067.85	-1.179e+04	0.0
				-1800.00	29.30	0.83	-3.487e+05	-1652.72	605.35	0.0
				-2000.00	3.57	2.56	-3.432e+05	-1366.85	4954.64	0.0
				-2200.00	-7.20	2.39	-3.385e+05	-849.23	4982.50	0.0
				-2400.00	-9.11	1.57	-3.345e+05	-408.79	3371.03	0.0
				-2600.00	-6.89	0.74	-3.315e+05	-138.66	1629.21	0.0
				-2800.00	-3.17	0.19	-3.298e+05	-21.92	426.55	0.0
				-3000.00	-1.09	0.03	-3.294e+05	0.0	0.0	0.0
		1	89	0.0	-3824.98	-1.27e-04	-3.940e+05	0.03	1.267e+06	0.0
				-200.00	-2508.03	-6.63e-05	-3.916e+05	9.56e-03	5.872e+05	0.0
				-400.00	-1297.58	-2.59e-05	-3.883e+05	-1.48e-03	1.492e+05	0.0
				-600.00	-442.77	-2.44e-06	-3.839e+05	-5.28e-03	-6.234e+04	0.0
				-800.00	14.49	7.23e-06	-3.788e+05	-5.15e-03	-1.236e+05	0.0
				-1000.00	182.23	8.71e-06	-3.731e+05	-3.56e-03	-1.095e+05	0.0
				-1200.00	190.16	6.65e-06	-3.671e+05	-1.90e-03	-7.140e+04	0.0
				-1400.00	135.79	3.88e-06	-3.609e+05	-7.13e-04	-3.574e+04	0.0
				-1600.00	74.58	1.68e-06	-3.548e+05	-5.84e-05	-1.176e+04	0.0
				-1800.00	29.28	0.0	-3.489e+05	2.00e-04	635.76	0.0
				-2000.00	3.52	0.0	-3.435e+05	2.35e-04	4977.85	0.0
				-2200.00	-7.24	0.0	-3.387e+05	1.75e-04	4996.09	0.0
				-2400.00	-9.14	0.0	-3.347e+05	9.93e-05	3377.15	0.0
				-2600.00	-6.91	0.0	-3.318e+05	4.12e-05	1631.07	0.0
				-2800.00	-3.18	0.0	-3.300e+05	9.12e-06	426.77	0.0
				-3000.00	-1.09	0.0	-3.296e+05	0.0	0.0	0.0
		1	90	0.0	-3824.98	-1.27e-04	-3.940e+05	0.03	1.267e+06	0.0
				-200.00	-2508.03	-6.63e-05	-3.916e+05	9.56e-03	5.872e+05	0.0
				-400.00	-1297.58	-2.59e-05	-3.883e+05	-1.48e-03	1.492e+05	0.0
				-600.00	-442.77	-2.44e-06	-3.839e+05	-5.28e-03	-6.234e+04	0.0
				-800.00	14.49	7.23e-06	-3.788e+05	-5.15e-03	-1.236e+05	0.0
				-1000.00	182.23	8.71e-06	-3.731e+05	-3.56e-03	-1.095e+05	0.0
				-1200.00	190.16	6.65e-06	-3.671e+05	-1.90e-03	-7.140e+04	0.0
				-1400.00	135.79	3.88e-06	-3.609e+05	-7.13e-04	-3.574e+04	0.0
				-1600.00	74.58	1.68e-06	-3.548e+05	-5.84e-05	-1.176e+04	0.0
				-1800.00	29.28	0.0	-3.489e+05	2.00e-04	635.76	0.0
				-2000.00	3.52	0.0	-3.435e+05	2.35e-04	4977.85	0.0
				-2200.00	-7.24	0.0	-3.387e+05	1.75e-04	4996.09	0.0
				-2400.00	-9.14	0.0	-3.347e+05	9.93e-05	3377.15	0.0
				-2600.00	-6.91	0.0	-3.318e+05	4.12e-05	1631.07	0.0
				-2800.00	-3.18	0.0	-3.300e+05	9.12e-06	426.77	0.0
				-3000.00	-1.09	0.0	-3.296e+05	0.0	0.0	0.0
143	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	-4330.22	-2550.30	-5.106e+05	8.450e+05	1.435e+06	0.0
				-200.00	-2839.34	-1672.23	-5.075e+05	3.915e+05	6.648e+05	0.0
				-400.00	-1469.00	-865.17	-5.032e+05	9.946e+04	1.689e+05	0.0
				-600.00	-501.27	-295.22	-4.976e+05	-4.156e+04	-7.057e+04	0.0
				-800.00	16.40	9.66	-4.909e+05	-8.240e+04	-1.399e+05	0.0
				-1000.00	206.30	121.50	-4.836e+05	-7.303e+04	-1.240e+05	0.0
				-1200.00	215.28	126.79	-4.757e+05	-4.760e+04	-8.083e+04	0.0
				-1400.00	153.73	90.54	-4.677e+05	-2.383e+04	-4.047e+04	0.0
				-1600.00	84.43	49.73	-4.598e+05	-7843.25	-1.332e+04	0.0
				-1800.00	33.14	19.52	-4.521e+05	423.82	719.58	0.0
				-2000.00	3.99	2.35	-4.451e+05	3318.94	5635.32	0.0
				-2200.00	-8.19	-4.83	-4.389e+05	3331.13	5656.03	0.0
				-2400.00	-10.34	-6.09	-4.338e+05	2251.71	3823.25	0.0
				-2600.00	-7.82	-4.60	-4.299e+05	1087.52	1846.54	0.0
				-2800.00	-3.60	-2.12	-4.277e+05	284.55	483.14	0.0
				-3000.00	-1.24	-0.73	-4.272e+05	0.0	0.0	0.0
		1	12	0.0	-3093.70	2568.69	-3.585e+05	-8.244e+04	1.040e+06	0.0
				-200.00	-2050.62	574.09	-3.563e+05	2.542e+05	4.878e+05	0.0
				-400.00	-1071.83	-251.08	-3.533e+05	3.190e+05	1.290e+05	0.0
				-600.00	-374.02	-501.83	-3.494e+05	2.508e+05	-4.627e+04	0.0
				-800.00	2.99	-448.71	-3.447e+05	1.508e+05	-9.861e+04	0.0
				-1000.00	143.97	-294.65	-3.395e+05	6.834e+04	-8.869e+04	0.0
				-1200.00	153.39	-148.63	-3.340e+05	1.718e+04	-5.836e+04	0.0
				-1400.00	110.66	-49.55	-3.284e+05	-6939.88	-2.953e+04	0.0
				-1600.00	61.36	2.11	-3.228e+05	-1.375e+04	-9944.96	0.0
				-1800.00	24.48	20.49	-3.175e+05	-1.210e+04	282.09	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2000.00	3.31	20.90	-3.125e+05	-7832.56	3936.85	0.0
				-2200.00	-5.66	14.44	-3.082e+05	-3938.58	4029.31	0.0
				-2400.00	-7.37	7.32	-3.046e+05	-1421.97	2748.32	0.0
				-2600.00	-5.63	2.21	-3.019e+05	-245.63	1336.14	0.0
				-2800.00	-2.61	-0.15	-3.003e+05	43.55	351.74	0.0
				-3000.00	-0.90	-0.28	-2.999e+05	0.0	0.0	0.0
		1	17	0.0	-3330.42	-1961.46	-3.928e+05	6.499e+05	1.104e+06	0.0
				-200.00	-2183.76	-1286.13	-3.904e+05	3.011e+05	5.113e+05	0.0
				-400.00	-1129.82	-665.41	-3.870e+05	7.649e+04	1.299e+05	0.0
				-600.00	-385.53	-227.06	-3.827e+05	-3.197e+04	-5.428e+04	0.0
				-800.00	12.62	7.43	-3.776e+05	-6.337e+04	-1.076e+05	0.0
				-1000.00	158.67	93.45	-3.719e+05	-5.617e+04	-9.537e+04	0.0
				-1200.00	165.57	97.51	-3.659e+05	-3.661e+04	-6.217e+04	0.0
				-1400.00	118.24	69.64	-3.597e+05	-1.833e+04	-3.112e+04	0.0
				-1600.00	64.94	38.24	-3.536e+05	-6032.33	-1.024e+04	0.0
				-1800.00	25.49	15.01	-3.478e+05	325.96	553.44	0.0
				-2000.00	3.07	1.81	-3.424e+05	2552.64	4334.19	0.0
				-2200.00	-6.30	-3.71	-3.376e+05	2562.01	4350.11	0.0
				-2400.00	-7.95	-4.69	-3.336e+05	1731.82	2940.50	0.0
				-2600.00	-6.01	-3.54	-3.307e+05	836.42	1420.19	0.0
				-2800.00	-2.77	-1.63	-3.289e+05	218.85	371.59	0.0
				-3000.00	-0.95	-0.56	-3.286e+05	0.0	0.0	0.0
		1	19	0.0	-3171.47	1059.30	-3.699e+05	1.615e+05	1.061e+06	0.0
				-200.00	-2094.26	-45.55	-3.676e+05	2.697e+05	4.955e+05	0.0
				-400.00	-1090.78	-388.96	-3.645e+05	2.381e+05	1.292e+05	0.0
				-600.00	-377.72	-410.16	-3.604e+05	1.565e+05	-4.892e+04	0.0
				-800.00	6.20	-296.66	-3.556e+05	7.941e+04	-1.016e+05	0.0
				-1000.00	148.81	-165.32	-3.503e+05	2.686e+04	-9.088e+04	0.0
				-1200.00	157.39	-66.61	-3.446e+05	-735.41	-5.961e+04	0.0
				-1400.00	113.14	-9.85	-3.388e+05	-1.073e+04	-3.005e+04	0.0
				-1600.00	62.53	14.14	-3.330e+05	-1.118e+04	-1.004e+04	0.0
				-1800.00	24.81	18.66	-3.275e+05	-7954.80	372.35	0.0
				-2000.00	3.23	14.54	-3.224e+05	-4371.69	4067.82	0.0
				-2200.00	-5.88	8.39	-3.179e+05	-1772.58	4134.76	0.0
				-2400.00	-7.56	3.32	-3.142e+05	-371.29	2811.38	0.0
				-2600.00	-5.76	0.30	-3.114e+05	114.77	1363.67	0.0
				-2800.00	-2.66	-0.64	-3.098e+05	101.91	358.23	0.0
				-3000.00	-0.92	-0.38	-3.094e+05	0.0	0.0	0.0
		1	25	0.0	-6398.50	-2933.24	-4.252e+05	8.329e+05	1.658e+06	0.0
				-200.00	-3528.46	-1722.48	-4.225e+05	3.330e+05	5.926e+05	0.0
				-400.00	-1496.22	-792.01	-4.190e+05	3.857e+04	-2294.88	0.0
				-600.00	-260.52	-194.97	-4.143e+05	-8.560e+04	-2.298e+05	0.0
				-800.00	287.99	90.53	-4.088e+05	-1.070e+05	-2.474e+05	0.0
				-1000.00	408.35	170.91	-4.026e+05	-8.305e+04	-1.801e+05	0.0
				-1200.00	330.67	149.61	-3.961e+05	-4.919e+04	-1.010e+05	0.0
				-1400.00	202.14	96.60	-3.894e+05	-2.181e+04	-4.120e+04	0.0
				-1600.00	93.40	47.75	-3.828e+05	-5104.38	-6670.68	0.0
				-1800.00	24.85	15.19	-3.765e+05	2598.35	8073.83	0.0
				-2000.00	-8.09	-1.51	-3.706e+05	4629.54	1.102e+04	0.0
				-2200.00	-17.86	-7.28	-3.654e+05	3936.87	8708.09	0.0
				-2400.00	-16.00	-7.22	-3.612e+05	2436.78	5141.09	0.0
				-2600.00	-10.09	-4.86	-3.580e+05	1097.09	2217.96	0.0
				-2800.00	-3.94	-2.02	-3.561e+05	267.55	515.55	0.0
				-3000.00	-1.22	-0.65	-3.557e+05	0.0	0.0	0.0
		1	30	0.0	-260.98	-988.88	-3.603e+05	4.667e+05	5.483e+05	0.0
				-200.00	-838.17	-849.26	-3.581e+05	2.691e+05	4.297e+05	0.0
				-400.00	-762.96	-538.54	-3.550e+05	1.144e+05	2.620e+05	0.0
				-600.00	-510.38	-259.05	-3.511e+05	2.168e+04	1.213e+05	0.0
				-800.00	-262.76	-75.67	-3.464e+05	-1.969e+04	3.229e+04	0.0
				-1000.00	-91.07	15.95	-3.412e+05	-2.926e+04	-1.060e+04	0.0
				-1200.00	0.40	45.38	-3.357e+05	-2.402e+04	-2.335e+04	0.0
				-1400.00	34.28	42.64	-3.300e+05	-1.484e+04	-2.103e+04	0.0
				-1600.00	36.45	28.72	-3.244e+05	-6957.84	-1.381e+04	0.0
				-1800.00	26.12	14.83	-3.190e+05	-1946.56	-6967.19	0.0
				-2000.00	14.22	5.12	-3.141e+05	474.70	-2357.89	0.0
				-2200.00	5.26	-0.14	-3.097e+05	1186.11	-9.65	0.0
				-2400.00	0.09	-2.15	-3.060e+05	1026.16	738.72	0.0
				-2600.00	-1.93	-2.22	-3.033e+05	575.42	621.84	0.0

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Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2800.00	-1.59	-1.23	-3.017e+05	170.06	227.48	0.0
				-3000.00	-0.69	-0.47	-3.014e+05	0.0	0.0	0.0
		1	33	0.0	-6398.50	-2933.24	-4.252e+05	8.329e+05	1.658e+06	0.0
				-200.00	-3528.46	-1722.48	-4.225e+05	3.330e+05	5.926e+05	0.0
				-400.00	-1496.22	-792.01	-4.190e+05	3.857e+04	-2294.88	0.0
				-600.00	-260.52	-194.97	-4.143e+05	-8.560e+04	-2.298e+05	0.0
				-800.00	287.99	90.53	-4.088e+05	-1.070e+05	-2.474e+05	0.0
				-1000.00	408.35	170.91	-4.026e+05	-8.305e+04	-1.801e+05	0.0
				-1200.00	330.67	149.61	-3.961e+05	-4.919e+04	-1.010e+05	0.0
				-1400.00	202.14	96.60	-3.894e+05	-2.181e+04	-4.120e+04	0.0
				-1600.00	93.40	47.75	-3.828e+05	-5104.38	-6670.68	0.0
				-1800.00	24.85	15.19	-3.765e+05	2598.35	8073.83	0.0
				-2000.00	-8.09	-1.51	-3.706e+05	4629.54	1.102e+04	0.0
				-2200.00	-17.86	-7.28	-3.654e+05	3936.87	8708.09	0.0
				-2400.00	-16.00	-7.22	-3.612e+05	2436.78	5141.09	0.0
				-2600.00	-10.09	-4.86	-3.580e+05	1097.09	2217.96	0.0
				-2800.00	-3.94	-2.02	-3.561e+05	267.55	515.55	0.0
				-3000.00	-1.22	-0.65	-3.557e+05	0.0	0.0	0.0
		1	45	0.0	-4325.83	-4947.93	-4.171e+05	1.177e+06	1.294e+06	0.0
				-200.00	-2635.70	-2576.88	-4.145e+05	3.697e+05	5.468e+05	0.0
				-400.00	-1264.54	-1003.68	-4.110e+05	-5.903e+04	9.291e+04	0.0
				-600.00	-356.25	-92.28	-4.064e+05	-2.062e+05	-1.083e+05	0.0
				-800.00	95.76	282.67	-4.010e+05	-2.006e+05	-1.520e+05	0.0
				-1000.00	237.24	339.31	-3.949e+05	-1.386e+05	-1.229e+05	0.0
				-1200.00	218.84	258.57	-3.885e+05	-7.386e+04	-7.518e+04	0.0
				-1400.00	146.04	150.62	-3.820e+05	-2.763e+04	-3.483e+04	0.0
				-1600.00	74.91	65.10	-3.755e+05	-2200.85	-9389.19	0.0
				-1800.00	25.85	13.73	-3.693e+05	7837.46	2828.69	0.0
				-2000.00	-0.23	-9.43	-3.635e+05	9138.53	6441.43	0.0
				-2200.00	-9.92	-15.12	-3.585e+05	6813.62	5755.77	0.0
				-2400.00	-10.55	-12.53	-3.543e+05	3860.01	3666.40	0.0
				-2600.00	-7.37	-7.48	-3.512e+05	1599.06	1691.01	0.0
				-2800.00	-3.18	-2.73	-3.493e+05	353.57	422.95	0.0
				-3000.00	-1.05	-0.80	-3.489e+05	0.0	0.0	0.0
		1	57	0.0	-5506.20	-2645.79	-4.129e+05	7.809e+05	1.506e+06	0.0
				-200.00	-3151.00	-1596.54	-4.104e+05	3.254e+05	5.769e+05	0.0
				-400.00	-1403.43	-757.72	-4.069e+05	5.096e+04	4.129e+04	0.0
				-600.00	-306.68	-206.71	-4.023e+05	-6.915e+04	-1.762e+05	0.0
				-800.00	202.52	64.71	-3.970e+05	-9.392e+04	-2.059e+05	0.0
				-1000.00	333.62	147.51	-3.910e+05	-7.511e+04	-1.555e+05	0.0
				-1200.00	282.40	134.14	-3.847e+05	-4.555e+04	-9.005e+04	0.0
				-1400.00	178.25	88.74	-3.782e+05	-2.087e+04	-3.865e+04	0.0
				-1600.00	85.76	45.09	-3.718e+05	-5439.82	-7975.01	0.0
				-1800.00	25.53	15.25	-3.656e+05	1893.32	5743.55	0.0
				-2000.00	-4.56	-0.46	-3.599e+05	4002.55	9023.67	0.0
				-2200.00	-14.38	-6.20	-3.549e+05	3528.54	7433.49	0.0
				-2400.00	-13.64	-6.47	-3.507e+05	2230.63	4511.46	0.0
				-2600.00	-8.94	-4.47	-3.476e+05	1022.38	1996.37	0.0
				-2800.00	-3.63	-1.91	-3.458e+05	254.07	477.73	0.0
				-3000.00	-1.15	-0.63	-3.454e+05	0.0	0.0	0.0
		1	62	0.0	-1153.28	-1276.34	-3.726e+05	5.187e+05	7.002e+05	0.0
				-200.00	-1215.64	-975.21	-3.703e+05	2.767e+05	4.454e+05	0.0
				-400.00	-855.75	-572.83	-3.671e+05	1.020e+05	2.184e+05	0.0
				-600.00	-464.22	-247.31	-3.630e+05	5224.51	6.766e+04	0.0
				-800.00	-177.29	-49.85	-3.582e+05	-3.279e+04	-9215.30	0.0
				-1000.00	-16.35	39.35	-3.528e+05	-3.720e+04	-3.518e+04	0.0
				-1200.00	48.68	60.85	-3.471e+05	-2.766e+04	-3.426e+04	0.0
				-1400.00	58.17	50.50	-3.412e+05	-1.578e+04	-2.358e+04	0.0
				-1600.00	44.08	31.39	-3.354e+05	-6622.40	-1.251e+04	0.0
				-1800.00	25.44	14.77	-3.299e+05	-1241.53	-4636.91	0.0
				-2000.00	10.69	4.07	-3.247e+05	1101.69	-357.07	0.0
				-2200.00	1.78	-1.22	-3.202e+05	1594.43	1264.95	0.0
				-2400.00	-2.26	-2.90	-3.165e+05	1232.30	1368.34	0.0
				-2600.00	-3.09	-2.61	-3.137e+05	650.13	843.43	0.0
				-2800.00	-1.90	-1.34	-3.120e+05	183.54	265.30	0.0
				-3000.00	-0.75	-0.49	-3.117e+05	0.0	0.0	0.0
		1	65	0.0	-5506.20	-2645.79	-4.129e+05	7.809e+05	1.506e+06	0.0
				-200.00	-3151.00	-1596.54	-4.104e+05	3.254e+05	5.769e+05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-400.00	-1403.43	-757.72	-4.069e+05	5.096e+04	4.129e+04	0.0
				-600.00	-306.68	-206.71	-4.023e+05	-6.915e+04	-1.762e+05	0.0
				-800.00	202.52	64.71	-3.970e+05	-9.392e+04	-2.059e+05	0.0
				-1000.00	333.62	147.51	-3.910e+05	-7.511e+04	-1.555e+05	0.0
				-1200.00	282.40	134.14	-3.847e+05	-4.555e+04	-9.005e+04	0.0
				-1400.00	178.25	88.74	-3.782e+05	-2.087e+04	-3.865e+04	0.0
				-1600.00	85.76	45.09	-3.718e+05	-5439.82	-7975.01	0.0
				-1800.00	25.53	15.25	-3.656e+05	1893.32	5743.55	0.0
				-2000.00	-4.56	-0.46	-3.599e+05	4002.55	9023.67	0.0
				-2200.00	-14.38	-6.20	-3.549e+05	3528.54	7433.49	0.0
				-2400.00	-13.64	-6.47	-3.507e+05	2230.63	4511.46	0.0
				-2600.00	-8.94	-4.47	-3.476e+05	1022.38	1996.37	0.0
				-2800.00	-3.63	-1.91	-3.458e+05	254.07	477.73	0.0
				-3000.00	-1.15	-0.63	-3.454e+05	0.0	0.0	0.0
		1	77	0.0	-4029.06	-4087.53	-4.079e+05	1.036e+06	1.239e+06	0.0
				-200.00	-2503.61	-2220.51	-4.053e+05	3.590e+05	5.378e+05	0.0
				-400.00	-1227.04	-921.89	-4.019e+05	-1.414e+04	1.049e+05	0.0
				-600.00	-366.88	-142.26	-3.974e+05	-1.531e+05	-9.168e+04	0.0
				-800.00	69.93	197.25	-3.921e+05	-1.601e+05	-1.386e+05	0.0
				-1000.00	213.41	266.07	-3.862e+05	-1.149e+05	-1.147e+05	0.0
				-1200.00	202.91	211.88	-3.800e+05	-6.356e+04	-7.138e+04	0.0
				-1400.00	137.85	127.87	-3.736e+05	-2.539e+04	-3.380e+04	0.0
				-1600.00	72.06	58.09	-3.672e+05	-3606.83	-9695.16	0.0
				-1800.00	25.84	14.66	-3.611e+05	5510.57	2122.56	0.0
				-2000.00	0.81	-5.87	-3.555e+05	7178.49	5802.48	0.0
				-2200.00	-8.82	-11.70	-3.506e+05	5580.60	5335.30	0.0
				-2400.00	-9.77	-10.25	-3.465e+05	3258.68	3452.00	0.0
				-2600.00	-6.97	-6.38	-3.434e+05	1391.20	1612.29	0.0
				-2800.00	-3.06	-2.45	-3.416e+05	319.36	408.43	0.0
				-3000.00	-1.02	-0.75	-3.412e+05	0.0	0.0	0.0
		1	87	0.0	-3327.71	-1959.87	-3.926e+05	6.494e+05	1.103e+06	0.0
				-200.00	-2181.98	-1285.09	-3.902e+05	3.009e+05	5.109e+05	0.0
				-400.00	-1128.90	-664.87	-3.869e+05	7.643e+04	1.298e+05	0.0
				-600.00	-385.21	-226.87	-3.826e+05	-3.194e+04	-5.423e+04	0.0
				-800.00	12.61	7.42	-3.774e+05	-6.332e+04	-1.075e+05	0.0
				-1000.00	158.54	93.37	-3.718e+05	-5.612e+04	-9.529e+04	0.0
				-1200.00	165.44	97.44	-3.658e+05	-3.658e+04	-6.212e+04	0.0
				-1400.00	118.14	69.58	-3.596e+05	-1.831e+04	-3.110e+04	0.0
				-1600.00	64.88	38.21	-3.535e+05	-6027.44	-1.023e+04	0.0
				-1800.00	25.47	15.00	-3.476e+05	325.70	552.98	0.0
				-2000.00	3.06	1.80	-3.422e+05	2550.57	4330.65	0.0
				-2200.00	-6.30	-3.71	-3.374e+05	2559.93	4346.56	0.0
				-2400.00	-7.95	-4.68	-3.335e+05	1730.41	2938.11	0.0
				-2600.00	-6.01	-3.54	-3.306e+05	835.75	1419.03	0.0
				-2800.00	-2.76	-1.63	-3.288e+05	218.67	371.29	0.0
				-3000.00	-0.95	-0.56	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	-3295.92	-1355.72	-3.880e+05	5.517e+05	1.094e+06	0.0
				-200.00	-2164.08	-1036.97	-3.856e+05	2.946e+05	5.077e+05	0.0
				-400.00	-1121.09	-609.58	-3.824e+05	1.088e+05	1.296e+05	0.0
				-600.00	-383.65	-263.49	-3.781e+05	5759.00	-5.316e+04	0.0
				-800.00	11.32	-53.39	-3.730e+05	-3.477e+04	-1.063e+05	0.0
				-1000.00	156.57	41.62	-3.674e+05	-3.952e+04	-9.439e+04	0.0
				-1200.00	163.80	64.61	-3.615e+05	-2.941e+04	-6.160e+04	0.0
				-1400.00	117.12	53.68	-3.554e+05	-1.680e+04	-3.088e+04	0.0
				-1600.00	64.40	33.39	-3.494e+05	-7055.99	-1.019e+04	0.0
				-1800.00	25.33	15.73	-3.436e+05	-1330.45	516.77	0.0
				-2000.00	3.10	4.35	-3.382e+05	1165.70	4277.38	0.0
				-2200.00	-6.21	-1.29	-3.335e+05	1693.01	4303.49	0.0
				-2400.00	-7.87	-3.08	-3.296e+05	1309.79	2912.28	0.0
				-2600.00	-5.96	-2.77	-3.267e+05	691.42	1407.73	0.0
				-2800.00	-2.74	-1.43	-3.250e+05	195.28	368.62	0.0
				-3000.00	-0.94	-0.52	-3.246e+05	0.0	0.0	0.0
		1	89	0.0	-3327.03	-1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	-1284.83	-3.901e+05	3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	-664.73	-3.868e+05	7.642e+04	1.297e+05	0.0
				-600.00	-385.14	-226.83	-3.825e+05	-3.194e+04	-5.422e+04	0.0
				-800.00	12.60	7.42	-3.774e+05	-6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	93.35	-3.717e+05	-5.611e+04	-9.527e+04	0.0

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1200.00	165.40	97.42	-3.657e+05	-3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	69.56	-3.596e+05	-1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	38.21	-3.534e+05	-6026.22	-1.023e+04	0.0
				-1800.00	25.46	15.00	-3.476e+05	325.63	552.87	0.0
				-2000.00	3.06	1.80	-3.422e+05	2550.05	4329.77	0.0
				-2200.00	-6.30	-3.71	-3.374e+05	2559.41	4345.68	0.0
				-2400.00	-7.95	-4.68	-3.335e+05	1730.06	2937.51	0.0
				-2600.00	-6.01	-3.54	-3.305e+05	835.58	1418.74	0.0
				-2800.00	-2.76	-1.63	-3.288e+05	218.63	371.21	0.0
				-3000.00	-0.95	-0.56	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	-3327.03	-1959.47	-3.926e+05	6.493e+05	1.102e+06	0.0
				-200.00	-2181.54	-1284.83	-3.901e+05	3.008e+05	5.108e+05	0.0
				-400.00	-1128.67	-664.73	-3.868e+05	7.642e+04	1.297e+05	0.0
				-600.00	-385.14	-226.83	-3.825e+05	-3.194e+04	-5.422e+04	0.0
				-800.00	12.60	7.42	-3.774e+05	-6.331e+04	-1.075e+05	0.0
				-1000.00	158.51	93.35	-3.717e+05	-5.611e+04	-9.527e+04	0.0
				-1200.00	165.40	97.42	-3.657e+05	-3.658e+04	-6.210e+04	0.0
				-1400.00	118.12	69.56	-3.596e+05	-1.831e+04	-3.109e+04	0.0
				-1600.00	64.87	38.21	-3.534e+05	-6026.22	-1.023e+04	0.0
				-1800.00	25.46	15.00	-3.476e+05	325.63	552.87	0.0
				-2000.00	3.06	1.80	-3.422e+05	2550.05	4329.77	0.0
				-2200.00	-6.30	-3.71	-3.374e+05	2559.41	4345.68	0.0
				-2400.00	-7.95	-4.68	-3.335e+05	1730.06	2937.51	0.0
				-2600.00	-6.01	-3.54	-3.305e+05	835.58	1418.74	0.0
				-2800.00	-2.76	-1.63	-3.288e+05	218.63	371.21	0.0
				-3000.00	-0.95	-0.56	-3.284e+05	0.0	0.0	0.0
155	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	-2550.29	-4330.23	-5.106e+05	1.435e+06	8.450e+05	0.0
				-200.00	-1672.23	-2839.34	-5.075e+05	6.648e+05	3.915e+05	0.0
				-400.00	-865.17	-1469.00	-5.032e+05	1.689e+05	9.946e+04	0.0
				-600.00	-295.22	-501.27	-4.976e+05	-7.057e+04	-4.156e+04	0.0
				-800.00	9.66	16.40	-4.909e+05	-1.399e+05	-8.240e+04	0.0
				-1000.00	121.50	206.30	-4.836e+05	-1.240e+05	-7.303e+04	0.0
				-1200.00	126.79	215.28	-4.757e+05	-8.083e+04	-4.760e+04	0.0
				-1400.00	90.54	153.73	-4.677e+05	-4.047e+04	-2.383e+04	0.0
				-1600.00	49.73	84.43	-4.598e+05	-1.332e+04	-7843.25	0.0
				-1800.00	19.52	33.14	-4.521e+05	719.58	423.82	0.0
				-2000.00	2.35	3.99	-4.451e+05	5635.33	3318.94	0.0
				-2200.00	-4.83	-8.20	-4.389e+05	5656.03	3331.13	0.0
				-2400.00	-6.09	-10.34	-4.338e+05	3823.26	2251.71	0.0
				-2600.00	-4.60	-7.82	-4.299e+05	1846.54	1087.52	0.0
				-2800.00	-2.12	-3.60	-4.277e+05	483.14	284.55	0.0
				-3000.00	-0.73	-1.24	-4.272e+05	0.0	0.0	0.0
		1	12	0.0	-1728.85	1378.68	-3.358e+05	3.129e+05	5.881e+05	0.0
				-200.00	-1155.55	-207.73	-3.337e+05	4.378e+05	2.782e+05	0.0
				-400.00	-608.68	-656.33	-3.309e+05	3.659e+05	7.570e+04	0.0
				-600.00	-215.92	-640.69	-3.272e+05	2.317e+05	-2.405e+04	0.0
				-800.00	-2.13	-444.81	-3.229e+05	1.124e+05	-5.452e+04	0.0
				-1000.00	78.96	-238.19	-3.180e+05	3.426e+04	-4.961e+04	0.0
				-1200.00	85.54	-89.49	-3.129e+05	-5070.51	-3.288e+04	0.0
				-1400.00	62.20	-7.25	-3.076e+05	-1.810e+04	-1.677e+04	0.0
				-1600.00	34.74	25.38	-3.024e+05	-1.744e+04	-5744.79	0.0
				-1800.00	14.03	29.66	-2.973e+05	-1.191e+04	56.73	0.0
				-2000.00	2.05	22.03	-2.927e+05	-6290.07	2161.20	0.0
				-2200.00	-3.08	12.20	-2.886e+05	-2385.02	2246.66	0.0
				-2400.00	-4.11	4.48	-2.853e+05	-370.12	1543.16	0.0
				-2600.00	-3.17	0.06	-2.827e+05	263.00	754.03	0.0
				-2800.00	-1.48	-1.14	-2.812e+05	176.78	199.42	0.0
				-3000.00	-0.51	-0.62	-2.809e+05	0.0	0.0	0.0
		1	17	0.0	-1961.46	-3330.42	-3.928e+05	1.104e+06	6.499e+05	0.0
				-200.00	-1286.13	-2183.76	-3.904e+05	5.113e+05	3.011e+05	0.0
				-400.00	-665.41	-1129.82	-3.870e+05	1.299e+05	7.649e+04	0.0
				-600.00	-227.06	-385.53	-3.827e+05	-5.428e+04	-3.197e+04	0.0
				-800.00	7.43	12.62	-3.776e+05	-1.076e+05	-6.337e+04	0.0
				-1000.00	93.45	158.67	-3.719e+05	-9.537e+04	-5.617e+04	0.0
				-1200.00	97.51	165.57	-3.659e+05	-6.217e+04	-3.661e+04	0.0
				-1400.00	69.64	118.24	-3.597e+05	-3.112e+04	-1.833e+04	0.0
				-1600.00	38.24	64.94	-3.536e+05	-1.024e+04	-6032.33	0.0

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1800.00	15.01	25.49	-3.478e+05	553.44	325.96	0.0
				-2000.00	1.81	3.07	-3.424e+05	4334.19	2552.63	0.0
				-2200.00	-3.71	-6.30	-3.376e+05	4350.11	2562.01	0.0
				-2400.00	-4.69	-7.95	-3.336e+05	2940.50	1731.82	0.0
				-2600.00	-3.54	-6.01	-3.307e+05	1420.19	836.42	0.0
				-2800.00	-1.63	-2.77	-3.289e+05	371.59	218.85	0.0
				-3000.00	-0.56	-0.95	-3.286e+05	0.0	0.0	0.0
		1	19	0.0	-1805.73	-189.89	-3.547e+05	5.761e+05	6.085e+05	0.0
				-200.00	-1198.64	-865.67	-3.525e+05	4.621e+05	2.858e+05	0.0
				-400.00	-627.37	-813.77	-3.496e+05	2.872e+05	7.594e+04	0.0
				-600.00	-219.56	-555.50	-3.457e+05	1.364e+05	-2.668e+04	0.0
				-800.00	1.06	-292.34	-3.410e+05	3.911e+04	-5.745e+04	0.0
				-1000.00	83.76	-105.96	-3.359e+05	-8914.81	-5.178e+04	0.0
				-1200.00	89.50	-4.53	-3.305e+05	-2.408e+04	-3.411e+04	0.0
				-1400.00	64.65	34.54	-3.249e+05	-2.243e+04	-1.728e+04	0.0
				-1600.00	35.90	38.54	-3.194e+05	-1.504e+04	-5838.60	0.0
				-1800.00	14.35	28.26	-3.141e+05	-7757.92	146.36	0.0
				-2000.00	1.97	15.71	-3.092e+05	-2750.12	2290.82	0.0
				-2200.00	-3.29	6.03	-3.049e+05	-141.45	2350.91	0.0
				-2400.00	-4.30	0.34	-3.013e+05	732.43	1605.46	0.0
				-2600.00	-3.29	-1.96	-2.987e+05	648.25	781.21	0.0
				-2800.00	-1.53	-1.68	-2.971e+05	241.59	205.82	0.0
				-3000.00	-0.53	-0.73	-2.968e+05	0.0	0.0	0.0
		1	25	0.0	-4947.93	-4325.83	-4.171e+05	1.294e+06	1.177e+06	0.0
				-200.00	-2576.88	-2635.70	-4.145e+05	5.468e+05	3.697e+05	0.0
				-400.00	-1003.68	-1264.54	-4.110e+05	9.291e+04	-5.903e+04	0.0
				-600.00	-92.28	-356.25	-4.064e+05	-1.083e+05	-2.062e+05	0.0
				-800.00	282.67	95.76	-4.010e+05	-1.520e+05	-2.006e+05	0.0
				-1000.00	339.31	237.24	-3.949e+05	-1.229e+05	-1.386e+05	0.0
				-1200.00	258.57	218.84	-3.885e+05	-7.518e+04	-7.386e+04	0.0
				-1400.00	150.62	146.04	-3.820e+05	-3.483e+04	-2.763e+04	0.0
				-1600.00	65.10	74.91	-3.755e+05	-9389.19	-2200.85	0.0
				-1800.00	13.73	25.85	-3.693e+05	2828.69	737.46	0.0
				-2000.00	-9.43	-0.23	-3.635e+05	6441.43	9138.53	0.0
				-2200.00	-15.12	-9.92	-3.585e+05	5755.78	6813.62	0.0
				-2400.00	-12.53	-10.55	-3.543e+05	3666.40	3860.01	0.0
				-2600.00	-7.48	-7.37	-3.512e+05	1691.01	1599.05	0.0
				-2800.00	-2.73	-3.18	-3.493e+05	422.95	353.57	0.0
				-3000.00	-0.80	-1.05	-3.489e+05	0.0	0.0	0.0
		1	42	0.0	-988.88	-260.98	-3.603e+05	5.483e+05	4.667e+05	0.0
				-200.00	-849.26	-838.17	-3.581e+05	4.297e+05	2.691e+05	0.0
				-400.00	-538.54	-762.96	-3.550e+05	2.620e+05	1.144e+05	0.0
				-600.00	-259.05	-510.38	-3.511e+05	1.213e+05	2.168e+04	0.0
				-800.00	-75.67	-262.76	-3.464e+05	3.229e+04	-1.969e+04	0.0
				-1000.00	15.95	-91.07	-3.412e+05	-1.060e+04	-2.926e+04	0.0
				-1200.00	45.38	0.40	-3.357e+05	-2.335e+04	-2.402e+04	0.0
				-1400.00	42.64	34.28	-3.300e+05	-2.103e+04	-1.484e+04	0.0
				-1600.00	28.72	36.45	-3.244e+05	-1.381e+04	-6957.84	0.0
				-1800.00	14.83	26.12	-3.190e+05	-6967.19	-1946.56	0.0
				-2000.00	5.12	14.22	-3.141e+05	-2357.89	474.70	0.0
				-2200.00	-0.14	5.26	-3.097e+05	-9.65	1186.11	0.0
				-2400.00	-2.15	0.09	-3.060e+05	738.72	1026.16	0.0
				-2600.00	-2.22	-1.93	-3.033e+05	621.84	575.42	0.0
				-2800.00	-1.23	-1.59	-3.017e+05	227.48	170.06	0.0
				-3000.00	-0.47	-0.69	-3.014e+05	0.0	0.0	0.0
		1	45	0.0	-2933.24	-6398.50	-4.252e+05	1.658e+06	8.329e+05	0.0
				-200.00	-1722.48	-3528.47	-4.225e+05	5.926e+05	3.330e+05	0.0
				-400.00	-792.01	-1496.22	-4.190e+05	-2294.85	3.857e+04	0.0
				-600.00	-194.97	-260.52	-4.143e+05	-2.298e+05	-8.560e+04	0.0
				-800.00	90.53	287.99	-4.088e+05	-2.474e+05	-1.070e+05	0.0
				-1000.00	170.91	408.35	-4.026e+05	-1.801e+05	-8.305e+04	0.0
				-1200.00	149.61	330.67	-3.961e+05	-1.010e+05	-4.919e+04	0.0
				-1400.00	96.60	202.14	-3.894e+05	-4.120e+04	-2.181e+04	0.0
				-1600.00	47.75	93.40	-3.828e+05	-6670.68	-5104.37	0.0
				-1800.00	15.19	24.85	-3.765e+05	8073.83	2598.35	0.0
				-2000.00	-1.51	-8.09	-3.706e+05	1.102e+04	4629.54	0.0
				-2200.00	-7.28	-17.86	-3.654e+05	8708.09	3936.87	0.0
				-2400.00	-7.22	-16.00	-3.612e+05	5141.09	2436.77	0.0

**PROJETTO engineering s.r.l.**  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2600.00	-4.86	-10.09	-3.580e+05	2217.96	1097.09	0.0
				-2800.00	-2.02	-3.94	-3.561e+05	515.55	267.55	0.0
				-3000.00	-0.65	-1.22	-3.557e+05	0.0	0.0	0.0
		1	57	0.0	-4087.53	-4029.06	-4.079e+05	1.239e+06	1.036e+06	0.0
				-200.00	-2220.51	-2503.61	-4.053e+05	5.378e+05	3.590e+05	0.0
				-400.00	-921.89	-1227.04	-4.019e+05	1.049e+05	-1.414e+04	0.0
				-600.00	-142.26	-366.88	-3.974e+05	-9.168e+04	-1.531e+05	0.0
				-800.00	197.25	69.93	-3.921e+05	-1.386e+05	-1.601e+05	0.0
				-1000.00	266.07	213.41	-3.862e+05	-1.147e+05	-1.149e+05	0.0
				-1200.00	211.88	202.91	-3.800e+05	-7.138e+04	-6.356e+04	0.0
				-1400.00	127.87	137.85	-3.736e+05	-3.380e+04	-2.539e+04	0.0
				-1600.00	58.09	72.06	-3.672e+05	-9695.16	-3606.82	0.0
				-1800.00	14.66	25.84	-3.611e+05	2122.56	5510.57	0.0
				-2000.00	-5.87	0.81	-3.555e+05	5802.49	7178.48	0.0
				-2200.00	-11.70	-8.82	-3.506e+05	5335.30	5580.60	0.0
				-2400.00	-10.25	-9.77	-3.465e+05	3452.00	3258.68	0.0
				-2600.00	-6.38	-6.97	-3.434e+05	1612.29	1391.20	0.0
				-2800.00	-2.45	-3.06	-3.416e+05	408.43	319.36	0.0
				-3000.00	-0.75	-1.02	-3.412e+05	0.0	0.0	0.0
		1	70	0.0	-1276.33	-1153.28	-3.726e+05	7.002e+05	5.187e+05	0.0
				-200.00	-975.21	-1215.64	-3.703e+05	4.454e+05	2.767e+05	0.0
				-400.00	-572.83	-855.75	-3.671e+05	2.184e+05	1.020e+05	0.0
				-600.00	-247.31	-464.22	-3.630e+05	6.766e+04	5224.54	0.0
				-800.00	-49.85	-177.29	-3.582e+05	-9215.35	-3.279e+04	0.0
				-1000.00	39.35	-16.35	-3.528e+05	-3.518e+04	-3.720e+04	0.0
				-1200.00	60.85	48.68	-3.471e+05	-3.426e+04	-2.766e+04	0.0
				-1400.00	50.50	58.17	-3.412e+05	-2.358e+04	-1.578e+04	0.0
				-1600.00	31.39	44.08	-3.354e+05	-1.251e+04	-6622.39	0.0
				-1800.00	14.77	25.44	-3.299e+05	-4636.91	-1241.53	0.0
				-2000.00	4.07	10.69	-3.247e+05	-357.07	1101.68	0.0
				-2200.00	-1.22	1.78	-3.202e+05	1264.95	1594.43	0.0
				-2400.00	-2.90	-2.26	-3.165e+05	1368.35	1232.30	0.0
				-2600.00	-2.61	-3.09	-3.137e+05	843.43	650.13	0.0
				-2800.00	-1.34	-1.90	-3.120e+05	265.30	183.54	0.0
				-3000.00	-0.49	-0.75	-3.117e+05	0.0	0.0	0.0
		1	73	0.0	-2645.79	-5506.21	-4.129e+05	1.506e+06	7.809e+05	0.0
				-200.00	-1596.53	-3151.00	-4.104e+05	5.769e+05	3.254e+05	0.0
				-400.00	-757.72	-1403.43	-4.069e+05	4.129e+04	5.096e+04	0.0
				-600.00	-206.71	-306.68	-4.023e+05	-1.762e+05	-6.915e+04	0.0
				-800.00	64.71	202.52	-3.970e+05	-2.059e+05	-9.392e+04	0.0
				-1000.00	147.51	333.62	-3.910e+05	-1.555e+05	-7.511e+04	0.0
				-1200.00	134.14	282.40	-3.847e+05	-9.005e+04	-4.555e+04	0.0
				-1400.00	88.74	178.25	-3.782e+05	-3.865e+04	-2.087e+04	0.0
				-1600.00	45.09	85.76	-3.718e+05	-7975.01	-5439.82	0.0
				-1800.00	15.25	25.53	-3.656e+05	5743.55	1893.32	0.0
				-2000.00	-0.46	-4.56	-3.599e+05	9023.67	4002.55	0.0
				-2200.00	-6.20	-14.38	-3.549e+05	7433.49	3528.54	0.0
				-2400.00	-6.47	-13.64	-3.507e+05	4511.47	2230.63	0.0
				-2600.00	-4.47	-8.94	-3.476e+05	1996.37	1022.38	0.0
				-2800.00	-1.91	-3.63	-3.458e+05	477.73	254.07	0.0
				-3000.00	-0.63	-1.15	-3.454e+05	0.0	0.0	0.0
		1	77	0.0	-2645.79	-5506.21	-4.129e+05	1.506e+06	7.809e+05	0.0
				-200.00	-1596.53	-3151.00	-4.104e+05	5.769e+05	3.254e+05	0.0
				-400.00	-757.72	-1403.43	-4.069e+05	4.129e+04	5.096e+04	0.0
				-600.00	-206.71	-306.68	-4.023e+05	-1.762e+05	-6.915e+04	0.0
				-800.00	64.71	202.52	-3.970e+05	-2.059e+05	-9.392e+04	0.0
				-1000.00	147.51	333.62	-3.910e+05	-1.555e+05	-7.511e+04	0.0
				-1200.00	134.14	282.40	-3.847e+05	-9.005e+04	-4.555e+04	0.0
				-1400.00	88.74	178.25	-3.782e+05	-3.865e+04	-2.087e+04	0.0
				-1600.00	45.09	85.76	-3.718e+05	-7975.01	-5439.82	0.0
				-1800.00	15.25	25.53	-3.656e+05	5743.55	1893.32	0.0
				-2000.00	-0.46	-4.56	-3.599e+05	9023.67	4002.55	0.0
				-2200.00	-6.20	-14.38	-3.549e+05	7433.49	3528.54	0.0
				-2400.00	-6.47	-13.64	-3.507e+05	4511.47	2230.63	0.0
				-2600.00	-4.47	-8.94	-3.476e+05	1996.37	1022.38	0.0
				-2800.00	-1.91	-3.63	-3.458e+05	477.73	254.07	0.0
				-3000.00	-0.63	-1.15	-3.454e+05	0.0	0.0	0.0
		1	87	0.0	-1959.87	-3327.71	-3.926e+05	1.103e+06	6.494e+05	0.0

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-200.00	-1285.09	-2181.98	-3.902e+05	5.109e+05	3.009e+05	0.0
				-400.00	-664.87	-1128.90	-3.869e+05	1.298e+05	7.643e+04	0.0
				-600.00	-226.87	-385.21	-3.826e+05	-5.423e+04	-3.194e+04	0.0
				-800.00	7.42	12.61	-3.774e+05	-1.075e+05	-6.332e+04	0.0
				-1000.00	93.37	158.54	-3.718e+05	-9.529e+04	-5.612e+04	0.0
				-1200.00	97.44	165.44	-3.658e+05	-6.212e+04	-3.658e+04	0.0
				-1400.00	69.58	118.14	-3.596e+05	-3.110e+04	-1.831e+04	0.0
				-1600.00	38.21	64.88	-3.535e+05	-1.023e+04	-6027.44	0.0
				-1800.00	15.00	25.47	-3.476e+05	552.98	325.70	0.0
				-2000.00	1.80	3.06	-3.422e+05	4330.65	2550.57	0.0
				-2200.00	-3.71	-6.30	-3.374e+05	4346.56	2559.93	0.0
				-2400.00	-4.68	-7.95	-3.335e+05	2938.11	1730.41	0.0
				-2600.00	-3.54	-6.01	-3.306e+05	1419.03	835.74	0.0
				-2800.00	-1.63	-2.76	-3.288e+05	371.29	218.67	0.0
				-3000.00	-0.56	-0.95	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	-1928.72	-2699.60	-3.850e+05	9.972e+05	6.411e+05	0.0
				-200.00	-1267.59	-1918.36	-3.826e+05	5.010e+05	2.978e+05	0.0
				-400.00	-657.26	-1065.69	-3.794e+05	1.612e+05	7.632e+04	0.0
				-600.00	-225.37	-419.21	-3.751e+05	-1.610e+04	-3.088e+04	0.0
				-800.00	6.15	-48.38	-3.701e+05	-7.817e+04	-6.214e+04	0.0
				-1000.00	91.43	105.61	-3.646e+05	-7.800e+04	-5.524e+04	0.0
				-1200.00	95.83	131.42	-3.587e+05	-5.450e+04	-3.608e+04	0.0
				-1400.00	68.58	101.40	-3.526e+05	-2.936e+04	-1.811e+04	0.0
				-1600.00	37.74	59.60	-3.466e+05	-1.119e+04	-5988.69	0.0
				-1800.00	14.87	26.02	-3.409e+05	-1109.29	289.78	0.0
				-2000.00	1.84	5.59	-3.356e+05	2913.79	2498.20	0.0
				-2200.00	-3.62	-3.83	-3.309e+05	3448.25	2517.71	0.0
				-2400.00	-4.60	-6.29	-3.270e+05	2496.49	1705.14	0.0
				-2600.00	-3.49	-5.20	-3.242e+05	1264.64	824.70	0.0
				-2800.00	-1.61	-2.55	-3.224e+05	345.29	216.07	0.0
				-3000.00	-0.55	-0.91	-3.221e+05	0.0	0.0	0.0
		1	89	0.0	-1959.47	-3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	-2181.54	-3.901e+05	5.108e+05	3.008e+05	0.0
				-400.00	-664.73	-1128.67	-3.868e+05	1.297e+05	7.642e+04	0.0
				-600.00	-226.83	-385.14	-3.825e+05	-5.422e+04	-3.194e+04	0.0
				-800.00	7.42	12.60	-3.774e+05	-1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	158.51	-3.717e+05	-9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	165.40	-3.657e+05	-6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	118.12	-3.596e+05	-3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	64.87	-3.534e+05	-1.023e+04	-6026.21	0.0
				-1800.00	15.00	25.46	-3.476e+05	552.87	325.63	0.0
				-2000.00	1.80	3.06	-3.422e+05	4329.77	2550.05	0.0
				-2200.00	-3.71	-6.30	-3.374e+05	4345.68	2559.41	0.0
				-2400.00	-4.68	-7.95	-3.335e+05	2937.51	1730.06	0.0
				-2600.00	-3.54	-6.01	-3.305e+05	1418.74	835.58	0.0
				-2800.00	-1.63	-2.76	-3.288e+05	371.21	218.63	0.0
				-3000.00	-0.56	-0.95	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	-1959.47	-3327.03	-3.926e+05	1.102e+06	6.493e+05	0.0
				-200.00	-1284.83	-2181.54	-3.901e+05	5.108e+05	3.008e+05	0.0
				-400.00	-664.73	-1128.67	-3.868e+05	1.297e+05	7.642e+04	0.0
				-600.00	-226.83	-385.14	-3.825e+05	-5.422e+04	-3.194e+04	0.0
				-800.00	7.42	12.60	-3.774e+05	-1.075e+05	-6.331e+04	0.0
				-1000.00	93.35	158.51	-3.717e+05	-9.527e+04	-5.611e+04	0.0
				-1200.00	97.42	165.40	-3.657e+05	-6.210e+04	-3.658e+04	0.0
				-1400.00	69.56	118.12	-3.596e+05	-3.109e+04	-1.831e+04	0.0
				-1600.00	38.21	64.87	-3.534e+05	-1.023e+04	-6026.21	0.0
				-1800.00	15.00	25.46	-3.476e+05	552.87	325.63	0.0
				-2000.00	1.80	3.06	-3.422e+05	4329.77	2550.05	0.0
				-2200.00	-3.71	-6.30	-3.374e+05	4345.68	2559.41	0.0
				-2400.00	-4.68	-7.95	-3.335e+05	2937.51	1730.06	0.0
				-2600.00	-3.54	-6.01	-3.305e+05	1418.74	835.58	0.0
				-2800.00	-1.63	-2.76	-3.288e+05	371.21	218.63	0.0
				-3000.00	-0.56	-0.95	-3.284e+05	0.0	0.0	0.0
167	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	1.65e-04	-4978.35	-5.125e+05	1.650e+06	-0.04	0.0
				-200.00	8.63e-05	-3264.30	-5.094e+05	7.643e+05	-0.01	0.0
				-400.00	3.37e-05	-1688.85	-5.051e+05	1.941e+05	1.93e-03	0.0
				-600.00	3.17e-06	-576.28	-4.994e+05	-8.114e+04	6.87e-03	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-800.00	-9.41e-06	18.87	-4.928e+05	-1.608e+05	6.70e-03	0.0
				-1000.00	-1.13e-05	237.18	-4.854e+05	-1.426e+05	4.63e-03	0.0
				-1200.00	-8.64e-06	247.50	-4.775e+05	-9.293e+04	2.47e-03	0.0
				-1400.00	-5.04e-06	176.74	-4.694e+05	-4.652e+04	9.27e-04	0.0
				-1600.00	-2.18e-06	97.07	-4.615e+05	-1.531e+04	7.59e-05	0.0
				-1800.00	0.0	38.10	-4.538e+05	827.46	-2.61e-04	0.0
				-2000.00	0.0	4.58	-4.468e+05	6478.86	-3.05e-04	0.0
				-2200.00	0.0	-9.42	-4.405e+05	6502.60	-2.28e-04	0.0
				-2400.00	0.0	-11.89	-4.354e+05	4395.49	-1.29e-04	0.0
				-2600.00	0.0	-8.99	-4.315e+05	2122.90	-5.36e-05	0.0
				-2800.00	0.0	-4.13	-4.293e+05	555.45	-1.19e-05	0.0
				-3000.00	0.0	-1.42	-4.288e+05	0.0	0.0	0.0
		1	11	0.0	58.97	-185.29	-4.482e+05	8.316e+05	-5321.97	0.0
				-200.00	18.13	-1233.89	-4.454e+05	6.783e+05	2943.13	0.0
				-400.00	-0.76	-1187.56	-4.417e+05	4.272e+05	5452.97	0.0
				-600.00	-7.96	-822.21	-4.367e+05	2.063e+05	4825.41	0.0
				-800.00	-8.34	-439.14	-4.309e+05	6.192e+04	3158.94	0.0
				-1000.00	-6.00	-163.79	-4.244e+05	-1.052e+04	1592.34	0.0
				-1200.00	-3.32	-11.75	-4.176e+05	-3.428e+04	531.78	0.0
				-1400.00	-1.32	48.30	-4.105e+05	-3.274e+04	-21.28	0.0
				-1600.00	-0.18	55.91	-4.035e+05	-2.226e+04	-219.09	0.0
				-1800.00	0.29	41.65	-3.969e+05	-1.166e+04	-225.63	0.0
				-2000.00	0.38	23.48	-3.907e+05	-4257.42	-159.80	0.0
				-2200.00	0.29	9.24	-3.852e+05	-342.56	-87.82	0.0
				-2400.00	0.16	0.75	-3.807e+05	1011.25	-36.42	0.0
				-2600.00	0.06	-2.76	-3.774e+05	930.43	-9.43	0.0
				-2800.00	6.70e-03	-2.44	-3.754e+05	351.48	-0.47	0.0
				-3000.00	-1.97e-03	-1.07	-3.749e+05	0.0	0.0	0.0
		1	12	0.0	58.97	965.15	-3.298e+05	4.504e+05	-5321.96	0.0
				-200.00	18.13	-479.56	-3.278e+05	5.017e+05	2943.14	0.0
				-400.00	-0.76	-797.29	-3.250e+05	3.823e+05	5452.97	0.0
				-600.00	-7.96	-689.04	-3.214e+05	2.251e+05	4825.41	0.0
				-800.00	-8.34	-443.50	-3.171e+05	9.909e+04	3158.94	0.0
				-1000.00	-6.00	-218.60	-3.123e+05	2.242e+04	1592.33	0.0
				-1200.00	-3.32	-68.95	-3.073e+05	-1.281e+04	531.77	0.0
				-1400.00	-1.32	7.46	-3.021e+05	-2.199e+04	-21.28	0.0
				-1600.00	-0.18	33.48	-2.970e+05	-1.872e+04	-219.09	0.0
				-1800.00	0.29	32.85	-2.921e+05	-1.185e+04	-225.63	0.0
				-2000.00	0.38	22.43	-2.875e+05	-5754.60	-159.80	0.0
				-2200.00	0.29	11.42	-2.835e+05	-1845.22	-87.82	0.0
				-2400.00	0.16	3.49	-2.802e+05	-4.49	-36.42	0.0
				-2600.00	0.06	-0.69	-2.777e+05	439.85	-9.43	0.0
				-2800.00	6.70e-03	-1.49	-2.762e+05	223.12	-0.47	0.0
				-3000.00	-1.97e-03	-0.74	-2.759e+05	0.0	0.0	0.0
		1	17	0.0	1.27e-04	-3828.90	-3.942e+05	1.269e+06	-0.03	0.0
				-200.00	6.64e-05	-2510.60	-3.918e+05	5.878e+05	-9.56e-03	0.0
				-400.00	2.59e-05	-1298.91	-3.885e+05	1.493e+05	1.48e-03	0.0
				-600.00	2.44e-06	-443.22	-3.841e+05	-6.241e+04	5.29e-03	0.0
				-800.00	-7.23e-06	14.51	-3.790e+05	-1.237e+05	5.15e-03	0.0
				-1000.00	-8.71e-06	182.42	-3.733e+05	-1.096e+05	3.56e-03	0.0
				-1200.00	-6.65e-06	190.35	-3.673e+05	-7.147e+04	1.90e-03	0.0
				-1400.00	-3.88e-06	135.93	-3.611e+05	-3.578e+04	7.13e-04	0.0
				-1600.00	-1.68e-06	74.65	-3.549e+05	-1.178e+04	5.84e-05	0.0
				-1800.00	0.0	29.31	-3.491e+05	636.41	-2.01e-04	0.0
				-2000.00	0.0	3.52	-3.436e+05	4982.95	-2.35e-04	0.0
				-2200.00	0.0	-7.25	-3.388e+05	5001.21	-1.75e-04	0.0
				-2400.00	0.0	-9.15	-3.349e+05	3380.61	-9.94e-05	0.0
				-2600.00	0.0	-6.91	-3.319e+05	1632.75	-4.12e-05	0.0
				-2800.00	0.0	-3.18	-3.302e+05	427.20	-9.12e-06	0.0
				-3000.00	0.0	-1.09	-3.298e+05	0.0	0.0	0.0
		1	19	0.0	39.32	-631.56	-3.512e+05	7.227e+05	-3547.98	0.0
				-200.00	12.09	-1155.71	-3.491e+05	5.302e+05	1962.09	0.0
				-400.00	-0.50	-964.05	-3.461e+05	3.046e+05	3635.32	0.0
				-600.00	-5.30	-606.95	-3.422e+05	1.293e+05	3216.94	0.0
				-800.00	-5.56	-290.84	-3.377e+05	2.487e+04	2105.96	0.0
				-1000.00	-4.00	-84.99	-3.326e+05	-2.156e+04	1061.56	0.0
				-1200.00	-2.21	17.42	-3.272e+05	-3.234e+04	354.52	0.0
				-1400.00	-0.88	50.24	-3.217e+05	-2.657e+04	-14.19	0.0

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1600.00	-0.12	47.18	-3.162e+05	-1.640e+04	-146.06	0.0
				-1800.00	0.19	31.66	-3.110e+05	-7689.16	-150.42	0.0
				-2000.00	0.25	16.12	-3.062e+05	-2177.12	-106.53	0.0
				-2200.00	0.19	5.20	-3.019e+05	435.22	-58.55	0.0
				-2400.00	0.11	-0.72	-2.984e+05	1122.72	-24.28	0.0
				-2600.00	0.04	-2.76	-2.957e+05	836.93	-6.29	0.0
				-2800.00	4.46e-03	-2.05	-2.942e+05	291.00	-0.32	0.0
				-3000.00	-1.31e-03	-0.86	-2.938e+05	0.0	0.0	0.0
		1	21	0.0	39.32	-633.52	-3.513e+05	7.234e+05	-3547.98	0.0
				-200.00	12.09	-1157.00	-3.492e+05	5.305e+05	1962.09	0.0
				-400.00	-0.50	-964.72	-3.462e+05	3.047e+05	3635.32	0.0
				-600.00	-5.30	-607.18	-3.423e+05	1.292e+05	3216.94	0.0
				-800.00	-5.56	-290.83	-3.378e+05	2.480e+04	2105.96	0.0
				-1000.00	-4.00	-84.89	-3.327e+05	-2.162e+04	1061.56	0.0
				-1200.00	-2.21	17.52	-3.273e+05	-3.237e+04	354.52	0.0
				-1400.00	-0.88	50.31	-3.218e+05	-2.659e+04	-14.19	0.0
				-1600.00	-0.12	47.22	-3.163e+05	-1.641e+04	-146.06	0.0
				-1800.00	0.19	31.67	-3.111e+05	-7688.84	-150.42	0.0
				-2000.00	0.25	16.13	-3.063e+05	-2174.57	-106.53	0.0
				-2200.00	0.19	5.20	-3.020e+05	437.77	-58.55	0.0
				-2400.00	0.11	-0.72	-2.984e+05	1124.46	-24.28	0.0
				-2600.00	0.04	-2.76	-2.958e+05	837.76	-6.29	0.0
				-2800.00	4.46e-03	-2.05	-2.942e+05	291.22	-0.32	0.0
				-3000.00	-1.31e-03	-0.86	-2.939e+05	0.0	0.0	0.0
		1	22	0.0	2920.83	-2902.29	-3.847e+05	1.100e+06	-5.056e+05	0.0
				-200.00	1247.65	-2103.01	-3.823e+05	5.624e+05	-5.844e+04	0.0
				-400.00	315.95	-1186.76	-3.791e+05	1.887e+05	1.381e+05	0.0
				-600.00	-142.41	-479.92	-3.748e+05	-9672.05	1.732e+05	0.0
				-800.00	-275.01	-68.08	-3.698e+05	-8.156e+04	1.351e+05	0.0
				-1000.00	-242.74	107.24	-3.643e+05	-8.404e+04	8.051e+04	0.0
				-1200.00	-157.79	140.52	-3.584e+05	-5.972e+04	3.602e+04	0.0
				-1400.00	-78.66	110.54	-3.523e+05	-3.270e+04	8689.13	0.0
				-1600.00	-25.57	65.99	-3.463e+05	-1.283e+04	4034.37	0.0
				-1800.00	1.79	29.45	-3.406e+05	-1619.40	-7501.15	0.0
				-2000.00	11.30	6.86	-3.353e+05	2968.33	-6500.69	0.0
				-2200.00	11.28	-3.77	-3.306e+05	3685.81	-4165.91	0.0
				-2400.00	7.69	-6.72	-3.268e+05	2714.88	-2070.20	0.0
				-2600.00	3.82	-5.68	-3.239e+05	1390.68	-734.60	0.0
				-2800.00	1.05	-2.82	-3.222e+05	383.29	-127.38	0.0
				-3000.00	0.22	-1.01	-3.218e+05	0.0	0.0	0.0
		1	43	0.0	876.25	-6914.19	-4.259e+05	1.829e+06	-1.517e+05	0.0
				-200.00	374.30	-3867.01	-4.233e+05	6.720e+05	-1.753e+04	0.0
				-400.00	94.78	-1671.58	-4.197e+05	1.797e+04	4.143e+04	0.0
				-600.00	-42.72	-320.51	-4.150e+05	-2.381e+05	5.196e+04	0.0
				-800.00	-82.50	289.78	-4.095e+05	-2.641e+05	4.054e+04	0.0
				-1000.00	-72.82	432.85	-4.033e+05	-1.949e+05	2.415e+04	0.0
				-1200.00	-47.34	356.30	-3.968e+05	-1.106e+05	1.081e+04	0.0
				-1400.00	-23.60	220.46	-3.901e+05	-4.603e+04	2606.74	0.0
				-1600.00	-7.67	103.47	-3.835e+05	-8264.66	-1210.31	0.0
				-1800.00	0.54	28.81	-3.771e+05	8155.20	-2250.34	0.0
				-2000.00	3.39	-7.61	-3.713e+05	1.169e+04	-1950.21	0.0
				-2200.00	3.39	-18.83	-3.661e+05	9381.45	-1249.77	0.0
				-2400.00	2.31	-17.23	-3.618e+05	5596.71	-621.06	0.0
				-2600.00	1.14	-11.03	-3.586e+05	2438.18	-220.38	0.0
				-2800.00	0.32	-4.37	-3.567e+05	573.21	-38.21	0.0
				-3000.00	0.07	-1.36	-3.563e+05	0.0	0.0	0.0
		1	44	0.0	-876.25	-742.04	-3.624e+05	7.074e+05	1.517e+05	0.0
				-200.00	-374.30	-1153.16	-3.602e+05	5.033e+05	1.753e+04	0.0
				-400.00	-94.78	-925.71	-3.572e+05	2.806e+05	-4.143e+04	0.0
				-600.00	42.72	-565.76	-3.532e+05	1.133e+05	-5.196e+04	0.0
				-800.00	82.50	-260.77	-3.485e+05	1.672e+04	-4.054e+04	0.0
				-1000.00	72.82	-68.09	-3.432e+05	-2.438e+04	-2.415e+04	0.0
				-1200.00	47.34	24.33	-3.377e+05	-3.232e+04	-1.081e+04	0.0
				-1400.00	23.60	51.35	-3.320e+05	-2.551e+04	-2606.74	0.0
				-1600.00	7.67	45.81	-3.263e+05	-1.528e+04	1210.31	0.0
				-1800.00	-0.54	29.79	-3.209e+05	-6882.65	2250.34	0.0
				-2000.00	-3.39	14.65	-3.159e+05	-1730.07	1950.21	0.0
				-2200.00	-3.39	4.34	-3.115e+05	618.93	1249.77	0.0

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Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2400.00	-2.31	-1.06	-3.079e+05	1163.13	621.06	0.0
				-2600.00	-1.14	-2.80	-3.052e+05	826.64	220.38	0.0
				-2800.00	-0.32	-1.99	-3.035e+05	281.03	38.21	0.0
				-3000.00	-0.07	-0.82	-3.032e+05	0.0	0.0	0.0
		1	54	0.0	2086.11	-3172.02	-3.883e+05	1.146e+06	-3.729e+05	0.0
				-200.00	908.16	-2217.63	-3.859e+05	5.674e+05	-5.170e+04	0.0
				-400.00	242.90	-1215.34	-3.826e+05	1.757e+05	9.220e+04	0.0
				-600.00	-89.44	-466.34	-3.783e+05	-2.578e+04	1.205e+05	0.0
				-800.00	-189.67	-42.45	-3.733e+05	-9.408e+04	9.546e+04	0.0
				-1000.00	-170.72	129.75	-3.677e+05	-9.148e+04	5.758e+04	0.0
				-1200.00	-112.37	155.10	-3.617e+05	-6.303e+04	2.620e+04	0.0
				-1400.00	-56.82	117.78	-3.556e+05	-3.348e+04	6681.41	0.0
				-1600.00	-19.06	68.32	-3.496e+05	-1.244e+04	-2548.77	0.0
				-1800.00	0.66	29.26	-3.438e+05	-920.48	-5178.17	0.0
				-2000.00	7.71	5.81	-3.384e+05	3571.03	-4573.93	0.0
				-2200.00	7.91	-4.82	-3.337e+05	4070.82	-2966.41	0.0
				-2400.00	5.47	-7.43	-3.298e+05	2905.60	-1491.57	0.0
				-2600.00	2.76	-6.03	-3.269e+05	1458.06	-537.72	0.0
				-2800.00	0.79	-2.92	-3.252e+05	394.88	-96.05	0.0
				-3000.00	0.17	-1.03	-3.248e+05	0.0	0.0	0.0
		1	75	0.0	625.83	-6015.11	-4.139e+05	1.675e+06	-1.119e+05	0.0
				-200.00	272.45	-3484.94	-4.114e+05	6.552e+05	-1.551e+04	0.0
				-400.00	72.87	-1576.32	-4.079e+05	6.123e+04	2.766e+04	0.0
				-600.00	-26.83	-365.77	-4.033e+05	-1.844e+05	3.615e+04	0.0
				-800.00	-56.90	204.35	-3.979e+05	-2.224e+05	2.864e+04	0.0
				-1000.00	-51.22	357.82	-3.920e+05	-1.701e+05	1.727e+04	0.0
				-1200.00	-33.71	307.70	-3.856e+05	-9.956e+04	7860.49	0.0
				-1400.00	-17.05	196.32	-3.791e+05	-4.341e+04	2004.42	0.0
				-1600.00	-5.72	95.70	-3.727e+05	-9545.01	-764.63	0.0
				-1800.00	0.20	29.43	-3.665e+05	5825.48	-1553.45	0.0
				-2000.00	2.31	-4.09	-3.608e+05	9684.94	-1372.18	0.0
				-2200.00	2.37	-15.34	-3.558e+05	8098.08	-889.92	0.0
				-2400.00	1.64	-14.86	-3.516e+05	4960.98	-447.47	0.0
				-2600.00	0.83	-9.86	-3.485e+05	2213.57	-161.32	0.0
				-2800.00	0.24	-4.05	-3.467e+05	534.58	-28.81	0.0
				-3000.00	0.05	-1.30	-3.463e+05	0.0	0.0	0.0
		1	76	0.0	-625.83	-1641.12	-3.745e+05	8.617e+05	1.119e+05	0.0
				-200.00	-272.45	-1535.24	-3.721e+05	5.202e+05	1.551e+04	0.0
				-400.00	-72.87	-1020.97	-3.690e+05	2.373e+05	-2.766e+04	0.0
				-600.00	26.83	-520.50	-3.649e+05	5.965e+04	-3.615e+04	0.0
				-800.00	56.90	-175.33	-3.600e+05	-2.499e+04	-2.864e+04	0.0
				-1000.00	51.22	6.94	-3.546e+05	-4.915e+04	-1.727e+04	0.0
				-1200.00	33.71	72.94	-3.488e+05	-4.336e+04	-7860.49	0.0
				-1400.00	17.05	75.48	-3.430e+05	-2.813e+04	-2004.42	0.0
				-1600.00	5.72	53.58	-3.371e+05	-1.400e+04	764.63	0.0
				-1800.00	-0.20	29.17	-3.316e+05	-4552.93	1553.45	0.0
				-2000.00	-2.31	11.13	-3.264e+05	278.93	1372.18	0.0
				-2200.00	-2.37	0.85	-3.218e+05	1902.30	889.92	0.0
				-2400.00	-1.64	-3.43	-3.181e+05	1798.86	447.47	0.0
				-2600.00	-0.83	-3.97	-3.153e+05	1051.25	161.32	0.0
				-2800.00	-0.24	-2.31	-3.136e+05	319.65	28.81	0.0
				-3000.00	-0.05	-0.89	-3.133e+05	0.0	0.0	0.0
		1	87	0.0	1.27e-04	-3825.76	-3.941e+05	1.268e+06	-0.03	0.0
				-200.00	6.64e-05	-2508.55	-3.916e+05	5.873e+05	-9.56e-03	0.0
				-400.00	2.59e-05	-1297.85	-3.883e+05	1.492e+05	1.48e-03	0.0
				-600.00	2.44e-06	-442.86	-3.840e+05	-6.235e+04	5.29e-03	0.0
				-800.00	-7.23e-06	14.50	-3.789e+05	-1.236e+05	5.15e-03	0.0
				-1000.00	-8.71e-06	182.27	-3.732e+05	-1.095e+05	3.56e-03	0.0
				-1200.00	-6.65e-06	190.20	-3.671e+05	-7.141e+04	1.90e-03	0.0
				-1400.00	-3.88e-06	135.82	-3.609e+05	-3.575e+04	7.13e-04	0.0
				-1600.00	-1.68e-06	74.59	-3.548e+05	-1.177e+04	5.84e-05	0.0
				-1800.00	0.0	29.28	-3.489e+05	635.89	-2.01e-04	0.0
				-2000.00	0.0	3.52	-3.435e+05	4978.87	-2.35e-04	0.0
				-2200.00	0.0	-7.24	-3.387e+05	4997.12	-1.75e-04	0.0
				-2400.00	0.0	-9.14	-3.347e+05	3377.84	-9.93e-05	0.0
				-2600.00	0.0	-6.91	-3.318e+05	1631.41	-4.12e-05	0.0
				-2800.00	0.0	-3.18	-3.300e+05	426.85	-9.12e-06	0.0
				-3000.00	0.0	-1.09	-3.297e+05	0.0	0.0	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
		1	88	0.0	7.86	-3186.30	-3.855e+05	1.158e+06	-709.62	0.0
				-200.00	2.42	-2237.57	-3.831e+05	5.758e+05	392.41	0.0
				-400.00	-0.10	-1230.88	-3.798e+05	1.802e+05	727.06	0.0
				-600.00	-1.06	-475.61	-3.756e+05	-2.402e+04	643.39	0.0
				-800.00	-1.11	-46.57	-3.706e+05	-9.389e+04	421.20	0.0
				-1000.00	-0.80	128.79	-3.650e+05	-9.193e+04	212.31	0.0
				-1200.00	-0.44	155.61	-3.591e+05	-6.359e+04	70.90	0.0
				-1400.00	-0.18	118.68	-3.531e+05	-3.391e+04	-2.84	0.0
				-1600.00	-0.02	69.10	-3.471e+05	-1.269e+04	-29.21	0.0
				-1800.00	0.04	29.75	-3.413e+05	-1029.23	-30.08	0.0
				-2000.00	0.05	6.04	-3.360e+05	3546.86	-21.31	0.0
				-2200.00	0.04	-4.75	-3.313e+05	4083.92	-11.71	0.0
				-2400.00	0.02	-7.45	-3.274e+05	2926.27	-4.86	0.0
				-2600.00	8.22e-03	-6.08	-3.245e+05	1472.24	-1.26	0.0
				-2800.00	8.93e-04	-2.95	-3.228e+05	399.61	-0.06	0.0
				-3000.00	-2.62e-04	-1.05	-3.225e+05	0.0	0.0	0.0
		1	89	0.0	1.27e-04	-3824.98	-3.940e+05	1.267e+06	-0.03	0.0
				-200.00	6.63e-05	-2508.03	-3.916e+05	5.872e+05	-9.56e-03	0.0
				-400.00	2.59e-05	-1297.58	-3.883e+05	1.492e+05	1.48e-03	0.0
				-600.00	2.44e-06	-442.77	-3.839e+05	-6.234e+04	5.28e-03	0.0
				-800.00	-7.23e-06	14.49	-3.788e+05	-1.236e+05	5.15e-03	0.0
				-1000.00	-8.71e-06	182.23	-3.731e+05	-1.095e+05	3.56e-03	0.0
				-1200.00	-6.65e-06	190.16	-3.671e+05	-7.140e+04	1.90e-03	0.0
				-1400.00	-3.88e-06	135.79	-3.609e+05	-3.574e+04	7.13e-04	0.0
				-1600.00	-1.68e-06	74.58	-3.548e+05	-1.176e+04	5.84e-05	0.0
				-1800.00	0.0	29.28	-3.489e+05	635.76	-2.01e-04	0.0
				-2000.00	0.0	3.52	-3.435e+05	4977.85	-2.35e-04	0.0
				-2200.00	0.0	-7.24	-3.387e+05	4996.09	-1.75e-04	0.0
				-2400.00	0.0	-9.14	-3.347e+05	3377.15	-9.93e-05	0.0
				-2600.00	0.0	-6.91	-3.318e+05	1631.07	-4.12e-05	0.0
				-2800.00	0.0	-3.18	-3.300e+05	426.77	-9.12e-06	0.0
				-3000.00	0.0	-1.09	-3.296e+05	0.0	0.0	0.0
		1	90	0.0	1.27e-04	-3824.98	-3.940e+05	1.267e+06	-0.03	0.0
				-200.00	6.63e-05	-2508.03	-3.916e+05	5.872e+05	-9.56e-03	0.0
				-400.00	2.59e-05	-1297.58	-3.883e+05	1.492e+05	1.48e-03	0.0
				-600.00	2.44e-06	-442.77	-3.839e+05	-6.234e+04	5.28e-03	0.0
				-800.00	-7.23e-06	14.49	-3.788e+05	-1.236e+05	5.15e-03	0.0
				-1000.00	-8.71e-06	182.23	-3.731e+05	-1.095e+05	3.56e-03	0.0
				-1200.00	-6.65e-06	190.16	-3.671e+05	-7.140e+04	1.90e-03	0.0
				-1400.00	-3.88e-06	135.79	-3.609e+05	-3.574e+04	7.13e-04	0.0
				-1600.00	-1.68e-06	74.58	-3.548e+05	-1.176e+04	5.84e-05	0.0
				-1800.00	0.0	29.28	-3.489e+05	635.76	-2.01e-04	0.0
				-2000.00	0.0	3.52	-3.435e+05	4977.85	-2.35e-04	0.0
				-2200.00	0.0	-7.24	-3.387e+05	4996.09	-1.75e-04	0.0
				-2400.00	0.0	-9.14	-3.347e+05	3377.15	-9.93e-05	0.0
				-2600.00	0.0	-6.91	-3.318e+05	1631.07	-4.12e-05	0.0
				-2800.00	0.0	-3.18	-3.300e+05	426.77	-9.12e-06	0.0
				-3000.00	0.0	-1.09	-3.296e+05	0.0	0.0	0.0
179	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	2550.29	-4330.23	-5.106e+05	1.435e+06	-8.450e+05	0.0
				-200.00	1672.23	-2839.34	-5.075e+05	6.648e+05	-3.915e+05	0.0
				-400.00	865.17	-1469.00	-5.032e+05	1.689e+05	-9.946e+04	0.0
				-600.00	295.22	-501.27	-4.976e+05	-7.057e+04	4.156e+04	0.0
				-800.00	-9.66	16.40	-4.909e+05	-1.399e+05	8.240e+04	0.0
				-1000.00	-121.50	206.30	-4.836e+05	-1.240e+05	7.303e+04	0.0
				-1200.00	-126.79	215.28	-4.757e+05	-8.083e+04	4.760e+04	0.0
				-1400.00	-90.54	153.73	-4.677e+05	-4.047e+04	2.383e+04	0.0
				-1600.00	-49.73	84.43	-4.598e+05	-1.332e+04	7843.25	0.0
				-1800.00	-19.52	33.14	-4.521e+05	719.58	-423.82	0.0
				-2000.00	-2.35	3.99	-4.451e+05	5635.33	-3318.94	0.0
				-2200.00	4.83	-8.20	-4.389e+05	5656.03	-3331.13	0.0
				-2400.00	6.09	-10.34	-4.338e+05	3823.26	-2251.71	0.0
				-2600.00	4.60	-7.82	-4.299e+05	1846.54	-1087.52	0.0
				-2800.00	2.12	-3.60	-4.277e+05	483.14	-284.55	0.0
				-3000.00	0.73	-1.24	-4.272e+05	0.0	0.0	0.0
		1	12	0.0	1852.42	1368.73	-3.377e+05	3.162e+05	-6.005e+05	0.0
				-200.00	1195.47	-214.19	-3.356e+05	4.393e+05	-2.732e+05	0.0
				-400.00	609.04	-659.64	-3.328e+05	3.663e+05	-6.500e+04	0.0

**PROJETTO engineering s.r.l.**  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-600.00	200.64	-641.80	-3.290e+05	2.315e+05	3.380e+04	0.0
				-800.00	-14.60	-444.74	-3.246e+05	1.121e+05	6.102e+04	0.0
				-1000.00	-91.23	-237.71	-3.198e+05	3.398e+04	5.295e+04	0.0
				-1200.00	-92.45	-89.00	-3.146e+05	-5254.47	3.405e+04	0.0
				-1400.00	-65.05	-6.90	-3.093e+05	-1.819e+04	1.678e+04	0.0
				-1600.00	-35.22	25.57	-3.040e+05	-1.747e+04	5323.22	0.0
				-1800.00	-13.48	29.73	-2.990e+05	-1.191e+04	-509.28	0.0
				-2000.00	-1.30	22.04	-2.943e+05	-6276.88	-2488.24	0.0
				-2200.00	3.67	12.18	-2.902e+05	-2371.99	-2429.65	0.0
				-2400.00	4.45	4.46	-2.868e+05	-361.38	-1620.94	0.0
				-2600.00	3.30	0.04	-2.843e+05	267.19	-775.25	0.0
				-2800.00	1.50	-1.15	-2.828e+05	177.87	-200.98	0.0
				-3000.00	0.51	-0.63	-2.825e+05	0.0	0.0	0.0
		1	17	0.0	1961.46	-3330.42	-3.928e+05	1.104e+06	-6.499e+05	0.0
				-200.00	1286.13	-2183.76	-3.904e+05	5.113e+05	-3.011e+05	0.0
				-400.00	665.41	-1129.82	-3.870e+05	1.299e+05	-7.649e+04	0.0
				-600.00	227.06	-385.53	-3.827e+05	-5.428e+04	3.197e+04	0.0
				-800.00	-7.43	12.62	-3.776e+05	-1.076e+05	6.337e+04	0.0
				-1000.00	-93.45	158.67	-3.719e+05	-9.537e+04	5.617e+04	0.0
				-1200.00	-97.51	165.57	-3.659e+05	-6.217e+04	3.661e+04	0.0
				-1400.00	-69.64	118.24	-3.597e+05	-3.112e+04	1.833e+04	0.0
				-1600.00	-38.24	64.94	-3.536e+05	-1.024e+04	6032.33	0.0
				-1800.00	-15.01	25.49	-3.478e+05	553.44	-325.96	0.0
				-2000.00	-1.81	3.07	-3.424e+05	4334.19	-2552.63	0.0
				-2200.00	3.71	-6.30	-3.376e+05	4350.11	-2562.01	0.0
				-2400.00	4.69	-7.95	-3.336e+05	2940.51	-1731.82	0.0
				-2600.00	3.54	-6.01	-3.307e+05	1420.19	-836.42	0.0
				-2800.00	1.63	-2.77	-3.289e+05	371.59	-218.85	0.0
				-3000.00	0.56	-0.95	-3.286e+05	0.0	0.0	0.0
		1	19	0.0	1888.10	-196.52	-3.560e+05	5.783e+05	-6.168e+05	0.0
				-200.00	1225.25	-869.98	-3.538e+05	4.631e+05	-2.824e+05	0.0
				-400.00	627.60	-815.98	-3.508e+05	2.875e+05	-6.881e+04	0.0
				-600.00	209.37	-556.24	-3.469e+05	1.363e+05	3.318e+04	0.0
				-800.00	-12.21	-292.29	-3.422e+05	3.889e+04	6.178e+04	0.0
				-1000.00	-91.94	-105.64	-3.371e+05	-9104.50	5.401e+04	0.0
				-1200.00	-94.11	-4.20	-3.316e+05	-2.420e+04	3.489e+04	0.0
				-1400.00	-66.55	34.77	-3.260e+05	-2.249e+04	1.729e+04	0.0
				-1600.00	-36.21	38.67	-3.205e+05	-1.506e+04	5557.55	0.0
				-1800.00	-13.99	28.31	-3.152e+05	-7756.39	-448.07	0.0
				-2000.00	-1.47	15.71	-3.103e+05	-2741.33	-2508.84	0.0
				-2200.00	3.68	6.02	-3.060e+05	-132.77	-2472.91	0.0
				-2400.00	4.52	0.32	-3.024e+05	738.25	-1657.31	0.0
				-2600.00	3.38	-1.97	-2.997e+05	651.04	-795.36	0.0
				-2800.00	1.54	-1.69	-2.981e+05	242.32	-206.86	0.0
				-3000.00	0.53	-0.73	-2.978e+05	0.0	0.0	0.0
		1	27	0.0	4947.93	-4325.83	-4.171e+05	1.294e+06	-1.177e+06	0.0
				-200.00	2576.88	-2635.71	-4.145e+05	5.468e+05	-3.697e+05	0.0
				-400.00	1003.68	-1264.54	-4.110e+05	9.291e+04	5.903e+04	0.0
				-600.00	92.28	-356.25	-4.064e+05	-1.083e+05	2.062e+05	0.0
				-800.00	-282.67	95.76	-4.010e+05	-1.520e+05	2.006e+05	0.0
				-1000.00	-339.31	237.24	-3.949e+05	-1.229e+05	1.386e+05	0.0
				-1200.00	-258.57	218.84	-3.885e+05	-7.518e+04	7.386e+04	0.0
				-1400.00	-150.62	146.04	-3.820e+05	-3.483e+04	2.763e+04	0.0
				-1600.00	-65.10	74.91	-3.755e+05	-9389.19	2200.85	0.0
				-1800.00	-13.73	25.85	-3.693e+05	2828.69	-7837.46	0.0
				-2000.00	9.43	-0.23	-3.635e+05	6441.43	-9138.53	0.0
				-2200.00	15.12	-9.92	-3.585e+05	5755.78	-6813.62	0.0
				-2400.00	12.53	-10.55	-3.543e+05	3666.40	-3860.01	0.0
				-2600.00	7.48	-7.37	-3.512e+05	1691.01	-1599.05	0.0
				-2800.00	2.73	-3.18	-3.493e+05	422.95	-353.57	0.0
				-3000.00	0.80	-1.05	-3.489e+05	0.0	0.0	0.0
		1	39	0.0	2933.24	-6398.50	-4.252e+05	1.658e+06	-8.329e+05	0.0
				-200.00	1722.48	-3528.47	-4.225e+05	5.926e+05	-3.330e+05	0.0
				-400.00	792.01	-1496.22	-4.190e+05	-2294.80	-3.857e+04	0.0
				-600.00	194.97	-260.52	-4.143e+05	-2.298e+05	8.560e+04	0.0
				-800.00	-90.53	287.99	-4.088e+05	-2.474e+05	1.070e+05	0.0
				-1000.00	-170.91	408.35	-4.026e+05	-1.801e+05	8.305e+04	0.0
				-1200.00	-149.61	330.67	-3.961e+05	-1.010e+05	4.919e+04	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1400.00	-96.60	202.14	-3.894e+05	-4.120e+04	2.181e+04	0.0
				-1600.00	-47.75	93.40	-3.828e+05	-6670.68	5104.37	0.0
				-1800.00	-15.19	24.85	-3.765e+05	8073.83	-2598.35	0.0
				-2000.00	1.51	-8.09	-3.706e+05	1.102e+04	-4629.54	0.0
				-2200.00	7.28	-17.86	-3.654e+05	8708.09	-3936.87	0.0
				-2400.00	7.22	-16.00	-3.612e+05	5141.09	-2436.77	0.0
				-2600.00	4.86	-10.09	-3.580e+05	2217.96	-1097.09	0.0
				-2800.00	2.02	-3.94	-3.561e+05	515.55	-267.55	0.0
				-3000.00	0.65	-1.22	-3.557e+05	0.0	0.0	0.0
		1	40	0.0	988.88	-260.98	-3.603e+05	5.483e+05	-4.667e+05	0.0
				-200.00	849.26	-838.17	-3.581e+05	4.297e+05	-2.691e+05	0.0
				-400.00	538.54	-762.96	-3.550e+05	2.620e+05	-1.144e+05	0.0
				-600.00	259.05	-510.38	-3.511e+05	1.213e+05	-2.168e+04	0.0
				-800.00	75.67	-262.76	-3.464e+05	3.229e+04	1.969e+04	0.0
				-1000.00	-15.95	-91.07	-3.412e+05	-1.060e+04	2.926e+04	0.0
				-1200.00	-45.38	0.40	-3.357e+05	-2.335e+04	2.402e+04	0.0
				-1400.00	-42.64	34.28	-3.300e+05	-2.103e+04	1.484e+04	0.0
				-1600.00	-28.72	36.45	-3.244e+05	-1.381e+04	6957.84	0.0
				-1800.00	-14.83	26.12	-3.190e+05	-6967.19	1946.56	0.0
				-2000.00	-5.12	14.22	-3.141e+05	-2357.89	-474.70	0.0
				-2200.00	0.14	5.26	-3.097e+05	-9.64	-1186.11	0.0
				-2400.00	2.15	0.09	-3.060e+05	738.72	-1026.16	0.0
				-2600.00	2.22	-1.93	-3.033e+05	621.84	-575.42	0.0
				-2800.00	1.23	-1.59	-3.017e+05	227.48	-170.06	0.0
				-3000.00	0.47	-0.69	-3.014e+05	0.0	0.0	0.0
		1	43	0.0	2933.24	-6398.50	-4.252e+05	1.658e+06	-8.329e+05	0.0
				-200.00	1722.48	-3528.47	-4.225e+05	5.926e+05	-3.330e+05	0.0
				-400.00	792.01	-1496.22	-4.190e+05	-2294.80	-3.857e+04	0.0
				-600.00	194.97	-260.52	-4.143e+05	-2.298e+05	8.560e+04	0.0
				-800.00	-90.53	287.99	-4.088e+05	-2.474e+05	1.070e+05	0.0
				-1000.00	-170.91	408.35	-4.026e+05	-1.801e+05	8.305e+04	0.0
				-1200.00	-149.61	330.67	-3.961e+05	-1.010e+05	4.919e+04	0.0
				-1400.00	-96.60	202.14	-3.894e+05	-4.120e+04	2.181e+04	0.0
				-1600.00	-47.75	93.40	-3.828e+05	-6670.68	5104.37	0.0
				-1800.00	-15.19	24.85	-3.765e+05	8073.83	-2598.35	0.0
				-2000.00	1.51	-8.09	-3.706e+05	1.102e+04	-4629.54	0.0
				-2200.00	7.28	-17.86	-3.654e+05	8708.09	-3936.87	0.0
				-2400.00	7.22	-16.00	-3.612e+05	5141.09	-2436.77	0.0
				-2600.00	4.86	-10.09	-3.580e+05	2217.96	-1097.09	0.0
				-2800.00	2.02	-3.94	-3.561e+05	515.55	-267.55	0.0
				-3000.00	0.65	-1.22	-3.557e+05	0.0	0.0	0.0
		1	59	0.0	4087.53	-4029.06	-4.079e+05	1.239e+06	-1.036e+06	0.0
				-200.00	2220.51	-2503.61	-4.053e+05	5.378e+05	-3.590e+05	0.0
				-400.00	921.89	-1227.05	-4.019e+05	1.049e+05	1.414e+04	0.0
				-600.00	142.26	-366.88	-3.974e+05	-9.168e+04	1.531e+05	0.0
				-800.00	-197.25	69.93	-3.921e+05	-1.386e+05	1.601e+05	0.0
				-1000.00	-266.07	213.41	-3.862e+05	-1.147e+05	1.149e+05	0.0
				-1200.00	-211.88	202.91	-3.800e+05	-7.138e+04	6.356e+04	0.0
				-1400.00	-127.87	137.85	-3.736e+05	-3.380e+04	2.539e+04	0.0
				-1600.00	-58.09	72.06	-3.672e+05	-9695.16	3606.82	0.0
				-1800.00	-14.66	25.84	-3.611e+05	2122.56	-5510.57	0.0
				-2000.00	5.87	0.81	-3.555e+05	5802.49	-7178.48	0.0
				-2200.00	11.70	-8.82	-3.506e+05	5335.30	-5580.60	0.0
				-2400.00	10.25	-9.77	-3.465e+05	3452.00	-3258.68	0.0
				-2600.00	6.38	-6.97	-3.434e+05	1612.29	-1391.20	0.0
				-2800.00	2.45	-3.06	-3.416e+05	408.43	-319.36	0.0
				-3000.00	0.75	-1.02	-3.412e+05	0.0	0.0	0.0
		1	71	0.0	2645.79	-5506.21	-4.129e+05	1.506e+06	-7.809e+05	0.0
				-200.00	1596.53	-3151.00	-4.104e+05	5.769e+05	-3.254e+05	0.0
				-400.00	757.72	-1403.43	-4.069e+05	4.129e+04	-5.096e+04	0.0
				-600.00	206.71	-306.68	-4.023e+05	-1.762e+05	6.915e+04	0.0
				-800.00	-64.71	202.52	-3.970e+05	-2.059e+05	9.392e+04	0.0
				-1000.00	-147.51	333.62	-3.910e+05	-1.555e+05	7.511e+04	0.0
				-1200.00	-134.14	282.40	-3.847e+05	-9.005e+04	4.555e+04	0.0
				-1400.00	-88.74	178.25	-3.782e+05	-3.865e+04	2.087e+04	0.0
				-1600.00	-45.09	85.76	-3.718e+05	-7975.02	5439.82	0.0
				-1800.00	-15.25	25.53	-3.656e+05	5743.55	-1893.32	0.0
				-2000.00	0.46	-4.56	-3.599e+05	9023.68	-4002.55	0.0

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2200.00	6.20	-14.38	-3.549e+05	7433.50	-3528.54	0.0
				-2400.00	6.47	-13.64	-3.507e+05	4511.47	-2230.63	0.0
				-2600.00	4.47	-8.94	-3.476e+05	1996.37	-1022.38	0.0
				-2800.00	1.91	-3.63	-3.458e+05	477.73	-254.07	0.0
				-3000.00	0.63	-1.15	-3.454e+05	0.0	0.0	0.0
		1	72	0.0	1276.34	-1153.28	-3.726e+05	7.002e+05	-5.187e+05	0.0
				-200.00	975.21	-1215.64	-3.703e+05	4.454e+05	-2.767e+05	0.0
				-400.00	572.83	-855.75	-3.671e+05	2.184e+05	-1.020e+05	0.0
				-600.00	247.31	-464.22	-3.630e+05	6.766e+04	-5224.53	0.0
				-800.00	49.85	-177.29	-3.582e+05	-9215.37	3.279e+04	0.0
				-1000.00	-39.35	-16.35	-3.528e+05	-3.518e+04	3.720e+04	0.0
				-1200.00	-60.85	48.68	-3.471e+05	-3.426e+04	2.766e+04	0.0
				-1400.00	-50.50	58.17	-3.412e+05	-2.358e+04	1.578e+04	0.0
				-1600.00	-31.39	44.08	-3.354e+05	-1.251e+04	6622.39	0.0
				-1800.00	-14.77	25.44	-3.299e+05	-4636.91	1241.53	0.0
				-2000.00	-4.07	10.69	-3.247e+05	-357.07	-1101.68	0.0
				-2200.00	1.22	1.78	-3.202e+05	1264.95	-1594.43	0.0
				-2400.00	2.90	-2.26	-3.165e+05	1368.35	-1232.30	0.0
				-2600.00	2.61	-3.09	-3.137e+05	843.43	-650.13	0.0
				-2800.00	1.34	-1.90	-3.120e+05	265.30	-183.54	0.0
				-3000.00	0.49	-0.75	-3.117e+05	0.0	0.0	0.0
		1	75	0.0	2645.79	-5506.21	-4.129e+05	1.506e+06	-7.809e+05	0.0
				-200.00	1596.53	-3151.00	-4.104e+05	5.769e+05	-3.254e+05	0.0
				-400.00	757.72	-1403.43	-4.069e+05	4.129e+04	-5.096e+04	0.0
				-600.00	206.71	-306.68	-4.023e+05	-1.762e+05	6.915e+04	0.0
				-800.00	-64.71	202.52	-3.970e+05	-2.059e+05	9.392e+04	0.0
				-1000.00	-147.51	333.62	-3.910e+05	-1.555e+05	7.511e+04	0.0
				-1200.00	-134.14	282.40	-3.847e+05	-9.005e+04	4.555e+04	0.0
				-1400.00	-88.74	178.25	-3.782e+05	-3.865e+04	2.087e+04	0.0
				-1600.00	-45.09	85.76	-3.718e+05	-7975.02	5439.82	0.0
				-1800.00	-15.25	25.53	-3.656e+05	5743.55	-1893.32	0.0
				-2000.00	0.46	-4.56	-3.599e+05	9023.68	-4002.55	0.0
				-2200.00	6.20	-14.38	-3.549e+05	7433.50	-3528.54	0.0
				-2400.00	6.47	-13.64	-3.507e+05	4511.47	-2230.63	0.0
				-2600.00	4.47	-8.94	-3.476e+05	1996.37	-1022.38	0.0
				-2800.00	1.91	-3.63	-3.458e+05	477.73	-254.07	0.0
				-3000.00	0.63	-1.15	-3.454e+05	0.0	0.0	0.0
		1	87	0.0	1959.87	-3327.71	-3.926e+05	1.103e+06	-6.494e+05	0.0
				-200.00	1285.09	-2181.98	-3.902e+05	5.109e+05	-3.009e+05	0.0
				-400.00	664.87	-1128.90	-3.869e+05	1.298e+05	-7.643e+04	0.0
				-600.00	226.87	-385.22	-3.826e+05	-5.423e+04	3.194e+04	0.0
				-800.00	-7.42	12.61	-3.774e+05	-1.075e+05	6.332e+04	0.0
				-1000.00	-93.37	158.54	-3.718e+05	-9.529e+04	5.612e+04	0.0
				-1200.00	-97.44	165.44	-3.658e+05	-6.212e+04	3.658e+04	0.0
				-1400.00	-69.58	118.14	-3.596e+05	-3.110e+04	1.831e+04	0.0
				-1600.00	-38.21	64.88	-3.535e+05	-1.023e+04	6027.44	0.0
				-1800.00	-15.00	25.47	-3.476e+05	552.98	-325.70	0.0
				-2000.00	-1.80	3.06	-3.422e+05	4330.66	-2550.57	0.0
				-2200.00	3.71	-6.30	-3.374e+05	4346.56	-2559.93	0.0
				-2400.00	4.68	-7.95	-3.335e+05	2938.11	-1730.41	0.0
				-2600.00	3.54	-6.01	-3.306e+05	1419.03	-835.74	0.0
				-2800.00	1.63	-2.76	-3.288e+05	371.29	-218.67	0.0
				-3000.00	0.56	-0.95	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	1945.20	-2700.93	-3.853e+05	9.976e+05	-6.428e+05	0.0
				-200.00	1272.91	-1919.23	-3.829e+05	5.012e+05	-2.971e+05	0.0
				-400.00	657.31	-1066.13	-3.796e+05	1.613e+05	-7.489e+04	0.0
				-600.00	223.34	-419.36	-3.754e+05	-1.613e+04	3.218e+04	0.0
				-800.00	-8.38	-48.38	-3.704e+05	-7.821e+04	6.300e+04	0.0
				-1000.00	-93.07	105.68	-3.648e+05	-7.804e+04	5.569e+04	0.0
				-1200.00	-96.75	131.48	-3.589e+05	-5.452e+04	3.624e+04	0.0
				-1400.00	-68.96	101.45	-3.528e+05	-2.937e+04	1.811e+04	0.0
				-1600.00	-37.81	59.63	-3.469e+05	-1.120e+04	5932.48	0.0
				-1800.00	-14.80	26.03	-3.411e+05	-1108.98	-350.12	0.0
				-2000.00	-1.74	5.59	-3.358e+05	2915.55	-2541.81	0.0
				-2200.00	3.70	-3.83	-3.311e+05	3449.99	-2542.11	0.0
				-2400.00	4.65	-6.29	-3.272e+05	2497.66	-1715.51	0.0
				-2600.00	3.51	-5.20	-3.244e+05	1265.20	-827.53	0.0
				-2800.00	1.61	-2.55	-3.226e+05	345.43	-216.27	0.0

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-3000.00	0.55	-0.91	-3.223e+05	0.0	0.0	0.0
		1	89	0.0	1959.47	-3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	-2181.54	-3.901e+05	5.108e+05	-3.008e+05	0.0
				-400.00	664.73	-1128.67	-3.868e+05	1.297e+05	-7.642e+04	0.0
				-600.00	226.83	-385.14	-3.825e+05	-5.422e+04	3.194e+04	0.0
				-800.00	-7.42	12.60	-3.774e+05	-1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	158.51	-3.717e+05	-9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	165.40	-3.657e+05	-6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	118.12	-3.596e+05	-3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	64.87	-3.534e+05	-1.023e+04	6026.21	0.0
				-1800.00	-15.00	25.46	-3.476e+05	552.87	-325.63	0.0
				-2000.00	-1.80	3.06	-3.422e+05	4329.77	-2550.05	0.0
				-2200.00	3.71	-6.30	-3.374e+05	4345.68	-2559.41	0.0
				-2400.00	4.68	-7.95	-3.335e+05	2937.51	-1730.06	0.0
				-2600.00	3.54	-6.01	-3.305e+05	1418.74	-835.58	0.0
				-2800.00	1.63	-2.76	-3.288e+05	371.21	-218.63	0.0
				-3000.00	0.56	-0.95	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	1959.47	-3327.03	-3.926e+05	1.102e+06	-6.493e+05	0.0
				-200.00	1284.83	-2181.54	-3.901e+05	5.108e+05	-3.008e+05	0.0
				-400.00	664.73	-1128.67	-3.868e+05	1.297e+05	-7.642e+04	0.0
				-600.00	226.83	-385.14	-3.825e+05	-5.422e+04	3.194e+04	0.0
				-800.00	-7.42	12.60	-3.774e+05	-1.075e+05	6.331e+04	0.0
				-1000.00	-93.35	158.51	-3.717e+05	-9.527e+04	5.611e+04	0.0
				-1200.00	-97.42	165.40	-3.657e+05	-6.210e+04	3.658e+04	0.0
				-1400.00	-69.56	118.12	-3.596e+05	-3.109e+04	1.831e+04	0.0
				-1600.00	-38.21	64.87	-3.534e+05	-1.023e+04	6026.21	0.0
				-1800.00	-15.00	25.46	-3.476e+05	552.87	-325.63	0.0
				-2000.00	-1.80	3.06	-3.422e+05	4329.77	-2550.05	0.0
				-2200.00	3.71	-6.30	-3.374e+05	4345.68	-2559.41	0.0
				-2400.00	4.68	-7.95	-3.335e+05	2937.51	-1730.06	0.0
				-2600.00	3.54	-6.01	-3.305e+05	1418.74	-835.58	0.0
				-2800.00	1.63	-2.76	-3.288e+05	371.21	-218.63	0.0
				-3000.00	0.56	-0.95	-3.284e+05	0.0	0.0	0.0
191	Palo di fondazione turbina SG170-PALO D 100.00	1	3	0.0	4330.22	-2550.30	-5.106e+05	8.450e+05	-1.435e+06	0.0
				-200.00	2839.33	-1672.23	-5.075e+05	3.915e+05	-6.648e+05	0.0
				-400.00	1468.99	-865.17	-5.032e+05	9.946e+04	-1.689e+05	0.0
				-600.00	501.27	-295.22	-4.976e+05	-4.156e+04	7.057e+04	0.0
				-800.00	-16.40	9.66	-4.909e+05	-8.240e+04	1.399e+05	0.0
				-1000.00	-206.30	121.50	-4.836e+05	-7.303e+04	1.240e+05	0.0
				-1200.00	-215.28	126.79	-4.757e+05	-4.760e+04	8.083e+04	0.0
				-1400.00	-153.73	90.54	-4.677e+05	-2.383e+04	4.047e+04	0.0
				-1600.00	-84.43	49.73	-4.598e+05	-7843.25	1.332e+04	0.0
				-1800.00	-33.14	19.52	-4.521e+05	423.82	-719.58	0.0
				-2000.00	-3.99	2.35	-4.451e+05	3318.94	-5635.32	0.0
				-2200.00	8.19	-4.83	-4.389e+05	3331.13	-5656.02	0.0
				-2400.00	10.34	-6.09	-4.338e+05	2251.71	-3823.25	0.0
				-2600.00	7.82	-4.60	-4.299e+05	1087.52	-1846.53	0.0
				-2800.00	3.60	-2.12	-4.277e+05	284.55	-483.14	0.0
				-3000.00	1.24	-0.73	-4.272e+05	0.0	0.0	0.0
		1	12	0.0	3227.90	2558.59	-3.617e+05	-7.913e+04	-1.056e+06	0.0
				-200.00	2097.45	567.52	-3.595e+05	2.557e+05	-4.844e+05	0.0
				-400.00	1075.74	-254.45	-3.565e+05	3.193e+05	-1.187e+05	0.0
				-600.00	359.92	-502.96	-3.525e+05	2.506e+05	5.620e+04	0.0
				-800.00	-19.78	-448.65	-3.478e+05	1.504e+05	1.055e+05	0.0
				-1000.00	-156.75	-294.16	-3.425e+05	6.806e+04	9.234e+04	0.0
				-1200.00	-160.84	-148.12	-3.370e+05	1.700e+04	5.972e+04	0.0
				-1400.00	-113.88	-49.20	-3.313e+05	-7032.74	2.963e+04	0.0
				-1600.00	-62.04	2.30	-3.257e+05	-1.378e+04	9554.96	0.0
				-1800.00	-24.02	20.57	-3.203e+05	-1.209e+04	-737.03	0.0
				-2000.00	-2.57	20.91	-3.153e+05	-7819.20	-4277.97	0.0
				-2200.00	6.27	14.42	-3.109e+05	-3925.36	-4226.23	0.0
				-2400.00	7.73	7.30	-3.073e+05	-1413.09	-2835.44	0.0
				-2600.00	5.79	2.20	-3.046e+05	241.36	-1361.86	0.0
				-2800.00	2.64	-0.16	-3.030e+05	44.66	-354.48	0.0
				-3000.00	0.90	-0.29	-3.026e+05	0.0	0.0	0.0
		1	17	0.0	3330.42	-1961.46	-3.928e+05	6.499e+05	-1.104e+06	0.0
				-200.00	2183.76	-1286.13	-3.904e+05	3.011e+05	-5.113e+05	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-400.00	1129.82	-665.41	-3.870e+05	7.649e+04	-1.299e+05	0.0
				-600.00	385.53	-227.06	-3.827e+05	-3.197e+04	5.428e+04	0.0
				-800.00	-12.62	7.43	-3.776e+05	-6.337e+04	1.076e+05	0.0
				-1000.00	-158.67	93.45	-3.719e+05	-5.617e+04	9.537e+04	0.0
				-1200.00	-165.57	97.51	-3.659e+05	-3.661e+04	6.217e+04	0.0
				-1400.00	-118.24	69.64	-3.597e+05	-1.833e+04	3.112e+04	0.0
				-1600.00	-64.94	38.24	-3.536e+05	-6032.33	1.024e+04	0.0
				-1800.00	-25.49	15.01	-3.478e+05	325.96	-553.44	0.0
				-2000.00	-3.07	1.81	-3.424e+05	2552.64	-4334.18	0.0
				-2200.00	6.30	-3.71	-3.376e+05	2562.01	-4350.11	0.0
				-2400.00	7.95	-4.69	-3.336e+05	1731.82	-2940.50	0.0
				-2600.00	6.01	-3.54	-3.307e+05	836.42	-1420.19	0.0
				-2800.00	2.77	-1.63	-3.289e+05	218.85	-371.59	0.0
				-3000.00	0.95	-0.56	-3.286e+05	0.0	0.0	0.0
		1	19	0.0	3260.94	1052.57	-3.720e+05	1.637e+05	-1.072e+06	0.0
				-200.00	2125.48	-49.93	-3.697e+05	2.708e+05	-4.932e+05	0.0
				-400.00	1093.38	-391.21	-3.666e+05	2.384e+05	-1.224e+05	0.0
				-600.00	368.33	-410.92	-3.625e+05	1.564e+05	5.554e+04	0.0
				-800.00	-17.39	-296.63	-3.577e+05	7.919e+04	1.061e+05	0.0
				-1000.00	-157.33	-164.99	-3.523e+05	2.667e+04	9.332e+04	0.0
				-1200.00	-162.36	-66.28	-3.466e+05	-860.08	6.052e+04	0.0
				-1400.00	-115.29	-9.61	-3.407e+05	-1.079e+04	3.012e+04	0.0
				-1600.00	-62.98	14.27	-3.349e+05	-1.120e+04	9780.67	0.0
				-1800.00	-24.50	18.71	-3.294e+05	-7953.29	-675.65	0.0
				-2000.00	-2.73	14.54	-3.243e+05	-4362.78	-4295.24	0.0
				-2200.00	6.28	8.37	-3.198e+05	-1763.77	-4266.05	0.0
				-2400.00	7.80	3.30	-3.160e+05	-365.37	-2869.46	0.0
				-2600.00	5.86	0.28	-3.132e+05	117.62	-1380.82	0.0
				-2800.00	2.68	-0.65	-3.116e+05	102.65	-360.05	0.0
				-3000.00	0.92	-0.38	-3.112e+05	0.0	0.0	0.0
		1	27	0.0	6398.50	-2933.24	-4.252e+05	8.329e+05	-1.658e+06	0.0
				-200.00	3528.46	-1722.48	-4.225e+05	3.330e+05	-5.926e+05	0.0
				-400.00	1496.22	-792.01	-4.190e+05	3.857e+04	2294.94	0.0
				-600.00	260.52	-194.97	-4.143e+05	-8.560e+04	2.298e+05	0.0
				-800.00	-287.99	90.53	-4.088e+05	-1.070e+05	2.474e+05	0.0
				-1000.00	-408.35	170.91	-4.026e+05	-8.305e+04	1.801e+05	0.0
				-1200.00	-330.67	149.61	-3.961e+05	-4.919e+04	1.010e+05	0.0
				-1400.00	-202.14	96.60	-3.894e+05	-2.181e+04	4.120e+04	0.0
				-1600.00	-93.40	47.75	-3.828e+05	-5104.38	6670.67	0.0
				-1800.00	-24.85	15.19	-3.765e+05	2598.35	-8073.83	0.0
				-2000.00	8.09	-1.51	-3.706e+05	4629.54	-1.102e+04	0.0
				-2200.00	17.86	-7.28	-3.654e+05	3936.87	-8708.09	0.0
				-2400.00	16.00	-7.22	-3.612e+05	2436.78	-5141.09	0.0
				-2600.00	10.09	-4.86	-3.580e+05	1097.09	-2217.96	0.0
				-2800.00	3.94	-2.02	-3.561e+05	267.55	-515.55	0.0
				-3000.00	1.22	-0.65	-3.557e+05	0.0	0.0	0.0
		1	31	0.0	6398.50	-2933.24	-4.252e+05	8.329e+05	-1.658e+06	0.0
				-200.00	3528.46	-1722.48	-4.225e+05	3.330e+05	-5.926e+05	0.0
				-400.00	1496.22	-792.01	-4.190e+05	3.857e+04	2294.94	0.0
				-600.00	260.52	-194.97	-4.143e+05	-8.560e+04	2.298e+05	0.0
				-800.00	-287.99	90.53	-4.088e+05	-1.070e+05	2.474e+05	0.0
				-1000.00	-408.35	170.91	-4.026e+05	-8.305e+04	1.801e+05	0.0
				-1200.00	-330.67	149.61	-3.961e+05	-4.919e+04	1.010e+05	0.0
				-1400.00	-202.14	96.60	-3.894e+05	-2.181e+04	4.120e+04	0.0
				-1600.00	-93.40	47.75	-3.828e+05	-5104.38	6670.67	0.0
				-1800.00	-24.85	15.19	-3.765e+05	2598.35	-8073.83	0.0
				-2000.00	8.09	-1.51	-3.706e+05	4629.54	-1.102e+04	0.0
				-2200.00	17.86	-7.28	-3.654e+05	3936.87	-8708.09	0.0
				-2400.00	16.00	-7.22	-3.612e+05	2436.78	-5141.09	0.0
				-2600.00	10.09	-4.86	-3.580e+05	1097.09	-2217.96	0.0
				-2800.00	3.94	-2.02	-3.561e+05	267.55	-515.55	0.0
				-3000.00	1.22	-0.65	-3.557e+05	0.0	0.0	0.0
		1	32	0.0	260.98	-988.88	-3.603e+05	4.667e+05	-5.483e+05	0.0
				-200.00	838.17	-849.26	-3.581e+05	2.691e+05	-4.297e+05	0.0
				-400.00	762.96	-538.54	-3.550e+05	1.144e+05	-2.620e+05	0.0
				-600.00	510.38	-259.05	-3.511e+05	2.168e+04	-1.213e+05	0.0
				-800.00	262.76	-75.67	-3.464e+05	-1.969e+04	-3.229e+04	0.0
				-1000.00	91.07	15.95	-3.412e+05	-2.926e+04	1.060e+04	0.0

**PROJETTO engineering s.r.l.**  
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Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-1200.00	-0.40	45.38	-3.357e+05	2.402e+04	2.335e+04	0.0
				-1400.00	-34.28	42.64	-3.300e+05	-1.484e+04	2.103e+04	0.0
				-1600.00	-36.45	28.72	-3.244e+05	-6957.84	1.381e+04	0.0
				-1800.00	-26.12	14.83	-3.190e+05	-1946.56	6967.19	0.0
				-2000.00	-14.22	5.12	-3.141e+05	474.70	2357.89	0.0
				-2200.00	-5.26	-0.14	-3.097e+05	1186.11	9.65	0.0
				-2400.00	-0.09	-2.15	-3.060e+05	1026.16	-738.72	0.0
				-2600.00	1.93	-2.22	-3.033e+05	575.42	-621.84	0.0
				-2800.00	1.59	-1.23	-3.017e+05	170.06	-227.48	0.0
				-3000.00	0.69	-0.47	-3.014e+05	0.0	0.0	0.0
		1	43	0.0	4325.82	-4947.93	-4.171e+05	1.177e+06	-1.294e+06	0.0
				-200.00	2635.70	-2576.88	-4.145e+05	3.697e+05	-5.468e+05	0.0
				-400.00	1264.53	-1003.68	-4.110e+05	-5.903e+04	-9.291e+04	0.0
				-600.00	356.25	-92.28	-4.064e+05	-2.062e+05	1.083e+05	0.0
				-800.00	-95.76	282.67	-4.010e+05	-2.006e+05	1.520e+05	0.0
				-1000.00	-237.24	339.31	-3.949e+05	-1.386e+05	1.229e+05	0.0
				-1200.00	-218.84	258.57	-3.885e+05	-7.386e+04	7.518e+04	0.0
				-1400.00	-146.04	150.62	-3.820e+05	-2.763e+04	3.483e+04	0.0
				-1600.00	-74.91	65.10	-3.755e+05	-2200.85	9389.18	0.0
				-1800.00	-25.85	13.73	-3.693e+05	7837.46	-2828.69	0.0
				-2000.00	0.23	-9.43	-3.635e+05	9138.53	-6441.43	0.0
				-2200.00	9.92	-15.12	-3.585e+05	6813.62	-5755.77	0.0
				-2400.00	10.55	-12.53	-3.543e+05	3860.01	-3666.40	0.0
				-2600.00	7.37	-7.48	-3.512e+05	1599.06	-1691.01	0.0
				-2800.00	3.18	-2.73	-3.493e+05	353.57	-422.95	0.0
				-3000.00	1.05	-0.80	-3.489e+05	0.0	0.0	0.0
		1	59	0.0	5506.20	-2645.79	-4.129e+05	7.809e+05	-1.506e+06	0.0
				-200.00	3151.00	-1596.53	-4.104e+05	3.254e+05	-5.769e+05	0.0
				-400.00	1403.43	-757.72	-4.069e+05	5.096e+04	-4.129e+04	0.0
				-600.00	306.68	-206.71	-4.023e+05	-6.915e+04	1.762e+05	0.0
				-800.00	-202.52	64.71	-3.970e+05	-9.392e+04	2.059e+05	0.0
				-1000.00	-333.62	147.51	-3.910e+05	-7.511e+04	1.555e+05	0.0
				-1200.00	-282.40	134.14	-3.847e+05	-4.555e+04	9.005e+04	0.0
				-1400.00	-178.25	88.74	-3.782e+05	-2.087e+04	3.865e+04	0.0
				-1600.00	-85.76	45.09	-3.718e+05	-5439.82	7975.00	0.0
				-1800.00	-25.53	15.25	-3.656e+05	1893.32	-5743.55	0.0
				-2000.00	4.56	-0.46	-3.599e+05	4002.55	-9023.67	0.0
				-2200.00	14.38	-6.20	-3.549e+05	3528.54	-7433.49	0.0
				-2400.00	13.64	-6.47	-3.507e+05	2230.63	-4511.46	0.0
				-2600.00	8.94	-4.47	-3.476e+05	1022.38	-1996.37	0.0
				-2800.00	3.63	-1.91	-3.458e+05	254.07	-477.73	0.0
				-3000.00	1.15	-0.63	-3.454e+05	0.0	0.0	0.0
		1	63	0.0	5506.20	-2645.79	-4.129e+05	7.809e+05	-1.506e+06	0.0
				-200.00	3151.00	-1596.53	-4.104e+05	3.254e+05	-5.769e+05	0.0
				-400.00	1403.43	-757.72	-4.069e+05	5.096e+04	-4.129e+04	0.0
				-600.00	306.68	-206.71	-4.023e+05	-6.915e+04	1.762e+05	0.0
				-800.00	-202.52	64.71	-3.970e+05	-9.392e+04	2.059e+05	0.0
				-1000.00	-333.62	147.51	-3.910e+05	-7.511e+04	1.555e+05	0.0
				-1200.00	-282.40	134.14	-3.847e+05	-4.555e+04	9.005e+04	0.0
				-1400.00	-178.25	88.74	-3.782e+05	-2.087e+04	3.865e+04	0.0
				-1600.00	-85.76	45.09	-3.718e+05	-5439.82	7975.00	0.0
				-1800.00	-25.53	15.25	-3.656e+05	1893.32	-5743.55	0.0
				-2000.00	4.56	-0.46	-3.599e+05	4002.55	-9023.67	0.0
				-2200.00	14.38	-6.20	-3.549e+05	3528.54	-7433.49	0.0
				-2400.00	13.64	-6.47	-3.507e+05	2230.63	-4511.46	0.0
				-2600.00	8.94	-4.47	-3.476e+05	1022.38	-1996.37	0.0
				-2800.00	3.63	-1.91	-3.458e+05	254.07	-477.73	0.0
				-3000.00	1.15	-0.63	-3.454e+05	0.0	0.0	0.0
		1	64	0.0	1153.28	-1276.34	-3.726e+05	5.187e+05	-7.002e+05	0.0
				-200.00	1215.64	-975.21	-3.703e+05	2.767e+05	-4.454e+05	0.0
				-400.00	855.75	-572.83	-3.671e+05	1.020e+05	-2.184e+05	0.0
				-600.00	464.22	-247.31	-3.630e+05	5224.52	-6.766e+04	0.0
				-800.00	177.29	-49.85	-3.582e+05	-3.279e+04	9215.28	0.0
				-1000.00	16.35	39.35	-3.528e+05	-3.720e+04	3.518e+04	0.0
				-1200.00	-48.68	60.85	-3.471e+05	-2.766e+04	3.426e+04	0.0
				-1400.00	-58.17	50.50	-3.412e+05	-1.578e+04	2.358e+04	0.0
				-1600.00	-44.08	31.39	-3.354e+05	-6622.40	1.251e+04	0.0
				-1800.00	-25.44	14.77	-3.299e+05	-1241.53	4636.91	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2000.00	-10.69	4.07	-3.247e+05	1101.69	357.07	0.0
				-2200.00	-1.78	-1.22	-3.202e+05	1594.43	-1264.95	0.0
				-2400.00	2.26	-2.90	-3.165e+05	1232.30	-1368.34	0.0
				-2600.00	3.09	-2.61	-3.137e+05	650.13	-843.43	0.0
				-2800.00	1.90	-1.34	-3.120e+05	183.54	-265.30	0.0
				-3000.00	0.75	-0.49	-3.117e+05	0.0	0.0	0.0
		1	75	0.0	4029.06	-4087.53	-4.079e+05	1.036e+06	-1.239e+06	0.0
				-200.00	2503.61	-2220.51	-4.053e+05	3.590e+05	-5.378e+05	0.0
				-400.00	1227.04	-921.89	-4.019e+05	-1.414e+04	-1.049e+05	0.0
				-600.00	366.88	-142.26	-3.974e+05	-1.531e+05	9.168e+04	0.0
				-800.00	-69.93	197.25	-3.921e+05	-1.601e+05	1.386e+05	0.0
				-1000.00	-213.41	266.07	-3.862e+05	-1.149e+05	1.147e+05	0.0
				-1200.00	-202.91	211.88	-3.800e+05	-6.356e+04	7.138e+04	0.0
				-1400.00	-137.85	127.87	-3.736e+05	-2.539e+04	3.380e+04	0.0
				-1600.00	-72.06	58.09	-3.672e+05	-3606.83	9695.15	0.0
				-1800.00	-25.84	14.66	-3.611e+05	5510.57	-2122.56	0.0
				-2000.00	-0.81	-5.87	-3.555e+05	7178.48	-5802.48	0.0
				-2200.00	8.82	-11.70	-3.506e+05	5580.60	-5335.30	0.0
				-2400.00	9.77	-10.25	-3.465e+05	3258.68	-3452.00	0.0
				-2600.00	6.97	-6.38	-3.434e+05	1391.20	-1612.29	0.0
				-2800.00	3.06	-2.45	-3.416e+05	319.36	-408.43	0.0
				-3000.00	1.02	-0.75	-3.412e+05	0.0	0.0	0.0
		1	87	0.0	3327.70	-1959.87	-3.926e+05	6.494e+05	-1.103e+06	0.0
				-200.00	2181.98	-1285.09	-3.902e+05	3.009e+05	-5.109e+05	0.0
				-400.00	1128.90	-664.87	-3.869e+05	7.643e+04	-1.298e+05	0.0
				-600.00	385.21	-226.87	-3.826e+05	-3.194e+04	5.423e+04	0.0
				-800.00	-12.61	7.42	-3.774e+05	-6.332e+04	1.075e+05	0.0
				-1000.00	-158.54	93.37	-3.718e+05	-5.612e+04	9.529e+04	0.0
				-1200.00	-165.44	97.44	-3.658e+05	-3.658e+04	6.212e+04	0.0
				-1400.00	-118.14	69.58	-3.596e+05	-1.831e+04	3.110e+04	0.0
				-1600.00	-64.88	38.21	-3.535e+05	-6027.44	1.023e+04	0.0
				-1800.00	-25.47	15.00	-3.476e+05	325.70	-552.98	0.0
				-2000.00	-3.06	1.80	-3.422e+05	2550.57	-4330.65	0.0
				-2200.00	6.30	-3.71	-3.374e+05	2559.93	-4346.56	0.0
				-2400.00	7.95	-4.68	-3.335e+05	1730.41	-2938.11	0.0
				-2600.00	6.01	-3.54	-3.306e+05	835.75	-1419.03	0.0
				-2800.00	2.76	-1.63	-3.288e+05	218.67	-371.29	0.0
				-3000.00	0.95	-0.56	-3.284e+05	0.0	0.0	0.0
		1	88	0.0	3313.81	-1357.06	-3.885e+05	5.522e+05	-1.096e+06	0.0
				-200.00	2170.33	-1037.85	-3.861e+05	2.948e+05	-5.072e+05	0.0
				-400.00	1121.61	-610.03	-3.828e+05	1.088e+05	-1.283e+05	0.0
				-600.00	381.77	-263.65	-3.785e+05	5735.69	5.449e+04	0.0
				-800.00	-13.56	-53.39	-3.735e+05	-3.481e+04	1.072e+05	0.0
				-1000.00	-158.27	41.69	-3.678e+05	-3.955e+04	9.488e+04	0.0
				-1200.00	-164.79	64.68	-3.619e+05	-2.943e+04	6.179e+04	0.0
				-1400.00	-117.55	53.73	-3.558e+05	-1.681e+04	3.090e+04	0.0
				-1600.00	-64.49	33.42	-3.497e+05	-7059.99	1.014e+04	0.0
				-1800.00	-25.27	15.74	-3.440e+05	-1330.15	-577.43	0.0
				-2000.00	-3.00	4.35	-3.386e+05	1167.48	-4322.86	0.0
				-2200.00	6.29	-1.29	-3.339e+05	1694.78	-4329.75	0.0
				-2400.00	7.92	-3.08	-3.300e+05	1310.97	-2923.90	0.0
				-2600.00	5.98	-2.77	-3.271e+05	691.98	-1411.16	0.0
				-2800.00	2.75	-1.43	-3.253e+05	195.43	-368.98	0.0
				-3000.00	0.94	-0.52	-3.250e+05	0.0	0.0	0.0
		1	89	0.0	3327.03	-1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	-1284.83	-3.901e+05	3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	-664.73	-3.868e+05	7.642e+04	-1.297e+05	0.0
				-600.00	385.14	-226.83	-3.825e+05	-3.194e+04	5.422e+04	0.0
				-800.00	-12.60	7.42	-3.774e+05	-6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	93.35	-3.717e+05	-5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	97.42	-3.657e+05	-3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	69.56	-3.596e+05	-1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	38.21	-3.534e+05	-6026.22	1.023e+04	0.0
				-1800.00	-25.46	15.00	-3.476e+05	325.63	-552.87	0.0
				-2000.00	-3.06	1.80	-3.422e+05	2550.05	-4329.77	0.0
				-2200.00	6.30	-3.71	-3.374e+05	2559.41	-4345.67	0.0
				-2400.00	7.95	-4.68	-3.335e+05	1730.06	-2937.51	0.0
				-2600.00	6.01	-3.54	-3.305e+05	835.58	-1418.74	0.0

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Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Nodo	Tipo	Palo	Cmb	Quota	Fx	Fy	Fz	Mx	My	Mz
				-2800.00	2.76	-1.63	-3.288e+05	218.63	-371.21	0.0
				-3000.00	0.95	-0.56	-3.284e+05	0.0	0.0	0.0
		1	90	0.0	3327.03	-1959.47	-3.926e+05	6.493e+05	-1.102e+06	0.0
				-200.00	2181.54	-1284.83	-3.901e+05	3.008e+05	-5.108e+05	0.0
				-400.00	1128.67	-664.73	-3.868e+05	7.642e+04	-1.297e+05	0.0
				-600.00	385.14	-226.83	-3.825e+05	-3.194e+04	5.422e+04	0.0
				-800.00	-12.60	7.42	-3.774e+05	-6.331e+04	1.075e+05	0.0
				-1000.00	-158.51	93.35	-3.717e+05	-5.611e+04	9.527e+04	0.0
				-1200.00	-165.40	97.42	-3.657e+05	-3.658e+04	6.210e+04	0.0
				-1400.00	-118.12	69.56	-3.596e+05	-1.831e+04	3.109e+04	0.0
				-1600.00	-64.87	38.21	-3.534e+05	-6026.22	1.023e+04	0.0
				-1800.00	-25.46	15.00	-3.476e+05	325.63	-552.87	0.0
				-2000.00	-3.06	1.80	-3.422e+05	2550.05	-4329.77	0.0
				-2200.00	6.30	-3.71	-3.374e+05	2559.41	-4345.67	0.0
				-2400.00	7.95	-4.68	-3.335e+05	1730.06	-2937.51	0.0
				-2600.00	6.01	-3.54	-3.305e+05	835.58	-1418.74	0.0
				-2800.00	2.76	-1.63	-3.288e+05	218.63	-371.21	0.0
				-3000.00	0.95	-0.56	-3.284e+05	0.0	0.0	0.0
Nodo					Fx	Fy	Fz	Mx	My	Mz
					-6914.18	-6914.19	-5.766e+05	-2.466e+06	-1.829e+06	0.0
					6914.18	9765.54	-2.759e+05	1.829e+06	1.829e+06	0.0

Nodo (G)	Pt 1/12	Pt 2/13	Pt 3...	Pt 4...	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2	daN/cm2
1	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
7	-0.10	-0.07	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
8	-0.10	-0.07	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
9	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
10	-0.10	-0.07	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
11	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
12	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
13	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
14	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
15	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
16	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
17	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
18	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
19	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
20	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
21	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
22	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
23	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
24	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
25	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
26	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
27	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
28	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
29	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
30	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
31	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
32	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
33	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
34	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
35	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
36	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
37	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
38	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
39	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
40	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
41	-0.10	-0.07	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
42	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
43	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
44	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
45	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08

**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
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46	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
47	-0.10	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07
48	-0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.07
49	-0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.07
50	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
51	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
52	-0.10	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
53	-0.10	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07
54	-0.10	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07
55	-0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.07
56	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
57	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
58	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
59	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
60	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
61	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
62	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
63	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
64	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
65	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
66	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
67	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
68	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
69	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
70	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
71	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
72	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
73	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
74	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
75	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
76	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
77	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
78	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
79	-0.10	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
80	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
81	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
82	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
83	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
84	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
85	-0.10	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
86	-0.10	-0.08	-0.07	-0.07	-0.07	-0.07	-0.07
87	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
88	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
89	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
90	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
91	-0.10	-0.08	-0.08	-0.08	-0.07	-0.07	-0.07
92	-0.10	-0.08	-0.07	-0.07	-0.07	-0.07	-0.07
93	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
94	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
95	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
96	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
97	-0.10	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
98	-0.10	-0.08	-0.07	-0.07	-0.07	-0.07	-0.07
99	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
100	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
101	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
102	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
103	-0.10	-0.08	-0.08	-0.07	-0.07	-0.07	-0.07
104	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
105	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
106	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
107	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
108	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
109	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
110	-0.10	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
111	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
112	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
113	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
114	-0.09	-0.07	-0.07	-0.06	-0.06	-0.06	-0.06
115	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
116	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07

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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

117	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
118	-0.09	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
119	-0.09	-0.07	-0.07	-0.07	-0.06	-0.06	-0.06
120	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
121	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
122	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
123	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
124	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
125	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
126	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
127	-0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.07
128	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
129	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
130	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
131	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
132	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
133	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
134	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
135	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
136	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
137	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
138	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
139	-0.09	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
140	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
141	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
142	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
143	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
144	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
145	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
146	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
147	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
148	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
149	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
150	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
151	-0.09	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
152	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
153	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
154	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
155	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
156	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
157	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
158	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
159	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
160	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
161	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
162	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
163	-0.10	-0.07	-0.08	-0.08	-0.07	-0.07	-0.07
164	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
165	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
166	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
167	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
168	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
169	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
170	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
171	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
172	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
173	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
174	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
175	-0.09	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
176	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
177	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
178	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
179	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
180	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
181	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
182	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
183	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
184	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
185	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
186	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
187	-0.09	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07

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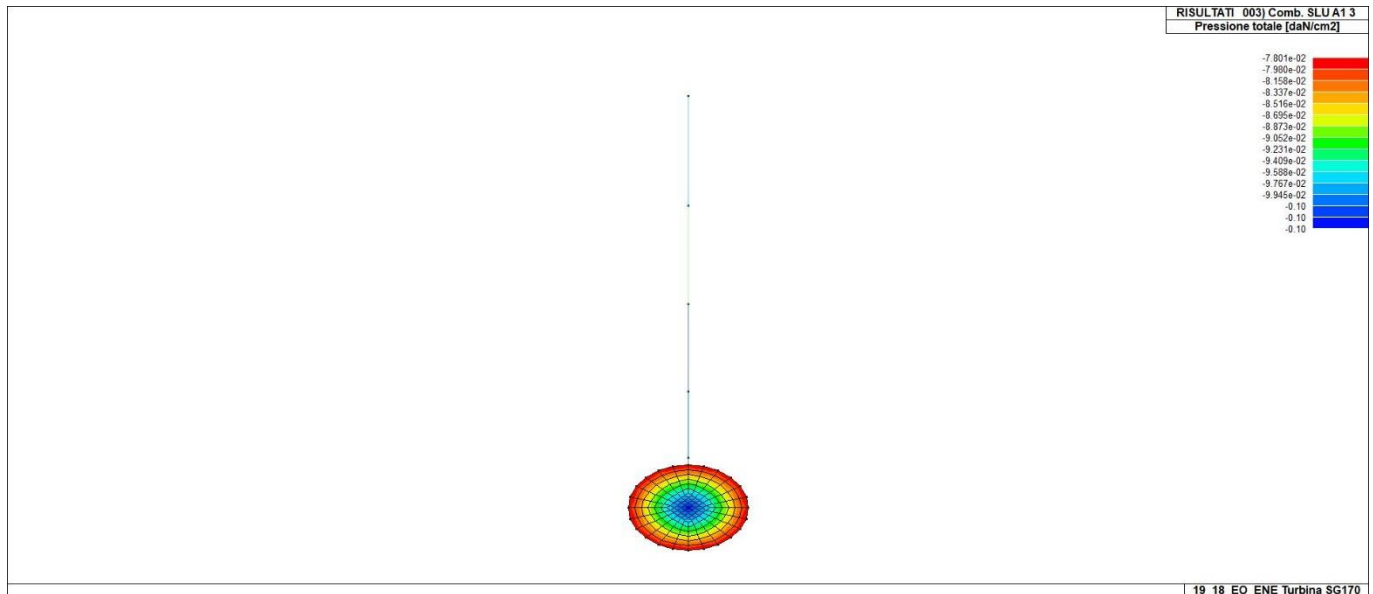
Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

188	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
189	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
190	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
191	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
192	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
193	-0.10	-0.07	-0.08	-0.07	-0.07	-0.07	-0.07
194	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
195	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
196	-0.09	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
197	-0.08	-0.06	-0.07	-0.07	-0.06	-0.06	-0.06
198	-0.08	-0.06	-0.07	-0.06	-0.06	-0.06	-0.06
<b>Nodo (G)</b>	<b>Pt 1/12</b>	<b>Pt 2/13</b>	<b>Pt 3...</b>	<b>Pt 4...</b>			
	-0.10						
	-0.06						



46\_RIS\_PRESSIONI\_003\_Comb. SLU A1 3

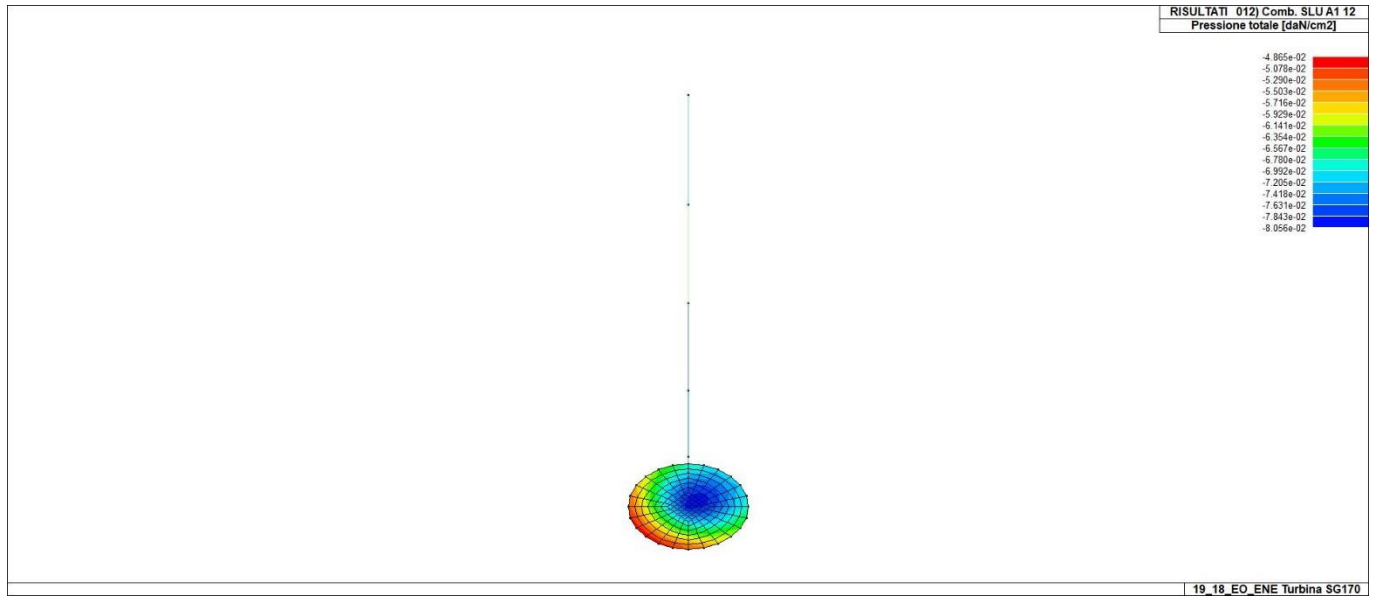
**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914

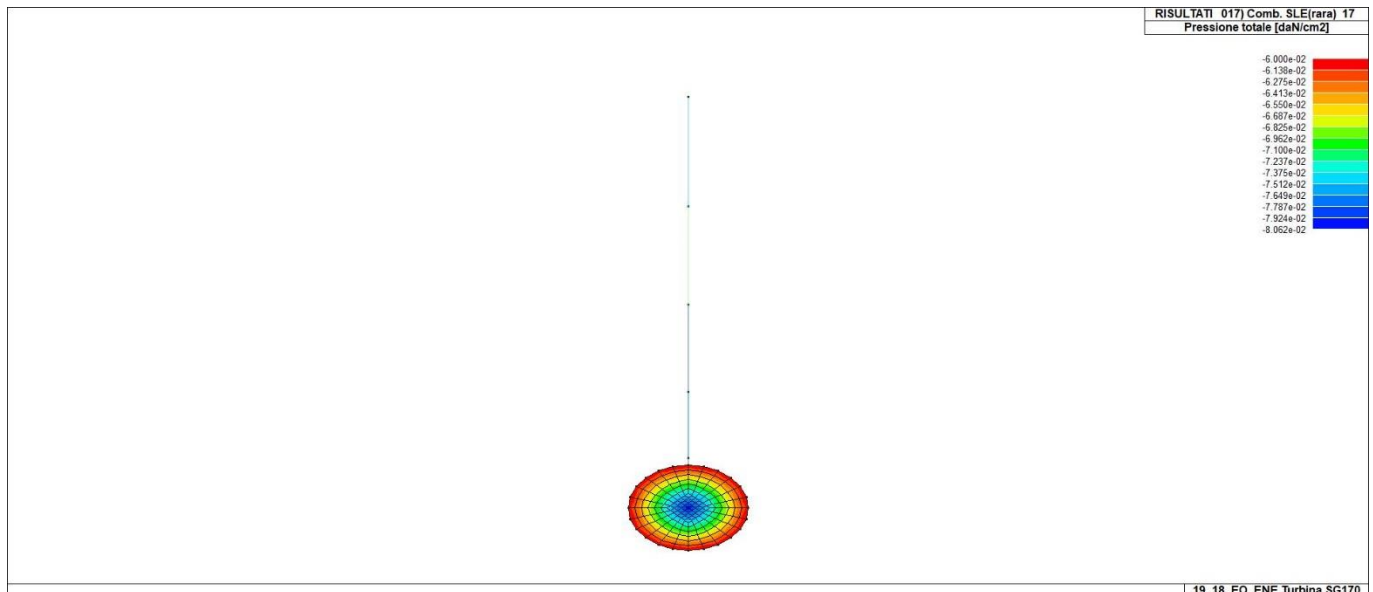


SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



46\_RIS\_PRESSIONI\_012\_Comb. SLU A1 12



46\_RIS\_PRESSIONI\_017\_Comb. SLE(rara) 17

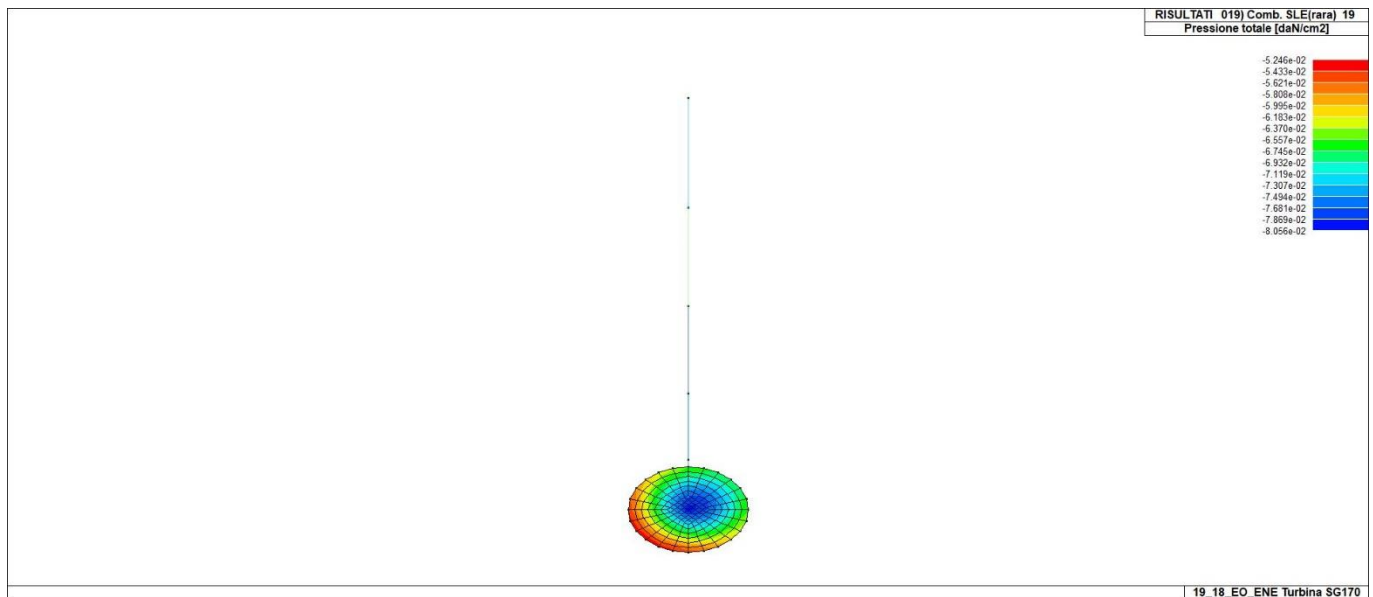
**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914

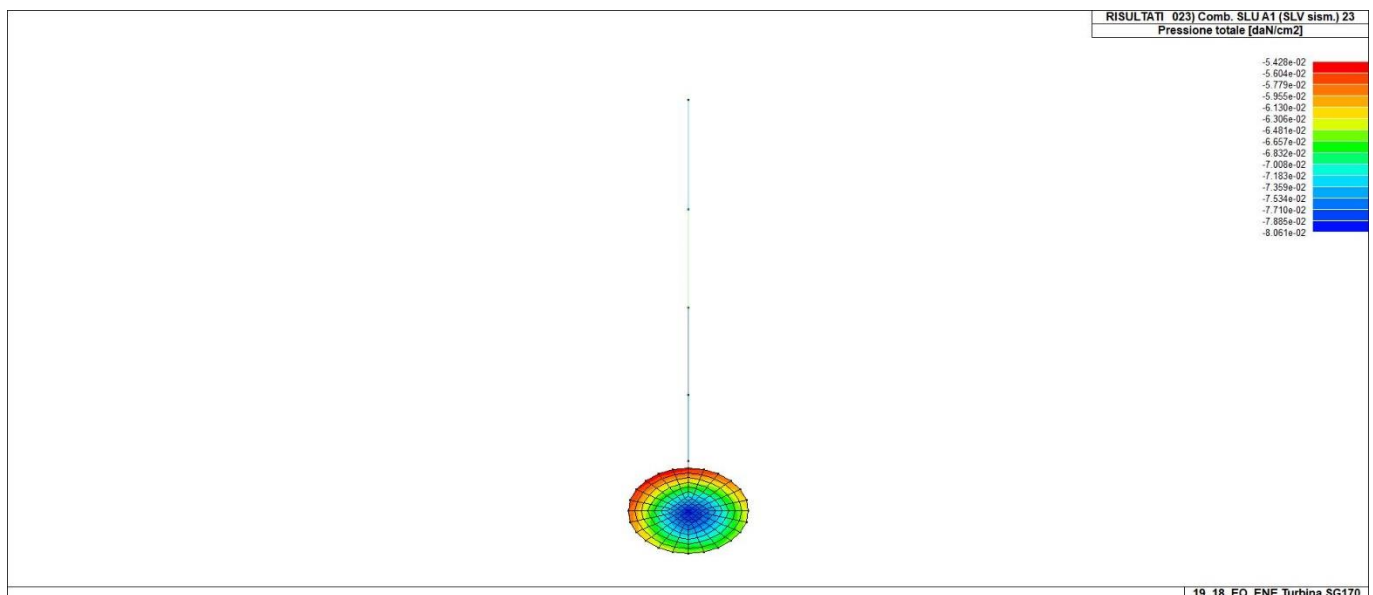


SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



46\_RIS\_PRESSIONI\_019\_Comb. SLE(rara) 19



46\_RIS\_PRESSIONI\_023\_Comb. SLU A1 (SLV sism.) 23

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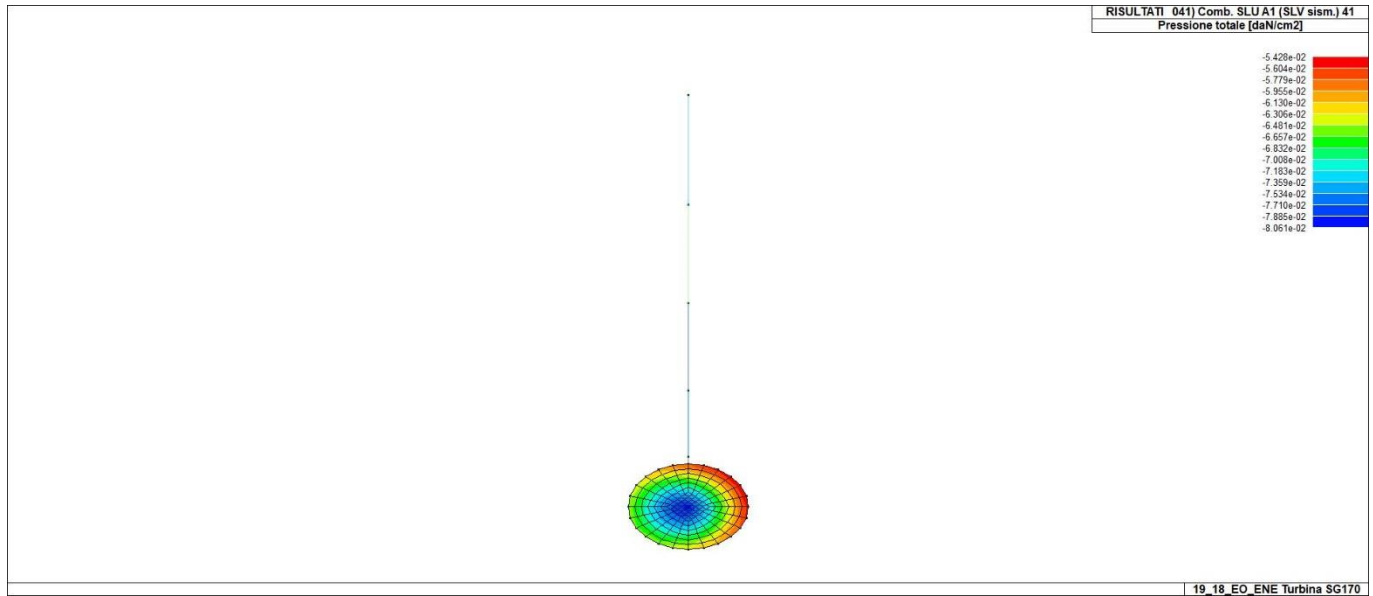
Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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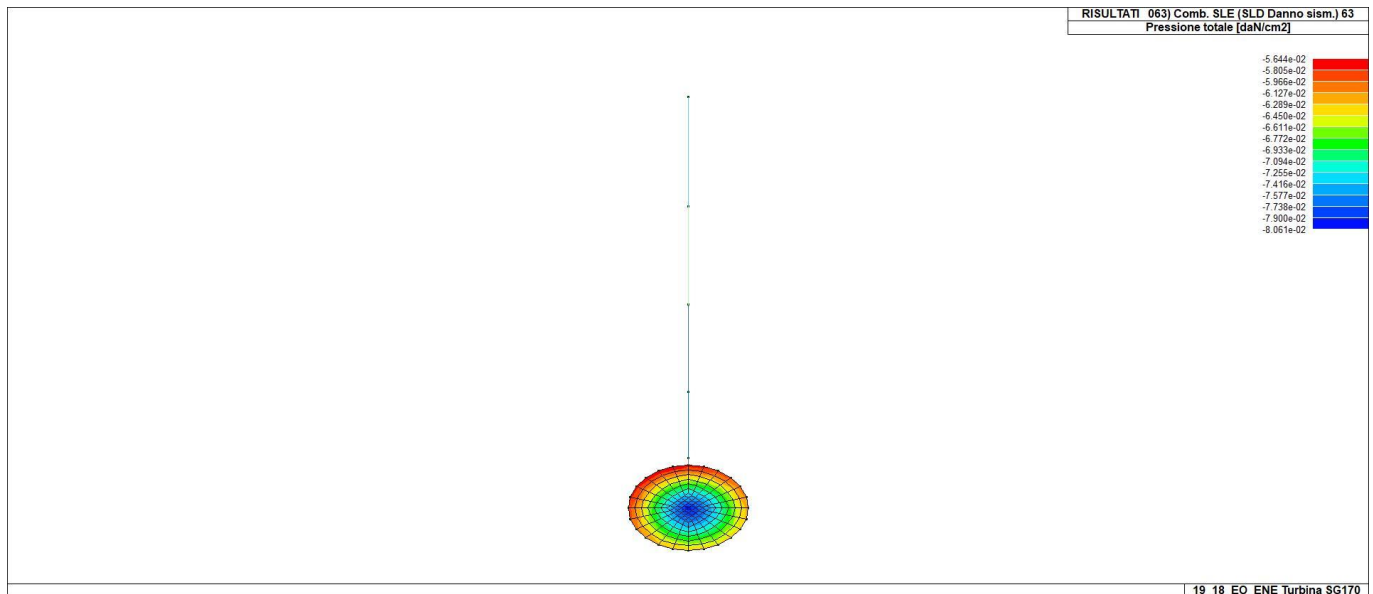
SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



46\_RIS\_PRESSIONI\_041\_Comb. SLU A1 (SLV sism.) 41



46\_RIS\_PRESSIONI\_063\_Comb. SLE (SLD Danno sism.) 63

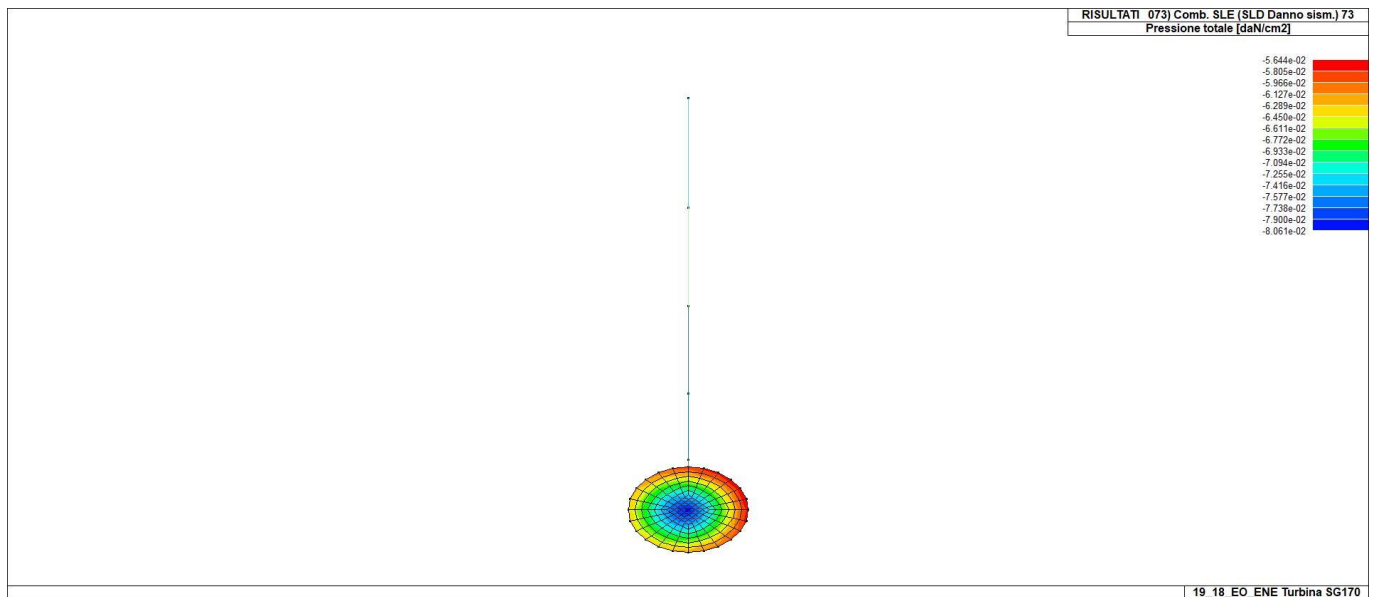
**PROJETTO engineering s.r.l.**  
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914

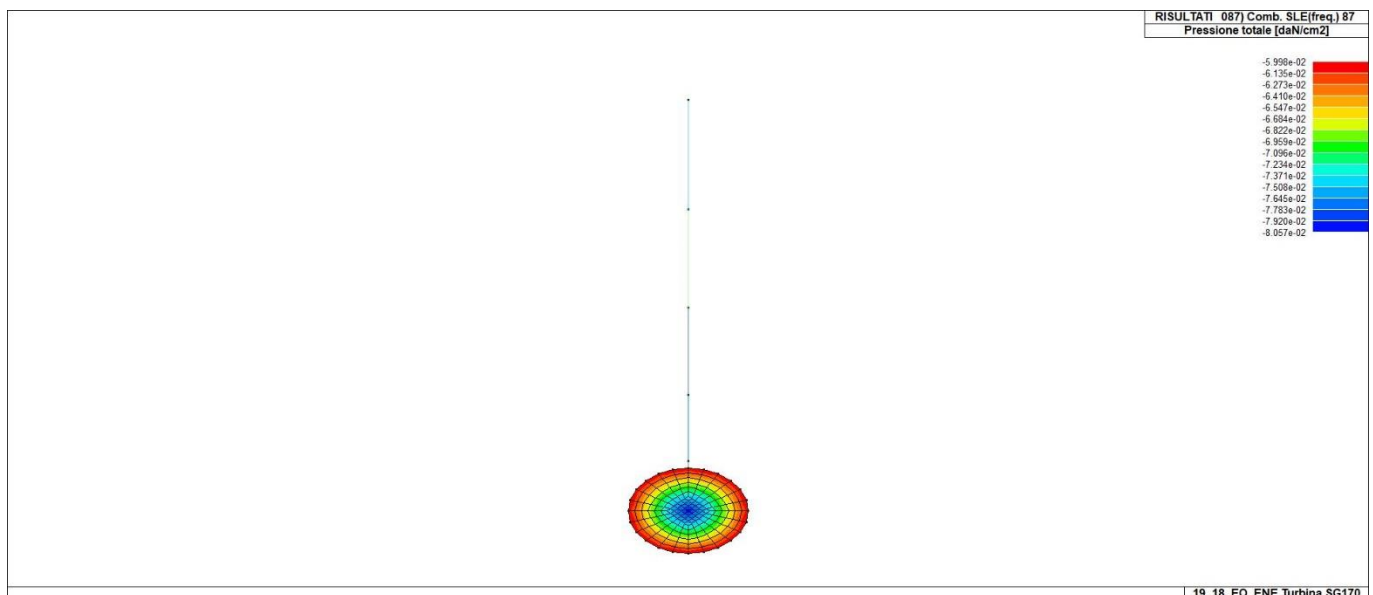


SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



46\_RIS\_PRESSIONI\_073\_Comb. SLE (SLD Damno sism.) 73



46\_RIS\_PRESSIONI\_087\_Comb. SLE(freq.) 87

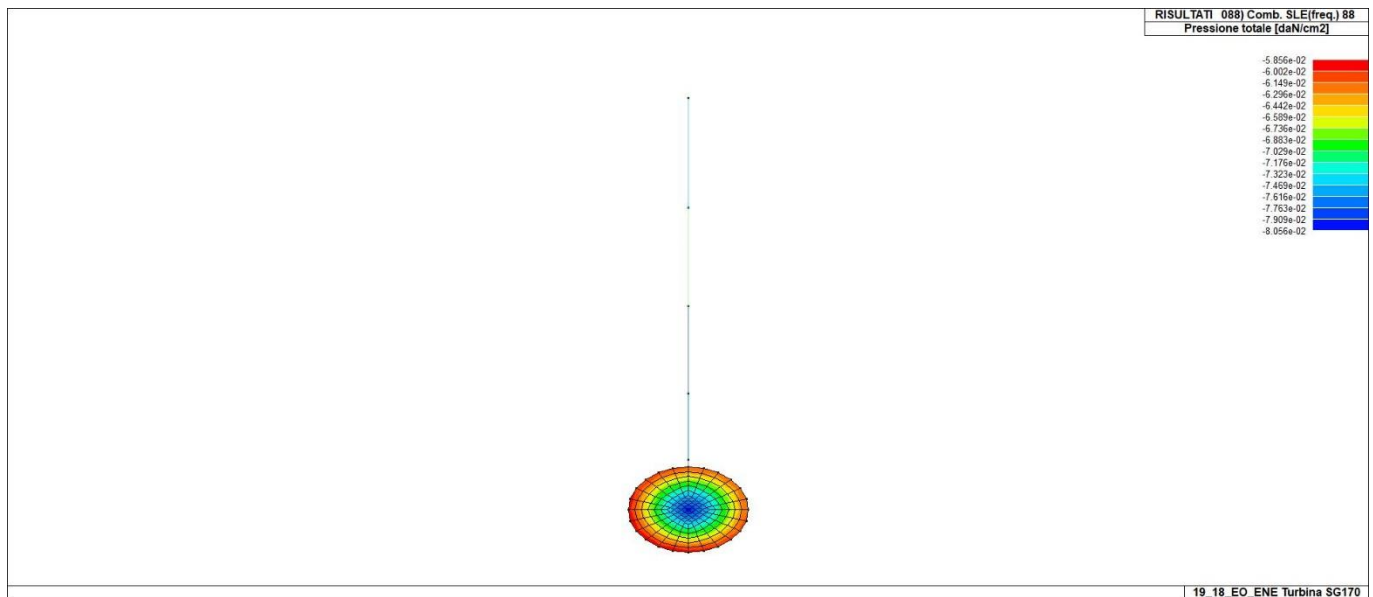
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Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914

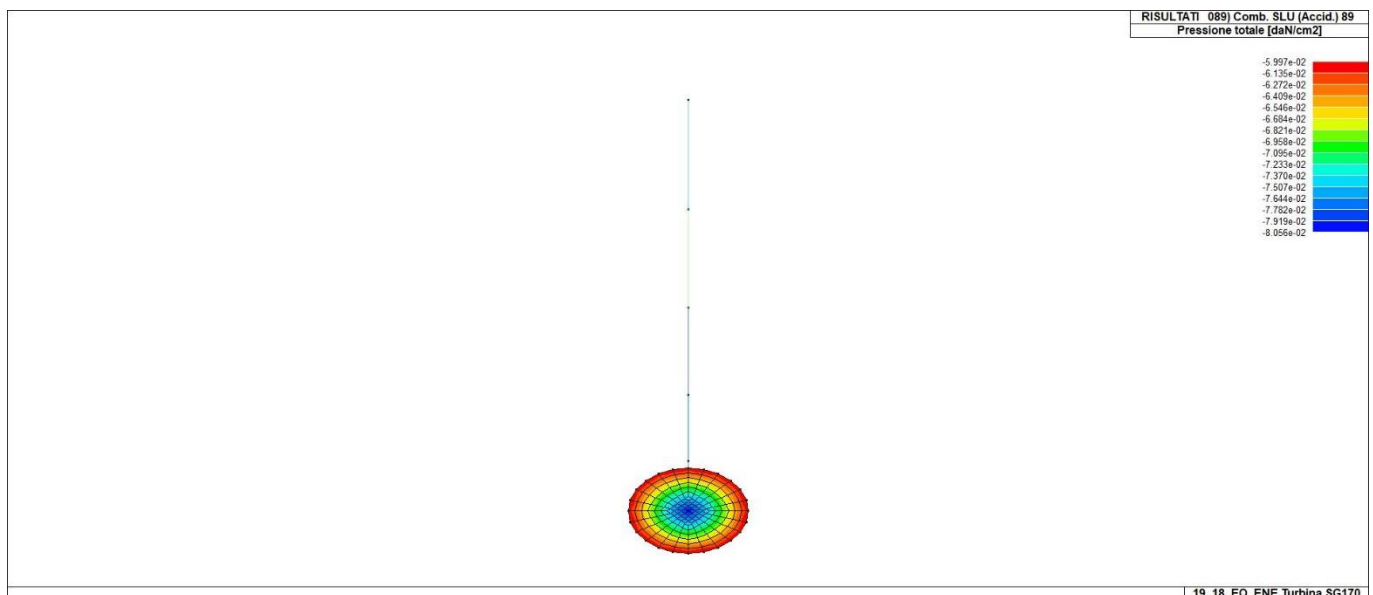


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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



46\_RIS\_PRESSIONI\_088\_Comb. SLE(freq.) 88



46\_RIS\_PRESSIONI\_089\_Comb. SLU (Accid.) 89

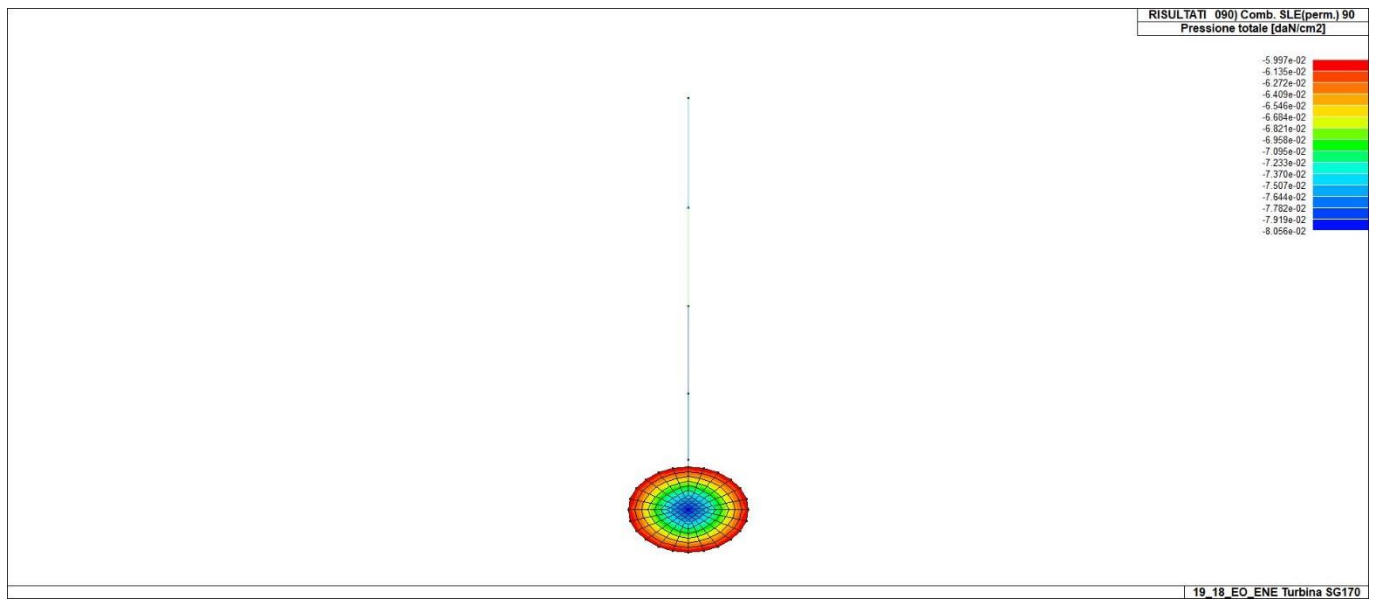
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## 18 RISULTATI ELEMENTI TIPO TRAVE

### 18.1 LEGENDA RISULTATI ELEMENTI TIPO TRAVE

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo trave, è possibile in relazione alle tabelle sotto riportate.

Gli elementi vengono suddivisi in relazione alle proprietà in elementi:

- tipo **pilastro**
- tipo **trave in elevazione**
- tipo **trave in fondazione**

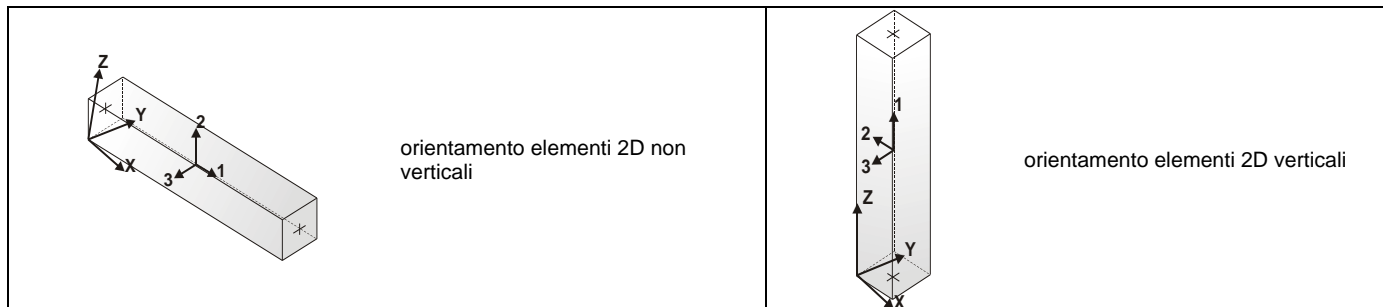
Per ogni elemento e per ogni combinazione (o caso di carico) vengono riportati i risultati più significativi.

Per gli elementi tipo *pilastro* sono riportati in tabella i seguenti valori:

<b>Pilas.</b>	numero dell'elemento pilastro
<b>Cmb</b>	combinazione in cui si verificano i valori riportati
<b>M3 mx/mn</b>	momento flettente in campata M3 max (prima riga) / min (seconda riga)
<b>M2 mx/mn</b>	momento flettente in campata M2 max (prima riga) / min (seconda riga)
<b>D2/D3</b>	freccia massima in direzione 2 (prima riga) / direzione 3 (seconda riga)
<b>Q2/Q3</b>	carico totale in direzione 2 (prima riga) / direzione 3 (seconda riga)
<b>Pos.</b>	ascissa del punto iniziale e finale dell'elemento
<b>N, V2, ecc..</b>	sei componenti di sollecitazione al piede ed in sommità dell'elemento

Per gli elementi tipo *trave in elevazione* sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri.

Per gli elementi tipo *trave in fondazione* (trave f.) sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri e la massima pressione sul terreno.



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

Pilas.	Cmb	M3 mx/mn daN cm	M2 mx/mn daN cm	D 2 / D 3 cm	Q 2 / Q 3 daN	Pos. cm	N daN	V 2 daN	V 3 daN	T daN cm	M 2 daN cm	M 3 daN cm
1	3	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0-8.759e+05 175.0-8.604e+05 339.1-8.458e+05 678.2-8.157e+05 1017.3-7.857e+05 1356.4-7.556e+05	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0
1	5	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0-6.707e+05 175.0-6.588e+05 339.1-6.476e+05 678.2-6.244e+05 1017.3-6.013e+05 1356.4-5.782e+05	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0
1	9	-1.028e+07 -1.169e+07	-3.036e+08 -4.004e+08	-0.03 -1.02	0.0 0.0	0.0-8.719e+05 175.0-8.564e+05 339.1-8.418e+05 678.2-8.118e+05 1017.3-7.817e+05 1356.4-7.516e+05	0.0 0.0 0.0 0.0 0.0 0.0	1039.50 1039.50 1039.50 1039.50 1039.50 1039.50	7.131e+04 7.131e+04 7.131e+04 7.131e+04 7.131e+04 7.131e+04	0.0 0.0 0.0 0.0 0.0 0.0	-4.004e+08 -3.879e+08 -3.762e+08 -3.520e+08 -3.278e+08 -3.036e+08	-1.169e+07 -1.150e+07 -1.133e+07 -1.098e+07 -1.063e+07 -1.028e+07
1	15	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0-6.707e+05 175.0-6.588e+05 339.1-6.476e+05 678.2-6.244e+05 1017.3-6.013e+05 1356.4-5.782e+05	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0
1	17	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0-6.733e+05 175.0-6.614e+05 339.1-6.502e+05 678.2-6.271e+05 1017.3-6.039e+05 1356.4-5.808e+05	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0
1	19	-6.850e+06 -7.790e+06	-2.024e+08 -2.669e+08	-0.02 -0.68	0.0 0.0	0.0-6.707e+05 175.0-6.588e+05 339.1-6.476e+05 678.2-6.244e+05 1017.3-6.013e+05 1356.4-5.782e+05	0.0 0.0 0.0 0.0 0.0 0.0	693.00 693.00 693.00 693.00 693.00 693.00	4.754e+04 4.754e+04 4.754e+04 4.754e+04 4.754e+04 4.754e+04	0.0 0.0 0.0 0.0 0.0 0.0	-2.669e+08 -2.586e+08 -2.508e+08 -2.347e+08 -2.185e+08 -2.024e+08	-7.790e+06 -7.669e+06 -7.555e+06 -7.320e+06 -7.085e+06 -6.850e+06
1	26	-1.528e+08 -1.977e+08	-4.584e+07 -5.931e+07	-0.46 -0.14	0.0 0.0	0.0-6.728e+05 175.0-6.609e+05 339.1-6.497e+05 678.2-6.265e+05 1017.3-6.034e+05 1356.4-5.803e+05	4.714e+04 4.714e+04 4.714e+04 4.714e+04 4.714e+04 4.714e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	0.0 0.0 0.0 0.0 0.0 0.0	-5.931e+07 -5.758e+07 -5.595e+07 -5.258e+07 -4.921e+07 -4.584e+07	-1.977e+08 -1.919e+08 -1.865e+08 -1.753e+08 -1.640e+08 -1.528e+08
1	29	1.977e+08 1.528e+08	5.931e+07 4.584e+07	0.46 0.14	0.0 0.0	0.0-6.728e+05 175.0-6.609e+05 339.1-6.497e+05 678.2-6.265e+05 1017.3-6.034e+05 1356.4-5.803e+05	-4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04	-1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04	-1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04	0.0 0.0 0.0 0.0 0.0 0.0	5.931e+07 5.758e+07 5.595e+07 5.258e+07 4.921e+07 4.584e+07	1.977e+08 1.919e+08 1.865e+08 1.753e+08 1.640e+08 1.528e+08
1	30	-1.528e+08 -1.977e+08	-4.584e+07 -5.931e+07	-0.46 -0.14	0.0 0.0	0.0-6.728e+05 175.0-6.609e+05 339.1-6.497e+05 678.2-6.265e+05 1017.3-6.034e+05 1356.4-5.803e+05	4.714e+04 4.714e+04 4.714e+04 4.714e+04 4.714e+04 4.714e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	0.0 0.0 0.0 0.0 0.0 0.0	-5.931e+07 -5.758e+07 -5.595e+07 -5.258e+07 -4.921e+07 -4.584e+07	-1.977e+08 -1.919e+08 -1.865e+08 -1.753e+08 -1.640e+08 -1.528e+08
1	33	1.977e+08 1.528e+08	5.931e+07 4.584e+07	0.46 0.14	0.0 0.0	0.0-6.728e+05 175.0-6.609e+05 339.1-6.497e+05 678.2-6.265e+05 1017.3-6.034e+05 1356.4-5.803e+05	-4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04 -4.714e+04	-1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04	-1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04 -1.414e+04	0.0 0.0 0.0 0.0 0.0 0.0	5.931e+07 5.758e+07 5.595e+07 5.258e+07 4.921e+07 4.584e+07	1.977e+08 1.919e+08 1.865e+08 1.753e+08 1.640e+08 1.528e+08
1	42	-4.584e+07 -5.931e+07	-1.528e+08 -1.977e+08	-0.14 -0.46	0.0 0.0	0.0-6.728e+05 175.0-6.609e+05 339.1-6.497e+05 678.2-6.265e+05 1017.3-6.034e+05	4.714e+04 4.714e+04 4.714e+04 4.714e+04 4.714e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	1.414e+04 1.414e+04 1.414e+04 1.414e+04 1.414e+04	0.0 0.0 0.0 0.0 0.0	-1.977e+08 -1.919e+08 -1.865e+08 -1.753e+08 -1.640e+08	-5.931e+07 -5.758e+07 -5.595e+07 -5.258e+07 -4.921e+07

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SR EN ISO 9001:2015 Certificate No. Q204  
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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	45	5.931e+07	1.977e+08	0.14	0.0	1356.4	-5.803e+05	1.414e+04	4.714e+04	0.0	-1.528e+08	-4.584e+07
		4.584e+07	1.528e+08	0.46	0.0	0.0	-6.728e+05	-1.414e+04	-4.714e+04	0.0	1.977e+08	5.931e+07
						175.0	-6.609e+05	-1.414e+04	-4.714e+04	0.0	1.919e+08	5.758e+07
						339.1	-6.497e+05	-1.414e+04	-4.714e+04	0.0	1.865e+08	5.595e+07
						678.2	-6.265e+05	-1.414e+04	-4.714e+04	0.0	1.753e+08	5.258e+07
						1017.3	-6.034e+05	-1.414e+04	-4.714e+04	0.0	1.640e+08	4.921e+07
						1356.4	-5.803e+05	-1.414e+04	-4.714e+04	0.0	1.528e+08	4.584e+07
1	58	-9.154e+07	-2.746e+07	-0.28	0.0	0.0	-6.728e+05	3.331e+04	9992.38	0.0	-3.671e+07	-1.224e+08
		-1.224e+08	-3.671e+07	-0.09	0.0	175.0	-6.609e+05	3.331e+04	9992.38	0.0	-3.552e+07	-1.184e+08
						339.1	-6.497e+05	3.331e+04	9992.38	0.0	-3.440e+07	-1.147e+08
						678.2	-6.265e+05	3.331e+04	9992.38	0.0	-3.209e+07	-1.070e+08
						1017.3	-6.034e+05	3.331e+04	9992.38	0.0	-2.977e+07	-9.925e+07
						1356.4	-5.803e+05	3.331e+04	9992.38	0.0	-2.746e+07	-9.154e+07
1	61	1.224e+08	3.671e+07	0.28	0.0	0.0	-6.728e+05	-3.331e+04	-9992.38	0.0	3.671e+07	1.224e+08
		9.154e+07	2.746e+07	0.09	0.0	175.0	-6.609e+05	-3.331e+04	-9992.38	0.0	3.552e+07	1.184e+08
						339.1	-6.497e+05	-3.331e+04	-9992.38	0.0	3.440e+07	1.147e+08
						678.2	-6.265e+05	-3.331e+04	-9992.38	0.0	3.209e+07	1.070e+08
						1017.3	-6.034e+05	-3.331e+04	-9992.38	0.0	2.977e+07	9.925e+07
						1356.4	-5.803e+05	-3.331e+04	-9992.38	0.0	2.746e+07	9.154e+07
1	62	-9.154e+07	-2.746e+07	-0.28	0.0	0.0	-6.728e+05	3.331e+04	9992.38	0.0	-3.671e+07	-1.224e+08
		-1.224e+08	-3.671e+07	-0.09	0.0	175.0	-6.609e+05	3.331e+04	9992.38	0.0	-3.552e+07	-1.184e+08
						339.1	-6.497e+05	3.331e+04	9992.38	0.0	-3.440e+07	-1.147e+08
						678.2	-6.265e+05	3.331e+04	9992.38	0.0	-3.209e+07	-1.070e+08
						1017.3	-6.034e+05	3.331e+04	9992.38	0.0	-2.977e+07	-9.925e+07
						1356.4	-5.803e+05	3.331e+04	9992.38	0.0	-2.746e+07	-9.154e+07
1	65	1.224e+08	3.671e+07	0.28	0.0	0.0	-6.728e+05	-3.331e+04	-9992.38	0.0	3.671e+07	1.224e+08
		9.154e+07	2.746e+07	0.09	0.0	175.0	-6.609e+05	-3.331e+04	-9992.38	0.0	3.552e+07	1.184e+08
						339.1	-6.497e+05	-3.331e+04	-9992.38	0.0	3.440e+07	1.147e+08
						678.2	-6.265e+05	-3.331e+04	-9992.38	0.0	3.209e+07	1.070e+08
						1017.3	-6.034e+05	-3.331e+04	-9992.38	0.0	2.977e+07	9.925e+07
						1356.4	-5.803e+05	-3.331e+04	-9992.38	0.0	2.746e+07	9.154e+07
1	74	-2.746e+07	-9.154e+07	-0.09	0.0	0.0	-6.728e+05	9992.38	3.331e+04	0.0	-1.224e+08	-3.671e+07
		-3.671e+07	-1.224e+08	-0.28	0.0	175.0	-6.609e+05	9992.38	3.331e+04	0.0	-1.184e+08	-3.552e+07
						339.1	-6.497e+05	9992.38	3.331e+04	0.0	-1.147e+08	-3.440e+07
						678.2	-6.265e+05	9992.38	3.331e+04	0.0	-1.070e+08	-3.209e+07
						1017.3	-6.034e+05	9992.38	3.331e+04	0.0	-9.925e+07	-2.977e+07
						1356.4	-5.803e+05	9992.38	3.331e+04	0.0	-9.154e+07	-2.746e+07
1	77	3.671e+07	1.224e+08	0.09	0.0	0.0	-6.728e+05	-9992.38	-3.331e+04	0.0	1.224e+08	3.671e+07
		2.746e+07	9.154e+07	0.28	0.0	175.0	-6.609e+05	-9992.38	-3.331e+04	0.0	1.184e+08	3.552e+07
						339.1	-6.497e+05	-9992.38	-3.331e+04	0.0	1.147e+08	3.440e+07
						678.2	-6.265e+05	-9992.38	-3.331e+04	0.0	1.070e+08	3.209e+07
						1017.3	-6.034e+05	-9992.38	-3.331e+04	0.0	9.925e+07	2.977e+07
						1356.4	-5.803e+05	-9992.38	-3.331e+04	0.0	9.154e+07	2.746e+07
1	86	0.0	0.0	0.0	0.0	0.0	-6.707e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	175.0	-6.588e+05	0.0	0.0	0.0	0.0	0.0
						339.1	-6.476e+05	0.0	0.0	0.0	0.0	0.0
						678.2	-6.244e+05	0.0	0.0	0.0	0.0	0.0
						1017.3	-6.013e+05	0.0	0.0	0.0	0.0	0.0
						1356.4	-5.782e+05	0.0	0.0	0.0	0.0	0.0
1	87	0.0	0.0	0.0	0.0	0.0	-6.712e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	175.0	-6.593e+05	0.0	0.0	0.0	0.0	0.0
						339.1	-6.481e+05	0.0	0.0	0.0	0.0	0.0
						678.2	-6.250e+05	0.0	0.0	0.0	0.0	0.0
						1017.3	-6.018e+05	0.0	0.0	0.0	0.0	0.0
						1356.4	-5.787e+05	0.0	0.0	0.0	0.0	0.0
1	88	-1.370e+06	-4.048e+07	-4.09e-03	0.0	0.0	-6.707e+05	138.60	9508.60	0.0	-5.338e+07	-1.558e+06
		-1.558e+06	-5.338e+07	-0.14	0.0	175.0	-6.588e+05	138.60	9508.60	0.0	-5.172e+07	-1.534e+06
						339.1	-6.476e+05	138.60	9508.60	0.0	-5.016e+07	-1.511e+06
						678.2	-6.244e+05	138.60	9508.60	0.0	-4.693e+07	-1.464e+06
						1017.3	-6.013e+05	138.60	9508.60	0.0	-4.371e+07	-1.417e+06
						1356.4	-5.782e+05	138.60	9508.60	0.0	-4.048e+07	-1.370e+06
1	89	0.0	0.0	0.0	0.0	0.0	-6.707e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	175.0	-6.588e+05	0.0	0.0	0.0	0.0	0.0
						339.1	-6.476e+05	0.0	0.0	0.0	0.0	0.0
						678.2	-6.244e+05	0.0	0.0	0.0	0.0	0.0
						1017.3	-6.013e+05	0.0	0.0	0.0	0.0	0.0
						1356.4	-5.782e+05	0.0	0.0	0.0	0.0	0.0
1	90	0.0	0.0	0.0	0.0	0.0	-6.707e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	175.0	-6.588e+05	0.0	0.0	0.0	0.0	0.0
						339.1	-6.476e+05	0.0	0.0	0.0	0.0	0.0
						678.2	-6.244e+05	0.0	0.0	0.0	0.0	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 Certificate No. Q204  
SR EN ISO 14001:2015 Certificate No. E81  
SR EN ISO/IEC 17001:2017 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

						1017.3-6.013e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1356.4-5.782e+05	0.0	0.0	0.0	0.0	0.0	0.0
2	3	0.0	0.0	0.0	0.0	0.0-7.556e+05	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0-7.175e+05	0.0	0.0	0.0	0.0	0.0	0.0
						910.0-6.795e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1365.0-6.414e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1820.0-6.034e+05	0.0	0.0	0.0	0.0	0.0	0.0
2	5	0.0	0.0	0.0	0.0	0.0-5.782e+05	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0-5.489e+05	0.0	0.0	0.0	0.0	0.0	0.0
						910.0-5.196e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1365.0-4.903e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1820.0-4.611e+05	0.0	0.0	0.0	0.0	0.0	0.0
2	9-8.384e+06	-1.925e+08	-0.11	0.0	0.0	0.0-7.516e+05	1039.50	6.108e+04	0.0-3.036e+08	-1.028e+07		
		-1.028e+07	-3.27	0.0	0.0	455.0-7.136e+05	1039.50	6.108e+04	0.0-2.758e+08	-9.802e+06		
						910.0-6.755e+05	1039.50	6.108e+04	0.0-2.480e+08	-9.330e+06		
						1365.0-6.374e+05	1039.50	6.108e+04	0.0-2.203e+08	-8.857e+06		
						1820.0-5.994e+05	1039.50	6.108e+04	0.0-1.925e+08	-8.384e+06		
2	15	0.0	0.0	0.0	0.0	0.0-5.782e+05	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0-5.489e+05	0.0	0.0	0.0	0.0	0.0	0.0
						910.0-5.196e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1365.0-4.903e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1820.0-4.611e+05	0.0	0.0	0.0	0.0	0.0	0.0
2	17	0.0	0.0	0.0	0.0	0.0-5.808e+05	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0-5.515e+05	0.0	0.0	0.0	0.0	0.0	0.0
						910.0-5.223e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1365.0-4.930e+05	0.0	0.0	0.0	0.0	0.0	0.0
						1820.0-4.637e+05	0.0	0.0	0.0	0.0	0.0	0.0
2	19-5.589e+06	-1.283e+08	-0.07	0.0	0.0	0.0-5.782e+05	693.00	4.072e+04	0.0-2.024e+08	-6.850e+06		
		-6.850e+06	-2.18	0.0	0.0	455.0-5.489e+05	693.00	4.072e+04	0.0-1.839e+08	-6.535e+06		
						910.0-5.196e+05	693.00	4.072e+04	0.0-1.654e+08	-6.220e+06		
						1365.0-4.903e+05	693.00	4.072e+04	0.0-1.468e+08	-5.904e+06		
						1820.0-4.611e+05	693.00	4.072e+04	0.0-1.283e+08	-5.589e+06		
2	26-1.112e+08	-3.337e+07	-1.58	0.0	0.0	0.0-5.803e+05	3.850e+04	1.155e+04	0.0-4.584e+07	-1.528e+08		
		-1.528e+08	-0.47	0.0	0.0	455.0-5.510e+05	3.850e+04	1.155e+04	0.0-4.273e+07	-1.424e+08		
						910.0-5.217e+05	3.850e+04	1.155e+04	0.0-3.961e+07	-1.320e+08		
						1365.0-4.925e+05	3.850e+04	1.155e+04	0.0-3.649e+07	-1.216e+08		
						1820.0-4.632e+05	3.850e+04	1.155e+04	0.0-3.337e+07	-1.112e+08		
2	29	1.528e+08	4.584e+07	1.58	0.0	0.0-5.803e+05	-3.850e+04	-1.155e+04	0.0	4.584e+07	1.528e+08	
		1.112e+08	3.337e+07	0.47	0.0	455.0-5.510e+05	-3.850e+04	-1.155e+04	0.0	4.273e+07	1.424e+08	
						910.0-5.217e+05	-3.850e+04	-1.155e+04	0.0	3.961e+07	1.320e+08	
						1365.0-4.925e+05	-3.850e+04	-1.155e+04	0.0	3.649e+07	1.216e+08	
						1820.0-4.632e+05	-3.850e+04	-1.155e+04	0.0	3.337e+07	1.112e+08	
2	31-1.112e+08	4.584e+07	-1.58	0.0	0.0	0.0-5.803e+05	3.850e+04	1.155e+04	0.0	4.584e+07	1.528e+08	
		-1.528e+08	3.337e+07	0.47	0.0	455.0-5.510e+05	3.850e+04	1.155e+04	0.0	4.273e+07	1.424e+08	
						910.0-5.217e+05	3.850e+04	1.155e+04	0.0	3.961e+07	1.320e+08	
						1365.0-4.925e+05	3.850e+04	1.155e+04	0.0	3.649e+07	1.216e+08	
						1820.0-4.632e+05	3.850e+04	1.155e+04	0.0	3.337e+07	1.112e+08	
2	32	1.528e+08	-3.337e+07	1.58	0.0	0.0-5.803e+05	-3.850e+04	-1.155e+04	0.0	-4.584e+07	-1.528e+08	
		1.112e+08	-4.584e+07	-0.47	0.0	455.0-5.510e+05	-3.850e+04	-1.155e+04	0.0	-4.273e+07	-1.424e+08	
						910.0-5.217e+05	-3.850e+04	-1.155e+04	0.0	-3.961e+07	-1.320e+08	
						1365.0-4.925e+05	-3.850e+04	-1.155e+04	0.0	-3.649e+07	-1.216e+08	
						1820.0-4.632e+05	-3.850e+04	-1.155e+04	0.0	-3.337e+07	-1.112e+08	
2	42-3.337e+07	-1.112e+08	-0.47	0.0	0.0	0.0-5.803e+05	1.155e+04	3.850e+04	0.0-1.528e+08	-4.584e+07		
		-4.584e+07	-1.528e+08	-1.58	0.0	455.0-5.510e+05	1.155e+04	3.850e+04	0.0-1.424e+08	-4.273e+07		
						910.0-5.217e+05	1.155e+04	3.850e+04	0.0-1.320e+08	-3.961e+07		
						1365.0-4.925e+05	1.155e+04	3.850e+04	0.0-1.216e+08	-3.649e+07		
						1820.0-4.632e+05	1.155e+04	3.850e+04	0.0-1.112e+08	-3.337e+07		
2	45	4.584e+07	1.528e+08	0.47	0.0	0.0-5.803e+05	-1.155e+04	-3.850e+04	0.0	1.528e+08	4.584e+07	
		3.337e+07	1.112e+08	1.58	0.0	455.0-5.510e+05	-1.155e+04	-3.850e+04	0.0	1.424e+08	4.273e+07	
						910.0-5.217e+05	-1.155e+04	-3.850e+04	0.0	1.320e+08	3.961e+07	
						1365.0-4.925e+05	-1.155e+04	-3.850e+04	0.0	1.216e+08	3.649e+07	
						1820.0-4.632e+05	-1.155e+04	-3.850e+04	0.0	1.112e+08	3.337e+07	
2	58-6.636e+07	-1.991e+07	-0.95	0.0	0.0	0.0-5.803e+05	2.643e+04	7930.12	0.0-2.746e+07	-9.154e+07		
		-9.154e+07	-2.746e+07	-0.28	0.0	455.0-5.510e+05	2.643e+04	7930.12	0.0-2.557e+07	-8.524e+07		
						910.0-5.217e+05	2.643e+04	7930.12	0.0-2.368e+07	-7.895e+07		
						1365.0-4.925e+05	2.643e+04	7930.12	0.0-2.180e+07	-7.265e+07		
						1820.0-4.632e+05	2.643e+04	7930.12	0.0-1.991e+07	-6.636e+07		
2	61	9.154e+07	2.746e+07	0.95	0.0	0.0-5.803e+05	-2.643e+04	-7930.12	0.0	2.746e+07	9.154e+07	
		6.636e+07	1.991e+07	0.28	0.0	455.0-5.510e+05	-2.643e+04	-7930.12	0.0	2.557e+07	8.524e+07	
						910.0-5.217e+05	-2.643e+04	-7930.12	0.0	2.368e+07	7.895e+07	
						1365.0-4.925e+05	-2.643e+04	-7930.12	0.0	2.180e+07	7.265e+07	

PROJETTO engineering s.r.l.  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 Certificate No. Q204  
SR EN ISO 14001:2015 Certificate No. E81  
SR EN ISO/IEC 27001:2017 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

2	63	-6.636e+07	2.746e+07	-0.95	0.0	1820.0	-4.632e+05	-2.643e+04	-7930.12	0.0	1.991e+07	6.636e+07
		-9.154e+07	1.991e+07	0.28	0.0	0.0	-5.803e+05	2.643e+04	-7930.12	0.0	2.746e+07	-9.154e+07
					0.0	455.0	-5.510e+05	2.643e+04	-7930.12	0.0	2.557e+07	-8.524e+07
						910.0	-5.217e+05	2.643e+04	-7930.12	0.0	2.368e+07	-7.895e+07
						1365.0	-4.925e+05	2.643e+04	-7930.12	0.0	2.180e+07	-7.265e+07
						1820.0	-4.632e+05	2.643e+04	-7930.12	0.0	1.991e+07	-6.636e+07
2	64	9.154e+07	-1.991e+07	0.95	0.0	0.0	-5.803e+05	-2.643e+04	7930.12	0.0	-2.746e+07	9.154e+07
		6.636e+07	-2.746e+07	-0.28	0.0	455.0	-5.510e+05	-2.643e+04	7930.12	0.0	-2.557e+07	8.524e+07
						910.0	-5.217e+05	-2.643e+04	7930.12	0.0	-2.368e+07	7.895e+07
						1365.0	-4.925e+05	-2.643e+04	7930.12	0.0	-2.180e+07	7.265e+07
						1820.0	-4.632e+05	-2.643e+04	7930.12	0.0	-1.991e+07	6.636e+07
2	74	-1.991e+07	-6.636e+07	-0.28	0.0	0.0	-5.803e+05	7930.12	2.643e+04	0.0	-9.154e+07	-2.746e+07
		-2.746e+07	-9.154e+07	-0.95	0.0	455.0	-5.510e+05	7930.12	2.643e+04	0.0	-8.524e+07	-7.557e+07
						910.0	-5.217e+05	7930.12	2.643e+04	0.0	-7.895e+07	-2.368e+07
						1365.0	-4.925e+05	7930.12	2.643e+04	0.0	-7.265e+07	-2.180e+07
						1820.0	-4.632e+05	7930.12	2.643e+04	0.0	-6.636e+07	-1.991e+07
2	77	2.746e+07	9.154e+07	0.28	0.0	0.0	-5.803e+05	-7930.12	-2.643e+04	0.0	9.154e+07	2.746e+07
		1.991e+07	6.636e+07	0.95	0.0	455.0	-5.510e+05	-7930.12	-2.643e+04	0.0	8.524e+07	2.557e+07
						910.0	-5.217e+05	-7930.12	-2.643e+04	0.0	7.895e+07	2.368e+07
						1365.0	-4.925e+05	-7930.12	-2.643e+04	0.0	7.265e+07	2.180e+07
						1820.0	-4.632e+05	-7930.12	-2.643e+04	0.0	6.636e+07	1.991e+07
2	86	0.0	0.0	0.0	0.0	0.0	-5.782e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0	-5.489e+05	0.0	0.0	0.0	0.0	0.0
						910.0	-5.196e+05	0.0	0.0	0.0	0.0	0.0
						1365.0	-4.903e+05	0.0	0.0	0.0	0.0	0.0
						1820.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
2	87	0.0	0.0	0.0	0.0	0.0	-5.787e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0	-5.494e+05	0.0	0.0	0.0	0.0	0.0
						910.0	-5.201e+05	0.0	0.0	0.0	0.0	0.0
						1365.0	-4.909e+05	0.0	0.0	0.0	0.0	0.0
						1820.0	-4.616e+05	0.0	0.0	0.0	0.0	0.0
2	88	-1.118e+06	-2.566e+07	-0.01	0.0	0.0	-5.782e+05	138.60	8144.20	0.0	-4.048e+07	-1.370e+06
		-1.370e+06	-4.048e+07	-0.44	0.0	455.0	-5.489e+05	138.60	8144.20	0.0	-3.678e+07	-1.307e+06
						910.0	-5.196e+05	138.60	8144.20	0.0	-3.307e+07	-1.244e+06
						1365.0	-4.903e+05	138.60	8144.20	0.0	-2.937e+07	-1.181e+06
						1820.0	-4.611e+05	138.60	8144.20	0.0	-2.566e+07	-1.118e+06
2	89	0.0	0.0	0.0	0.0	0.0	-5.782e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0	-5.489e+05	0.0	0.0	0.0	0.0	0.0
						910.0	-5.196e+05	0.0	0.0	0.0	0.0	0.0
						1365.0	-4.903e+05	0.0	0.0	0.0	0.0	0.0
						1820.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
2	90	0.0	0.0	0.0	0.0	0.0	-5.782e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	455.0	-5.489e+05	0.0	0.0	0.0	0.0	0.0
						910.0	-5.196e+05	0.0	0.0	0.0	0.0	0.0
						1365.0	-4.903e+05	0.0	0.0	0.0	0.0	0.0
						1820.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
3	3	0.0	0.0	0.0	0.0	0.0	-6.034e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-5.537e+05	0.0	0.0	0.0	0.0	0.0
						1190.0	-5.040e+05	0.0	0.0	0.0	0.0	0.0
						1785.0	-4.544e+05	0.0	0.0	0.0	0.0	0.0
						2380.0	-4.047e+05	0.0	0.0	0.0	0.0	0.0
3	5	0.0	0.0	0.0	0.0	0.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.229e+05	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
3	9	-5.910e+06	-8.251e+07	-0.24	0.0	0.0	-5.994e+05	1039.50	4.620e+04	0.0	-1.925e+08	-8.384e+06
		-8.384e+06	-1.925e+08	-6.55	0.0	595.0	-5.497e+05	1039.50	4.620e+04	0.0	-1.650e+08	-7.765e+06
						1190.0	-5.001e+05	1039.50	4.620e+04	0.0	-1.375e+08	-7.147e+06
						1785.0	-4.504e+05	1039.50	4.620e+04	0.0	-1.100e+08	-6.528e+06
						2380.0	-4.007e+05	1039.50	4.620e+04	0.0	-8.251e+07	-5.910e+06
3	15	0.0	0.0	0.0	0.0	0.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.229e+05	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
3	17	0.0	0.0	0.0	0.0	0.0	-4.637e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.255e+05	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.873e+05	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.491e+05	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.109e+05	0.0	0.0	0.0	0.0	0.0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914



SR EN ISO 9001:2015 Certificate No. Q204  
SR EN ISO 14001:2015 Certificate No. E81  
SR EN ISO/IEC 17001:2017 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

3	19	-3.940e+06	-5.501e+07	-0.16	0.0	0.0	-4.611e+05	693.00	3.080e+04	0.0	-1.283e+08	-5.589e+06
		-5.589e+06	-1.283e+08	-4.36	0.0	595.0	-4.229e+05	693.00	3.080e+04	0.0	-1.100e+08	-5.177e+06
						1190.0	-3.847e+05	693.00	3.080e+04	0.0	-9.166e+07	-4.764e+06
						1785.0	-3.465e+05	693.00	3.080e+04	0.0	-7.333e+07	-4.352e+06
						2380.0	-3.083e+05	693.00	3.080e+04	0.0	-5.501e+07	-3.940e+06
3	26	-8.680e+07	-2.604e+07	-3.24	0.0	0.0	-4.632e+05	2.807e+04	8420.02	0.0	-3.337e+07	-1.112e+08
		-1.112e+08	-3.337e+07	-0.97	0.0	595.0	-4.250e+05	2.807e+04	8420.02	0.0	-3.154e+07	-1.051e+08
						1190.0	-3.868e+05	2.807e+04	8420.02	0.0	-2.971e+07	-9.903e+07
						1785.0	-3.486e+05	2.807e+04	8420.02	0.0	-2.787e+07	-9.292e+07
						2380.0	-3.104e+05	2.807e+04	8420.02	0.0	-2.604e+07	-8.680e+07
3	29	1.112e+08	3.337e+07	3.24	0.0	0.0	-4.632e+05	-2.807e+04	-8420.02	0.0	3.337e+07	1.112e+08
		8.680e+07	2.604e+07	0.97	0.0	595.0	-4.250e+05	-2.807e+04	-8420.02	0.0	3.154e+07	1.051e+08
						1190.0	-3.868e+05	-2.807e+04	-8420.02	0.0	2.971e+07	9.903e+07
						1785.0	-3.486e+05	-2.807e+04	-8420.02	0.0	2.787e+07	9.292e+07
						2380.0	-3.104e+05	-2.807e+04	-8420.02	0.0	2.604e+07	8.680e+07
3	30	-8.680e+07	-2.604e+07	-3.24	0.0	0.0	-4.632e+05	2.807e+04	8420.02	0.0	-3.337e+07	-1.112e+08
		-1.112e+08	-3.337e+07	-0.97	0.0	595.0	-4.250e+05	2.807e+04	8420.02	0.0	-3.154e+07	-1.051e+08
						1190.0	-3.868e+05	2.807e+04	8420.02	0.0	-2.971e+07	-9.903e+07
						1785.0	-3.486e+05	2.807e+04	8420.02	0.0	-2.787e+07	-9.292e+07
						2380.0	-3.104e+05	2.807e+04	8420.02	0.0	-2.604e+07	-8.680e+07
3	33	1.112e+08	3.337e+07	3.24	0.0	0.0	-4.632e+05	-2.807e+04	-8420.02	0.0	3.337e+07	1.112e+08
		8.680e+07	2.604e+07	0.97	0.0	595.0	-4.250e+05	-2.807e+04	-8420.02	0.0	3.154e+07	1.051e+08
						1190.0	-3.868e+05	-2.807e+04	-8420.02	0.0	2.971e+07	9.903e+07
						1785.0	-3.486e+05	-2.807e+04	-8420.02	0.0	2.787e+07	9.292e+07
						2380.0	-3.104e+05	-2.807e+04	-8420.02	0.0	2.604e+07	8.680e+07
3	42	-2.604e+07	-8.680e+07	-0.97	0.0	0.0	-4.632e+05	8420.02	2.807e+04	0.0	-1.112e+08	-3.337e+07
		-3.337e+07	-1.112e+08	-3.24	0.0	595.0	-4.250e+05	8420.02	2.807e+04	0.0	-1.051e+08	-3.154e+07
						1190.0	-3.868e+05	8420.02	2.807e+04	0.0	-9.903e+07	-2.971e+07
						1785.0	-3.486e+05	8420.02	2.807e+04	0.0	-9.292e+07	-2.787e+07
						2380.0	-3.104e+05	8420.02	2.807e+04	0.0	-8.680e+07	-2.604e+07
3	45	3.337e+07	1.112e+08	0.97	0.0	0.0	-4.632e+05	-8420.02	-2.807e+04	0.0	1.112e+08	3.337e+07
		2.604e+07	8.680e+07	3.24	0.0	595.0	-4.250e+05	-8420.02	-2.807e+04	0.0	1.051e+08	3.154e+07
						1190.0	-3.868e+05	-8420.02	-2.807e+04	0.0	9.903e+07	2.971e+07
						1785.0	-3.486e+05	-8420.02	-2.807e+04	0.0	9.292e+07	2.787e+07
						2380.0	-3.104e+05	-8420.02	-2.807e+04	0.0	8.680e+07	2.604e+07
3	54	-5.737e+07	-1.721e+07	-1.90	0.0	0.0	-4.632e+05	1.858e+04	5573.78	0.0	-1.991e+07	-6.636e+07
		-6.636e+07	-1.991e+07	-0.57	0.0	595.0	-4.250e+05	1.858e+04	5573.78	0.0	-1.923e+07	-6.411e+07
						1190.0	-3.868e+05	1.858e+04	5573.78	0.0	-1.856e+07	-6.186e+07
						1785.0	-3.486e+05	1.858e+04	5573.78	0.0	-1.788e+07	-5.962e+07
						2380.0	-3.104e+05	1.858e+04	5573.78	0.0	-1.721e+07	-5.737e+07
3	57	6.636e+07	1.991e+07	1.90	0.0	0.0	-4.632e+05	-1.858e+04	-5573.78	0.0	1.991e+07	6.636e+07
		5.737e+07	1.721e+07	0.57	0.0	595.0	-4.250e+05	-1.858e+04	-5573.78	0.0	1.923e+07	6.411e+07
						1190.0	-3.868e+05	-1.858e+04	-5573.78	0.0	1.856e+07	6.186e+07
						1785.0	-3.486e+05	-1.858e+04	-5573.78	0.0	1.788e+07	5.962e+07
						2380.0	-3.104e+05	-1.858e+04	-5573.78	0.0	1.721e+07	5.737e+07
3	62	-5.737e+07	-1.721e+07	-1.90	0.0	0.0	-4.632e+05	1.858e+04	5573.78	0.0	-1.991e+07	-6.636e+07
		-6.636e+07	-1.991e+07	-0.57	0.0	595.0	-4.250e+05	1.858e+04	5573.78	0.0	-1.923e+07	-6.411e+07
						1190.0	-3.868e+05	1.858e+04	5573.78	0.0	-1.856e+07	-6.186e+07
						1785.0	-3.486e+05	1.858e+04	5573.78	0.0	-1.788e+07	-5.962e+07
						2380.0	-3.104e+05	1.858e+04	5573.78	0.0	-1.721e+07	-5.737e+07
3	65	6.636e+07	1.991e+07	1.90	0.0	0.0	-4.632e+05	-1.858e+04	-5573.78	0.0	1.991e+07	6.636e+07
		5.737e+07	1.721e+07	0.57	0.0	595.0	-4.250e+05	-1.858e+04	-5573.78	0.0	1.923e+07	6.411e+07
						1190.0	-3.868e+05	-1.858e+04	-5573.78	0.0	1.856e+07	6.186e+07
						1785.0	-3.486e+05	-1.858e+04	-5573.78	0.0	1.788e+07	5.962e+07
						2380.0	-3.104e+05	-1.858e+04	-5573.78	0.0	1.721e+07	5.737e+07
3	74	-1.721e+07	-5.737e+07	-0.57	0.0	0.0	-4.632e+05	5573.78	1.858e+04	0.0	-6.636e+07	-1.991e+07
		-1.991e+07	-6.636e+07	-1.90	0.0	595.0	-4.250e+05	5573.78	1.858e+04	0.0	-6.411e+07	-1.923e+07
						1190.0	-3.868e+05	5573.78	1.858e+04	0.0	-6.186e+07	-1.856e+07
						1785.0	-3.486e+05	5573.78	1.858e+04	0.0	-5.962e+07	-1.788e+07
						2380.0	-3.104e+05	5573.78	1.858e+04	0.0	-5.737e+07	-1.721e+07
3	77	1.991e+07	6.636e+07	0.57	0.0	0.0	-4.632e+05	-5573.78	-1.858e+04	0.0	6.636e+07	1.991e+07
		1.721e+07	5.737e+07	1.90	0.0	595.0	-4.250e+05	-5573.78	-1.858e+04	0.0	6.411e+07	1.923e+07
						1190.0	-3.868e+05	-5573.78	-1.858e+04	0.0	6.186e+07	1.856e+07
						1785.0	-3.486e+05	-5573.78	-1.858e+04	0.0	5.962e+07	1.788e+07
						2380.0	-3.104e+05	-5573.78	-1.858e+04	0.0	5.737e+07	1.721e+07
3	86	0.0	0.0	0.0	0.0	0.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.229e+05	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
3	87	0.0	0.0	0.0	0.0	0.0	-4.616e+05	0.0	0.0	0.0	0.0	

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.19.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 Certificate No. Q204  
SR EN ISO 14001:2015 Certificate No. E81  
SR EN ISO/IEC 27001:2017 Certificate No. E01

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

		0.0	0.0	0.0	0.0	595.0	-4.234e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.852e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.470e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.088e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	88	-7.879e+05	-1.100e+07	-0.03	0.0	0.0	-4.611e+05	138.60	6159.60	0.0	-2.566e+07	-1.118e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		-1.118e+06	-2.566e+07	-0.87	0.0	595.0	-4.229e+05	138.60	6159.60	0.0	-2.200e+07	-1.035e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	138.60	6159.60	0.0	-1.833e+07	-9.529e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	138.60	6159.60	0.0	-1.467e+07	-8.704e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	138.60	6159.60	0.0	-1.100e+07	-7.879e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	89	0.0	0.0	0.0	0.0	0.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.229e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	90	0.0	0.0	0.0	0.0	0.0	-4.611e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	595.0	-4.229e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1190.0	-3.847e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1785.0	-3.465e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2380.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	3	0.0	0.0	0.0	0.0	0.0	-4.047e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-3.538e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-3.029e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-2.521e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-2.012e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.691e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	7	0.0	0.0	0.0	0.0	0.0	-3.122e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.731e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.340e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.948e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.557e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	9	-3.115e+06	-1.112e+07	-0.38	0.0	0.0	-4.007e+05	1039.50	2.656e+04	0.0	-8.251e+07	-5.910e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		-5.910e+06	-8.251e+07	-9.01	0.0	672.0	-3.499e+05	1039.50	2.656e+04	0.0	-6.466e+07	-5.211e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.990e+05	1039.50	2.656e+04	0.0	-4.682e+07	-4.512e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-2.481e+05	1039.50	2.656e+04	0.0	-2.897e+07	-3.814e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.972e+05	1039.50	2.656e+04	0.0	-1.112e+07	-3.115e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	15	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.691e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	17	0.0	0.0	0.0	0.0	0.0	-3.109e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.718e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.326e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.935e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.544e+05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	19	-2.077e+06	-7.415e+06	-0.25	0.0	0.0	-3.083e+05	693.00	1.771e+04	0.0	-5.501e+07	-3.940e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		-3.940e+06	-5.501e+07	-6.00	0.0	672.0	-2.691e+05	693.00	1.771e+04	0.0	-4.311e+07	-3.474e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	693.00	1.771e+04	0.0	-3.121e+07	-3.008e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	693.00	1.771e+04	0.0	-1.931e+07	-2.543e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	693.00	1.771e+04	0.0	-7.415e+06	-2.077e+06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	27	-5.132e+07	2.604e+07	-4.72	0.0	0.0	-3.104e+05	1.684e+04	-5051.35	0.0	2.604e+07	-8.680e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		-8.680e+07	1.540e+07	1.42	0.0	672.0	-2.712e+05	1.684e+04	-5051.35	0.0	-2.338e+07	-7.793e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.321e+05	1.684e+04	-5051.35	0.0	2.072e+07	-6.906e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.930e+05	1.684e+04	-5051.35	0.0	1.806e+07	-6.019e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.538e+05	1.684e+04	-5051.35	0.0	1.540e+07	-5.132e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	28	8.680e+07	-1.540e+07	4.72	0.0	0.0	-3.104e+05	-1.684e+04	5051.35	0.0	-2.604e+07	8.680e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		5.132e+07	-2.604e+07	-1.42	0.0	672.0	-2.712e+05	-1.684e+04	5051.35	0.0	-2.338e+07	7.793e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.321e+05	-1.684e+04	5051.35	0.0	-2.072e+07	6.906e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.930e+05	-1.684e+04	5051.35	0.0	-1.806e+07	6.019e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.538e+05	-1.684e+04	5051.35	0.0	-1.540e+07	5.132e+07	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	30	-5.132e+07	-1.540e+07	-4.72	0.0	0.0	-3.104e+05	1.684e+04	5051.35	0.0	-2.604e+07	-8.680e+07	0.						

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

						1344.0	-2.321e+05	-1.684e+04	-5051.35	0.0	2.072e+07	6.906e+07
						2016.0	-1.930e+05	-1.684e+04	-5051.35	0.0	1.806e+07	6.019e+07
						2688.0	-1.538e+05	-1.684e+04	-5051.35	0.0	1.540e+07	5.132e+07
4	43	-1.540e+07	8.680e+07	-1.42	0.0	0.0	-3.104e+05	5051.35	-1.684e+04	0.0	8.680e+07	-2.604e+07
		-2.604e+07	5.132e+07	4.72	0.0	672.0	-2.712e+05	5051.35	-1.684e+04	0.0	7.793e+07	-2.338e+07
						1344.0	-2.321e+05	5051.35	-1.684e+04	0.0	6.906e+07	-2.072e+07
						2016.0	-1.930e+05	5051.35	-1.684e+04	0.0	6.019e+07	-1.806e+07
						2688.0	-1.538e+05	5051.35	-1.684e+04	0.0	5.132e+07	-1.540e+07
4	44	2.604e+07	-5.132e+07	1.42	0.0	0.0	-3.104e+05	-5051.35	1.684e+04	0.0	-8.680e+07	2.604e+07
		1.540e+07	-8.680e+07	-4.72	0.0	672.0	-2.712e+05	-5051.35	1.684e+04	0.0	-7.793e+07	2.338e+07
						1344.0	-2.321e+05	-5051.35	1.684e+04	0.0	-6.906e+07	2.072e+07
						2016.0	-1.930e+05	-5051.35	1.684e+04	0.0	-6.019e+07	1.806e+07
						2688.0	-1.538e+05	-5051.35	1.684e+04	0.0	-5.132e+07	1.540e+07
4	59	-3.632e+07	1.721e+07	-2.75	0.0	0.0	-3.104e+05	1.035e+04	-3106.31	0.0	1.721e+07	-5.737e+07
		-5.737e+07	1.089e+07	0.83	0.0	672.0	-2.712e+05	1.035e+04	-3106.31	0.0	1.563e+07	-5.211e+07
						1344.0	-2.321e+05	1.035e+04	-3106.31	0.0	1.405e+07	-4.684e+07
						2016.0	-1.930e+05	1.035e+04	-3106.31	0.0	1.247e+07	-4.158e+07
						2688.0	-1.538e+05	1.035e+04	-3106.31	0.0	1.089e+07	-3.632e+07
4	60	5.737e+07	-1.089e+07	2.75	0.0	0.0	-3.104e+05	-1.035e+04	3106.31	0.0	-1.721e+07	5.737e+07
		3.632e+07	-1.721e+07	-0.83	0.0	672.0	-2.712e+05	-1.035e+04	3106.31	0.0	-1.563e+07	5.211e+07
						1344.0	-2.321e+05	-1.035e+04	3106.31	0.0	-1.405e+07	4.684e+07
						2016.0	-1.930e+05	-1.035e+04	3106.31	0.0	-1.247e+07	4.158e+07
						2688.0	-1.538e+05	-1.035e+04	3106.31	0.0	-1.089e+07	3.632e+07
4	62	-3.632e+07	-1.089e+07	-2.75	0.0	0.0	-3.104e+05	1.035e+04	3106.31	0.0	-1.721e+07	-5.737e+07
		-5.737e+07	-1.721e+07	-0.83	0.0	672.0	-2.712e+05	1.035e+04	3106.31	0.0	-1.563e+07	-5.211e+07
						1344.0	-2.321e+05	1.035e+04	3106.31	0.0	-1.405e+07	-4.684e+07
						2016.0	-1.930e+05	1.035e+04	3106.31	0.0	-1.247e+07	-4.158e+07
						2688.0	-1.538e+05	1.035e+04	3106.31	0.0	-1.089e+07	-3.632e+07
4	65	5.737e+07	1.721e+07	2.75	0.0	0.0	-3.104e+05	-1.035e+04	-3106.31	0.0	1.721e+07	5.737e+07
		3.632e+07	1.089e+07	0.83	0.0	672.0	-2.712e+05	-1.035e+04	-3106.31	0.0	1.563e+07	5.211e+07
						1344.0	-2.321e+05	-1.035e+04	-3106.31	0.0	1.405e+07	4.684e+07
						2016.0	-1.930e+05	-1.035e+04	-3106.31	0.0	1.247e+07	4.158e+07
						2688.0	-1.538e+05	-1.035e+04	-3106.31	0.0	1.089e+07	3.632e+07
4	75	-1.089e+07	5.737e+07	-0.83	0.0	0.0	-3.104e+05	3106.31	-1.035e+04	0.0	5.737e+07	-1.721e+07
		-1.721e+07	3.632e+07	2.75	0.0	672.0	-2.712e+05	3106.31	-1.035e+04	0.0	5.211e+07	-1.563e+07
						1344.0	-2.321e+05	3106.31	-1.035e+04	0.0	4.684e+07	-1.405e+07
						2016.0	-1.930e+05	3106.31	-1.035e+04	0.0	4.158e+07	-1.247e+07
						2688.0	-1.538e+05	3106.31	-1.035e+04	0.0	3.632e+07	-1.089e+07
4	76	1.721e+07	-3.632e+07	0.83	0.0	0.0	-3.104e+05	-3106.31	1.035e+04	0.0	-5.737e+07	1.721e+07
		1.089e+07	-5.737e+07	-2.75	0.0	672.0	-2.712e+05	-3106.31	1.035e+04	0.0	-5.211e+07	1.563e+07
						1344.0	-2.321e+05	-3106.31	1.035e+04	0.0	-4.684e+07	1.405e+07
						2016.0	-1.930e+05	-3106.31	1.035e+04	0.0	-4.158e+07	1.247e+07
						2688.0	-1.538e+05	-3106.31	1.035e+04	0.0	-3.632e+07	1.089e+07
4	86	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.691e+05	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
4	87	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.696e+05	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.305e+05	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.914e+05	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.522e+05	0.0	0.0	0.0	0.0	0.0
4	88	-4.154e+05	-1.483e+06	-0.05	0.0	0.0	-3.083e+05	138.60	3541.20	0.0	-1.100e+07	-7.879e+05
		-7.879e+05	-1.100e+07	-1.20	0.0	672.0	-2.691e+05	138.60	3541.20	0.0	-8.622e+06	-6.948e+05
						1344.0	-2.300e+05	138.60	3541.20	0.0	-6.242e+06	-6.017e+05
						2016.0	-1.908e+05	138.60	3541.20	0.0	-3.863e+06	-5.085e+05
						2688.0	-1.517e+05	138.60	3541.20	0.0	-1.483e+06	-4.154e+05
4	89	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.691e+05	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
4	90	0.0	0.0	0.0	0.0	0.0	-3.083e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	672.0	-2.691e+05	0.0	0.0	0.0	0.0	0.0
						1344.0	-2.300e+05	0.0	0.0	0.0	0.0	0.0
						2016.0	-1.908e+05	0.0	0.0	0.0	0.0	0.0
						2688.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
5	1	0.0	0.0	0.0	0.0	0.0	-1.972e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	749.3	-1.479e+05	0.0	0.0	0.0	0.0	0.0
						1498.5	-9.861e+04	0.0	0.0	0.0	0.0	0.0

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

						2247.8	-4.931e+04	0.0	0.0	0.0	0.0	0.0	0.0	
						2997.0	2.30e-03	0.0	0.0	0.0	0.0	0.0	0.0	
5	3	0.0	0.0	0.0	0.0	0.0	0.0-2.012e+05	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.0	749.3-1.519e+05	0.0	0.0	0.0	0.0	0.0	0.0	
							1498.5-1.026e+05	0.0	0.0	0.0	0.0	0.0	0.0	
							2247.8-5.328e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2997.0	-3972.00	0.0	0.0	0.0	0.0	0.0	
5	5	0.0	0.0	0.0	0.0	0.0	0.0-1.517e+05	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.0	749.3-1.138e+05	0.0	0.0	0.0	0.0	0.0	0.0	
							1498.5-7.586e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2247.8-3.793e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2997.0	1.77e-03	0.0	0.0	0.0	0.0	0.0	
5	9	0.0	0.0	-0.52	0.0	0.0	0.0-1.972e+05	1039.50	3711.00	0.0	-1.112e+07	-3.115e+06	0.0	
		-3.115e+06	-1.112e+07	-10.66	0.0	0.0	749.3-1.479e+05	1039.50	3711.00	0.0	-8.341e+06	-2.337e+06	0.0	
							1498.5-9.861e+04	1039.50	3711.00	0.0	-5.561e+06	-1.558e+06	0.0	
							2247.8-4.931e+04	1039.50	3711.00	0.0	-2.780e+06	-7.788e+05	0.0	
							2997.0	2.30e-03	1039.50	3711.00	0.0	0.0	0.0	0.0
5	15	0.0	0.0	0.0	0.0	0.0	0.0-1.517e+05	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.0	749.3-1.138e+05	0.0	0.0	0.0	0.0	0.0	0.0	
							1498.5-7.586e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2247.8-3.793e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2997.0	1.77e-03	0.0	0.0	0.0	0.0	0.0	
5	17	0.0	0.0	0.0	0.0	0.0	0.0-1.544e+05	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.0	749.3-1.164e+05	0.0	0.0	0.0	0.0	0.0	0.0	
							1498.5-7.850e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2247.8-4.058e+04	0.0	0.0	0.0	0.0	0.0	0.0	
							2997.0	-2648.00	0.0	0.0	0.0	0.0	0.0	
5	19	0.0	0.0	-0.35	0.0	0.0	0.0-1.517e+05	693.00	2474.00	0.0	-7.415e+06	-2.077e+06	0.0	
		-2.077e+06	-7.415e+06	-7.11	0.0	0.0	749.3-1.138e+05	693.00	2474.00	0.0	-5.561e+06	-1.558e+06	0.0	
							1498.5-7.586e+04	693.00	2474.00	0.0	-3.707e+06	-1.038e+06	0.0	
							2247.8-3.793e+04	693.00	2474.00	0.0	-1.854e+06	-5.192e+05	0.0	
							2997.0	1.77e-03	693.00	2474.00	0.0	0.0	0.0	0.0
5	23	1.57e-06	1.540e+07	-6.17	0.0	0.0	0.0-1.538e+05	1.713e+04	-5137.60	0.0	1.540e+07	-5.132e+07	0.0	
		-5.132e+07	-1.24e-06	1.85	0.0	0.0	749.3-1.159e+05	1.713e+04	-5137.60	0.0	1.155e+07	-3.849e+07	0.0	
							1498.5-7.797e+04	1.713e+04	-5137.60	0.0	7.699e+06	-2.566e+07	0.0	
							2247.8-4.005e+04	1.713e+04	-5137.60	0.0	3.849e+06	-1.283e+07	0.0	
							2997.0	-2118.40	1.713e+04	-5137.60	0.0	-1.24e-06	1.57e-06	0.0
5	24	5.132e+07	1.24e-06	6.17	0.0	0.0	0.0-1.538e+05	-1.713e+04	5137.60	0.0	-1.540e+07	5.132e+07	0.0	
		-1.57e-06	-1.540e+07	-1.85	0.0	0.0	749.3-1.159e+05	-1.713e+04	5137.60	0.0	-1.155e+07	3.849e+07	0.0	
							1498.5-7.797e+04	-1.713e+04	5137.60	0.0	-7.699e+06	2.566e+07	0.0	
							2247.8-4.005e+04	-1.713e+04	5137.60	0.0	-3.849e+06	1.283e+07	0.0	
							2997.0	-2118.40	-1.713e+04	5137.60	0.0	1.24e-06	-1.57e-06	0.0
5	30	1.60e-06	1.24e-06	-6.17	0.0	0.0	0.0-1.538e+05	1.713e+04	5137.60	0.0	-1.540e+07	-5.132e+07	0.0	
		-5.132e+07	-1.540e+07	-1.85	0.0	0.0	749.3-1.159e+05	1.713e+04	5137.60	0.0	-1.155e+07	-3.849e+07	0.0	
							1498.5-7.797e+04	1.713e+04	5137.60	0.0	-7.699e+06	-2.566e+07	0.0	
							2247.8-4.005e+04	1.713e+04	5137.60	0.0	-3.849e+06	-1.283e+07	0.0	
							2997.0	-2118.40	1.713e+04	5137.60	0.0	1.24e-06	1.60e-06	0.0
5	33	5.132e+07	1.540e+07	6.17	0.0	0.0	0.0-1.538e+05	-1.713e+04	-5137.60	0.0	1.540e+07	5.132e+07	0.0	
		-1.60e-06	-1.24e-06	1.85	0.0	0.0	749.3-1.159e+05	-1.713e+04	-5137.60	0.0	1.155e+07	3.849e+07	0.0	
							1498.5-7.797e+04	-1.713e+04	-5137.60	0.0	7.699e+06	2.566e+07	0.0	
							2247.8-4.005e+04	-1.713e+04	-5137.60	0.0	3.849e+06	1.283e+07	0.0	
							2997.0	-2118.40	-1.713e+04	-5137.60	0.0	-1.24e-06	-1.60e-06	0.0
5	42	0.0	4.14e-06	-1.85	0.0	0.0	0.0-1.538e+05	5137.60	1.713e+04	0.0	-5.132e+07	-1.540e+07	0.0	
		-1.540e+07	-5.132e+07	-6.17	0.0	0.0	749.3-1.159e+05	5137.60	1.713e+04	0.0	-3.849e+07	-1.155e+07	0.0	
							1498.5-7.797e+04	5137.60	1.713e+04	0.0	-2.566e+07	-7.699e+06	0.0	
							2247.8-4.005e+04	5137.60	1.713e+04	0.0	-1.283e+07	-3.849e+06	0.0	
							2997.0	-2118.40	5137.60	1.713e+04	0.0	4.14e-06	0.0	0.0
5	45	1.540e+07	5.132e+07	1.85	0.0	0.0	0.0-1.538e+05	-5137.60	-1.713e+04	0.0	5.132e+07	1.540e+07	0.0	
		0.0	-4.14e-06	6.17	0.0	0.0	749.3-1.159e+05	-5137.60	-1.713e+04	0.0	3.849e+07	1.155e+07	0.0	
							1498.5-7.797e+04	-5137.60	-1.713e+04	0.0	2.566e+07	7.699e+06	0.0	
							2247.8-4.005e+04	-5137.60	-1.713e+04	0.0	1.283e+07	3.849e+06	0.0	
							2997.0	-2118.40	-5137.60	-1.713e+04	0.0	-4.14e-06	0.0	0.0
5	54	1.18e-06	0.0	-3.65	0.0	0.0	0.0-1.538e+05	1.212e+04	3635.21	0.0	-1.089e+07	-3.632e+07	0.0	
		-3.632e+07	-1.089e+07	-1.09	0.0	0.0	749.3-1.159e+05	1.212e+04	3635.21	0.0	-8.171e+06	-2.724e+07	0.0	
							1498.5-7.797e+04	1.212e+04	3635.21	0.0	-5.447e+06	-1.816e+07	0.0	
							2247.8-4.005e+04	1.212e+04	3635.21	0.0	-2.724e+06	-9.079e+06	0.0	
							2997.0	-2118.40	1.212e+04	3635.21	0.0	0.0	1.18e-06	0.0
5	56	3.632e+07	0.0	3.65	0.0	0.0	0.0-1.538e+05	-1.212e+04	3635.21	0.0	-1.089e+07	3.632e+07	0.0	
		-1.18e-06	-1.089e+07	-1.09	0.0	0.0	749.3-1.159e+05	-1.212e+04	3635.21	0.0	-8.171e+06	2.724e+07	0.0	
							1498.5-7.797e+04	-1.212e+04	3635.21	0.0	-5.447e+06	1.816e+07	0.0	
							2247.8-4.005e+04	-1.212e+04	3635.21	0.0	-2.724e+06	9.079e+06	0.0	

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Certificate No. Q204



SR EN ISO 14001:2015  
Certificate No. E81



SR EN ISO/IEC 17001:2017  
Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

5	62	1.18e-06	0.0	-3.65	0.0	2997.0	-2118.40	-1.212e+04	3635.21	0.0	0.0	-1.18e-06
		-3.632e+07	-1.089e+07	-1.09	0.0	0.0	-1.538e+05	1.212e+04	3635.21	0.0	-1.089e+07	-3.632e+07
					0.0	749.3	-1.159e+05	1.212e+04	3635.21	0.0	-8.171e+06	-2.724e+07
						1498.5	-7.797e+04	1.212e+04	3635.21	0.0	-5.447e+06	-1.816e+07
						2247.8	-4.005e+04	1.212e+04	3635.21	0.0	-2.724e+06	-9.079e+06
						2997.0	-2118.40	1.212e+04	3635.21	0.0	0.0	1.18e-06
5	65	3.632e+07	1.089e+07	3.65	0.0	0.0	-1.538e+05	-1.212e+04	-3635.21	0.0	1.089e+07	3.632e+07
		-1.18e-06	0.0	1.09	0.0	749.3	-1.159e+05	-1.212e+04	-3635.21	0.0	8.171e+06	2.724e+07
						1498.5	-7.797e+04	-1.212e+04	-3635.21	0.0	5.447e+06	1.816e+07
						2247.8	-4.005e+04	-1.212e+04	-3635.21	0.0	2.724e+06	9.079e+06
						2997.0	-2118.40	-1.212e+04	-3635.21	0.0	0.0	-1.18e-06
5	74	0.0	3.10e-06	-1.09	0.0	0.0	-1.538e+05	3635.21	1.212e+04	0.0	-3.632e+07	-1.089e+07
		-1.089e+07	-3.632e+07	-3.65	0.0	749.3	-1.159e+05	3635.21	1.212e+04	0.0	-2.724e+07	-8.171e+06
						1498.5	-7.797e+04	3635.21	1.212e+04	0.0	-1.816e+07	-5.447e+06
						2247.8	-4.005e+04	3635.21	1.212e+04	0.0	-9.079e+06	-2.724e+06
						2997.0	-2118.40	3635.21	1.212e+04	0.0	3.10e-06	0.0
5	77	1.089e+07	3.632e+07	1.09	0.0	0.0	-1.538e+05	-3635.21	-1.212e+04	0.0	3.632e+07	1.089e+07
		0.0	-3.10e-06	3.65	0.0	749.3	-1.159e+05	-3635.21	-1.212e+04	0.0	2.724e+07	8.171e+06
						1498.5	-7.797e+04	-3635.21	-1.212e+04	0.0	1.816e+07	5.447e+06
						2247.8	-4.005e+04	-3635.21	-1.212e+04	0.0	9.079e+06	2.724e+06
						2997.0	-2118.40	-3635.21	-1.212e+04	0.0	-3.10e-06	0.0
5	86	0.0	0.0	0.0	0.0	0.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	749.3	-1.138e+05	0.0	0.0	0.0	0.0	0.0
						1498.5	-7.586e+04	0.0	0.0	0.0	0.0	0.0
						2247.8	-3.793e+04	0.0	0.0	0.0	0.0	0.0
						2997.0	1.77e-03	0.0	0.0	0.0	0.0	0.0
5	87	0.0	0.0	0.0	0.0	0.0	-1.522e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	749.3	-1.143e+05	0.0	0.0	0.0	0.0	0.0
						1498.5	-7.639e+04	0.0	0.0	0.0	0.0	0.0
						2247.8	-3.846e+04	0.0	0.0	0.0	0.0	0.0
						2997.0	-529.60	0.0	0.0	0.0	0.0	0.0
5	88	0.0	0.0	-0.07	0.0	0.0	-1.517e+05	138.60	494.80	0.0	-1.483e+06	-4.154e+05
		-4.154e+05	-1.483e+06	-1.42	0.0	749.3	-1.138e+05	138.60	494.80	0.0	-1.112e+06	-3.115e+05
						1498.5	-7.586e+04	138.60	494.80	0.0	-7.415e+05	-2.077e+05
						2247.8	-3.793e+04	138.60	494.80	0.0	-3.707e+05	-1.038e+05
						2997.0	1.77e-03	138.60	494.80	0.0	0.0	0.0
5	89	0.0	0.0	0.0	0.0	0.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	749.3	-1.138e+05	0.0	0.0	0.0	0.0	0.0
						1498.5	-7.586e+04	0.0	0.0	0.0	0.0	0.0
						2247.8	-3.793e+04	0.0	0.0	0.0	0.0	0.0
						2997.0	1.77e-03	0.0	0.0	0.0	0.0	0.0
5	90	0.0	0.0	0.0	0.0	0.0	-1.517e+05	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	749.3	-1.138e+05	0.0	0.0	0.0	0.0	0.0
						1498.5	-7.586e+04	0.0	0.0	0.0	0.0	0.0
						2247.8	-3.793e+04	0.0	0.0	0.0	0.0	0.0
						2997.0	1.77e-03	0.0	0.0	0.0	0.0	0.0
<b>Pilas.</b>	<b>M3 mx/mn</b>	<b>M2 mx/mn</b>	<b>D 2 / D 3</b>	<b>Q 2 / Q 3</b>		<b>N</b>	<b>V 2</b>	<b>V 3</b>		<b>T</b>		
	-1.977e+08	-4.004e+08	-10.66	0.0		-8.759e+05	-4.714e+04	-4.714e+04		0.0		
	1.977e+08	1.977e+08	6.17	0.0		2.30e-03	4.714e+04	7.131e+04		0.0		

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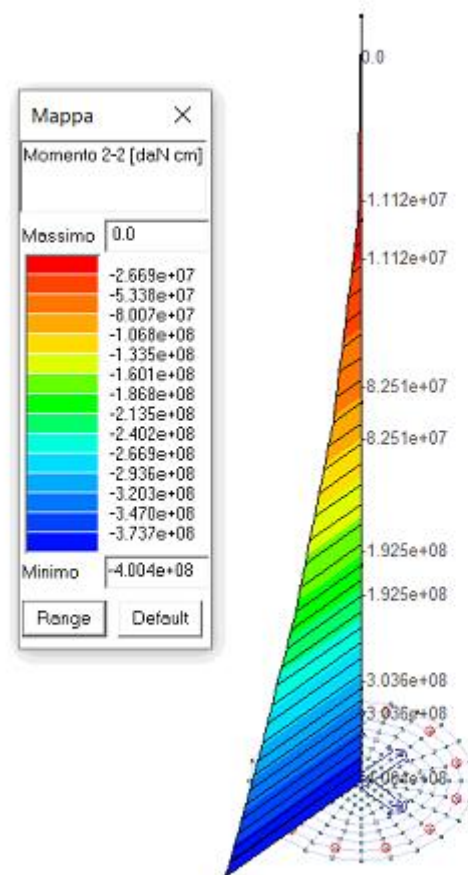
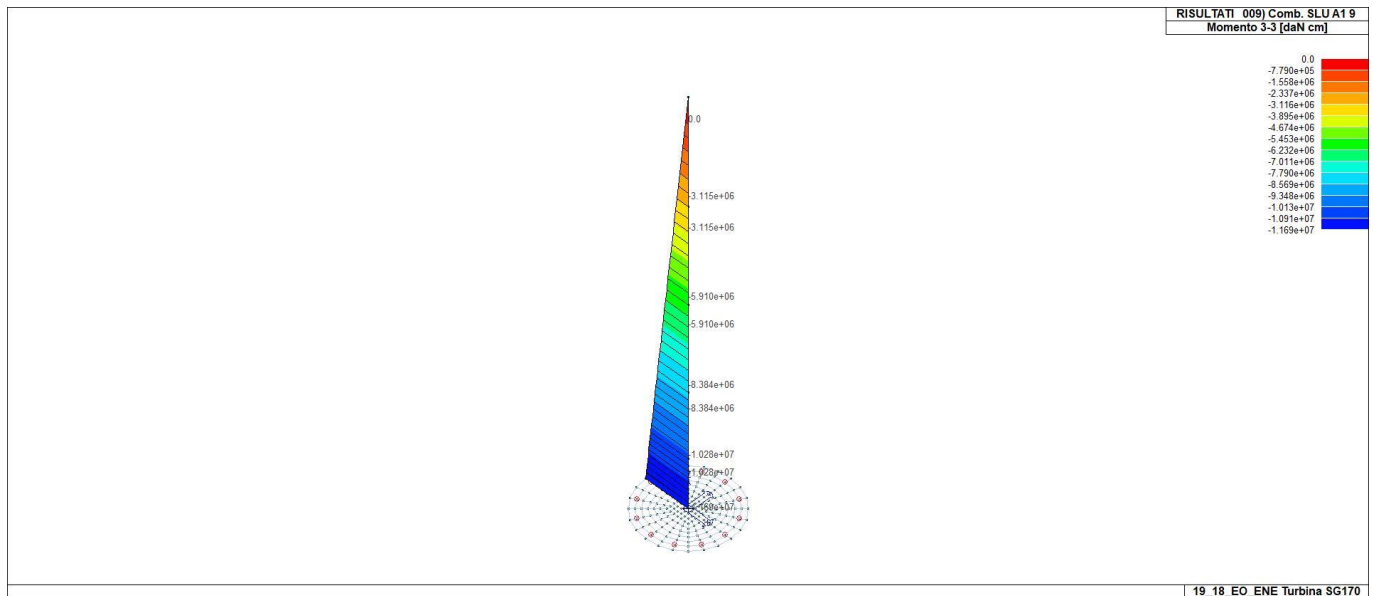


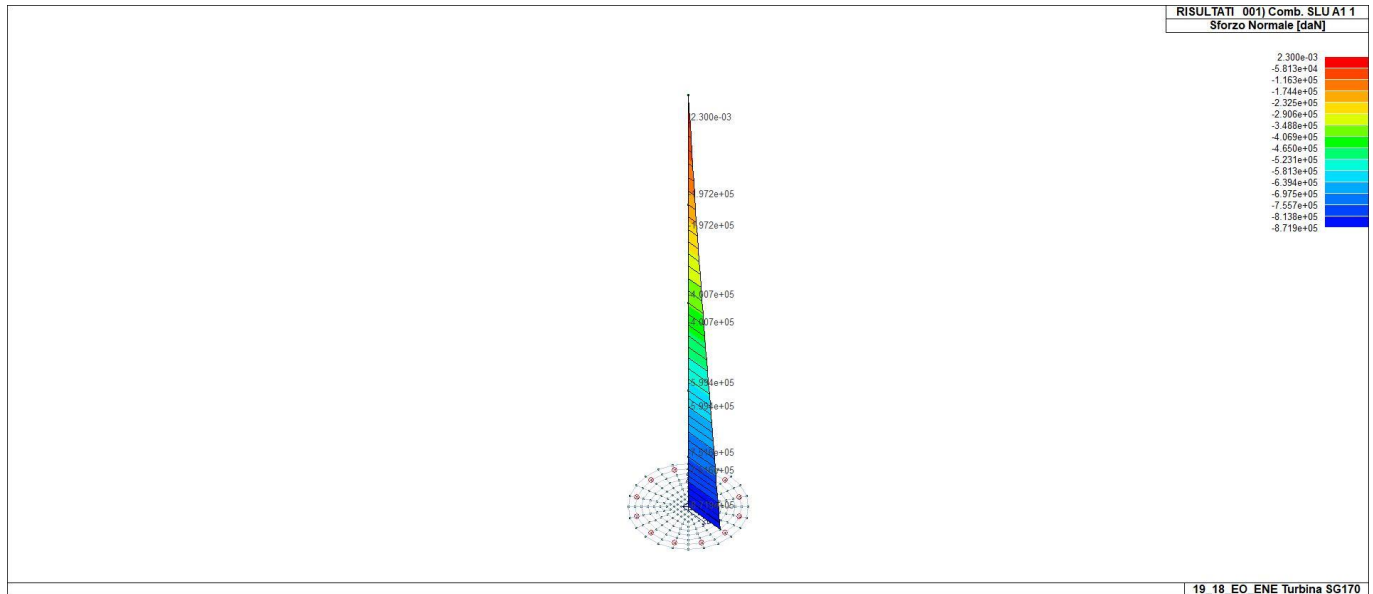
Figura 13. Massimo momento alla base della torre Comb. SLU A1 9



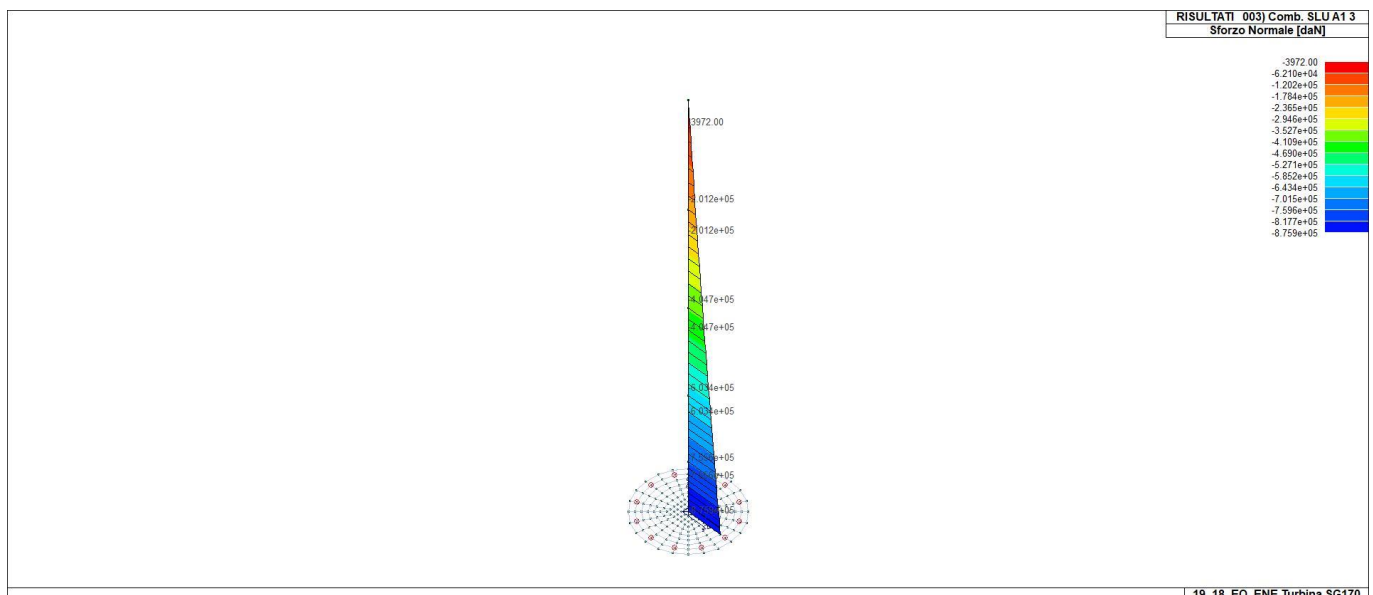
43\_RIS\_M3\_009\_Comb. SLU A1 9



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43\_RIS\_N\_001\_Comb. SLU A1 1



43\_RIS\_N\_003\_Comb. SLU A1 3

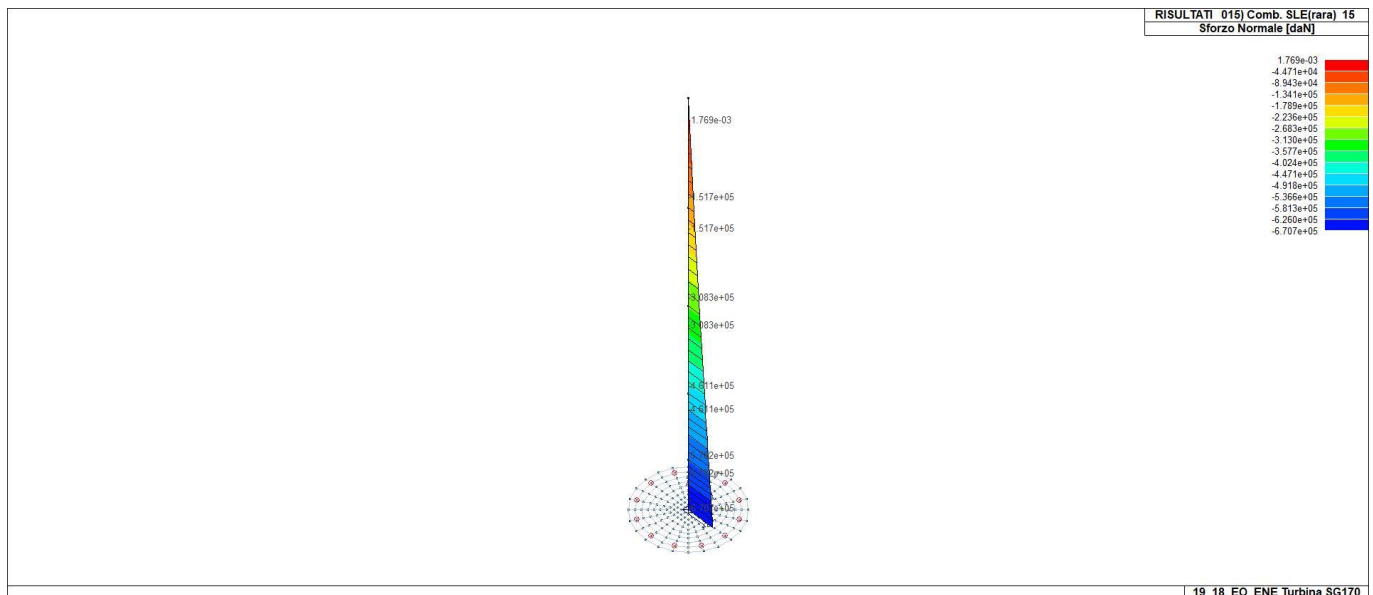
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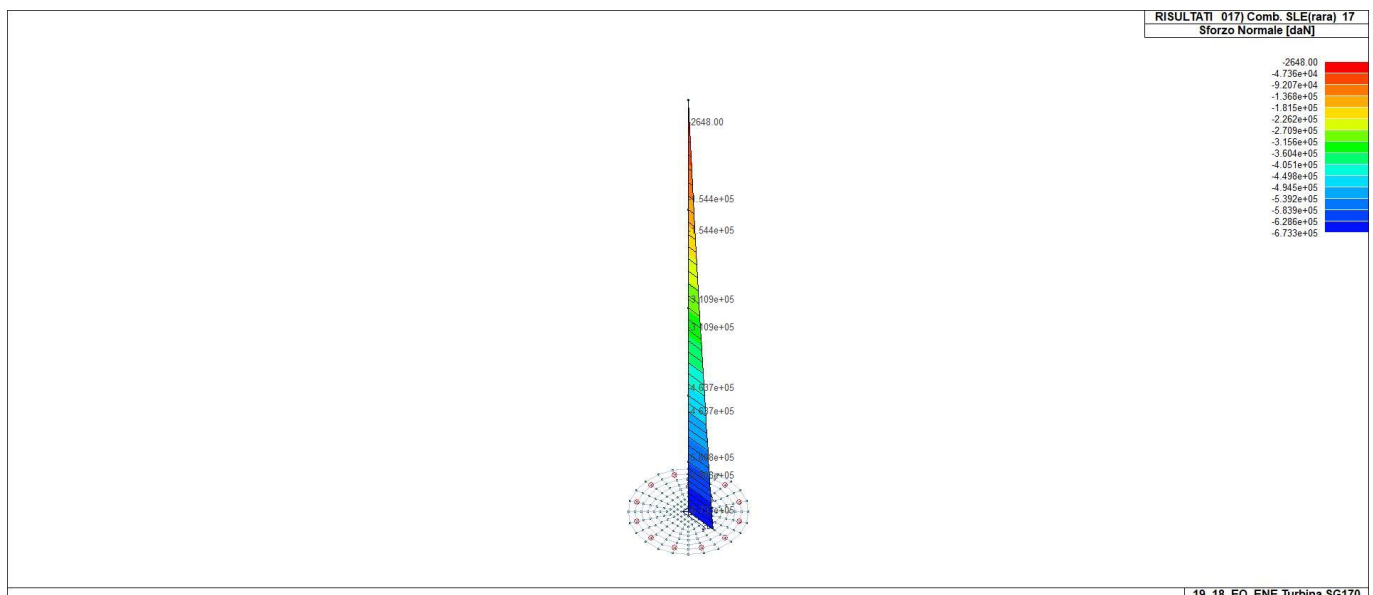


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43\_RIS\_N\_015\_Comb. SLE(rara) 15



43\_RIS\_N\_017\_Comb. SLE(rara) 17

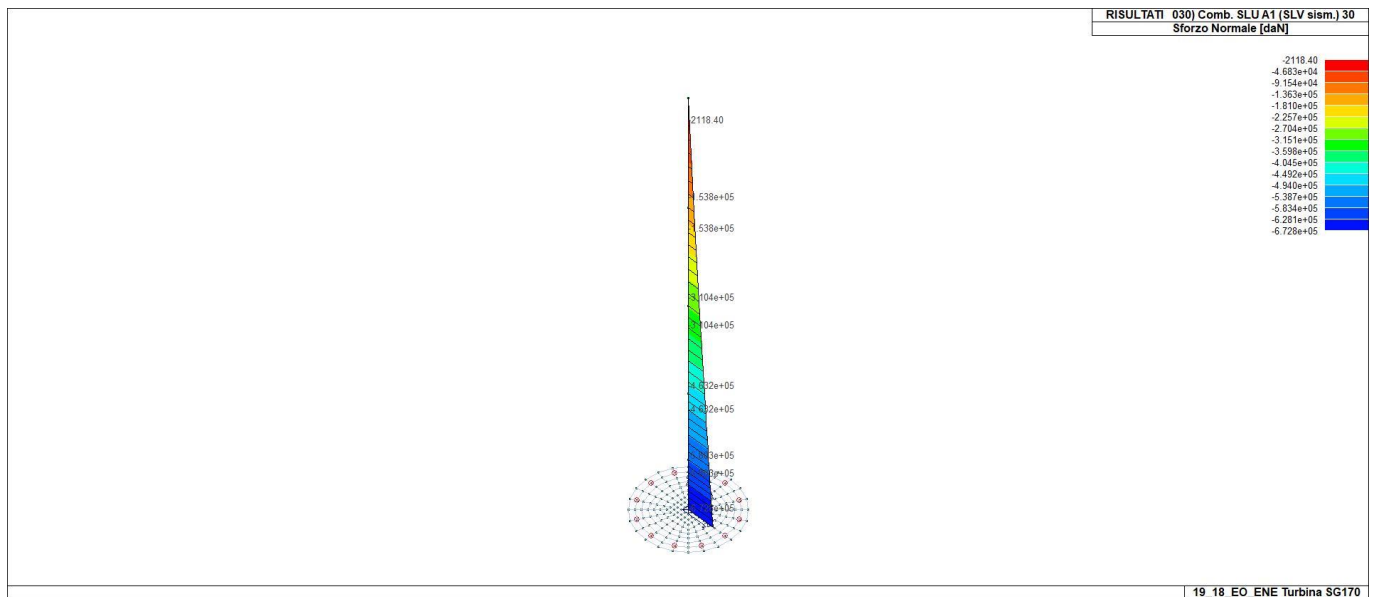
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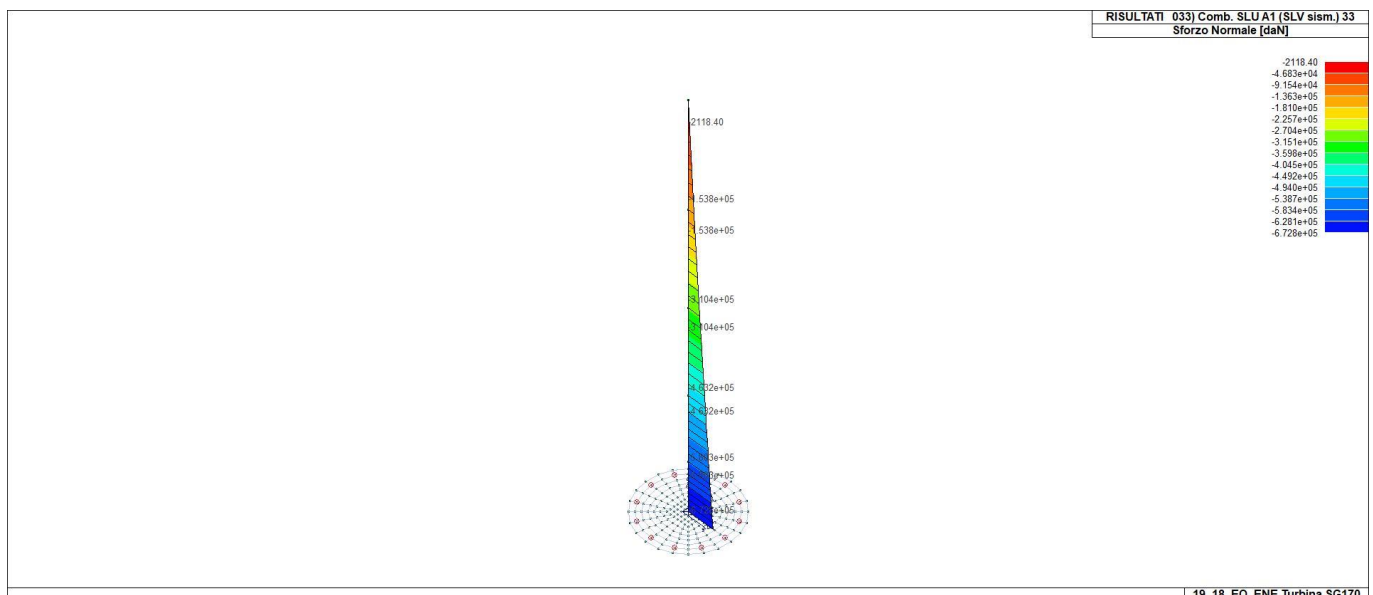


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43\_RIS\_N\_030\_Comb. SLU A1 (SLV sism.) 30



43\_RIS\_N\_033\_Comb. SLU A1 (SLV sism.) 33

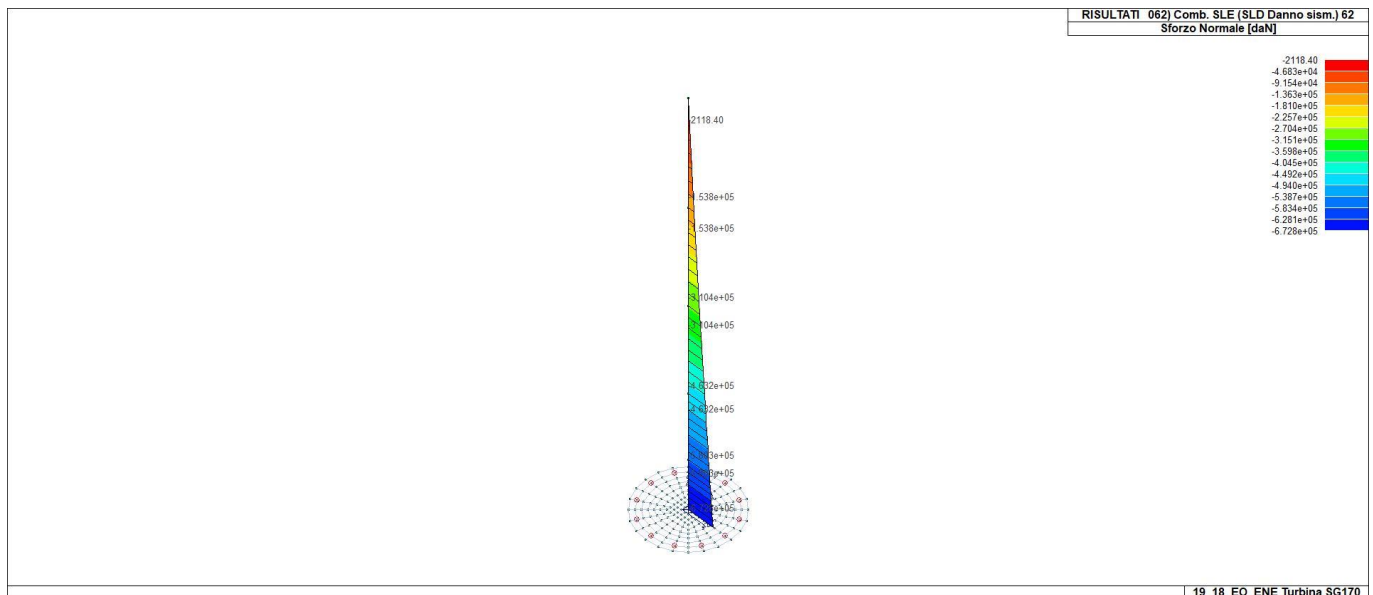
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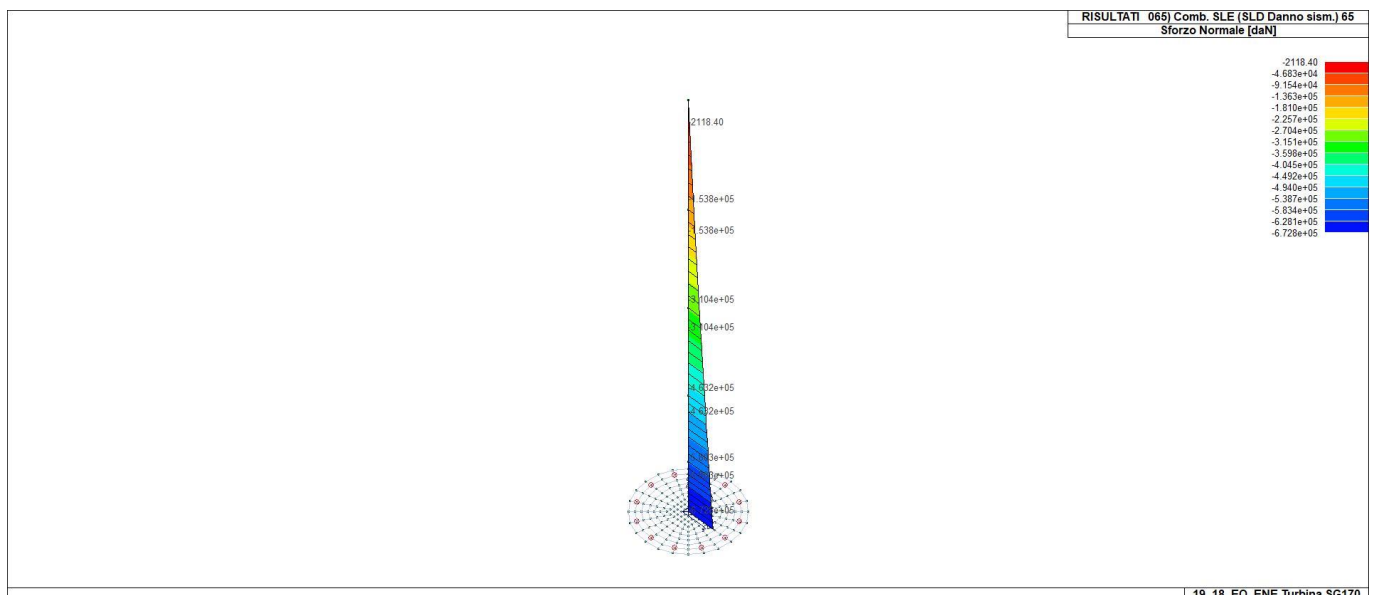


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43\_RIS\_N\_062\_Comb. SLE (SLD Danno sism.) 62



43\_RIS\_N\_065\_Comb. SLE (SLD Danno sism.) 65

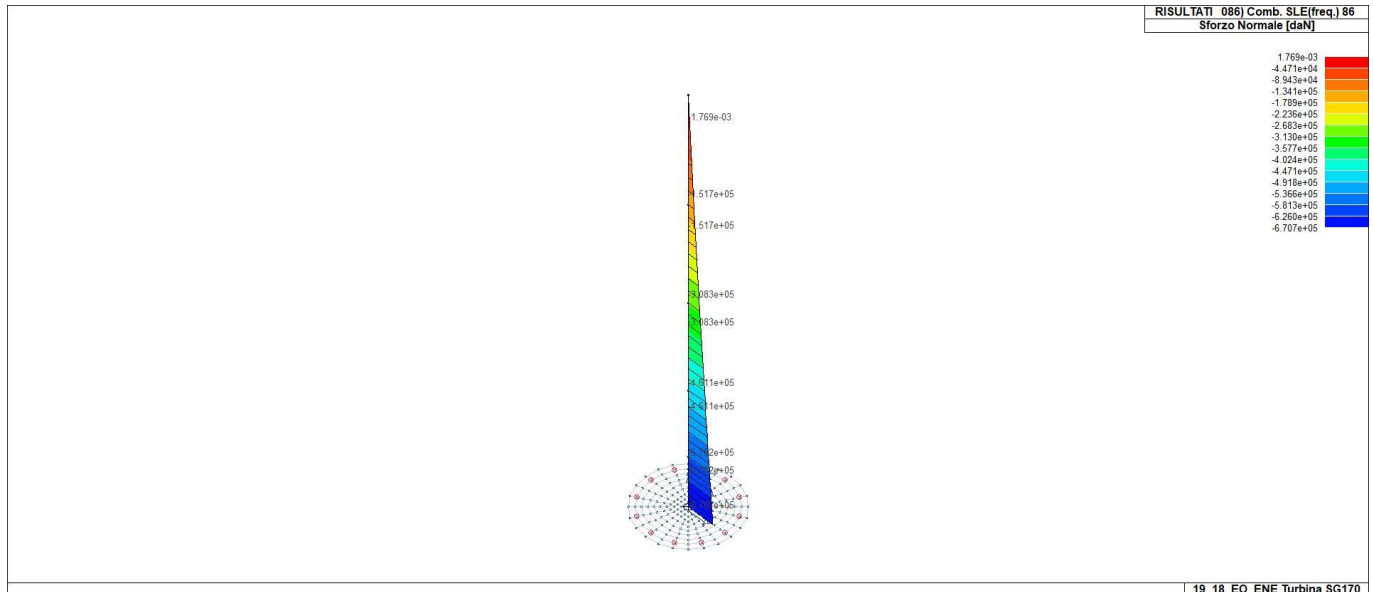
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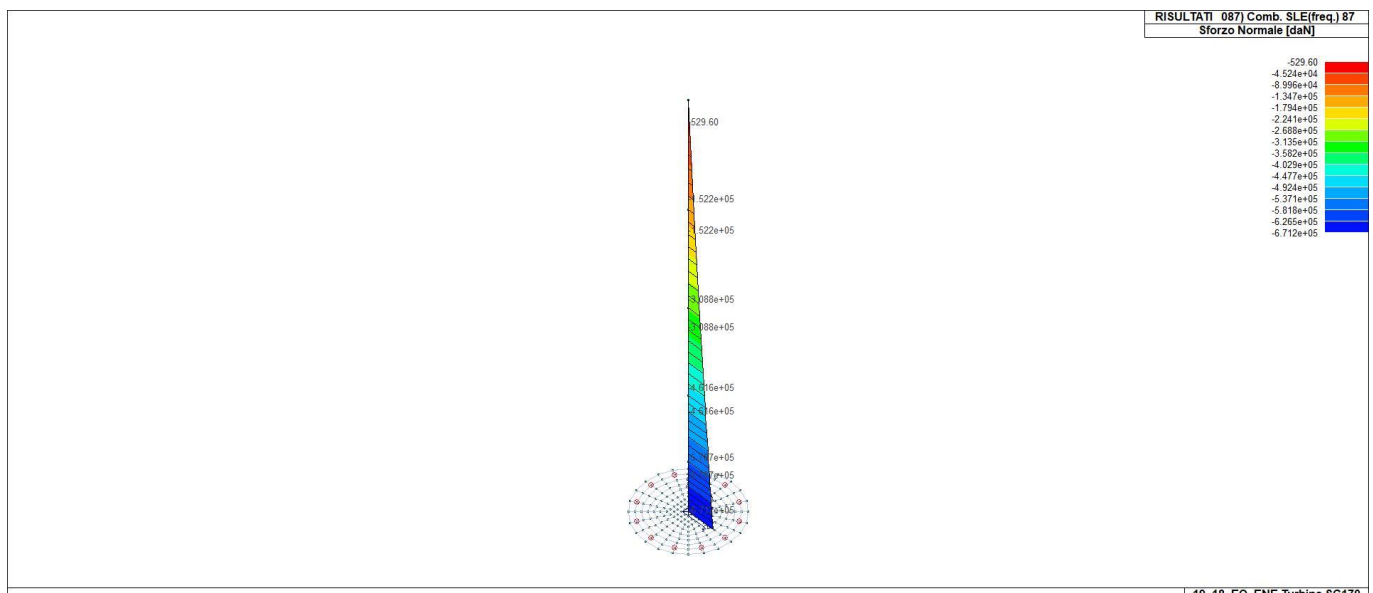


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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



43\_RIS\_N\_086\_Comb. SLE(freq.) 86



43\_RIS\_N\_087\_Comb. SLE(freq.) 87

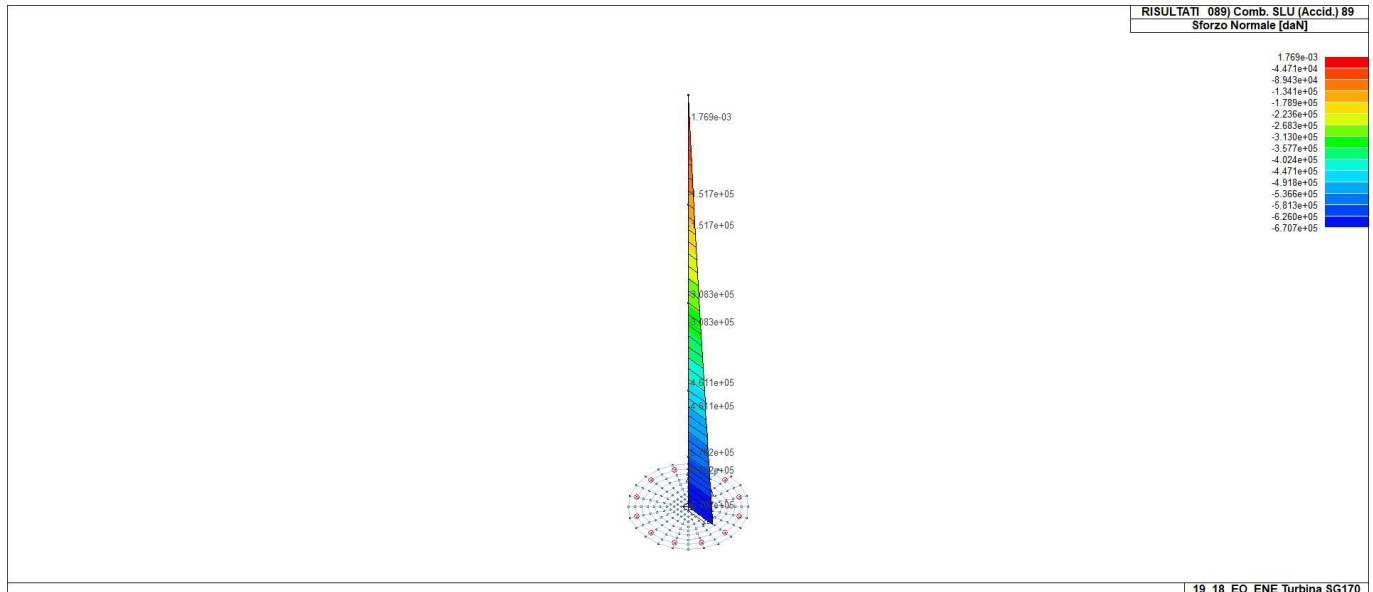
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Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
Tel/Fax 099 9574694 mob. 349 1735914

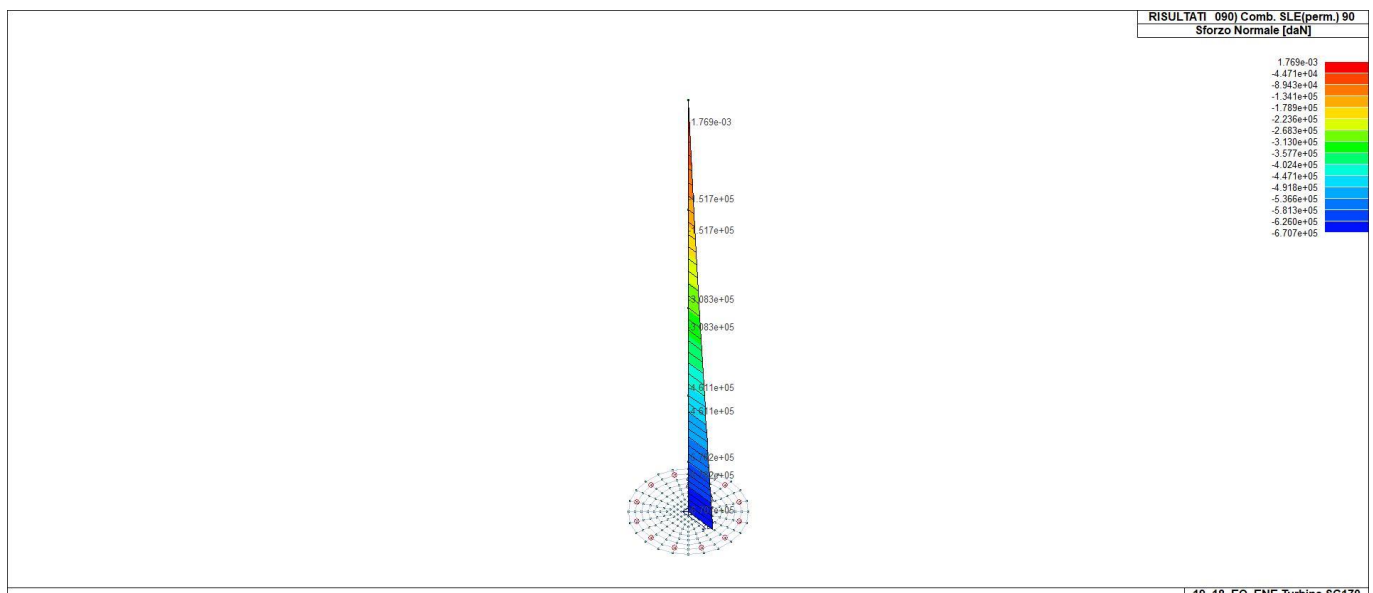


SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)



43\_RIS\_N\_089\_Comb. SLU (Accid.) 89



43\_RIS\_N\_090\_Comb. SLE(per.) 90

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
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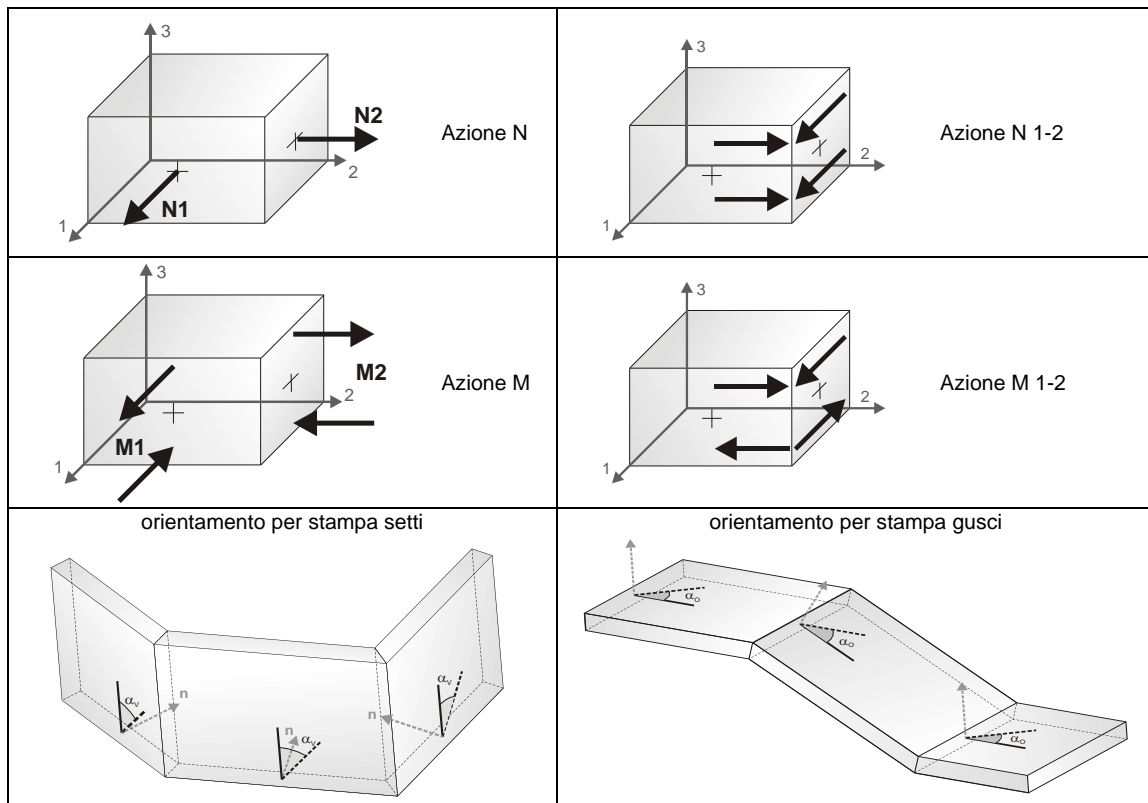
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## 19 RISULTATI ELEMENTI TIPO SHELL

### 19.1 LEGENDA RISULTATI ELEMENTI TIPO SHELL

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo shell, è possibile in relazione alle tabelle sottoriportate.

Per ogni elemento, e per ogni combinazione (o caso di carico) vengono riportati i risultati più significativi.



In particolare vengono riportati in ogni nodo di un elemento per ogni combinazione:

<b>tensione di Von Mises</b>		(valore riassuntivo del complessivo stato di sollecitazione)
<b>N max</b>		sforzo membranale principale massimo
<b>N min</b>		sforzo membranale principale minimo
<b>M max</b>		sforzo flessionale principale massimo
<b>M min</b>		sforzo flessionale principale minimo
<b>N1</b>	<b>N2</b>	sforzi membranali e flessionali in direzione locale 1 e 2 dell'elemento (lo sforzo 2-1 è uguale allo sforzo 1-2 per la reciprocità delle tensioni tangenziali)
<b>N1-2</b>	<b>M1</b>	
<b>M2</b>	<b>M1-2</b>	

I suddetti risultati possono a scelta del progettista essere preceduti o sostituiti da valori di sollecitazione non più riferiti al sistema locale dell'elemento ma al sistema globale.

In questo caso gli elementi vengono raggruppati in gruppi (M\_S: macro gusci o macro setti, raggruppati per materiale, spessore, e posizione fisica) per la valutazione dei valori mediati ai nodi appartenenti agli elementi dei gruppi stessi.

I valori di sollecitazione sono, in questo caso, riferiti ad una terna specifica del gruppo ruotata di  $\alpha_o$  attorno all'asse Z per i gusci e ruotata di  $\alpha_v$  attorno alla normale (che per definizione è orizzontale) al piano del setto.

Per i setti, in particolare, se  $\alpha_v$  è zero, l'asse '1-1 rappresenta la verticale e l'asse '2-2 l'orizzontale contenuta nel setto.

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Le azioni sui setti possono essere espresse anche con formato macro, cioè riferite all'intero macroelemento.

In particolare vengono riportati per ogni quota Z dei nodi e per ogni combinazione i seguenti valori:

<b>N memb.</b>	Azione membranale complessiva agente sulla parete in direzione Z
<b>V memb.</b>	Azione complessiva di taglio agente nel piano del macroelemento
<b>V orto</b>	Azione complessiva di taglio agente in direzione perpendicolare al macroelemento
<b>M memb.</b>	Azione flessionale complessiva agente nel piano del macroelemento
<b>M orto</b>	Azione flessionale complessiva agente in direzione perpendicolare al macroelemento
<b>T</b>	Azione torsionale complessiva agente nel piano orizzontale

Macro	Tipo	Angolo 1-X (gradi)
1	Guscio	0.0

M_G	Cmb	Nodo	N max daN/cm	N min daN/cm	N 1 daN/cm	N 2 daN/cm	N 1-2 daN/cm	M max daN	M min daN	M 1 daN	M 2 daN	M 1-2 daN
1	3	1	9.09	9.09	9.09	9.09		-9.809e+05	-9.809e+05	-9.809e+05	-9.809e+05	
1	3	7	-8.37	-9.17	-8.84	-8.70	0.39	-2.931e+05	-4.229e+05	-3.580e+05	-3.580e+05	6.495e+04
1	3	8	-8.67	-9.82	-8.68	-9.81	6.35e-02	-3.294e+05	-4.562e+05	-4.174e+05	-3.682e+05	5.843e+04
1	3	9	-9.16	-9.32	-9.25	-9.23	-7.78e-02	-3.795e+05	-5.037e+05	-4.416e+05	-4.416e+05	6.210e+04
1	3	10	-8.75	-9.77	-9.77	-8.75	3.08e-02	-3.294e+05	-4.562e+05	-3.682e+05	-4.174e+05	5.842e+04
1	3	11	-8.95	-9.86	-9.85	-8.97	0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	4.852e+04
1	3	12	-8.70	-9.79	-9.78	-8.70	-4.83e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	3.713e+04
1	3	13	-9.98	-11.33	-9.98	-11.33	-8.61e-04	-4.421e+05	-5.635e+05	-4.421e+05	-5.635e+05	-0.10
1	3	14	-8.83	-9.68	-9.68	-8.83	-8.97e-04	-3.670e+05	-4.909e+05	-3.670e+05	-4.909e+05	-7.22e-02
1	3	15	-8.96	-9.86	-9.85	-8.97	-0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	-4.852e+04
1	3	16	-8.68	-9.80	-9.80	-8.68	3.22e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	17	-9.16	-9.32	-9.23	-9.25	7.78e-02	-3.795e+05	-5.037e+05	-4.416e+05	-4.416e+05	-6.210e+04
1	3	18	-8.67	-9.82	-9.81	-8.68	-6.35e-02	-3.294e+05	-4.562e+05	-3.682e+05	-4.174e+05	-5.843e+04
1	3	19	-8.75	-9.77	-8.75	-9.77	-3.08e-02	-3.294e+05	-4.562e+05	-4.174e+05	-3.682e+05	-5.842e+04
1	3	20	-8.37	-9.17	-8.70	-8.84	-0.39	-2.931e+05	-4.229e+05	-3.580e+05	-3.580e+05	-6.495e+04
1	3	21	-8.68	-9.80	-8.68	-9.80	-3.22e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	22	-8.96	-9.86	-8.97	-9.85	0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	4.852e+04
1	3	23	-4.74	-6.59	-5.67	-5.67	-0.93	-5.060e+05	-6.456e+05	-5.758e+05	-5.758e+05	6.983e+04
1	3	24	-16.87	-18.57	-18.57	-16.87	-5.41e-04	-5.293e+05	-6.778e+05	-5.293e+05	-6.778e+05	-1.89e-02
1	3	25	-4.74	-6.59	-5.67	-5.67	0.93	-5.060e+05	-6.456e+05	-5.758e+05	-5.758e+05	-6.983e+04
1	3	26	-8.95	-9.86	-8.97	-9.85	-0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	-4.852e+04
1	3	27	-8.70	-9.79	-8.70	-9.78	4.83e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	28	-8.83	-9.68	-8.83	-9.68	8.97e-04	-3.670e+05	-4.909e+05	-3.670e+05	-4.909e+05	7.20e-02
1	3	29	-9.98	-11.33	-11.33	-9.98	8.62e-04	-4.421e+05	-5.635e+05	-4.421e+05	-5.635e+05	0.10
1	3	30	-16.87	-18.57	-16.87	-18.57	5.41e-04	-5.293e+05	-6.778e+05	-5.293e+05	-6.778e+05	1.82e-02
1	3	31	-16.87	-18.57	-16.87	-18.57	5.41e-04	-5.293e+05	-6.778e+05	-5.293e+05	-6.778e+05	1.82e-02
1	3	32	-9.98	-11.33	-11.33	-9.98	8.62e-04	-4.421e+05	-5.635e+05	-4.421e+05	-5.635e+05	0.10
1	3	33	-8.83	-9.68	-8.83	-9.68	8.97e-04	-3.670e+05	-4.909e+05	-3.670e+05	-4.909e+05	7.20e-02
1	3	34	-8.70	-9.79	-8.70	-9.78	4.83e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	35	-8.95	-9.86	-8.97	-9.85	-0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	-4.852e+04
1	3	36	-4.74	-6.59	-5.67	-5.67	0.93	-5.060e+05	-6.456e+05	-5.758e+05	-5.758e+05	-6.983e+04
1	3	37	-16.87	-18.57	-18.57	-16.87	-5.41e-04	-5.293e+05	-6.778e+05	-5.293e+05	-6.778e+05	-1.89e-02
1	3	38	-4.74	-6.59	-5.67	-5.67	-0.93	-5.060e+05	-6.456e+05	-5.758e+05	-5.758e+05	6.983e+04
1	3	39	-8.96	-9.86	-8.97	-9.85	0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	4.852e+04
1	3	40	-8.68	-9.80	-8.68	-9.80	-3.22e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	41	-8.75	-9.77	-8.75	-9.77	-3.08e-02	-3.294e+05	-4.562e+05	-4.174e+05	-3.682e+05	-5.842e+04
1	3	42	-9.16	-9.32	-9.23	-9.25	7.78e-02	-3.795e+05	-5.037e+05	-4.416e+05	-4.416e+05	-6.210e+04
1	3	43	-8.96	-9.86	-9.85	-8.97	-0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	-4.852e+04
1	3	44	-9.98	-11.33	-9.98	-11.33	-8.61e-04	-4.421e+05	-5.635e+05	-4.421e+05	-5.635e+05	-0.10
1	3	45	-8.95	-9.86	-9.85	-8.97	0.10	-4.236e+05	-5.471e+05	-4.471e+05	-5.236e+05	4.852e+04
1	3	46	-9.16	-9.32	-9.25	-9.23	-7.78e-02	-3.795e+05	-5.037e+05	-4.416e+05	-4.416e+05	6.210e+04
1	3	47	-8.67	-9.82	-8.68	-9.81	6.35e-02	-3.294e+05	-4.562e+05	-4.174e+05	-3.682e+05	5.843e+04
1	3	48	-8.37	-9.17	-8.70	-8.84	-0.39	-2.931e+05	-4.229e+05	-3.580e+05	-3.580e+05	-6.495e+04
1	3	49	-8.67	-9.82	-9.81	-8.68	-6.35e-02	-3.294e+05	-4.562e+05	-3.682e+05	-4.174e+05	-5.843e+04

**PROJETTO engineering s.r.l.**  
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Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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1	3	50	-8.68	-9.80	-9.80	-8.68	3.22e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	-3.713e+04
1	3	51	-8.83	-9.68	-9.68	-8.83	-8.97e-04	-3.670e+05	-4.909e+05	-3.670e+05	-4.909e+05	-7.22e-02
1	3	52	-8.70	-9.79	-9.78	-8.70	-4.83e-02	-3.566e+05	-4.814e+05	-3.689e+05	-4.692e+05	3.713e+04
1	3	53	-8.75	-9.77	-9.77	-8.75	3.08e-02	-3.294e+05	-4.562e+05	-3.682e+05	-4.174e+05	5.842e+04
1	3	54	-8.37	-9.17	-8.84	-8.70	0.39	-2.931e+05	-4.229e+05	-3.580e+05	-3.580e+05	6.495e+04
1	3	55	-9.82	-10.32	-9.82	-10.32	1.40e-03	-2.780e+05	-4.132e+05	-2.780e+05	-4.132e+05	0.19
1	3	56	-9.94	-10.22	-9.96	-10.20	7.20e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	3.747e+04
1	3	57	-9.38	-9.74	-9.38	-9.74	-3.13e-04	-2.002e+05	-3.508e+05	-2.002e+05	-3.508e+05	-5.62e-02
1	3	58	-9.71	-9.79	-9.72	-9.78	2.53e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	3.994e+04
1	3	59	-7.68	-9.54	-9.54	-7.68	-1.58e-04	-1.263e+05	-2.915e+05	-1.263e+05	-2.915e+05	-1.75e-03
1	3	60	-8.67	-11.46	-8.81	-11.32	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	61	-0.91	-4.98	-4.98	-0.91	-3.89e-05	-5.684e+04	-2.199e+05	-5.684e+04	-2.199e+05	-2.97e-03
1	3	62	3.68	-14.90	2.89	-14.11	3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	63	-2.63	-10.21	-2.63	-10.21	-1.51e-05	8.420e+04	-1.177e+05	8.420e+04	-1.177e+05	-9.30e-03
1	3	64	1.78	-0.25	1.71	-0.18	0.36	-6637.65	-2.588e+05	-2.209e+04	-2.433e+05	6.048e+04
1	3	65	-8.30	-12.65	-8.30	-12.65	2.19e-04	-1.057e+04	-1.182e+05	-1.057e+04	-1.182e+05	3.43e-02
1	3	66	-4.52	-10.41	-10.24	-4.69	-0.98	1.569e+04	-2.116e+05	669.70	-1.966e+05	5.648e+04
1	3	67	-9.51	-10.38	-9.65	-10.24	0.32	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	6.177e+04
1	3	68	-9.19	-9.58	-9.28	-9.49	0.17	-1.820e+05	-3.333e+05	-2.224e+05	-2.929e+05	6.689e+04
1	3	69	-7.24	-9.91	-9.31	-7.84	-1.12	-1.150e+05	-2.772e+05	-1.568e+05	-2.354e+05	7.094e+04
1	3	70	-0.49	-4.36	-2.83	-2.02	-1.89	-5.113e+04	-2.074e+05	-9.095e+04	-1.676e+05	6.809e+04
1	3	71	-3.77	-9.80	-4.82	-8.75	2.29	8.247e+04	-1.099e+05	3.585e+04	-6.329e+04	8.243e+04
1	3	72	-8.51	-14.60	-10.71	-12.40	2.92	-9844.31	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	73	-9.20	-9.93	-9.54	-9.59	0.36	-2.253e+05	-3.666e+05	-2.959e+05	-2.960e+05	7.062e+04
1	3	74	-8.96	-9.29	-9.13	-9.13	0.16	-1.599e+05	-3.175e+05	-2.387e+05	-2.387e+05	7.881e+04
1	3	75	-7.83	-10.74	-9.29	-9.29	1.45	-9.107e+04	-2.758e+05	-1.834e+05	-1.834e+05	9.234e+04
1	3	76	6.46	-11.88	-2.71	-2.71	9.17	-1.811e+04	-2.487e+05	-1.334e+05	-1.334e+05	1.153e+05
1	3	77	-8.38e-02	-0.93	-0.51	-0.51	-0.42	-6459.53	-2.526e+05	-1.295e+05	-1.295e+05	1.230e+05
1	3	78	-5.26	-9.49	-7.38	-7.38	-2.11	1.400e+04	-2.101e+05	-9.802e+04	-9.802e+04	1.120e+05
1	3	79	-9.50	-10.42	-10.27	-9.64	0.34	-2.524e+05	-3.896e+05	-3.509e+05	-2.912e+05	6.177e+04
1	3	80	-9.19	-9.58	-9.48	-9.28	0.17	-1.820e+05	-3.333e+05	-2.929e+05	-2.224e+05	6.689e+04
1	3	81	-7.23	-9.91	-7.84	-9.31	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	7.094e+04
1	3	82	-0.49	-4.35	-2.02	-2.83	-1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.094e+04	6.809e+04
1	3	83	-3.77	-9.80	-8.75	-4.82	2.29	8.247e+04	-1.099e+05	6.329e+04	3.585e+04	8.243e+04
1	3	84	-8.51	-14.60	-12.40	-10.71	2.92	-9844.11	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	85	-9.92	-10.22	-10.20	-9.93	6.37e-02	-2.712e+05	-4.068e+05	-3.955e+05	-2.825e+05	3.747e+04
1	3	86	-9.71	-9.79	-9.79	-9.72	2.61e-02	-1.949e+05	-3.467e+05	-3.354e+05	-2.063e+05	3.994e+04
1	3	87	-8.67	-11.46	-11.32	-8.81	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	88	3.68	-14.90	-14.11	2.88	3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	89	1.78	-0.25	-0.18	1.71	0.36	-6637.69	-2.588e+05	-2.433e+05	-2.209e+04	6.048e+04
1	3	90	-4.52	-10.41	-4.69	-10.25	-0.98	1.569e+04	-2.116e+05	-1.966e+05	669.74	5.648e+04
1	3	91	-9.82	-10.32	-10.32	-9.82	-1.40e-03	-2.780e+05	-4.132e+05	-2.780e+05	-4.132e+05	-0.19
1	3	92	-9.38	-9.74	-9.74	-9.38	3.13e-04	-2.002e+05	-3.508e+05	-2.002e+05	-3.508e+05	5.74e-02
1	3	93	-7.68	-9.54	-7.68	-9.54	1.58e-04	-1.263e+05	-2.915e+05	-2.915e+05	-1.263e+05	1.36e-03
1	3	94	-0.91	-4.98	-0.91	-4.98	3.89e-05	-5.684e+04	-2.199e+05	-5.684e+04	-2.199e+05	2.70e-03
1	3	95	-2.63	-10.21	-2.63	-10.21	1.50e-05	8.420e+04	-1.177e+05	-1.177e+05	8.420e+04	1.03e-02
1	3	96	-8.30	-12.65	-12.65	-8.30	-2.19e-04	-1.057e+04	-1.182e+05	-1.057e+04	-1.182e+05	-3.51e-02
1	3	97	-9.93	-10.22	-10.20	-9.95	-7.21e-02	-2.712e+05	-4.068e+05	-3.955e+05	-2.825e+05	-3.747e+04
1	3	98	-9.71	-9.79	-9.78	-9.72	-2.53e-02	-1.949e+05	-3.467e+05	-3.354e+05	-2.063e+05	-3.994e+04
1	3	99	-8.67	-11.46	-11.32	-8.81	-0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	100	3.68	-14.90	-14.11	2.89	-3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	101	1.78	-0.25	-0.18	1.71	0.36	-6637.63	-2.588e+05	-2.433e+05	-2.209e+04	6.048e+04
1	3	102	-4.52	-10.41	-4.69	-10.24	0.98	1.569e+04	-2.116e+05	-1.966e+05	669.74	5.648e+04
1	3	103	-9.51	-10.38	-9.65	-10.24	-0.32	-2.524e+05	-3.896e+05	-3.509e+05	-2.912e+05	-6.177e+04
1	3	104	-9.19	-9.58	-9.49	-9.28	0.17	-1.820e+05	-3.333e+05	-2.929e+05	-2.224e+05	6.689e+04
1	3	105	-7.24	-9.91	-7.84	-9.31	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	7.094e+04
1	3	106	-0.49	-4.36	-2.02	-2.83	1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.095e+04	6.809e+04
1	3	107	-3.77	-9.80	-8.75	-4.82	-2.29	8.247e+04	-1.099e+05	6.329e+04	3.585e+04	8.243e+04
1	3	108	-8.51	-14.60	-12.40	-10.71	-2.92	-9844.26	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	109	-9.20	-9.93	-9.59	-9.54	-0.36	-2.253e+05	-3.666e+05	-2.959e+05	-2.960e+05	7.062e+04
1	3	110	-8.96	-9.29	-9.13	-9.13	-0.16	-1.599e+05	-3.175e+05	-2.387e+05	-2.387e+05	7.881e+04
1	3	111	-7.83	-10.74	-9.29	-9.29	-1.45	-9.107e+04	-2.758e+05	-1.834e+05	-1.834e+05	9.234e+04
1	3	112	6.46	-11.88	-2.71	-2.71	9.17	-1.811e+04	-2.487e+05	-1.334e+05	-1.334e+05	1.153e+05
1	3	113	-8.38e-02	-0.93	-0.51	-0.51	-0.42	-6459.53	-2.526e+05	-1.295e+05	-1.295e+05	1.230e+05
1	3	114	-5.26	-9.49	-7.38	-7.38	-2.11	1.400e+04	-2.101e+05	-9.802e+04	-9.802e+04	1.120e+05
1	3	115	-9.50	-10.42	-9.64	-10.27	0.34	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	6.177e+04
1	3	116	-9.18	-9.58	-9.28	-9.48	0.17	-1.820e+05	-3.333e+05	-2.224e+05	-2.929e+05	6.689e+04
1	3	117	-7.23	-9.91	-7.84	-9.31	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	7.094e+04
1	3	118	-0.49	-4.35	-2.83	-2.02	1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.094e+04	6.809e+04
1	3	119	-3.77	-9.80	-4.82	-8.75	-2.29	8.247e+04	-1.099e+05	6.329e+04	3.585e+04	8.243e+04
1	3	120	-8.51	-14.60	-10.71	-12.40	-2.92	-9844.15	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	3	121	-9.92	-10.22	-9.93	-10.20	-6.36e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	-3.747e+04
1	3	122	-9.71	-9.79	-9.72	-9.79	-2.61e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	-3.994e+04
1	3	123	-8.67	-11.46	-8.81	-11.32	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	-4.509e+04
1	3	124	3.68	-14.90	2.88	-14.11	-3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	-5.599e+04
1	3	125	1.78	-0.25	1.71	-0.18	-0.36	-6637.70	-2.588e+05	-2.209e+04	-2.433e+05	-6.048e+04
1	3	126	-4.52	-10.41	-10.25	-4.69	0.98	1.569e+04	-2.116e+05	669.64	-1.966e+05	-5.648e+04
1	3	127	-9.82	-10.32	-9.82	-10.32	1.40e-03	-2.780e+05	-4.132e+05	-2.780e+05	-4.132e+05	0.19
1	3	128	-9.38	-9.74	-9.38	-9.74	-3.13e-04	-2.002e+05	-3.508e+05	-2.002e+05	-3.508e+05	-5.62e-02
1	3	129	-7.68	-9.54	-9.54	-7.68	-1.58e-04	-1.263e+05	-2.915e+05	-1.263e+05	-2.915e+05	-1.75e-03
1	3	130	-0.91	-4.98	-4.98	-0.91	-3.89e-05	-5.684e+04	-2.199e+05	-5.684e+04	-2.199e+05	-2.97e-03
1	3	131	-2.63	-10.21	-2.63	-10.21	-1.51e-05	8.420e+04	-1.177e+05	8.420e+04	-1.177e+05	-9.30e-03
1	3	132	-8.30	-12.65	-8.30	-12.65	2.19e-04	-1.057e+04	-1.182e+05	-1.057e+04	-1.182e+05	3.43e-02
1	3	133	-9.94	-10.22	-9.96	-10.20	7.20e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	3.747e+04
1	3	134	-9.71	-9.79	-9.72	-9.78	2.53e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	3.994e+04
1	3	135	-8.67	-11.46	-8.81	-11.32	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	136	3.68	-14.90	2.89	-14.11	3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	137	1.78	-0.25	1.71	-0.18	0.36	-6637.65	-2.588e+05	-2.209e+04	-2.433e+05	6.048e+04
1	3	138	-4.52	-10.41	-10.24	-4.69	-0.98	1.569e+04	-2.116e+05	669.70	-1.966e+05	5.648e+04
1	3	139	-9.51	-10.38	-9.65	-10.24	0.32	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	6.177e+04
1	3	140	-9.19	-9.58	-9.28	-9.49	0.17	-1.820e+05	-3.333e+05	-2.224e+05	-2.929e+05	6.689e+04
1	3	141	-7.24	-9.91	-9.31	-7.84	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	7.094e+04
1	3	142	-0.49	-4.36	-2.83	-2.02	-1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.095e+04	6.809e+04
1	3	143	-3.77	-9.80	-4.82	-8.75	2.29	8.247e+04	-1.099e+05	3.585e+04	-6.329e+04	8.243e+04
1	3	144	-8.51	-14.60	-10.71	-12.40	2.92	-9844.31	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	145	-9.20	-9.93	-9.54	-9.59	0.36	-2.253e+05	-3.666e+05	-2.959e+05	-2.960e+05	7.062e+04
1	3	146	-8.96	-9.29	-9.13	-9.13	0.16	-1.599e+05	-3.175e+05	-2.387e+05	-2.387e+05	7.881e+04
1	3	147	-7.83	-10.74	-9.29	-9.29	1.45	-9.107e+04	-2.758e+05	-1.834e+05	-1.834e+05	9.234e+04
1	3	148	6.46	-11.88	-2.71	-2.71	9.17	-1.811e+04	-2.487e+05	-1.334e+05	-1.334e+05	1.153e+05
1	3	149	-8.38e-02	-0.93	-0.51	-0.51	-0.42	-6459.53	-2.526e+05	-1.295e+05	-1.295e+05	1.230e+05
1	3	150	-5.26	-9.49	-7.38	-7.38	-2.11	1.400e+04	-2.101e+05	-9.802e+04	-9.802e+04	1.120e+05
1	3	151	-9.50	-10.42	-10.27	-9.64	0.34	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	6.177e+04
1	3	152	-9.19	-9.58	-9.48	-9.28	0.17	-1.820e+05	-3.333e+05	-2.929e+05	-2.224e+05	6.689e+04
1	3	153	-7.23	-9.91	-7.84	-9.31	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	7.094e+04
1	3	154	-0.49	-4.35	-2.02	-2.83	-1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.095e+04	6.809e+04
1	3	155	-3.77	-9.80	-8.75	-4.82	2.29	8.247e+04	-1.099e+05	3.585e+04	-6.329e+04	8.243e+04
1	3	156	-8.51	-14.60	-12.40	-10.71	2.92	-9844.11	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	157	-9.92	-10.22	-10.20	-9.93	6.37e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	3.747e+04
1	3	158	-9.71	-9.79	-9.79	-9.72	2.61e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	3.994e+04
1	3	159	-8.67	-11.46	-11.32	-8.81	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	160	3.68	-14.90	-14.11	2.88	3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	161	1.78	-0.25	-0.18	1.71	0.36	-6637.69	-2.588e+05	-2.433e+05	-2.209e+04	6.048e+04
1	3	162	-4.52	-10.41	-4.69	-10.25	-0.98	1.569e+04	-2.116e+05	-1.966e+05	669.67	5.648e+04
1	3	163	-9.82	-10.32	-10.32	-9.82	-1.40e-03	-2.780e+05	-4.132e+05	-2.780e+05	-4.132e+05	-0.19
1	3	164	-9.38	-9.74	-9.74	-9.38	3.13e-04	-2.002e+05	-3.508e+05	-2.002e+05	-3.508e+05	5.74e-02
1	3	165	-7.68	-9.54	-7.68	-9.54	1.58e-04	-1.263e+05	-2.915e+05	-1.263e+05	-2.915e+05	1.36e-03
1	3	166	-0.91	-4.98	-0.91	-4.98	3.89e-05	-5.684e+04	-2.199e+05	-5.684e+04	-2.199e+05	2.70e-03
1	3	167	-2.63	-10.21	-2.63	-10.21	1.50e-05	8.420e+04	-1.177e+05	8.420e+04	-1.177e+05	1.03e-02
1	3	168	-8.30	-12.65	-8.30	-12.65	-2.19e-04	-1.057e+04	-1.182e+05	-1.057e+04	-1.182e+05	-3.51e-02
1	3	169	-9.93	-10.22	-10.20	-9.95	-7.21e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	-3.747e+04
1	3	170	-9.71	-9.79	-9.78	-9.72	-2.53e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	-3.994e+04
1	3	171	-8.67	-11.46	-11.32	-8.81	0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	4.509e+04
1	3	172	3.68	-14.90	-14.11	2.89	-3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	5.599e+04
1	3	173	1.78	-0.25	-0.18	1.71	-0.36	-6637.63	-2.588e+05	-2.433e+05	-2.209e+04	6.048e+04
1	3	174	-4.52	-10.41	-4.69	-10.24	0.98	1.569e+04	-2.116e+05	-1.966e+05	669.74	-5.648e+04
1	3	175	-9.51	-10.38	-9.65	-10.24	-0.32	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	-6.177e+04
1	3	176	-9.19	-9.58	-9.49	-9.28	0.17	-1.820e+05	-3.333e+05	-2.929e+05	-2.224e+05	6.689e+04
1	3	177	-7.24	-9.91	-7.84	-9.31	1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	-7.094e+04
1	3	178	-0.49	-4.36	-2.02	-2.83	1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.095e+04	6.809e+04
1	3	179	-3.77	-9.80	-8.75	-4.82	-2.29	8.247e+04	-1.099e+05	3.585e+04	-6.329e+04	8.243e+04
1	3	180	-8.51	-14.60	-12.40	-10.71	2.92	-9844.26	-1.120e+05	-8.637e+04	-3.552e+04	4.432e+04
1	3	181	-9.20	-9.93	-9.59	-9.54	-0.36	-2.253e+05	-3.666e+05	-2.959e+05	-2.960e+05	7.062e+04
1	3	182	-8.96	-9.29	-9.13	-9.13	-0.16	-1.599e+05	-3.175e+05	-2.387e+05	-2.387e+05	7.881e+04
1	3	183	-7.83	-10.74	-9.29	-9.29	-1.45	-9.107e+04	-2.758e+05	-1.834e+05	-1.834e+05	9.234e+04
1	3	184	6.46	-11.88	-2.71	-2.71	-9.17	-1.811e+04	-2.487e+05	-1.334e+05	-1.334e+05	1.153e+05
1	3	185	-8.38e-02	-0.93	-0.51	-0.51	0.42	-6459.53	-2.526e+05	-1.295e+05	-1.295e+05	1.230e+05
1	3	186	-5.26	-9.49	-7.38	-7.38	-2.11	1.400e+04	-2.101e+05	-9.802e+04	-9.802e+04	1.120e+05
1	3	187	-9.50	-10.42	-10.27	-9.64	-0.34	-2.524e+05	-3.896e+05	-2.912e+05	-3.509e+05	-6.177e+04
1	3	188	-9.18	-9.58	-9.28	-9.48	0.17	-1.820e+05	-3.333e+05	-2.224e+05	-2.929e+05	6.689e+04
1	3	189	-7.23	-9.91	-7.84	-9.31	-1.12	-1.150e+05	-2.772e+05	-2.354e+05	-1.568e+05	-7.094e+04
1	3	190	-0.49	-4.35	-2.83	-2.02	1.89	-5.113e+04	-2.074e+05	-1.676e+05	-9.095e+04	6.809e+04
1	3	191	-3.77	-9.80	-4.82	-8.75	-2.29	8.247e+04	-1.099e+05	3.585e+04	-6.329e+04	8.243e+04

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	3	192	-8.51	-14.60	-10.71	-12.40	-2.92	-9844.15	-1.120e+05	-3.552e+04	-8.637e+04	-4.432e+04
1	3	193	-9.92	-10.22	-9.93	-10.20	-6.36e-02	-2.712e+05	-4.068e+05	-2.825e+05	-3.955e+05	-3.747e+04
1	3	194	-9.71	-9.79	-9.72	-9.79	-2.61e-02	-1.949e+05	-3.467e+05	-2.063e+05	-3.354e+05	-3.994e+04
1	3	195	-8.67	-11.46	-8.81	-11.32	-0.61	-1.171e+05	-2.958e+05	-1.294e+05	-2.836e+05	-4.509e+04
1	3	196	3.68	-14.90	2.88	-14.11	-3.76	-3.128e+04	-2.608e+05	-4.587e+04	-2.462e+05	-5.599e+04
1	3	197	1.78	-0.25	1.71	-0.18	-0.36	-6637.70	-2.588e+05	-2.209e+04	-2.433e+05	-6.048e+04
1	3	198	-4.52	-10.41	-10.25	-4.69	0.98	1.569e+04	-2.116e+05	669.64	-1.966e+05	-5.648e+04
1	11	1	9.07	9.07	9.07	9.07						
1	11	7	68.96	-63.42	21.68	-16.14	63.43	-2.133e+05	-3.924e+05	-3.238e+05	-2.819e+05	8.705e+04
1	11	8	106.28	-97.59	-1.50	10.19	101.77	-2.073e+05	-4.180e+05	-3.711e+05	-2.542e+05	8.769e+04
1	11	9	250.64	-194.15	142.78	-86.28	190.63	-2.255e+05	-4.748e+05	-3.867e+05	-3.137e+05	1.192e+05
1	11	10	102.81	-92.21	90.02	-79.42	48.27	-2.450e+05	-4.339e+05	-3.336e+05	-3.452e+05	9.428e+04
1	11	11	305.97	-453.35	299.74	-447.12	-68.48	-2.515e+05	-5.419e+05	-4.011e+05	-3.922e+05	1.451e+05
1	11	12	131.90	-142.17	122.58	-132.85	-49.68	-2.904e+05	-4.742e+05	-3.438e+05	-4.208e+05	8.341e+04
1	11	13	389.48	-421.94	2.52	-34.98	-405.28	-3.779e+05	-6.148e+05	-4.325e+05	-5.603e+05	9.976e+04
1	11	14	119.44	-138.83	-5.17	-14.23	-129.06	-3.447e+05	-5.056e+05	-3.613e+05	-4.890e+05	4.889e+04
1	11	15	438.45	-320.25	-310.60	428.80	-85.01	-4.671e+05	-6.627e+05	-4.776e+05	-6.521e+05	4.415e+04
1	11	16	122.42	-148.72	-137.07	110.77	-54.99	-3.834e+05	-5.144e+05	-3.839e+05	-5.139e+05	7769.09
1	11	17	172.92	-263.04	-167.00	76.88	180.69	-4.876e+05	-5.669e+05	-4.885e+05	-5.660e+05	-8190.26
1	11	18	72.77	-119.63	-109.56	62.70	42.85	-3.896e+05	-4.925e+05	-3.956e+05	-4.864e+05	-2.414e+04
1	11	19	77.18	-121.96	-20.62	-24.16	99.55	-4.366e+05	-5.023e+05	-4.590e+05	-4.800e+05	-3.113e+04
1	11	20	42.75	-83.06	-40.60	0.28	59.49	-3.602e+05	-4.588e+05	-5.171e+05	-4.317e+05	-4.400e+04
1	11	21	144.47	-137.93	-98.81	105.36	97.55	-1.886e+05	-4.356e+05	-4.183e+05	-2.059e+05	6.301e+04
1	11	22	380.36	-234.51	-34.46	180.30	288.07	-1.520e+05	-5.264e+05	-4.833e+05	-1.951e+05	1.195e+05
1	11	23	2047.86	-823.32	767.71	456.83	1427.15	-1.311e+05	-6.488e+05	-4.870e+05	-2.929e+05	2.400e+05
1	11	24	147.71	-183.76	47.88	-83.93	-152.07	-4.945e+05	-6.989e+05	-5.171e+05	-5.762e+05	-6.410e+04
1	11	25	769.63	-1948.21	-754.98	-423.59	1348.78	-6.128e+05	-8.874e+05	-6.471e+05	-8.531e+05	9.072e+04
1	11	26	209.60	-401.83	-10.05	-182.17	293.35	-5.534e+05	-6.982e+05	-5.554e+05	-6.962e+05	1.695e+04
1	11	27	117.67	-161.05	74.02	-117.41	101.30	-5.079e+05	-5.389e+05	-5.166e+05	-5.303e+05	-1.388e+04
1	11	28	172.22	-199.59	-199.54	172.17	-4.09	-1.798e+05	-4.389e+05	-4.389e+05	-1.798e+05	1456.95
1	11	29	454.60	-818.95	-818.83	454.48	-12.41	-1.288e+05	-4.700e+05	-4.700e+05	-1.288e+05	2974.28
1	11	30	2284.91	-2305.63	-2305.62	2284.90	-4.45	-1.288e+05	-6.462e+05	-6.462e+05	-1.288e+05	-1889.90
1	11	31	2271.91	-2322.02	2271.91	-2322.02	4.45	-7.083e+05	-9.290e+05	-7.083e+05	-9.290e+05	1889.94
1	11	32	796.30	-474.54	796.18	-474.42	12.41	-6.560e+05	-7.549e+05	-6.561e+05	-7.548e+05	-2974.08
1	11	33	181.93	-191.57	181.89	-191.53	4.09	-5.420e+05	-5.541e+05	-5.422e+05	-5.539e+05	-1456.81
1	11	34	141.77	-135.34	-91.42	97.85	-101.20	-1.912e+05	-4.369e+05	-4.211e+05	-2.070e+05	-6.030e+04
1	11	35	382.97	-228.35	-7.87	162.48	-293.55	-1.584e+05	-5.300e+05	-4.910e+05	-1.974e+05	-1.139e+05
1	11	36	1935.04	-779.13	743.65	412.26	-1346.93	-1.484e+05	-6.528e+05	-5.036e+05	-2.976e+05	-2.302e+05
1	11	37	149.03	-183.80	-84.99	50.21	152.07	-5.154e+05	-7.035e+05	-5.407e+05	-6.782e+05	6.410e+04
1	11	38	813.82	-2061.04	-779.05	-468.16	-1429.00	-6.211e+05	-9.004e+05	-6.637e+05	-8.578e+05	-1.005e+05
1	11	39	215.81	-399.28	16.53	-199.99	-287.86	-5.595e+05	-7.021e+05	-5.632e+05	-6.985e+05	-2.258e+04
1	11	40	120.32	-163.79	81.47	-124.94	-97.61	-5.127e+05	-5.381e+05	-5.193e+05	-5.314e+05	1.116e+04
1	11	41	103.50	-95.74	3.13	4.63	-99.62	-2.113e+05	-4.200e+05	-3.753e+05	-2.560e+05	-8.559e+04
1	11	42	244.45	-191.27	148.54	-95.36	-180.53	-2.333e+05	-4.776e+05	-3.942e+05	-3.167e+05	-1.159e+05
1	11	43	300.54	-456.36	290.92	-446.73	84.81	-2.637e+05	-5.467e+05	-4.160e+05	-3.943e+05	-1.411e+05
1	11	44	400.58	-410.71	-22.46	12.33	405.27	-3.934e+05	-6.235e+05	-4.511e+05	-5.658e+05	-9.976e+04
1	11	45	435.45	-325.68	-319.43	429.20	68.68	-4.792e+05	-6.675e+05	-4.925e+05	-6.543e+05	-4.819e+04
1	11	46	175.82	-269.25	-161.26	67.83	-190.79	-4.957e+05	-5.693e+05	-4.960e+05	-5.690e+05	4901.97
1	11	47	79.06	-124.70	-15.84	-29.80	-101.64	-4.420e+05	-5.030e+05	-4.632e+05	-4.818e+05	2.905e+04
1	11	48	66.31	-61.07	23.20	-17.96	-60.27	-2.175e+05	-3.946e+05	-3.282e+05	-2.839e+05	-8.576e+04
1	11	49	100.19	-90.29	89.95	-80.04	-42.98	-2.514e+05	-4.368e+05	-3.404e+05	-3.478e+05	-9.260e+04
1	11	50	129.26	-139.89	117.48	-128.12	55.05	-2.994e+05	-4.778e+05	-3.534e+05	-4.238e+05	-8.195e+04
1	11	51	120.36	-137.97	-14.18	-3.43	129.05	-3.550e+05	-5.095e+05	-3.724e+05	-4.921e+05	-4.889e+04
1	11	52	124.66	-151.35	-142.14	115.45	49.58	-3.928e+05	-5.175e+05	-3.935e+05	-5.168e+05	-9230.54
1	11	53	74.55	-122.17	-109.55	61.93	-48.21	-3.969e+05	-4.945e+05	-4.023e+05	-4.891e+05	2.245e+04
1	11	54	45.18	-85.79	-39.36	-1.25	-62.65	-3.652e+05	-4.603e+05	-3.918e+05	-4.337e+05	4.272e+04
1	11	55	27.13	-47.19	-11.28	-8.78	37.14	-2.743e+05	-4.207e+05	-2.807e+05	-4.143e+05	-2.999e+04
1	11	56	23.12	-55.77	-54.45	21.80	10.13	-2.928e+05	-4.268e+05	-2.936e+05	-4.259e+05	1.058e+04
1	11	57	3.19	-22.24	-10.17	-8.88	12.70	-1.980e+05	-3.555e+05	-2.017e+05	-3.517e+05	-2.407e+04
1	11	58	4.57	-30.11	-30.10	4.56	0.59	-2.065e+05	-3.611e+05	-2.090e+05	-3.585e+05	1.965e+04
1	11	59	-4.48	-12.61	-10.03	-7.06	3.78	-1.250e+05	-2.943e+05	-1.271e+05	-2.922e+05	-1.905e+04
1	11	60	-3.09	-18.85	-18.27	-3.67	-2.96	-1.226e+05	-3.060e+05	-1.275e+05	-3.011e+05	2.961e+04
1	11	61	-0.13	-5.52	-5.32	-0.33	1.01	-5.595e+04	-2.215e+05	-5.717e+04	-2.203e+05	-1.411e+04
1	11	62	0.18	-9.55	0.10	-9.47	-0.88	-3.252e+04	-2.680e+05	-4.156e+04	-2.590e+05	4.525e+04
1	11	63	-2.70	-9.82	-2.80	-9.72	-0.86	8.479e+04	-1.181e+05	8.445e+04	-1.178e+05	-8273.95
1	11	64	7.47	-0.26	-5.90e-03	7.21	-1.37	-6490.05	-2.654e+05	-1.827e+04	-2.536e+05	5.394e+04
1	11	65	-8.23	-12.42	-8.32	-12.33	-0.61	-1.061e+04	-1.183e+05	-1.061e+04	-1.183e+05	231.52
1	11	66	7.01	-10.95	-10.95	7.01	-0.18	1.608e+04	-2.168e+05	1341.43	-2.021e+05	5.671e+04
1	11	67	19.38	-56.56	-46.92	9.74	-25.28	-2.909e+05	-4.172e+05	-3.079e+05	-4.001e+05	4.319e+04
1	11	68	9.31	-35.72	-27.13	0.73	-17.69	-2.037e+05	-3.541e+05	-2.283e+05	-3.295e+05	5.559e+04
1	11	69	8.17	-26.96	-18.04	-0.74	-15.29	-1.261e+05	-2.920e+05	-1.563e+05	-2.618e+05	6.408e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	11	70	15.01	-16.77	-7.68	5.91	-14.36	-5.452e+04	-2.163e+05	-8.641e+04	-1.844e+05	6.435e+04
1	11	71	4.93	-10.94	-4.73	-1.28	-7.75	8.878e+04	-1.118e+05	4.567e+04	-6.866e+04	8.238e+04
1	11	72	-5.59	-8.64	-8.07	-6.16	-1.19	-1.042e+04	-1.134e+05	-3.652e+04	-8.728e+04	4.479e+04
1	11	73	20.46	-51.61	-20.54	-10.61	-35.69	-2.686e+05	-3.969e+05	-3.158e+05	-3.497e+05	6.185e+04
1	11	74	13.18	-36.48	-11.83	-11.47	-24.83	-1.856e+05	-3.415e+05	-2.492e+05	-2.779e+05	7.662e+04
1	11	75	8.17	-26.11	-6.46	-11.48	-16.96	-1.041e+05	-2.942e+05	-1.875e+05	-2.108e+05	9.435e+04
1	11	76	5.89	-2.61	4.35	-1.08	-3.27	-2.158e+04	-2.634e+05	-1.338e+05	-1.512e+05	1.206e+05
1	11	77	19.47	-5.06	7.44	6.97	-12.26	-6944.54	-2.678e+05	-1.315e+05	-1.432e+05	1.303e+05
1	11	78	23.23	-7.52	5.26	10.46	-15.15	1.486e+04	-2.236e+05	-1.035e+05	-1.052e+05	1.192e+05
1	11	79	31.72	-64.29	-0.76	-31.82	-45.43	-3.176e+05	-4.274e+05	-3.837e+05	-3.613e+05	5.371e+04
1	11	80	19.19	-43.61	2.16	-26.58	-27.92	-2.201e+05	-3.635e+05	-3.153e+05	-2.682e+05	6.772e+04
1	11	81	17.62	-34.30	5.57	-22.24	-21.93	-1.351e+05	-2.996e+05	-2.496e+05	-1.851e+05	7.567e+04
1	11	82	26.03	-23.82	14.27	-12.07	-21.16	-5.765e+04	-2.214e+05	-1.742e+05	-1.048e+05	7.414e+04
1	11	83	14.20	-13.77	7.68	-7.25	-11.83	9.241e+04	-1.127e+05	-5.998e+04	3.973e+04	8.959e+04
1	11	84	-0.57	-8.07	-1.77	-6.86	-2.76	-1.088e+04	-1.148e+05	-8.879e+04	-3.688e+04	4.500e+04
1	11	85	41.86	-75.64	30.66	-64.44	-34.50	-3.581e+05	-4.505e+05	-4.384e+05	-3.702e+05	3.121e+04
1	11	86	23.76	-48.97	18.34	-43.55	-19.11	-2.435e+05	-3.824e+05	-3.689e+05	-2.570e+05	4.117e+04
1	11	87	14.39	-33.96	11.49	-31.07	-11.47	-1.418e+05	-3.233e+05	-3.086e+05	-1.565e+05	4.947e+04
1	11	88	6.54	-8.11	5.64	-7.21	-3.51	-3.887e+04	-2.822e+05	-2.652e+05	-5.587e+04	6.204e+04
1	11	89	23.95	-3.77	22.17	-1.98	-6.80	-7720.01	-2.801e+05	-2.624e+05	-2.537e+04	6.704e+04
1	11	90	30.51	-7.66	27.78	-4.93	-9.85	1.700e+04	-2.303e+05	-2.138e+05	534.75	6.165e+04
1	11	91	48.89	-79.87	48.88	-79.86	1.28	-3.738e+05	-4.591e+05	-4.591e+05	-3.738e+05	-894.57
1	11	92	26.20	-50.62	26.20	-50.61	0.52	-2.528e+05	-3.883e+05	-3.883e+05	-2.528e+05	-721.41
1	11	93	20.98	-37.38	20.98	-37.38	0.22	-1.534e+05	-3.195e+05	-3.195e+05	-1.534e+05	-574.03
1	11	94	28.24	-26.69	28.24	-26.69	9.97e-02	-6.609e+04	-2.378e+05	-2.378e+05	-6.609e+04	-427.67
1	11	95	15.68	-13.89	15.68	-13.89	2.70e-02	9.540e+04	-1.224e+05	-1.224e+05	9.540e+04	-263.09
1	11	96	1.68	-7.96	1.68	-7.96	-1.50e-02	-1.179e+04	-1.226e+05	-1.226e+05	-1.179e+04	-11.35
1	11	97	41.03	-74.24	28.75	-61.97	35.56	-3.563e+05	-4.500e+05	-4.366e+05	-3.697e+05	-3.280e+04
1	11	98	23.26	-48.22	17.48	-42.44	19.49	-2.425e+05	-3.819e+05	-3.675e+05	-2.569e+05	-4.239e+04
1	11	99	14.02	-33.54	11.03	-30.54	11.56	-1.413e+05	-3.229e+05	-3.076e+05	-1.566e+05	-5.041e+04
1	11	100	6.27	-7.93	5.36	-7.02	3.48	-3.873e+04	-2.819e+05	-2.645e+05	-5.615e+04	-6.272e+04
1	11	101	23.63	-3.69	21.83	-1.89	6.78	-7692.36	-2.797e+05	-2.618e+05	-2.559e+04	-6.745e+04
1	11	102	30.13	-7.66	27.37	-4.90	9.83	1.698e+04	-2.300e+05	-2.135e+05	504.19	-6.163e+04
1	11	103	30.78	-62.45	-2.02	-29.65	44.52	-3.148e+05	-4.263e+05	-3.808e+05	-3.604e+05	-5.481e+04
1	11	104	18.34	-42.51	1.40	-25.57	27.27	-2.185e+05	-3.626e+05	-3.132e+05	-2.679e+05	-6.840e+04
1	11	105	16.95	-33.63	5.08	-21.76	21.44	-1.342e+05	-2.989e+05	-2.480e+05	-1.851e+05	-7.610e+04
1	11	106	25.40	-23.40	13.85	-11.86	20.74	-5.729e+04	-2.209e+05	-1.732e+05	-1.051e+05	-7.440e+04
1	11	107	13.63	-13.55	7.32	-7.24	11.47	9.213e+04	-1.126e+05	-5.959e+04	3.918e+04	-8.964e+04
1	11	108	-1.00	-8.05	-2.08	-6.97	2.54	-1.084e+04	-1.147e+05	-8.868e+04	-3.683e+04	-4.497e+04
1	11	109	19.23	-49.85	-20.81	-9.81	34.10	-2.657e+05	-3.955e+05	-3.126e+05	-3.486e+05	-6.236e+04
1	11	110	12.21	-35.38	-11.95	-11.23	23.79	-1.838e+05	-3.403e+05	-2.469e+05	-2.773e+05	-7.676e+04
1	11	111	7.38	-25.43	-6.53	-11.51	16.22	-1.031e+05	-2.932e+05	-1.858e+05	-2.106e+05	-9.424e+04
1	11	112	5.33	-2.46	4.18	-1.31	2.77	-2.129e+04	-2.626e+05	-1.327e+05	-1.512e+05	-1.203e+05
1	11	113	18.68	-4.89	7.11	6.67	11.78	-6856.96	-2.669e+05	-1.307e+05	-1.431e+05	-1.299e+05
1	11	114	22.26	-7.55	4.70	10.01	14.66	1.480e+04	-2.228e+05	-1.031e+05	-1.049e+05	-1.188e+05
1	11	115	17.69	-54.70	-46.34	9.33	23.14	-2.867e+05	-4.153e+05	-3.038e+05	-3.982e+05	-4.363e+04
1	11	116	8.06	-34.43	-26.63	0.26	16.45	-2.012e+05	-3.525e+05	-2.255e+05	-3.282e+05	-5.553e+04
1	11	117	7.14	-26.08	-17.67	-1.27	14.44	-1.247e+05	-2.908e+05	-1.546e+05	-2.609e+05	-6.380e+04
1	11	118	13.98	-16.14	-7.44	5.28	13.65	-5.396e+04	-2.155e+05	-8.547e+04	-1.840e+05	-6.402e+04
1	11	119	4.07	-10.66	-4.68	-1.91	7.23	8.832e+04	-1.116e+05	4.556e+04	-6.883e+04	-8.197e+04
1	11	120	-6.21	-8.61	-8.19	-6.63	0.91	-1.034e+04	-1.131e+05	-3.639e+04	-8.708e+04	-4.471e+04
1	11	121	21.61	-54.21	-52.31	19.71	-11.84	-2.875e+05	-4.243e+05	-2.884e+05	-3.284e+05	-4.109e+04
1	11	122	3.34	-28.93	-28.86	3.28	-1.48	-2.035e+05	-3.591e+05	-2.060e+05	-3.566e+05	-1.954e+04
1	11	123	-4.20	-17.94	-17.50	-4.64	2.44	-1.210e+05	-3.044e+05	-1.258e+05	-2.996e+05	-2.932e+04
1	11	124	0.47	-10.32	0.44	-10.29	0.57	-3.199e+04	-2.667e+05	-4.091e+04	-2.578e+05	-4.486e+04
1	11	125	6.51	-6.24e-02	0.12	6.32	1.09	-6365.16	-2.641e+05	-1.801e+04	-2.524e+05	-5.354e+04
1	11	126	5.92	-11.04	-11.04	5.92	-0.12	1.600e+04	-2.158e+05	1337.53	-2.011e+05	-5.642e+04
1	11	127	27.08	-47.28	-8.35	-11.85	-37.14	-2.687e+05	-4.178e+05	-2.750e+05	-4.115e+05	2.999e+04
1	11	128	3.17	-22.31	-8.57	-10.58	-12.70	-1.948e+05	-3.532e+05	-1.986e+05	-3.495e+05	2.407e+04
1	11	129	-4.87	-12.46	-9.03	-8.30	-3.78	-1.233e+05	-2.926e+05	-1.255e+05	-2.905e+05	1.905e+04
1	11	130	-1.19	-4.92	-4.62	-1.49	-1.01	-5.528e+04	-2.204e+05	-5.649e+04	-2.192e+05	1.411e+04
1	11	131	-2.35	-10.78	-2.44	-10.69	0.86	8.423e+04	-1.178e+05	8.390e+04	-1.175e+05	8273.93
1	11	132	-8.20	-13.04	-8.27	-12.96	0.61	-1.052e+04	-1.180e+05	-1.052e+04	-1.180e+05	-231.45
1	11	133	35.83	-43.45	34.55	-42.17	-9.98	-2.383e+05	-3.973e+05	-2.711e+05	-3.645e+05	6.430e+04
1	11	134	10.68	-24.12	10.67	-24.11	-0.54	-1.765e+05	-3.386e+05	-2.033e+05	-3.118e+05	6.017e+04
1	11	135	1.51	-19.82	0.66	-18.96	4.19	-1.079e+05	-2.890e+05	-1.311e+05	-2.658e+05	6.051e+04
1	11	136	8.28	-21.34	5.67	-18.73	8.40	-2.843e+04	-2.548e+05	-5.015e+04	-2.331e+05	6.666e+04
1	11	137	3.82	-7.96	3.43	-7.57	2.10	-6129.69	-2.526e+05	-2.590e+04	-2.328e+05	6.695e+04
1	11	138	-9.10	-16.82	-9.53	-16.39	-1.78	1.531e+04	-2.063e+05	4.10	-1.910e+05	5.619e+04
1	11	139	37.55	-40.12	27.63	-30.20	25.92	-2.062e+05	-3.690e+05	-2.741e+05	-3.012e+05	8.024e+04
1	11	140	17.35	-28.47	8.58	-19.70	18.02	-1.555e+05	-3.167e+05	-2.162e+05	-2.559e+05	7.808e+04

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società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	11	141	7.15	-22.65	-0.57	-14.93	13.05	-1.010e+05	-2.647e+05	-1.571e+05	-2.087e+05	7.770e+04
1	11	142	8.20	-16.12	2.02	-9.95	10.59	-4.612e+04	-1.998e+05	-9.540e+04	-1.505e+05	7.173e+04
1	11	143	3.00	-24.11	-4.91	-16.20	12.32	7.655e+04	-1.083e+05	2.604e+04	-5.780e+04	8.238e+04
1	11	144	-8.48	-23.49	-13.34	-18.62	7.03	-9264.57	-1.106e+05	-3.447e+04	-8.535e+04	4.379e+04
1	11	145	33.22	-40.31	1.47	-8.56	36.42	-1.778e+05	-3.399e+05	-1.273e+05	-2.419e+05	7.926e+04
1	11	146	18.56	-31.75	-6.41	-6.77	25.15	-1.315e+05	-2.958e+05	-2.280e+05	-1.993e+05	8.087e+04
1	11	147	10.43	-29.61	-12.11	-7.08	19.86	-7.654e+04	-2.585e+05	-1.791e+05	-1.559e+05	9.021e+04
1	11	148	14.72	-28.83	-9.76	-4.34	21.61	-1.397e+04	-2.343e+05	-1.328e+05	-1.155e+05	1.098e+05
1	11	149	3.19	-19.63	-8.45	-7.99	11.41	-5700.05	-2.373e+05	-1.273e+05	-1.157e+05	1.157e+05
1	11	150	-11.37	-33.84	-20.01	-25.21	10.93	1.315e+04	-1.963e+05	-9.245e+04	-9.072e+04	1.047e+05
1	11	151	45.24	-52.46	-19.77	12.54	46.10	-1.843e+05	-3.540e+05	-3.176e+05	-2.207e+05	6.971e+04
1	11	152	25.25	-38.33	-21.11	8.03	28.25	-1.423e+05	-3.042e+05	-2.701e+05	-1.763e+05	6.595e+04
1	11	153	14.49	-32.08	-21.23	3.64	19.69	-9.391e+04	-2.553e+05	-2.209e+05	-1.623e+05	6.611e+04
1	11	154	15.40	-27.27	-18.30	6.43	17.39	-4.410e+04	-1.936e+05	-1.607e+05	-7.699e+04	6.194e+04
1	11	155	6.19	-33.75	-25.17	-2.38	16.40	7.260e+04	-1.071e+05	-6.648e+04	3.197e+04	7.517e+04
1	11	156	-9.20	-28.36	-23.01	-14.55	8.60	-8801.61	-1.091e+05	-8.383e+04	-3.411e+04	4.358e+04
1	11	157	55.81	-62.27	-51.05	44.59	34.62	-1.832e+05	-3.633e+05	-3.520e+05	-1.945e+05	4.367e+04
1	11	158	29.57	-43.34	-37.90	24.13	19.16	-1.458e+05	-3.111e+05	-3.105e+05	-1.554e+05	3.865e+04
1	11	159	16.63	-37.30	-34.12	13.45	12.70	-9.218e+04	-2.682e+05	-2.583e+05	-1.021e+05	4.066e+04
1	11	160	15.45	-36.31	-33.84	12.98	11.03	-2.360e+04	-2.391e+05	-2.269e+05	-3.584e+04	4.988e+04
1	11	161	7.31	-24.42	-22.52	5.41	7.53	-5528.37	-2.372e+05	-2.239e+05	-1.880e+04	5.384e+04
1	11	162	-12.98	-39.73	-37.15	-15.56	7.89	1.437e+04	-1.928e+05	-1.792e+05	810.72	5.125e+04
1	11	163	60.24	-69.53	-69.51	60.23	-1.28	-1.819e+05	-3.668e+05	-3.668e+05	-1.819e+05	894.19
1	11	164	31.88	-45.66	-45.65	31.87	-0.52	-1.474e+05	-3.129e+05	-3.129e+05	-1.474e+05	721.53
1	11	165	18.32	-36.34	-36.34	18.31	-0.22	-9.923e+04	-2.631e+05	-2.631e+05	-9.924e+04	574.03
1	11	166	16.75	-30.06	-30.06	16.75	-9.96e-02	-4.756e+04	-2.017e+05	-2.017e+05	-4.756e+04	427.68
1	11	167	8.65	-36.10	-36.10	8.65	-2.69e-02	7.295e+04	-1.129e+05	-1.129e+05	7.295e+04	263.11
1	11	168	-8.63	-26.97	-26.97	-8.63	1.45e-02	-9337.10	-1.137e+05	-1.137e+05	-9337.10	11.28
1	11	169	54.38	-61.44	-49.13	42.07	-35.70	-1.846e+05	-3.642e+05	-3.538e+05	-1.951e+05	-4.208e+04
1	11	170	28.81	-42.84	-37.03	23.01	-19.54	-1.465e+05	-3.118e+05	-3.028e+05	-1.554e+05	-3.743e+04
1	11	171	16.21	-36.93	-33.65	12.93	-12.79	-9.253e+04	-2.687e+05	-2.593e+05	-1.020e+05	-3.971e+04
1	11	172	15.26	-36.03	-33.55	12.79	-11.00	-2.369e+04	-2.395e+05	-2.276e+05	-3.556e+04	-4.920e+04
1	11	173	7.23	-24.11	-22.19	5.32	-7.50	-5536.11	-2.376e+05	-2.245e+05	-1.857e+04	-5.344e+04
1	11	174	-12.98	-39.35	-36.75	-15.58	-7.87	1.440e+04	-1.931e+05	-1.795e+05	841.41	-5.127e+04
1	11	175	43.36	-51.44	-18.44	10.36	-45.16	-1.865e+05	-3.556e+05	-3.205e+05	-2.216e+05	-6.861e+04
1	11	176	24.14	-37.49	-20.37	7.02	-27.61	-1.435e+05	-3.054e+05	-2.723e+05	-1.766e+05	-6.527e+04
1	11	177	13.81	-31.42	-20.76	3.15	-19.20	-9.456e+04	-2.562e+05	-2.224e+05	-1.283e+05	-6.568e+04
1	11	178	14.96	-26.65	-17.89	6.19	-16.96	-4.434e+04	-1.942e+05	-1.618e+05	-7.673e+04	-6.168e+04
1	11	179	5.97	-33.18	-24.80	-2.40	-17.05	7.291e+04	-1.072e+05	-6.686e+04	3.253e+04	-7.512e+04
1	11	180	-9.23	-27.91	-22.70	-14.44	-8.38	-8842.14	-1.093e+05	-8.395e+04	-3.416e+04	-4.361e+04
1	11	181	31.44	-39.07	1.65	-9.27	-34.83	-1.802e+05	-3.418e+05	-2.790e+05	-2.430e+05	-7.876e+04
1	11	182	17.46	-30.77	-6.29	-7.01	-24.11	-1.330e+05	-2.973e+05	-2.303e+05	-1.999e+05	-8.074e+04
1	11	183	9.74	-28.82	-12.03	-7.05	-19.12	-7.729e+04	-2.596e+05	-1.808e+05	-1.561e+05	-9.032e+04
1	11	184	14.43	-28.13	-9.60	-4.10	-21.10	-1.418e+04	-2.352e+05	-1.340e+05	-1.155e+05	-1.101e+05
1	11	185	3.03	-18.84	-8.13	-7.68	-10.93	-5752.14	-2.382e+05	-1.282e+05	-1.158e+05	-1.161e+05
1	11	186	-11.33	-32.88	-19.45	-24.76	-10.44	1.321e+04	-1.971e+05	-9.283e+04	-9.104e+04	-1.051e+05
1	11	187	35.71	-38.50	27.06	-29.86	-23.81	-2.099e+05	-3.714e+05	-2.782e+05	-3.031e+05	-7.979e+04
1	11	188	16.07	-27.20	8.08	-19.22	-16.79	-1.577e+05	-3.186e+05	-2.190e+05	-2.572e+05	-7.814e+04
1	11	189	6.27	-21.60	-0.93	-14.39	-12.20	-1.022e+05	-2.662e+05	-1.588e+05	-2.095e+05	-7.798e+04
1	11	190	7.57	-15.08	1.80	-9.31	-9.87	-4.657e+04	-2.007e+05	-9.634e+04	-1.509e+05	-7.206e+04
1	11	191	2.68	-23.21	-4.95	-15.58	-11.80	7.704e+04	-1.085e+05	2.615e+04	-5.763e+04	-8.279e+04
1	11	192	-8.50	-22.88	-13.23	-18.15	-6.75	-9336.77	-1.108e+05	-3.460e+04	-8.554e+04	-4.387e+04
1	11	193	34.30	-41.95	32.46	-40.10	11.72	-2.433e+05	-4.001e+05	-2.763e+05	-3.670e+05	-6.397e+04
1	11	194	9.50	-22.90	9.44	-22.84	1.43	-1.794e+05	-3.408e+05	-2.064e+05	-3.138e+05	-6.027e+04
1	11	195	0.61	-18.70	-0.12	-17.98	-3.67	-1.094e+05	-2.907e+05	-1.328e+05	-2.673e+05	-6.080e+04
1	11	196	7.87	-20.45	5.33	-17.91	-8.09	-2.891e+04	-2.561e+05	-5.080e+04	-2.343e+05	-6.705e+04
1	11	197	3.62	-7.00	3.30	-6.68	-1.82	-6234.91	-2.538e+05	-2.616e+04	-2.339e+05	-6.735e+04
1	11	198	-8.78	-15.96	-9.44	-15.30	2.08	1.540e+04	-2.073e+05	7.88	-1.919e+05	-5.648e+04
1	17	1	6.99	6.99	6.99	6.99	-7.544e+05	-7.544e+05	-7.544e+05	-7.544e+05	-7.544e+05	-7.544e+05
1	17	7	-6.44	-7.05	-6.80	-6.69	0.30	-2.254e+05	-3.253e+05	-2.753e+05	-2.753e+05	4.995e+04
1	17	8	-6.67	-7.55	-6.67	-7.55	4.89e-02	-2.534e+05	-3.509e+05	-3.210e+05	-2.832e+05	4.493e+04
1	17	9	-7.05	-7.17	-7.11	-7.10	-5.98e-02	-2.919e+05	-3.874e+05	-3.397e+05	-3.397e+05	4.776e+04
1	17	10	-6.73	-7.52	-7.51	-6.73	2.37e-02	-2.534e+05	-3.508e+05	-2.832e+05	-3.210e+05	4.493e+04
1	17	11	-6.89	-7.59	-7.58	-6.90	7.83e-02	-3.258e+05	-4.208e+05	-3.439e+05	-4.027e+05	3.731e+04
1	17	12	-6.69	-7.53	-7.52	-6.70	-3.72e-02	-2.743e+05	-3.702e+05	-2.837e+05	-3.608e+05	2.855e+04
1	17	13	-7.67	-8.72	-7.67	-8.72	-6.62e-04	-3.400e+05	-4.333e+05	-3.400e+05	-4.333e+05	-7.81e-02
1	17	14	-6.79	-7.45	-7.45	-6.79	-6.90e-04	-2.823e+05	-3.775e+05	-2.823e+05	-3.775e+05	-5.55e-02
1	17	15	-6.89	-7.58	-7.57	-6.90	-7.94e-02	-3.258e+05	-4.208e+05	-3.439e+05	-4.027e+05	-3.731e+04
1	17	16	-6.67	-7.54	-7.54	-6.67	2.48e-02	-2.743e+05	-3.702e+05	-2.837e+05	-3.608e+05	-2.855e+04
1	17	17	-7.05	-7.17	-7.10	-7.11	5.98e-02	-2.919e+05	-3.874e+05	-3.397e+05	-3.397e+05	-4.776e+04
1	17	18	-6.67	-7.55	-7.55	-6.67	-4.88e-02	-2.534e+05	-3.509e+05	-2.832e+05	-3.210e+05	-4.493e+04

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	17	19	-6.73	-7.51	-6.73	-7.51	-2.37e-02	-2.534e+05	-3.508e+05	-3.210e+05	-2.832e+05	-4.493e+04
1	17	20	-6.44	-7.05	-6.69	-6.80	-0.30	-2.254e+05	-3.253e+05	-2.753e+05	-2.753e+05	-4.995e+04
1	17	21	-6.67	-7.54	-6.67	-7.54	-2.48e-02	-2.743e+05	-3.702e+05	-3.608e+05	-2.837e+05	2.855e+04
1	17	22	-6.89	-7.58	-6.90	-7.57	7.94e-02	-3.258e+05	-4.208e+05	-4.027e+05	-3.439e+05	3.731e+04
1	17	23	-3.65	-5.07	-4.36	-4.36	-0.71	-3.891e+05	-4.965e+05	-4.428e+05	-4.428e+05	5.370e+04
1	17	24	-12.97	-14.28	-14.28	-12.97	-4.16e-04	-4.070e+05	-5.213e+05	-4.070e+05	-5.213e+05	-1.45e-02
1	17	25	-3.65	-5.07	-4.36	-4.36	0.71	-3.891e+05	-4.965e+05	-4.428e+05	-4.428e+05	-5.370e+04
1	17	26	-6.89	-7.59	-6.90	-7.58	-7.83e-02	-3.258e+05	-4.208e+05	-4.027e+05	-3.439e+05	-3.731e+04
1	17	27	-6.69	-7.53	-6.69	-7.52	3.71e-02	-2.743e+05	-3.702e+05	-3.608e+05	-2.837e+05	-2.855e+04
1	17	28	-6.79	-7.45	-6.79	-7.45	6.90e-04	-2.823e+05	-3.775e+05	-3.775e+05	-2.823e+05	5.54e-02
1	17	29	-7.67	-8.72	-8.72	-7.67	6.62e-04	-3.400e+05	-4.333e+05	-4.333e+05	-3.400e+05	7.80e-02
1	17	30	-12.97	-14.28	-12.97	-14.28	4.16e-04	-4.070e+05	-5.213e+05	-5.213e+05	-4.070e+05	1.40e-02
1	17	31	-12.97	-14.28	-12.97	-14.28	4.16e-04	-4.070e+05	-5.213e+05	-5.213e+05	-4.070e+05	1.40e-02
1	17	32	-7.67	-8.72	-8.72	-7.67	6.62e-04	-3.400e+05	-4.333e+05	-4.333e+05	-3.400e+05	7.80e-02
1	17	33	-6.79	-7.45	-6.79	-7.45	6.90e-04	-2.823e+05	-3.775e+05	-3.775e+05	-2.823e+05	5.54e-02
1	17	34	-6.69	-7.53	-6.69	-7.52	3.71e-02	-2.743e+05	-3.702e+05	-3.608e+05	-2.837e+05	-2.855e+04
1	17	35	-6.89	-7.59	-6.90	-7.58	-7.83e-02	-3.258e+05	-4.208e+05	-4.027e+05	-3.439e+05	-3.731e+04
1	17	36	-3.65	-5.07	-4.36	-4.36	0.71	-3.891e+05	-4.965e+05	-4.428e+05	-4.428e+05	5.370e+04
1	17	37	-12.97	-14.28	-14.28	-12.97	-4.16e-04	-4.070e+05	-5.213e+05	-4.070e+05	-5.213e+05	-1.45e-02
1	17	38	-3.65	-5.07	-4.36	-4.36	-0.71	-3.891e+05	-4.965e+05	-4.428e+05	-4.428e+05	5.370e+04
1	17	39	-6.89	-7.58	-6.90	-7.57	7.94e-02	-3.258e+05	-4.208e+05	-4.027e+05	-3.439e+05	3.731e+04
1	17	40	-6.67	-7.54	-6.67	-7.54	-2.48e-02	-2.743e+05	-3.702e+05	-3.608e+05	-2.837e+05	2.855e+04
1	17	41	-6.73	-7.51	-6.73	-7.51	-2.37e-02	-2.534e+05	-3.508e+05	-3.210e+05	-2.832e+05	-4.493e+04
1	17	42	-7.05	-7.17	-7.10	-7.11	5.98e-02	-2.919e+05	-3.874e+05	-3.397e+05	-3.397e+05	-4.776e+04
1	17	43	-6.89	-7.58	-7.57	-6.90	-7.94e-02	-3.258e+05	-4.208e+05	-3.439e+05	-4.027e+05	-3.731e+04
1	17	44	-7.67	-8.72	-7.67	-8.72	-6.62e-04	-3.400e+05	-4.333e+05	-4.333e+05	-3.400e+05	-7.81e-02
1	17	45	-6.89	-7.59	-7.58	-6.90	7.83e-02	-3.258e+05	-4.208e+05	-3.439e+05	-4.027e+05	3.731e+04
1	17	46	-7.05	-7.17	-7.11	-7.10	-5.98e-02	-2.919e+05	-3.874e+05	-3.397e+05	-3.397e+05	4.776e+04
1	17	47	-6.67	-7.55	-6.67	-7.55	4.89e-02	-2.534e+05	-3.509e+05	-3.210e+05	-2.832e+05	4.493e+04
1	17	48	-6.44	-7.05	-6.69	-6.80	-0.30	-2.254e+05	-3.253e+05	-2.753e+05	-2.753e+05	-4.995e+04
1	17	49	-6.67	-7.55	-6.67	-7.55	-4.88e-02	-2.534e+05	-3.509e+05	-2.832e+05	-3.210e+05	-4.493e+04
1	17	50	-6.67	-7.54	-6.67	-7.54	2.48e-02	-2.743e+05	-3.702e+05	-2.837e+05	-3.608e+05	-2.855e+04
1	17	51	-6.79	-7.45	-6.79	-7.45	-6.90e-04	-2.823e+05	-3.775e+05	-2.823e+05	-3.775e+05	-5.55e-02
1	17	52	-6.69	-7.53	-6.69	-7.52	-3.72e-02	-2.743e+05	-3.702e+05	-2.837e+05	-3.608e+05	-2.855e+04
1	17	53	-6.73	-7.52	-7.51	-6.73	2.37e-02	-2.534e+05	-3.508e+05	-2.832e+05	-3.210e+05	4.493e+04
1	17	54	-6.44	-7.05	-6.69	-6.80	0.30	-2.254e+05	-3.253e+05	-2.753e+05	-2.753e+05	4.995e+04
1	17	55	-7.55	-7.94	-7.55	-7.94	1.08e-03	-2.138e+05	-3.178e+05	-2.138e+05	-3.178e+05	0.15
1	17	56	-7.64	-7.86	-7.66	-7.84	5.54e-02	-2.086e+05	-3.128e+05	-2.173e+05	-3.041e+05	2.882e+04
1	17	57	-7.21	-7.49	-7.21	-7.49	-2.41e-04	-1.540e+05	-2.698e+05	-1.540e+05	-2.698e+05	-4.32e-02
1	17	58	-7.47	-7.53	-7.48	-7.52	1.95e-02	-1.499e+05	-2.667e+05	-1.586e+05	-2.579e+05	3.072e+04
1	17	59	-5.91	-7.34	-7.34	-5.91	-1.21e-04	-9.718e+04	-2.242e+05	-9.718e+04	-2.242e+05	-1.34e-03
1	17	60	-6.67	-8.82	-6.78	-8.71	0.47	-9.010e+04	-2.275e+05	-9.949e+04	-2.181e+05	3.468e+04
1	17	61	-0.70	-3.83	-3.83	-0.70	-2.99e-05	-4.372e+04	-1.691e+05	-4.372e+04	-1.691e+05	-2.28e-03
1	17	62	2.83	-11.46	2.22	-10.85	2.89	-2.406e+04	-2.006e+05	-3.528e+04	-1.893e+05	4.306e+04
1	17	63	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.476e+04	-9.053e+04	6.476e+04	-9.053e+04	-7.15e-03
1	17	64	1.37	-0.19	1.32	-0.14	0.28	-5106.27	-1.990e+05	-1.699e+04	-1.871e+05	4.651e+04
1	17	65	-6.38	-9.73	-6.38	-9.73	1.69e-04	-8127.69	-9.092e+04	-8127.69	-9.092e+04	2.64e-02
1	17	66	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.628e+05	515.78	-1.512e+05	4.344e+04
1	17	67	-7.32	-7.98	-7.42	-7.88	0.24	-1.941e+05	-2.996e+05	-2.239e+05	-2.698e+05	4.750e+04
1	17	68	-7.07	-7.37	-7.14	-7.30	0.13	-1.400e+05	-2.563e+05	-1.710e+05	-2.253e+05	5.144e+04
1	17	69	-5.57	-7.62	-7.16	-6.03	-0.86	-8.843e+04	-2.132e+05	-1.206e+05	-1.810e+05	5.456e+04
1	17	70	-0.38	-3.35	-2.18	-1.55	-1.45	-3.933e+04	-1.595e+05	-6.995e+04	-1.289e+05	5.237e+04
1	17	71	-2.90	-7.54	-3.71	-6.73	1.76	6.343e+04	-8.452e+04	2.758e+04	-4.867e+04	6.340e+04
1	17	72	-6.55	-11.23	-8.24	-9.54	2.25	-7571.98	-8.617e+04	-2.732e+04	-6.643e+04	3.409e+04
1	17	73	-7.08	-7.64	-7.34	-7.37	0.28	-1.733e+05	-2.819e+05	-2.276e+05	-2.276e+05	5.431e+04
1	17	74	-6.89	-7.14	-7.02	-7.02	0.12	-1.230e+05	-2.442e+05	-1.836e+05	-1.836e+05	6.061e+04
1	17	75	-6.03	-8.26	-7.14	-7.14	1.12	-7.005e+04	-2.121e+05	-1.411e+05	-1.411e+05	7.102e+04
1	17	76	4.97	-9.14	-2.08	-2.09	7.06	-1.393e+04	-1.913e+05	-1.026e+05	-1.026e+05	8.867e+04
1	17	77	-6.41e-02	-0.72	-0.39	-0.39	-0.33	-4969.24	-1.942e+05	-9.961e+04	-9.961e+04	9.464e+04
1	17	78	-4.05	-7.30	-5.67	-5.67	-1.63	1.077e+04	-1.616e+05	-7.539e+04	-7.539e+04	8.616e+04
1	17	79	-7.30	-8.01	-7.90	-7.42	0.26	-1.941e+05	-2.996e+05	-2.698e+05	-2.239e+05	4.750e+04
1	17	80	-7.06	-7.37	-7.29	-7.14	0.13	-1.400e+05	-2.563e+05	-2.253e+05	-1.710e+05	5.144e+04
1	17	81	-5.56	-7.62	-6.03	-7.16	-0.86	-8.843e+04	-2.132e+05	-1.810e+05	-1.206e+05	5.456e+04
1	17	82	-0.38	-3.35	-1.55	-2.17	-1.45	-3.933e+04	-1.595e+05	-1.289e+05	-6.995e+04	5.237e+04
1	17	83	-2.90	-7.54	-6.73	-3.71	1.76	6.343e+04	-8.452e+04	-4.867e+04	2.758e+04	6.340e+04
1	17	84	-6.55	-11.23	-9.54	-8.24	2.25	-7571.82	-8.617e+04	-6.643e+04	-2.732e+04	3.409e+04
1	17	85	-7.63	-7.86	-7.85	-7.64	4.90e-02	-2.086e+05	-3.128e+05	-3.041e+05	-2.173e+05	2.882e+04
1	17	86	-7.47	-7.53	-7.53	-7.47	2.01e-02	-1.499e+05	-2.667e+05	-2.579e+05	-1.586e+05	3.072e+04
1	17	87	-6.67	-8.82	-8.71	-6.78	0.47	-9.010e+04	-2.275e+05	-2.181e+05	-9.949e+04	3.468e+04
1	17	88	2.83	-11.46	-10.85	2.22	2.89	-2.406e+04	-2.006e+05	-1.893e+05	-3.528e+04	4.306e+04
1	17	89	1.37	-0.19	-0.14	1.32	0.28	-5106.30	-1.990e+05	-1.699e+05	-1.871e+05	4.651e+04

**PROGETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	17	90	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.628e+05	-1.512e+05	515.76	4.344e+04
1	17	91	-7.55	-7.94	-7.94	-7.55	-1.08e-03	-2.138e+05	-3.178e+05	-3.178e+05	-2.138e+05	-0.15
1	17	92	-7.21	-7.49	-7.49	-7.21	2.41e-04	-1.540e+05	-2.698e+05	-2.698e+05	-1.540e+05	4.41e-02
1	17	93	-5.91	-7.34	-5.91	-7.34	1.21e-04	-9.718e+04	-2.242e+05	-2.242e+05	-9.718e+04	1.05e-03
1	17	94	-0.70	-3.83	-0.70	-3.83	2.99e-05	-4.372e+04	-1.691e+05	-1.691e+05	-4.372e+04	2.08e-03
1	17	95	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.476e+04	-9.053e+04	-9.053e+04	6.476e+04	7.96e-03
1	17	96	-6.38	-9.73	-9.73	-6.38	-1.69e-04	-8127.70	-9.092e+04	-9.092e+04	-8127.70	-2.70e-02
1	17	97	-7.64	-7.86	-7.84	-7.66	-5.54e-02	-2.086e+05	-3.128e+05	-3.041e+05	-2.173e+05	-2.882e+04
1	17	98	-7.47	-7.53	-7.52	-7.48	-1.95e-02	-1.499e+05	-2.667e+05	-2.579e+05	-1.586e+05	-3.072e+04
1	17	99	-6.67	-8.82	-8.71	-6.78	-0.47	-9.010e+04	-2.275e+05	-2.181e+05	-9.949e+04	-3.468e+04
1	17	100	2.83	-11.46	-10.85	2.22	-2.89	-2.406e+04	-2.006e+05	-1.893e+05	-3.528e+04	-4.306e+04
1	17	101	1.37	-0.19	-0.14	1.32	-0.28	-5106.26	-1.990e+05	-1.871e+05	-1.699e+04	-4.651e+04
1	17	102	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.628e+05	-1.512e+05	515.81	-4.344e+04
1	17	103	-7.31	-7.98	-7.88	-7.42	-0.24	-1.941e+05	-2.996e+05	-2.698e+05	-2.239e+05	-4.750e+04
1	17	104	-7.07	-7.37	-7.30	-7.14	-0.13	-1.400e+05	-2.563e+05	-2.253e+05	-1.710e+05	-5.144e+04
1	17	105	-5.57	-7.62	-6.03	-7.16	0.86	-8.843e+04	-2.132e+05	-1.810e+05	-1.206e+05	-5.456e+04
1	17	106	-0.38	-3.35	-1.55	-2.18	1.45	-3.933e+04	-1.595e+05	-1.289e+05	-6.995e+04	-5.237e+04
1	17	107	-2.90	-7.54	-6.73	-3.71	-1.76	6.343e+04	-8.452e+04	-4.867e+04	2.758e+04	-6.340e+04
1	17	108	-6.55	-11.23	-9.54	-8.24	-2.25	-7571.95	-8.617e+04	-6.643e+04	-2.732e+04	-3.409e+04
1	17	109	-7.08	-7.64	-7.37	-7.34	-0.28	-1.733e+05	-2.819e+05	-2.276e+05	-2.276e+05	-5.431e+04
1	17	110	-6.89	-7.14	-7.02	-7.02	-0.12	-1.230e+05	-2.442e+05	-1.836e+05	-1.836e+05	-6.061e+04
1	17	111	-6.03	-8.26	-7.14	-7.14	-1.12	-7.005e+04	-2.121e+05	-1.411e+05	-1.411e+05	-7.102e+04
1	17	112	4.97	-9.14	-2.09	-2.08	-7.06	-1.393e+04	-1.913e+05	-1.026e+05	-1.026e+05	-8.867e+04
1	17	113	-6.41e-02	-0.72	-0.39	-0.39	0.33	-4969.24	-1.942e+05	-9.961e+04	-9.961e+04	-9.464e+04
1	17	114	-4.05	-7.30	-5.67	-5.67	1.63	1.077e+04	-1.616e+05	-7.539e+04	-7.539e+04	-8.616e+04
1	17	115	-7.30	-8.01	-7.42	-7.90	-0.26	-1.941e+05	-2.996e+05	-2.239e+05	-2.698e+05	-4.750e+04
1	17	116	-7.06	-7.37	-7.14	-7.29	-0.13	-1.400e+05	-2.563e+05	-1.710e+05	-2.253e+05	-5.144e+04
1	17	117	-5.56	-7.62	-7.16	-6.03	0.86	-8.843e+04	-2.132e+05	-1.206e+05	-1.810e+05	-5.456e+04
1	17	118	-0.38	-3.35	-2.17	-1.55	1.45	-3.932e+04	-1.595e+05	-6.995e+04	-1.289e+05	-5.237e+04
1	17	119	-2.90	-7.54	-3.71	-6.73	-1.76	6.343e+04	-8.452e+04	2.758e+04	-4.867e+04	-6.340e+04
1	17	120	-6.55	-11.23	-8.24	-9.54	-2.25	-7571.85	-8.617e+04	-2.732e+04	-6.643e+04	-3.409e+04
1	17	121	-7.63	-7.86	-7.64	-7.85	-4.89e-02	-2.086e+05	-3.128e+05	-2.173e+05	-3.041e+05	-2.882e+04
1	17	122	-7.47	-7.53	-7.47	-7.53	-2.01e-02	-1.499e+05	-2.667e+05	-1.586e+05	-2.579e+05	-3.072e+04
1	17	123	-6.67	-8.82	-6.78	-8.71	-0.47	-9.010e+04	-2.275e+05	-9.949e+04	-2.181e+05	-3.468e+04
1	17	124	2.83	-11.46	2.22	-10.85	-2.89	-2.406e+04	-2.006e+05	-3.528e+04	-1.893e+05	-4.306e+04
1	17	125	1.37	-0.19	1.32	-0.14	-0.28	-5106.31	-1.990e+05	-1.699e+04	-1.871e+05	-4.651e+04
1	17	126	-3.48	-8.01	-7.88	-3.61	0.75	1.207e+04	-1.628e+05	515.74	-1.512e+05	-4.344e+04
1	17	127	-7.55	-7.94	-7.55	-7.94	1.08e-03	-2.138e+05	-3.178e+05	-2.138e+05	-3.178e+05	0.15
1	17	128	-7.21	-7.49	-7.21	-7.49	-2.41e-04	-1.540e+05	-2.698e+05	-2.698e+05	-1.540e+05	-4.32e-02
1	17	129	-5.91	-7.34	-7.34	-5.91	-1.21e-04	-9.718e+04	-2.242e+05	-2.242e+05	-9.718e+04	-1.34e-03
1	17	130	-0.70	-3.83	-3.83	-0.70	-2.99e-05	-4.372e+04	-1.691e+05	-1.691e+05	-4.372e+04	-2.28e-03
1	17	131	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.476e+04	-9.053e+04	6.476e+04	-9.053e+04	-7.15e-03
1	17	132	-6.38	-9.73	-6.38	-9.73	1.69e-04	-8127.69	-9.092e+04	-8127.69	-9.092e+04	2.64e-02
1	17	133	-7.64	-7.86	-7.66	-7.84	5.54e-02	-2.086e+05	-3.128e+05	-2.173e+05	-3.041e+05	2.882e+04
1	17	134	-7.47	-7.53	-7.48	-7.52	1.95e-02	-1.499e+05	-2.667e+05	-1.586e+05	-2.579e+05	3.072e+04
1	17	135	-6.67	-8.82	-6.78	-8.71	0.47	-9.010e+04	-2.275e+05	-9.949e+04	-2.181e+05	3.468e+04
1	17	136	2.83	-11.46	2.22	-10.85	2.89	-2.406e+04	-2.006e+05	-3.528e+04	-1.893e+05	4.306e+04
1	17	137	1.37	-0.19	1.32	-0.14	0.28	-5106.27	-1.990e+05	-1.699e+04	-1.871e+05	4.651e+04
1	17	138	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.628e+05	515.78	-1.512e+05	4.344e+04
1	17	139	-7.32	-7.98	-7.42	-7.88	0.24	-1.941e+05	-2.996e+05	-2.239e+05	-2.698e+05	4.750e+04
1	17	140	-7.07	-7.37	-7.14	-7.30	-0.13	-1.400e+05	-2.563e+05	-1.710e+05	-2.253e+05	5.144e+04
1	17	141	-5.57	-7.62	-7.16	-6.03	-0.86	-8.843e+04	-2.132e+05	-1.206e+05	-1.810e+05	5.456e+04
1	17	142	-0.38	-3.35	-2.18	-1.55	-1.45	-3.933e+04	-1.595e+05	-6.995e+04	-1.289e+05	5.237e+04
1	17	143	-2.90	-7.54	-3.71	-6.73	1.76	6.343e+04	-8.452e+04	2.758e+04	-4.867e+04	6.340e+04
1	17	144	-6.55	-11.23	-8.24	-9.54	2.25	-7571.98	-8.617e+04	-2.732e+04	-6.643e+04	3.409e+04
1	17	145	-7.08	-7.64	-7.34	-7.37	0.28	-1.733e+05	-2.819e+05	-2.276e+05	-2.276e+05	5.431e+04
1	17	146	-6.89	-7.14	-7.02	-7.02	0.12	-1.230e+05	-2.442e+05	-1.836e+05	-1.836e+05	6.061e+04
1	17	147	-6.03	-8.26	-7.14	-7.14	1.12	-7.005e+04	-2.121e+05	-1.411e+05	-1.411e+05	7.102e+04
1	17	148	4.97	-9.14	-2.08	-2.09	7.06	-1.393e+04	-1.913e+05	-1.026e+05	-1.026e+05	8.867e+04
1	17	149	-6.41e-02	-0.72	-0.39	-0.39	-0.33	-4969.24	-1.942e+05	-9.961e+04	-9.961e+04	9.464e+04
1	17	150	-4.05	-7.30	-5.67	-5.67	1.63	1.077e+04	-1.616e+05	-7.539e+04	-7.539e+04	8.616e+04
1	17	151	-7.30	-8.01	-7.90	-7.42	0.26	-1.941e+05	-2.996e+05	-2.239e+05	-2.698e+05	4.750e+04
1	17	152	-7.06	-7.37	-7.29	-7.14	-0.13	-1.400e+05	-2.563e+05	-2.253e+05	-1.710e+05	5.144e+04
1	17	153	-5.56	-7.62	-6.03	-7.16	0.86	-8.843e+04	-2.132e+05	-1.206e+05	-1.810e+05	5.456e+04
1	17	154	-0.38	-3.35	-1.55	-2.17	-1.45	-3.933e+04	-1.595e+05	-6.995e+04	-1.289e+05	5.237e+04
1	17	155	-2.90	-7.54	-6.73	-3.71	1.76	6.343e+04	-8.452e+04	2.758e+04	-4.867e+04	6.340e+04
1	17	156	-6.55	-11.23	-9.54	-8.24	2.25	-7571.82	-8.617e+04	-6.643e+04	-2.732e+04	3.409e+04
1	17	157	-7.63	-7.86	-7.85	-7.64	4.90e-02	-2.086e+05	-3.128e+05	-3.041e+05	-2.173e+05	2.882e+04
1	17	158	-7.47	-7.53	-7.53	-7.47	2.01e-02	-1.499e+05	-2.667e+05	-1.586e+05	-2.579e+05	3.072e+04
1	17	159	-6.67	-8.82	-8.71	-6.78	0.47	-9.010e+04	-2.275e+05	-9.949e+04	-2.181e+05	3.468e+04
1	17	160	2.83	-11.46	-10.85	2.22	2.89	-2.406e+04	-2.006e+05	-1.893e+05	-3.528e+04	4.306e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	17	161	1.37	-0.19	-0.14	1.32	0.28	-5106.30	-1.990e+05	-1.871e+05	-1.699e+04	4.651e+04
1	17	162	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.628e+05	-1.512e+05	515.76	4.344e+04
1	17	163	-7.55	-7.94	-7.94	-7.55	-1.08e-03	-2.138e+05	-3.178e+05	-3.178e+05	-2.138e+05	-0.15
1	17	164	-7.21	-7.49	-7.49	-7.21	2.41e-04	-1.540e+05	-2.698e+05	-2.698e+05	-1.540e+05	4.41e-02
1	17	165	-5.91	-7.34	-5.91	-7.34	1.21e-04	-9.718e+04	-2.242e+05	-2.242e+05	-9.718e+04	1.05e-03
1	17	166	-0.70	-3.83	-0.70	-3.83	2.99e-05	-4.372e+04	-1.691e+05	-1.691e+05	-4.372e+04	2.08e-03
1	17	167	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.476e+04	-9.053e+04	-9.053e+04	6.476e+04	7.96e-03
1	17	168	-6.38	-9.73	-9.73	-6.38	-1.69e-04	-8127.70	-9.092e+04	-9.092e+04	-8127.70	-2.70e-02
1	17	169	-7.64	-7.86	-7.84	-7.66	-5.54e-02	-2.086e+05	-3.128e+05	-3.041e+05	-2.173e+05	-2.882e+04
1	17	170	-7.47	-7.53	-7.52	-7.48	-1.95e-02	-1.499e+05	-2.667e+05	-2.579e+05	-1.586e+05	-3.072e+04
1	17	171	-6.67	-8.82	-8.71	-6.78	-0.47	-9.010e+04	-2.275e+05	-2.181e+05	-9.949e+04	-3.468e+04
1	17	172	2.83	-11.46	-10.85	2.22	-2.89	-2.406e+04	-2.006e+05	-1.893e+05	-3.528e+04	-4.306e+04
1	17	173	1.37	-0.19	-0.14	1.32	-0.28	-5106.26	-1.990e+05	-1.871e+05	-1.699e+04	4.651e+04
1	17	174	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.628e+05	-1.512e+05	515.81	-4.344e+04
1	17	175	-7.31	-7.98	-7.88	-7.42	-0.24	-1.941e+05	-2.996e+05	-2.698e+05	-2.239e+05	-4.750e+04
1	17	176	-7.07	-7.37	-7.30	-7.14	-0.13	-1.400e+05	-2.563e+05	-2.253e+05	-1.710e+05	-5.144e+04
1	17	177	-5.57	-7.62	-6.03	-7.16	0.86	-8.843e+04	-2.132e+05	-1.810e+05	-1.206e+05	-5.456e+04
1	17	178	-0.38	-3.35	-1.55	-2.18	1.45	-3.933e+04	-1.595e+05	-1.289e+05	-6.995e+04	-5.237e+04
1	17	179	-2.90	-7.54	-6.73	-3.71	-1.76	6.343e+04	-8.452e+04	-4.867e+04	2.758e+04	-6.340e+04
1	17	180	-6.55	-11.23	-9.54	-8.24	-2.25	-7571.95	-8.617e+04	-6.643e+04	-2.732e+04	-3.409e+04
1	17	181	-7.08	-7.64	-7.37	-7.34	-0.28	-1.733e+05	-2.819e+05	-2.276e+05	-2.276e+05	-5.431e+04
1	17	182	-6.89	-7.14	-7.02	-7.02	-0.12	-1.230e+05	-2.442e+05	-1.836e+05	-1.289e+05	-6.061e+04
1	17	183	-6.03	-8.26	-7.14	-7.14	-1.12	-7.005e+04	-2.121e+05	-1.411e+05	-1.411e+05	-7.102e+04
1	17	184	4.97	-9.14	-2.09	-2.08	-7.06	-1.393e+04	-1.913e+05	-1.026e+05	-1.026e+05	-8.867e+04
1	17	185	-6.41e-02	-0.72	-0.39	-0.39	0.33	-4969.24	-1.942e+05	-9.961e+04	-9.961e+04	-9.464e+04
1	17	186	-4.05	-7.30	-5.67	-5.67	1.63	1.077e+04	-1.616e+05	-7.539e+04	-7.539e+04	-8.616e+04
1	17	187	-7.30	-8.01	-7.42	-7.90	-0.26	-1.941e+05	-2.996e+05	-2.239e+05	-2.698e+05	-4.750e+04
1	17	188	-7.06	-7.37	-7.14	-7.29	-0.13	-1.400e+05	-2.563e+05	-1.710e+05	-2.253e+05	-5.144e+04
1	17	189	-5.56	-7.62	-7.16	-6.03	0.86	-8.843e+04	-2.132e+05	-1.206e+05	-1.810e+05	-5.456e+04
1	17	190	-0.38	-3.35	-2.17	-1.55	1.45	-3.932e+04	-1.595e+05	-1.289e+05	-6.995e+04	-5.237e+04
1	17	191	-2.90	-7.54	-3.71	-6.73	-1.76	6.343e+04	-8.452e+04	2.758e+04	-4.867e+04	-6.340e+04
1	17	192	-6.55	-11.23	-8.24	-9.54	-2.25	-7571.85	-8.617e+04	-6.643e+04	-2.732e+04	-3.409e+04
1	17	193	-7.63	-7.86	-7.64	-7.85	-4.89e-02	-2.086e+05	-3.128e+05	-2.173e+05	-3.041e+05	-2.882e+04
1	17	194	-7.47	-7.53	-7.47	-7.53	-2.01e-02	-1.499e+05	-2.667e+05	-1.586e+05	-2.579e+05	-3.072e+04
1	17	195	-6.67	-8.82	-6.78	-8.71	-0.47	-9.010e+04	-2.275e+05	-2.181e+05	-9.949e+04	-3.468e+04
1	17	196	2.83	-11.46	2.22	-10.85	-2.89	-2.406e+04	-2.006e+05	-3.528e+04	-1.893e+05	-4.306e+04
1	17	197	1.37	-0.19	1.32	-0.14	-0.28	-5106.31	-1.990e+05	-1.871e+05	-1.699e+04	4.651e+04
1	17	198	-3.48	-8.01	-7.88	-3.61	0.75	1.207e+04	-1.628e+05	-1.512e+05	515.74	-4.344e+04
1	21	1	6.98	6.98	6.98	6.98	-7.538e+05	-7.538e+05	-7.538e+05	-7.538e+05	-7.538e+05	-7.538e+05
1	21	7	45.11	-43.21	13.55	-11.65	42.33	-1.724e+05	-3.047e+05	-2.525e+05	-2.246e+05	6.468e+04
1	21	8	69.91	-66.01	-1.89	5.79	67.85	-1.720e+05	-3.253e+05	-2.901e+05	-2.072e+05	6.444e+04
1	21	9	166.14	-130.37	94.24	-58.47	127.08	-1.895e+05	-3.679e+05	-3.030e+05	-2.543e+05	6.580e+04
1	21	10	67.55	-62.38	59.01	-53.85	32.19	-1.974e+05	-3.356e+05	-2.601e+05	-2.729e+05	8.883e+04
1	21	11	202.97	-303.15	198.82	-299.00	-45.64	-2.124e+05	-4.159e+05	-3.132e+05	-3.151e+05	1.017e+05
1	21	12	86.94	-95.68	80.72	-89.46	-33.12	-2.309e+05	-3.647e+05	-2.670e+05	-3.286e+05	5.940e+04
1	21	13	258.57	-282.39	0.66	-24.48	-270.18	-2.999e+05	-4.649e+05	-3.336e+05	-4.312e+05	6.651e+04
1	21	14	78.67	-93.50	-4.44	-10.39	-86.04	-2.686e+05	-3.861e+05	-2.784e+05	-3.763e+05	3.259e+04
1	21	15	291.38	-214.51	-208.08	284.95	-56.69	-3.596e+05	-4.930e+05	-3.642e+05	-4.884e+05	2.447e+04
1	21	16	80.72	-100.14	-92.38	72.96	-36.66	-2.937e+05	-3.907e+05	-2.937e+05	-3.907e+05	1379.34
1	21	17	114.34	-176.31	-112.28	50.31	120.47	-3.683e+05	-4.251e+05	-3.709e+05	-4.226e+05	-1.182e+04
1	21	18	47.62	-80.75	-74.04	40.91	28.56	-2.947e+05	-3.738e+05	-3.015e+05	-3.671e+05	-2.207e+04
1	21	19	50.50	-82.25	-14.65	-17.11	66.37	-3.261e+05	-3.803e+05	-3.487e+05	-3.577e+05	-2.674e+04
1	21	20	27.56	-56.23	-27.96	-0.72	39.62	-2.708e+05	-3.486e+05	-2.949e+05	-3.245e+05	-3.598e+04
1	21	21	95.32	-92.85	-66.76	69.23	65.03	-1.623e+05	-3.397e+05	-3.269e+05	-1.750e+05	4.581e+04
1	21	22	252.60	-157.30	-23.89	119.19	192.06	-1.449e+05	-4.068e+05	-3.758e+05	-1.759e+05	8.464e+04
1	21	23	1364.57	-549.37	511.23	303.97	951.34	-1.397e+05	-4.981e+05	-3.836e+05	-2.542e+05	1.671e+05
1	21	24	96.62	-124.29	30.02	-57.68	-101.38	-3.854e+05	-5.338e+05	-3.989e+05	-5.202e+05	-4.273e+04
1	21	25	512.60	-1299.48	-503.90	-282.98	899.28	-4.721e+05	-6.460e+05	-4.904e+05	-6.277e+05	5.333e+04
1	21	26	138.77	-268.85	-7.62	-122.46	195.56	-4.235e+05	-5.104e+05	-4.239e+05	-5.099e+05	6334.90
1	21	27	77.54	-108.36	48.45	-79.27	67.54	-3.788e+05	-4.049e+05	-3.924e+05	-3.913e+05	-1.305e+04
1	21	28	113.82	-133.96	-133.93	113.79	-2.72	-1.575e+05	-3.429e+05	-3.429e+05	-1.575e+05	971.31
1	21	29	302.05	-547.13	-547.05	301.96	-8.27	-1.312e+05	-3.711e+05	-3.710e+05	-1.312e+05	1982.87
1	21	30	1521.37	-1538.81	-1538.81	1521.37	-2.97	-1.401e+05	-5.002e+05	-5.002e+05	-1.401e+05	-1259.93
1	21	31	1512.88	-1549.92	1512.88	-1549.91	2.97	-5.416e+05	-6.735e+05	-5.416e+05	-6.735e+05	1259.96
1	21	32	529.71	-317.38	529.63	-317.30	8.27	-4.950e+05	-5.486e+05	-4.951e+05	-5.485e+05	-1982.71
1	21	33	120.38	-128.71	120.35	-128.68	2.72	-4.067e+05	-4.119e+05	-4.117e+05	-4.069e+05	-971.20
1	21	34	93.52	-91.13	-61.84	64.23	-67.46	-1.641e+05	-3.405e+05	-3.288e+05	-1.758e+05	-4.400e+04
1	21	35	254.34	-153.20	-6.16	107.31	-195.71	-1.492e+05	-4.092e+05	-3.810e+05	-1.774e+05	-8.089e+04
1	21	36	1289.35	-519.91	495.18	274.26	-897.86	-1.513e+05	-5.007e+05	-3.947e+05	-2.574e+05	-1.606e+05
1	21	37	97.57	-124.39	-58.56	31.75	101.38	-3.997e+05	-5.365e+05	-4.147e+05	-5.216e+05	4.273e+04
1	21	38	542.06	-1374.70	-519.95	-312.69	-952.76	-4.780e+05	-6.543e+05	-5.014e+05	-6.308e+05	-5.983e+04

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società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	21	39	142.92	-267.16	10.10	-134.34	-191.90	-4.279e+05	-5.127e+05	-4.291e+05	-5.114e+05	-1.008e+04
1	21	40	79.31	-110.19	53.42	-84.30	-65.08	-3.819e+05	-4.045e+05	-3.943e+05	-3.921e+05	1.124e+04
1	21	41	68.05	-64.78	1.19	2.09	-66.41	-1.748e+05	-3.266e+05	-2.929e+05	-2.084e+05	-6.304e+04
1	21	42	162.01	-128.45	98.08	-64.52	-120.35	-1.947e+05	-3.697e+05	-3.080e+05	-2.564e+05	-8.361e+04
1	21	43	199.35	-305.16	192.93	-298.74	56.53	-2.207e+05	-4.189e+05	-3.231e+05	-3.165e+05	-9.902e+04
1	21	44	265.96	-274.90	-16.00	7.06	270.18	-3.105e+05	-4.705e+05	-3.460e+05	-4.349e+05	-6.651e+04
1	21	45	289.38	-218.13	-213.96	285.21	45.80	-3.681e+05	-4.959e+05	-3.741e+05	-4.898e+05	-2.716e+04
1	21	46	116.27	-180.46	-108.46	44.27	-127.20	-3.741e+05	-4.264e+05	-3.759e+05	-4.246e+05	9623.82
1	21	47	51.76	-84.08	-11.45	-20.87	-67.75	-3.296e+05	-3.808e+05	-3.515e+05	-3.589e+05	2.535e+04
1	21	48	43.35	-41.65	14.58	-12.88	-40.22	-1.752e+05	-3.062e+05	-2.555e+05	-2.259e+05	-6.382e+04
1	21	49	65.80	-61.09	58.96	-54.25	-28.66	-2.017e+05	-3.375e+05	-2.646e+05	-2.746e+05	-6.771e+04
1	21	50	85.18	-94.16	77.32	-86.30	36.71	-2.369e+05	-3.670e+05	-2.734e+05	-3.306e+05	-5.843e+04
1	21	51	79.29	-92.93	-10.45	-3.19	86.04	-2.755e+05	-3.887e+05	-2.859e+05	-3.783e+05	-3.259e+04
1	21	52	82.21	-101.90	-95.76	76.07	33.05	-3.001e+05	-3.927e+05	-3.001e+05	-3.926e+05	-2353.75
1	21	53	48.80	-82.44	-74.03	40.39	-32.14	-2.996e+05	-3.751e+05	-3.059e+05	-3.688e+05	2.095e+04
1	21	54	29.18	-58.06	-27.15	-1.73	-41.73	-2.740e+05	-3.496e+05	-2.979e+05	-3.258e+05	3.513e+04
1	21	55	17.05	-32.49	-8.53	-6.91	24.76	-2.119e+05	-3.223e+05	-2.156e+05	-3.185e+05	-1.999e+04
1	21	56	14.37	-38.20	-37.32	13.49	6.76	-2.235e+05	-3.256e+05	-2.247e+05	-3.245e+05	1.089e+04
1	21	57	1.15	-15.81	-7.74	-6.92	8.47	-1.528e+05	-2.726e+05	-1.550e+05	-2.704e+05	-1.605e+04
1	21	58	2.04	-21.07	-21.06	2.04	0.40	-1.579e+05	-2.759e+05	-1.605e+05	-2.734e+05	1.719e+04
1	21	59	-3.84	-9.32	-7.66	-5.49	2.52	-9.645e+04	-2.259e+05	-9.771e+04	-2.246e+05	-1.270e+04
1	21	60	-3.23	-13.45	-13.08	-3.60	-1.91	-9.391e+04	-2.341e+05	-9.828e+04	-2.298e+05	2.436e+04
1	21	61	-0.19	-4.18	-4.06	-0.31	0.68	-4.324e+04	-1.701e+05	-4.394e+04	-1.694e+05	-9409.85
1	21	62	0.37	-7.76	0.36	-7.76	-0.20	-2.496e+04	-2.053e+05	-3.241e+04	-1.979e+05	3.590e+04
1	21	63	-2.08	-7.59	-2.14	-7.53	-0.57	6.512e+04	-9.077e+04	6.493e+04	-9.057e+04	-5515.97
1	21	64	4.95	1.02e-02	0.17	4.79	-0.88	-5035.78	-2.034e+05	-1.444e+04	-1.940e+05	4.216e+04
1	21	65	-6.35	-9.57	-6.40	-9.51	-0.41	-8154.42	-9.098e+04	-8154.70	-9.098e+04	154.35
1	21	66	4.20	-8.35	-8.35	4.19	-0.22	1.233e+04	-1.662e+05	963.60	-1.549e+05	4.360e+04
1	21	67	11.86	-38.68	-32.27	5.44	-16.82	-2.202e+05	-3.176e+05	-2.351e+05	-3.027e+05	3.511e+04
1	21	68	5.23	-24.76	-19.04	-0.49	-11.78	-1.547e+05	-2.700e+05	-1.750e+05	-2.497e+05	4.391e+04
1	21	69	4.71	-18.99	-12.98	-1.30	-10.31	-9.596e+04	-2.230e+05	-1.203e+05	-1.986e+05	4.999e+04
1	21	70	9.95	-11.62	-5.41	3.74	-9.77	-4.166e+04	-1.654e+05	-6.692e+04	-1.401e+05	4.988e+04
1	21	71	2.32	-7.72	-3.64	-1.75	-4.93	6.762e+04	-8.575e+04	3.412e+04	-5.225e+04	6.336e+04
1	21	72	-5.19	-6.67	-6.48	-5.38	-0.49	-7953.88	-8.706e+04	-2.798e+04	-6.703e+04	3.440e+04
1	21	73	12.62	-35.35	-14.67	-8.05	-23.76	-2.024e+05	-3.019e+05	-2.409e+05	-2.634e+05	4.846e+04
1	21	74	7.84	-25.24	-8.82	-8.58	-16.54	-1.402e+05	-2.601e+05	-1.906e+05	-2.097e+05	5.915e+04
1	21	75	4.35	-18.21	-5.26	-8.61	-11.16	-7.878e+04	-2.243e+05	-1.438e+05	-1.593e+05	7.236e+04
1	21	76	3.01	-1.38	2.63	-1.00	-1.24	-1.627e+04	-2.011e+05	-1.029e+05	-1.145e+05	9.222e+04
1	21	77	12.97	-3.47	4.91	4.60	-8.22	-5303.62	-2.044e+05	-1.010e+05	-1.088e+05	9.948e+04
1	21	78	14.95	-5.98	2.75	6.22	-10.32	1.134e+04	-1.706e+05	-7.904e+04	-8.019e+04	9.095e+04
1	21	79	20.08	-43.84	-1.56	-22.20	-30.25	-2.378e+05	-3.246e+05	-2.917e+05	-2.707e+05	4.213e+04
1	21	80	11.81	-30.02	0.47	-18.67	-18.60	-1.654e+05	-2.764e+05	-2.402e+05	-2.016e+05	5.200e+04
1	21	81	11.01	-23.88	2.91	-15.78	-14.73	-1.019e+05	-2.281e+05	-1.905e+05	-1.394e+05	5.771e+04
1	21	82	17.29	-16.32	9.31	-8.34	-14.30	-4.369e+04	-1.688e+05	-1.333e+05	-7.920e+04	5.640e+04
1	21	83	8.47	-9.57	4.22	-5.32	-7.65	7.005e+04	-8.635e+04	-4.646e+04	3.017e+04	6.817e+04
1	21	84	-1.84	-6.29	-2.45	-5.67	-1.54	-8262.97	-8.800e+04	-6.804e+04	-2.822e+04	3.454e+04
1	21	85	26.86	-51.44	19.40	-43.98	-22.99	-2.666e+05	-3.419e+05	-3.328e+05	-2.757e+05	2.464e+04
1	21	86	14.84	-33.64	11.22	-30.03	-12.73	-1.823e+05	-2.904e+05	-2.803e+05	-1.925e+05	3.153e+04
1	21	87	8.42	-23.53	6.50	-21.61	-7.59	-1.065e+05	-2.458e+05	-2.348e+05	-1.176e+05	3.760e+04
1	21	88	2.84	-5.03	2.32	-4.51	-1.96	-2.912e+04	-2.149e+05	-2.020e+05	-4.195e+04	4.709e+04
1	21	89	15.94	-2.33	14.76	-1.15	-4.50	-5829.03	-2.132e+05	-1.999e+05	-1.918e+05	5.089e+04
1	21	90	19.87	-6.17	18.04	-4.33	-6.67	1.295e+04	-1.752e+05	-1.627e+05	425.81	4.689e+04
1	21	91	31.54	-54.25	31.53	-54.25	0.85	-2.777e+05	-3.484e+05	-3.484e+05	-2.777e+05	-596.40
1	21	92	16.47	-34.71	16.47	-34.70	0.34	-1.891e+05	-2.948e+05	-2.948e+05	-1.891e+05	-480.94
1	21	93	13.20	-25.90	13.20	-25.90	0.15	-1.152e+05	-2.429e+05	-2.429e+05	-1.152e+05	-382.68
1	21	94	18.74	-18.30	18.74	-18.30	6.65e-02	-4.989e+04	-1.811e+05	-1.811e+05	-4.989e+04	-285.11
1	21	95	9.41	-9.53	9.41	-9.53	1.80e-02	7.223e+04	-9.363e+04	-9.362e+04	7.223e+04	-175.39
1	21	96	-0.17	-6.16	-0.17	-6.16	-1.00e-02	-8943.48	-9.383e+04	-9.383e+04	-8943.48	-7.57
1	21	97	26.30	-50.51	18.12	-42.33	23.70	-2.654e+05	-3.416e+05	-3.316e+05	-2.754e+05	-2.570e+04
1	21	98	14.51	-33.14	10.65	-29.29	12.99	-1.817e+05	-2.901e+05	-2.794e+05	-1.924e+05	-3.235e+04
1	21	99	8.18	-23.25	6.19	-21.26	7.64	-1.062e+05	-2.455e+05	-2.341e+05	-1.177e+05	-3.823e+04
1	21	100	2.66	-4.91	2.13	-4.38	1.93	-2.903e+04	-2.146e+05	-2.015e+05	-4.214e+04	-4.755e+04
1	21	101	15.73	-2.28	14.54	-1.09	4.48	-5811.35	-2.130e+05	-1.995e+05	-1.933e+04	-5.116e+04
1	21	102	19.61	-6.17	17.76	-4.32	6.65	1.293e+04	-1.750e+05	-1.625e+05	405.44	-4.687e+04
1	21	103	19.46	-42.61	-2.40	-20.75	29.65	-2.360e+05	-3.239e+05	-2.898e+05	-2.701e+05	-4.287e+04
1	21	104	11.24	-29.28	-4.19e-02	-18.00	18.16	-1.644e+05	-2.758e+05	-2.388e+05	-2.014e+05	-5.245e+04
1	21	105	10.56	-23.43	2.58	-15.46	14.41	-1.013e+05	-2.276e+05	-1.894e+05	-1.395e+05	-5.800e+04
1	21	106	16.87	-16.04	9.03	-8.19	14.02	-4.346e+04	-1.685e+05	-1.326e+05	-7.937e+04	-5.658e+04
1	21	107	8.09	-9.42	3.98	-5.32	7.41	6.987e+04	-8.628e+04	-4.621e+04	2.979e+04	-6.820e+04
1	21	108	-2.12	-6.28	-2.66	-5.75	1.39	-8236.22	-8.792e+04	-6.796e+04	-2.819e+04	-3.452e+04
1	21	109	11.81	-34.18	-14.86	-7.52	22.70	-2.005e+05	-3.010e+05	-2.387e+05	-2.627e+05	-4.880e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della  
potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria  
(TA) e Avetrana (TA)

1	21	110	7.19	-24.51	-8.90	-8.42	15.84	-1.391e+05	-2.593e+05	-1.890e+05	-2.093e+05	-5.924e+04
1	21	111	3.82	-17.76	-5.31	-8.63	10.66	-7.816e+04	-2.237e+05	-1.427e+05	-1.592e+05	-7.229e+04
1	21	112	2.72	-1.36	2.51	-1.15	0.90	-1.608e+04	-2.005e+05	-1.021e+05	-1.145e+05	-9.201e+04
1	21	113	12.44	-3.36	4.69	4.39	7.90	-5246.72	-2.038e+05	-1.004e+05	-1.087e+05	-9.920e+04
1	21	114	14.29	-6.00	2.38	5.92	9.99	1.130e+04	-1.701e+05	-7.878e+04	-7.998e+04	-9.068e+04
1	21	115	10.72	-37.44	-31.88	5.17	15.39	-2.174e+05	-3.163e+05	-2.323e+05	-3.014e+05	-3.541e+04
1	21	116	4.39	-23.89	-18.70	-0.80	10.95	-1.530e+05	-2.689e+05	-1.731e+05	-2.488e+05	-4.387e+04
1	21	117	4.02	-18.40	-12.73	-1.65	9.74	-9.505e+04	-2.221e+05	-1.191e+05	-1.981e+05	-4.980e+04
1	21	118	9.26	-11.20	-5.25	3.32	9.29	-4.128e+04	-1.649e+05	-6.630e+04	-1.398e+05	-4.965e+04
1	21	119	1.75	-7.53	-3.61	-2.17	4.59	6.731e+04	-8.562e+04	3.405e+04	-5.236e+04	-6.309e+04
1	21	120	-5.59	-6.66	-6.56	-5.69	0.31	-7905.58	-8.689e+04	-2.790e+04	-6.690e+04	-3.434e+04
1	21	121	13.37	-37.16	-35.89	12.10	-7.90	-2.200e+05	-3.240e+05	-2.212e+05	-3.228e+05	-1.111e+04
1	21	122	1.23	-20.28	-20.23	1.18	-0.99	-1.559e+05	-2.746e+05	-1.584e+05	-2.721e+05	-1.712e+04
1	21	123	-3.97	-12.85	-12.57	-4.26	1.56	-9.286e+04	-2.331e+05	-9.716e+04	-2.288e+05	-2.417e+04
1	21	124	0.59	-8.30	0.59	-8.30	-7.80e-03	-2.461e+04	-2.045e+05	-3.197e+04	-1.971e+05	-3.565e+04
1	21	125	4.31	0.14	0.26	4.19	0.69	-4953.61	-2.025e+05	-1.427e+04	-1.932e+05	-4.189e+04
1	21	126	3.47	-8.41	-8.41	3.47	1.74e-02	1.227e+04	-1.655e+05	960.99	-1.542e+05	-4.340e+04
1	21	127	17.02	-32.55	-6.57	-8.96	-24.76	-2.081e+05	-3.204e+05	-2.118e+05	-3.167e+05	2.000e+04
1	21	128	1.13	-15.86	-6.68	-8.05	-8.47	-1.507e+05	-2.711e+05	-1.529e+05	-2.689e+05	1.605e+04
1	21	129	-4.12	-9.20	-7.00	-6.32	-2.52	-9.533e+04	-2.248e+05	-9.659e+04	-2.235e+05	1.270e+04
1	21	130	-0.91	-3.76	-3.59	-1.08	-0.68	-4.279e+04	-1.694e+05	-4.349e+04	-1.687e+05	9409.84
1	21	131	-1.85	-8.23	-1.90	-8.18	0.57	6.476e+04	-9.056e+04	6.456e+04	-5.036e+04	5515.95
1	21	132	-6.32	-9.98	-6.37	-9.94	0.41	-8096.35	-9.074e+04	-8096.64	-9.074e+04	-154.30
1	21	133	22.86	-30.01	22.02	-29.16	-6.65	-1.871e+05	-3.061e+05	-2.097e+05	-2.835e+05	4.670e+04
1	21	134	6.12	-17.08	6.12	-17.08	-0.36	-1.379e+05	-2.610e+05	-1.567e+05	-2.422e+05	4.420e+04
1	21	135	0.12	-14.38	-0.47	-13.80	2.85	-8.409e+04	-2.228e+05	-1.006e+05	-2.063e+05	4.496e+04
1	21	136	5.88	-15.74	4.07	-13.93	5.98	-2.224e+04	-1.965e+05	-3.813e+04	-1.806e+05	5.018e+04
1	21	137	2.73	-5.33	2.46	-5.07	1.44	-4798.24	-1.949e+05	-1.953e+04	-1.801e+05	5.083e+04
1	21	138	-7.03	-11.78	-7.41	-11.41	-1.28	1.182e+04	-1.592e+05	72.05	-1.474e+05	4.325e+04
1	21	139	24.06	-27.81	17.43	-21.19	17.31	-1.636e+05	-2.857e+05	-2.125e+05	-2.367e+05	5.981e+04
1	21	140	10.62	-19.96	4.77	-14.10	12.03	-1.225e+05	-2.451e+05	-1.670e+05	-2.006e+05	5.890e+04
1	21	141	3.75	-15.84	-1.33	-10.76	8.59	-7.925e+04	-2.048e+05	-1.208e+05	-1.632e+05	5.906e+04
1	21	142	5.03	-10.81	1.06	-6.84	6.86	-3.606e+04	-1.544e+05	-7.292e+04	-1.175e+05	5.479e+04
1	21	143	1.60	-17.07	-3.77	-11.70	8.45	5.947e+04	-8.344e+04	2.103e+04	-4.501e+04	6.337e+04
1	21	144	-6.53	-17.16	-9.99	-13.69	4.98	-7185.55	-8.518e+04	-2.662e+04	-6.574e+04	3.373e+04
1	21	145	21.20	-27.89	2.18e-03	-6.69	24.32	-1.417e+05	-2.640e+05	-2.142e+05	-1.916e+05	6.007e+04
1	21	146	11.45	-22.12	-5.21	-5.45	16.78	-1.042e+05	-2.296e+05	-1.764e+05	-1.574e+05	6.198e+04
1	21	147	6.15	-20.84	-9.02	-5.67	13.39	-6.043e+04	-2.005e+05	-1.382e+05	-1.227e+05	6.960e+04
1	21	148	10.47	-20.43	-6.79	-3.17	15.34	-1.120e+04	-1.817e+05	-1.022e+05	-9.064e+04	8.503e+04
1	21	149	2.03	-13.10	-5.68	-5.38	7.56	-4476.71	-1.841e+05	-9.816e+04	-9.038e+04	8.971e+04
1	21	150	-8.55	-23.11	-14.10	-17.56	7.07	1.020e+04	-1.524e+05	-7.168e+04	-7.053e+04	8.130e+04
1	21	151	29.18	-36.04	-14.23	7.37	30.77	-1.488e+05	-2.759e+05	-2.477e+05	-1.770e+05	5.280e+04
1	21	152	15.89	-26.53	-15.05	4.40	18.85	-1.136e+05	-2.369e+05	-2.101e+05	-1.403e+05	5.801e+04
1	21	153	8.65	-22.13	-14.96	1.47	13.01	-7.443e+04	-1.985e+05	-1.714e+05	-1.016e+05	5.134e+04
1	21	154	9.84	-18.25	-12.41	4.00	11.40	-3.466e+04	-1.503e+05	-1.243e+05	-6.064e+04	4.827e+04
1	21	155	3.74	-23.50	-17.68	-2.08	11.17	5.685e+04	-8.265e+04	-5.080e+04	2.499e+04	5.856e+04
1	21	156	-7.01	-20.40	-16.61	-10.80	6.03	-6876.84	-8.423e+04	-6.473e+04	-2.638e+04	3.359e+04
1	21	157	36.19	-42.56	-35.08	28.71	23.09	-1.500e+05	-2.838e+05	-2.752e+05	-1.586e+05	3.295e+04
1	21	158	18.72	-29.90	-26.27	15.09	12.77	-1.172e+05	-2.429e+05	-2.353e+05	-1.247e+05	2.986e+04
1	21	159	10.20	-26.04	-23.90	8.07	8.53	-7.347e+04	-2.091e+05	-2.012e+05	-8.134e+04	3.172e+04
1	21	160	10.68	-25.73	-24.01	8.95	7.74	-1.894e+04	-1.861e+05	-1.765e+05	-2.859e+04	3.899e+04
1	21	161	5.06	-16.31	-15.03	3.78	5.06	-4368.34	-1.846e+05	-1.742e+05	-1.084e+04	4.209e+04
1	21	162	-9.71	-26.96	-25.25	-11.42	5.16	1.119e+04	-1.502e+05	-1.396e+05	609.79	3.995e+04
1	21	163	39.15	-47.41	-47.40	39.15	-0.85	-1.497e+05	-2.868e+05	-2.868e+05	-1.498e+05	596.11
1	21	164	20.29	-31.44	-31.43	20.29	-0.34	-1.188e+05	-2.445e+05	-2.445e+05	-1.188e+05	481.02
1	21	165	11.23	-25.01	-25.01	11.23	-0.15	-7.910e+04	-2.053e+05	-2.053e+05	-7.911e+04	382.69
1	21	166	10.65	-20.13	-20.13	10.65	-6.64e-02	-3.754e+04	-1.570e+05	-1.570e+05	-3.754e+04	285.12
1	21	167	5.50	-25.11	-25.11	5.50	-1.80e-02	5.726e+04	-8.731e+04	-8.731e+04	5.726e+04	175.41
1	21	168	-6.61	-19.28	-19.28	-6.61	9.67e-03	-7307.89	-8.790e+04	-8.790e+04	-7307.89	7.52
1	21	169	35.24	-42.01	-33.80	27.03	-23.81	-1.509e+05	-2.845e+05	-2.764e+05	-1.590e+05	-3.189e+04
1	21	170	18.21	-29.56	-25.69	14.35	-13.03	-1.177e+05	-2.434e+05	-2.362e+05	-1.248e+05	-2.904e+04
1	21	171	9.92	-25.80	-23.59	7.71	-8.59	-7.370e+04	-2.095e+05	-2.019e+05	-8.124e+04	-3.109e+04
1	21	172	10.55	-25.55	-23.81	8.82	-7.72	-1.901e+04	-1.864e+05	-1.770e+05	-2.841e+04	-3.854e+04
1	21	173	5.00	-16.09	-14.81	3.72	-5.04	-4374.51	-1.849e+05	-1.746e+05	-1.465e+04	-4.182e+04
1	21	174	-9.70	-26.71	-24.98	-11.44	-5.15	1.121e+04	-1.504e+05	-1.398e+05	630.26	-3.997e+04
1	21	175	27.93	-35.35	-13.34	5.92	-30.14	-1.503e+05	-2.769e+05	-2.496e+05	-1.776e+05	-5.206e+04
1	21	176	15.15	-25.97	-14.55	3.73	-18.42	-1.144e+05	-2.377e+05	-2.116e+05	-1.405e+05	-5.036e+04
1	21	177	8.19	-21.69	-14.64	1.15	-12.69	-7.487e+04	-1.991e+05	-1.724e+05	-1.016e+05	-5.105e+04
1	21	178	9.54	-17.83	-12.13	3.84	-11.12	-3.483e+04	-1.507e+05	-1.250e+05	-6.047e+04	-4.809e+04
1	21	179	3.59	-23.12	-17.43	-2.10	-10.93	5.705e+04	-8.274e+04	-5.105e+04	2.536e+04	-5.853e+04
1	21	180	-7.03	-20.10	-16.41	-10.73	-5.88	-6903.87	-8.432e+04	-6.481e+04	-2.641e+04	-3.361e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 1.119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 17001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	21	181	20.02	-27.06	0.12	-7.16	-23.26	-1.434e+05	-2.652e+05	-2.163e+05	-1.923e+05	-5.974e+04
1	21	182	10.72	-21.46	-5.13	-5.61	-16.09	-1.052e+05	-2.306e+05	-1.780e+05	-1.577e+05	-6.189e+04
1	21	183	5.69	-20.31	-8.97	-5.65	-12.90	-6.094e+04	-2.013e+05	-1.393e+05	-1.228e+05	-6.967e+04
1	21	184	10.28	-19.96	-6.67	-3.01	-15.01	-1.134e+04	-1.823e+05	-1.030e+05	-9.064e+04	-8.524e+04
1	21	185	1.93	-12.57	-5.47	-5.17	-7.24	-4513.09	-1.847e+05	-9.872e+04	-9.046e+04	-8.998e+04
1	21	186	-8.52	-22.46	-13.72	-17.26	-6.74	1.024e+04	-1.529e+05	-7.193e+04	-7.073e+04	-8.157e+04
1	21	187	22.83	-26.74	17.05	-20.96	-15.91	-1.661e+05	-2.872e+05	-2.153e+05	-2.380e+05	-5.952e+04
1	21	188	9.77	-19.12	4.44	-13.78	-11.21	-1.240e+05	-2.463e+05	-1.688e+05	-2.015e+05	-5.894e+04
1	21	189	3.17	-15.14	-1.57	-10.40	-8.02	-8.003e+04	-2.057e+05	-1.219e+05	-2.638e+05	-5.925e+04
1	21	190	4.61	-10.11	0.91	-6.41	-6.39	-3.636e+04	-1.550e+05	-7.354e+04	-1.178e+05	-5.502e+04
1	21	191	1.39	-16.47	-3.79	-11.29	-8.10	5.979e+04	-8.358e+04	2.111e+04	-4.490e+04	-6.364e+04
1	21	192	-6.54	-16.75	-9.91	-13.37	-4.80	-7233.67	-8.534e+04	-2.670e+04	-6.588e+04	-3.379e+04
1	21	193	21.85	-29.01	20.62	-27.78	7.81	-1.904e+05	-3.080e+05	-2.132e+05	-2.852e+05	-4.648e+04
1	21	194	5.34	-16.27	5.30	-16.23	0.95	-1.398e+05	-2.625e+05	-1.587e+05	-2.436e+05	-4.427e+04
1	21	195	-0.49	-13.64	-0.98	-13.15	-2.51	-8.507e+04	-2.239e+05	-1.018e+05	-2.073e+05	-4.515e+04
1	21	196	5.61	-15.14	3.85	-13.38	-5.78	-2.256e+04	-1.974e+05	-3.857e+04	-1.814e+05	-5.044e+04
1	21	197	2.60	-4.69	2.38	-4.47	-1.25	-4869.04	-1.957e+05	-1.970e+04	-1.809e+05	-5.109e+04
1	21	198	-6.78	-11.25	-7.35	-10.68	1.49	1.187e+04	-1.599e+05	74.56	-1.481e+05	-4.344e+04
1	22	1	6.98	6.98	6.98	6.98	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05
1	22	7	26.38	-72.28	-30.21	-15.70	48.80	-1.835e+05	-3.094e+05	-2.406e+05	-2.524e+05	6.268e+04
1	22	8	62.47	-50.31	-36.79	48.94	36.64	-2.009e+05	-3.363e+05	-2.850e+05	-2.522e+05	6.567e+04
1	22	9	62.95	-170.00	-85.77	-21.27	111.92	-2.068e+05	-3.712e+05	-2.772e+05	-3.008e+05	8.135e+04
1	22	10	52.43	-73.37	8.70	-29.64	59.91	-1.895e+05	-3.301e+05	-2.274e+05	-2.923e+05	6.236e+04
1	22	11	154.48	-234.49	47.83	-127.84	173.52	-1.765e+05	-3.873e+05	-2.019e+05	-3.619e+05	6.855e+04
1	22	12	86.44	-65.83	74.13	-53.52	41.51	-1.863e+05	-3.453e+05	-2.006e+05	-3.310e+05	4.550e+04
1	22	13	547.36	-74.66	542.44	-69.75	-55.07	-1.911e+05	-4.109e+05	-4.088e+05	-4.088e+05	2.118e+04
1	22	14	104.79	-58.97	103.17	-57.35	-16.22	-1.874e+05	-3.518e+05	-1.878e+05	-3.514e+05	8198.42
1	22	15	66.86	-331.86	-155.94	-109.06	-197.98	-1.928e+05	-3.888e+05	-1.993e+05	-3.823e+05	-3.501e+04
1	22	16	60.63	-72.86	29.29	-41.52	-56.58	-1.994e+05	-3.484e+05	-2.061e+05	-3.417e+05	-3.106e+04
1	22	17	52.84	-117.03	-91.98	27.78	-60.24	-2.429e+05	-3.817e+05	-2.904e+05	-3.343e+05	-6.584e+04
1	22	18	26.93	-66.56	-24.49	-15.14	-46.51	-2.097e+05	-3.373e+05	-2.367e+05	-3.103e+05	-5.213e+04
1	22	19	49.95	-28.19	-27.77	49.53	-5.70	-2.311e+05	-3.485e+05	-2.968e+05	-2.828e+05	-5.827e+04
1	22	20	14.32	-45.27	-30.71	-0.23	-25.61	-2.019e+05	-3.176e+05	-2.489e+05	-2.707e+05	-5.680e+04
1	22	21	87.29	-41.23	-40.32	86.37	-10.78	-2.230e+05	-3.630e+05	-3.357e+05	-2.504e+05	5.553e+04
1	22	22	318.69	-72.24	-71.67	318.11	15.02	-2.310e+05	-4.335e+05	-3.594e+05	-3.051e+05	9.755e+04
1	22	23	31.79	-953.19	-563.38	-358.02	481.67	-2.205e+05	-4.528e+05	-2.988e+05	-3.746e+05	1.098e+05
1	22	24	1997.74	-402.19	1990.44	-394.89	132.14	-1.062e+05	-4.369e+05	-1.111e+05	-4.320e+05	3.998e+04
1	22	25	71.57	-571.73	-440.77	-59.39	-259.03	-2.761e+05	-4.951e+05	-3.153e+05	-4.560e+05	-8.391e+04
1	22	26	370.73	-29.47	-4.73	345.99	96.38	-2.953e+05	-4.735e+05	-3.777e+05	-3.910e+05	-8.886e+04
1	22	27	69.22	-34.22	-15.97	50.97	39.43	-2.684e+05	-3.805e+05	-3.503e+05	-2.985e+05	-4.968e+04
1	22	28	60.38	-56.60	-22.13	25.91	-53.33	-2.478e+05	-3.758e+05	-3.696e+05	-2.539e+05	2.733e+04
1	22	29	270.57	-140.23	-27.02	157.36	-183.55	-2.649e+05	-4.569e+05	-4.259e+05	-2.959e+05	7.061e+04
1	22	30	796.99	-337.40	-127.55	587.14	440.47	-2.465e+05	-5.660e+05	-4.944e+05	-3.182e+05	1.333e+05
1	22	31	310.97	-825.07	101.61	-615.70	-440.47	-3.860e+05	-6.576e+05	-5.479e+05	-4.957e+05	-1.333e+05
1	22	32	123.38	-286.49	9.60	-172.71	183.55	-3.362e+05	-4.883e+05	-4.405e+05	-3.840e+05	-7.061e+04
1	22	33	42.64	-74.89	8.55	-40.80	53.33	-3.017e+05	-3.942e+05	-3.853e+05	-3.106e+05	-2.733e+04
1	22	34	20.49	-83.92	2.58	-66.02	-39.36	-2.682e+05	-3.717e+05	-3.712e+05	-2.687e+05	-7399.42
1	22	35	15.67	-385.87	-9.06	-361.14	-96.54	-2.950e+05	-4.290e+05	-4.275e+05	-2.966e+05	1.426e+04
1	22	36	564.16	-81.44	432.06	50.67	260.45	-4.256e+05	-5.740e+05	-5.702e+05	-4.294e+05	-2.345e+04
1	22	37	376.24	-2026.29	-2019.00	368.95	-132.14	-5.954e+05	-7.177e+05	-7.028e+05	-6.102e+05	-3.998e+04
1	22	38	945.86	-41.90	554.66	349.30	-483.09	-5.108e+05	-5.867e+05	-5.866e+05	-5.108e+05	-2457.98
1	22	39	58.43	-333.82	57.87	-333.25	-14.86	-3.750e+05	-4.532e+05	-4.457e+05	-3.825e+05	-2.295e+04
1	22	40	27.87	-102.33	26.98	-101.44	10.73	-3.169e+05	-3.858e+05	-3.858e+05	-3.169e+05	1557.35
1	22	41	14.71	-64.96	14.31	-64.56	5.65	-2.702e+05	-3.584e+05	-3.451e+05	-2.834e+05	-3.156e+04
1	22	42	102.92	-67.14	77.78	-42.00	60.36	-3.300e+05	-4.037e+05	-3.888e+05	-3.449e+05	-2.964e+04
1	22	43	317.15	-81.09	140.79	95.27	197.82	-4.042e+05	-5.069e+05	-4.883e+05	-4.228e+05	-3.959e+04
1	22	44	57.25	-562.72	-557.79	52.32	55.06	-4.465e+05	-4.979e+05	-4.867e+05	-4.576e+05	-2.118e+04
1	22	45	220.19	-169.12	-62.98	114.05	-173.36	-4.424e+05	-4.866e+05	-4.857e+05	-4.432e+05	6045.16
1	22	46	155.90	-77.27	71.55	7.07	-112.04	-3.718e+05	-4.086e+05	-4.020e+05	-3.784e+05	1.413e+04
1	22	47	36.70	-77.29	23.44	-64.03	-36.54	-3.032e+05	-3.677e+05	-3.569e+05	-3.141e+05	2.416e+04
1	22	48	31.32	-27.36	17.32	-13.36	25.00	-2.464e+05	-3.352e+05	-3.017e+05	-2.799e+05	-4.306e+04
1	22	49	52.17	-40.97	9.40	1.80	46.41	-2.928e+05	-3.683e+05	-3.295e+05	-3.316e+05	-3.770e+04
1	22	50	59.16	-75.34	-44.36	28.18	56.63	-3.428e+05	-3.981e+05	-3.611e+05	-3.798e+05	-2.602e+04
1	22	51	45.38	-119.66	-118.06	43.77	16.22	-3.744e+05	-4.058e+05	-3.767e+05	-4.035e+05	-8198.53
1	22	52	52.35	-101.39	-89.17	40.13	-41.59	-3.619e+05	-3.952e+05	-3.667e+05	-3.905e+05	1.158e+04
1	22	53	59.33	-66.87	-23.73	16.18	-59.86	-3.163e+05	-3.722e+05	-3.389e+05	-3.496e+05	2.747e+04
1	22	54	58.18	-39.26	16.61	2.31	-48.19	-2.664e+05	-3.417e+05	-3.099e+05	-2.982e+05	3.718e+04
1	22	55	13.94	-52.34	-51.82	13.42	5.81	-2.636e+05	-3.412e+05	-2.639e+05	-3.410e+05	-4648.59
1	22	56	14.08	-52.16	-48.61	10.53	-14.92	-2.581e+05	-3.362e+05	-2.649e+05	-3.293e+05	2.210e+04
1	22	57	8.08	-32.06	-31.98	8.00	1.80	-1.804e+05	-2.882e+05	-1.805e+05	-2.881e+05	-3544.56
1	22	58	8.61	-33.10	-30.79	6.30	-9.54	-1.762e+05	-2.853e+05	-1.844e+05	-2.771e+05	2.875e+04

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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	22	59	7.27	-24.74	-24.74	7.27	-9.97e-02	-1.104e+05	-2.380e+05	-1.105e+05	-2.379e+05	-2713.60
1	22	60	5.35	-22.83	-21.07	3.59	-6.82	-1.029e+05	-2.415e+05	-1.122e+05	-2.321e+05	3.473e+04
1	22	61	11.77	-19.02	-18.98	11.73	-1.05	-4.696e+04	-1.786e+05	-4.698e+04	-1.786e+05	-1728.57
1	22	62	2.41	-5.68	-4.66	1.38	-2.69	-2.885e+04	-2.108e+05	-4.034e+04	-1.993e+05	4.427e+04
1	22	63	5.39	-7.87	-7.84	5.37	-0.57	6.603e+04	-9.729e+04	6.602e+04	-9.728e+04	-1088.23
1	22	64	13.84	-3.67	-2.46	12.63	-4.44	-6047.91	-2.066e+05	-1.828e+04	-1.943e+05	4.800e+04
1	22	65	5.07	-3.82	-3.81	5.06	0.27	-6963.69	-9.693e+04	-6973.65	-9.692e+04	-946.87
1	22	66	9.09	-12.85	-11.61	7.85	-5.06	1.252e+04	-1.689e+05	580.50	-1.570e+05	4.498e+04
1	22	67	13.63	-47.26	-31.63	-1.99	-26.59	-2.349e+05	-3.214e+05	-2.637e+05	-2.927e+05	4.076e+04
1	22	68	8.24	-31.75	-22.32	-1.19	-16.97	-1.630e+05	-2.735e+05	-1.951e+05	-2.414e+05	5.019e+04
1	22	69	8.32	-25.33	-18.02	1.00	-13.88	-1.002e+05	-2.263e+05	-1.345e+05	-1.919e+05	5.615e+04
1	22	70	12.56	-18.96	-11.79	5.38	-13.22	-4.159e+04	-1.685e+05	-7.506e+04	-1.350e+05	5.592e+04
1	22	71	6.31	-8.88	-5.26	2.69	-6.48	6.523e+04	-9.081e+04	2.659e+04	-5.217e+04	6.735e+04
1	22	72	4.51	-3.88	-2.13	2.76	-3.41	-6458.55	-9.191e+04	-2.856e+04	-6.981e+04	3.741e+04
1	22	73	12.76	-38.55	-11.23	-14.56	-25.60	-2.035e+05	-3.002e+05	-2.579e+05	-2.458e+05	4.799e+04
1	22	74	7.17	-26.45	-9.99	-9.30	-16.81	-1.402e+05	-2.588e+05	-2.044e+05	-1.946e+05	5.915e+04
1	22	75	3.99	-18.46	-8.65	-5.82	-11.14	-7.849e+04	-2.232e+05	-1.548e+05	-1.470e+05	7.228e+04
1	22	76	3.87	-2.09	-1.00	2.78	-2.31	-1.704e+04	-1.999e+05	-1.115e+05	-1.055e+05	9.138e+04
1	22	77	12.93	-4.80	3.37	4.76	-8.84	-5459.33	-2.006e+05	-1.048e+05	-1.012e+05	9.755e+04
1	22	78	7.44	-11.58	-2.02	-2.12	-9.51	1.115e+04	-1.666e+05	-7.850e+04	-7.694e+04	8.887e+04
1	22	79	9.45	-43.01	2.28	-35.83	-18.03	-2.245e+05	-3.160e+05	-2.975e+05	-2.431e+05	3.677e+04
1	22	80	5.16	-27.31	-1.72	-20.42	-13.27	-1.570e+05	-2.695e+05	-2.457e+05	-1.808e+05	4.590e+04
1	22	81	5.60	-21.51	-1.76	-14.15	-12.05	-9.713e+04	-2.230e+05	-1.956e+05	-1.246e+05	5.197e+04
1	22	82	10.08	-15.44	1.79	-7.15	-11.95	-4.092e+04	-1.661e+05	-1.376e+05	-6.940e+04	5.248e+04
1	22	83	3.23	-7.70	-1.08	-3.39	-5.34	6.495e+04	-8.914e+04	-5.388e+04	2.969e+04	6.473e+04
1	22	84	1.14	-4.86	0.58	-4.29	-1.76	-6505.32	-9.033e+04	-7.105e+04	-2.678e+04	3.527e+04
1	22	85	5.13	-39.91	4.99	-39.77	2.49	-2.336e+05	-3.259e+05	-3.239e+05	-2.357e+05	1.360e+04
1	22	86	1.08	-22.99	0.77	-22.68	-2.71	-1.632e+05	-2.771e+05	-2.730e+05	-1.673e+05	2.120e+04
1	22	87	-0.92	-16.35	-2.55	-14.72	-4.75	-9.624e+04	-2.352e+05	-2.292e+05	-1.023e+05	2.835e+04
1	22	88	0.93	-7.07	-5.64	-0.49	-3.06	-2.621e+04	-2.061e+05	-1.973e+05	-3.495e+04	3.866e+04
1	22	89	7.17	-1.97	5.81	-0.60	-3.26	-5353.94	-2.029e+05	-1.924e+05	-1.585e+04	4.431e+04
1	22	90	3.21	-10.56	2.58	-9.93	-2.88	1.240e+04	-1.657e+05	-1.548e+05	1436.97	4.282e+04
1	22	91	9.52	-31.88	-1.25	-21.11	18.16	-2.264e+05	-3.271e+05	-3.247e+05	-2.288e+05	-1.550e+04
1	22	92	-0.45	-17.03	-2.79	-14.69	5.78	-1.607e+05	-2.765e+05	-2.752e+05	-1.620e+05	-1.182e+04
1	22	93	-1.93	-12.58	-1.94	-12.57	-0.41	-1.005e+05	-2.289e+05	-2.283e+05	-1.012e+05	-9045.33
1	22	94	4.03	-9.37	3.04	-8.38	-3.51	-4.444e+04	-1.722e+05	-1.720e+05	-4.470e+04	-5761.88
1	22	95	-1.94	-5.71	-3.89	-3.77	-1.88	6.522e+04	-9.262e+04	-9.254e+04	6.514e+04	-3627.40
1	22	96	-4.51	-6.39	-5.28	-5.62	0.93	-7663.77	-9.282e+04	-9.270e+04	-7780.92	-3156.35
1	22	97	11.63	-18.91	-10.48	3.20	13.65	-2.065e+05	-3.171e+05	-2.970e+05	-2.266e+05	-4.261e+04
1	22	98	-2.86	-10.11	-8.29	-4.68	3.14	-1.491e+05	-2.686e+05	-2.525e+05	-1.653e+05	-4.081e+04
1	22	99	-5.35	-9.31	-7.98	-6.68	-1.87	-9.007e+04	-2.284e+05	-2.140e+05	-1.045e+05	-4.229e+04
1	22	100	4.01	-12.09	-9.02	0.94	-6.32	-2.414e+04	-2.012e+05	-1.863e+05	-3.901e+04	-4.912e+04
1	22	101	2.52	-0.25	1.14	1.14	-1.38	-5271.34	-1.994e+05	-1.855e+05	-1.921e+04	-5.012e+04
1	22	102	-3.24	-8.10	-3.49	-7.86	1.06	1.201e+04	-1.633e+05	-1.507e+05	-543.70	-4.519e+04
1	22	103	10.44	-15.97	-15.53	10.01	-3.36	-1.822e+05	-2.966e+05	-2.517e+05	-2.271e+05	-5.589e+04
1	22	104	0.71	-11.88	-9.80	-1.37	-4.67	-1.332e+05	-2.533e+05	-2.114e+05	-1.751e+05	-5.723e+04
1	22	105	-2.30	-10.15	-6.45	-5.99	-3.92	-8.486e+04	-2.109e+05	-1.707e+05	-1.250e+05	-5.870e+04
1	22	106	1.71	-5.24	-0.91	-2.62	-3.37	-3.848e+04	-1.578e+05	-1.224e+05	-7.396e+04	-5.455e+04
1	22	107	-1.26	-11.13	-7.24	-5.15	-4.82	6.292e+04	-8.323e+04	-4.471e+04	2.440e+04	-6.439e+04
1	22	108	-7.19	-15.28	-13.52	-8.95	-3.34	-7941.86	-8.511e+04	-6.309e+04	-2.996e+04	-3.485e+04
1	22	109	10.34	-19.08	-9.19	0.45	-13.90	-1.557e+05	-2.733e+05	-2.033e+05	-2.258e+05	-5.769e+04
1	22	110	3.42	-14.62	-5.35	-5.86	-9.02	-1.130e+05	-3.370e+05	-1.660e+05	-1.840e+05	-6.137e+04
1	22	111	0.89	-15.07	-4.74	-9.44	-7.62	-6.507e+04	-2.064e+05	-1.285e+05	-1.430e+05	-7.032e+04
1	22	112	8.91	-16.28	-0.28	-7.08	-12.13	-1.204e+04	-1.868e+05	-9.382e+04	-1.050e+05	-8.718e+04
1	22	113	1.67	-7.25	-1.53	-4.05	-4.28	-4637.12	-1.908e+05	-9.440e+04	-1.011e+05	-9.304e+04
1	22	114	-4.99	-10.24	-7.71	-7.52	-2.62	1.058e+04	-1.588e+05	-7.266e+04	-7.557e+04	-8.468e+04
1	22	115	19.10	-24.48	2.54	-7.92	-21.15	-1.645e+05	-2.851e+05	-1.889e+05	-2.607e+05	-4.848e+04
1	22	116	9.30	-17.94	2.29	-10.94	-11.91	-1.233e+05	-2.446e+05	-1.486e+05	-2.193e+05	-4.927e+04
1	22	117	4.64	-15.04	1.27	-11.67	-7.41	-7.990e+04	-2.040e+05	-1.065e+05	-1.775e+05	-5.092e+04
1	22	118	8.12	-9.71	6.07	-7.67	-5.68	-3.758e+04	-1.531e+05	-6.345e+04	-1.273e+05	-4.817e+04
1	22	119	1.42	-17.34	-1.62	-14.30	-6.91	6.231e+04	-8.004e+04	3.016e+04	-4.789e+04	-5.952e+04
1	22	120	-8.50	-22.05	-12.96	-17.59	-6.36	-8159.79	-8.205e+04	-2.481e+04	-6.540e+04	-3.087e+04
1	22	121	29.01	-30.16	20.35	-21.50	-20.91	-1.663e+05	-2.928e+05	-1.723e+05	-2.869e+05	-2.682e+04
1	22	122	13.23	-21.42	10.28	-18.46	-9.67	-1.273e+05	-2.509e+05	-1.334e+05	-2.448e+05	-2.679e+04
1	22	123	6.33	-20.60	5.03	-19.30	-5.78	-7.896e+04	-2.157e+05	-8.610e+04	-2.086e+05	-3.043e+04
1	22	124	9.67	-23.07	8.66	-22.06	-5.67	-1.979e+04	-1.918e+05	-2.899e+04	-1.826e+05	-3.870e+04
1	22	125	5.37	-12.30	4.59	-11.52	-3.62	-4158.09	-1.925e+05	-1.469e+04	-1.820e+05	-4.327e+04
1	22	126	-3.79	-14.23	-4.76	-13.26	-3.03	1.175e+04	-1.574e+05	1046.87	-1.467e+05	-4.117e+04
1	22	127	37.23	-29.81	36.72	-29.30	-5.81	-1.635e+05	-2.946e+05	-1.637e+05	-2.944e+05	4648.89
1	22	128	17.64	-23.05	17.56	-22.97	-1.80	-1.273e+05	-2.515e+05	-1.274e+05	-2.514e+05	3544.47
1	22	129	10.07	-19.09	10.07	-19.09	9.95e-02	-8.379e+04	-2.104e+05	-8.385e+04	-2.104e+05	2713.60

**PROGETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	22	130	11.37	-13.18	11.33	-13.13	1.05	-4.043e+04	-1.596e+05	-4.046e+04	-1.596e+05	1728.56
1	22	131	3.82	-21.08	3.81	-21.07	0.57	6.350e+04	-8.373e+04	6.349e+04	-8.372e+04	1088.21
1	22	132	-8.95	-24.53	-8.95	-24.52	-0.27	-9268.25	-8.488e+04	-9280.11	-8.487e+04	946.92
1	22	133	36.88	-29.79	33.30	-26.21	15.03	-1.590e+05	-2.893e+05	-1.695e+05	-2.788e+05	3.552e+04
1	22	134	18.16	-23.67	15.84	-21.35	9.57	-1.235e+05	-2.479e+05	-1.328e+05	-2.386e+05	3.267e+04
1	22	135	9.49	-22.97	7.52	-21.00	7.76	-7.731e+04	-2.135e+05	-8.677e+04	-2.040e+05	3.461e+04
1	22	136	11.19	-25.18	9.09	-23.08	8.48	-1.927e+04	-1.902e+05	-3.021e+04	-1.793e+05	4.183e+04
1	22	137	6.39	-14.20	5.10	-12.91	5.00	-4165.50	-1.914e+05	-1.570e+04	-1.799e+05	4.501e+04
1	22	138	-3.09	-16.12	-4.15	-15.06	3.55	1.162e+04	-1.566e+05	452.71	-1.454e+05	4.189e+04
1	22	139	32.61	-29.57	16.79	-13.76	27.08	-1.529e+05	-2.782e+05	-1.841e+05	-2.469e+05	5.421e+04
1	22	140	17.61	-22.97	8.05	-13.41	17.23	-1.168e+05	-2.391e+05	-1.469e+05	-2.090e+05	5.266e+04
1	22	141	10.09	-19.45	3.70	-13.07	12.16	-7.660e+04	-2.000e+05	-1.066e+05	-1.770e+05	5.294e+04
1	22	142	12.50	-13.55	7.43	-8.48	10.31	-3.703e+04	-1.505e+05	-6.482e+04	-1.227e+05	4.879e+04
1	22	143	3.05	-21.35	-2.16	-16.14	10.00	6.164e+04	-7.820e+04	2.857e+04	-4.514e+04	5.942e+04
1	22	144	-9.34	-26.83	-14.34	-21.83	7.90	-8670.40	-8.041e+04	-2.606e+04	-6.301e+04	3.074e+04
1	22	145	24.40	-28.03	-3.44	-0.19	26.16	-1.424e+05	-2.642e+05	-1.973e+05	-2.094e+05	6.060e+04
1	22	146	12.67	-21.45	-4.04	-4.74	17.05	-1.054e+05	-2.299e+05	-1.628e+05	-1.725e+05	6.204e+04
1	22	147	6.39	-20.50	-5.64	-8.47	13.37	-6.138e+04	-2.011e+05	-1.273e+05	-1.351e+05	6.973e+04
1	22	148	11.47	-21.58	-3.16	-6.95	16.41	-1.071e+04	-1.827e+05	-9.368e+04	-9.970e+04	8.593e+04
1	22	149	3.37	-13.06	-4.15	-5.54	8.18	-4445.84	-1.879e+05	-9.436e+04	-9.796e+04	9.169e+04
1	22	150	-3.02	-15.54	-9.33	-9.23	6.26	1.040e+04	-1.565e+05	-7.225e+04	-7.382e+04	8.343e+04
1	22	151	28.40	-25.47	-18.07	21.00	18.55	-1.623e+05	-2.845e+05	-2.421e+05	-2.547e+05	5.820e+04
1	22	152	13.18	-19.89	-12.86	6.15	13.53	-1.220e+05	-2.440e+05	-2.048e+05	-1.612e+05	5.695e+04
1	22	153	6.28	-16.73	-10.29	-0.16	10.33	-7.916e+04	-2.038e+05	-1.664e+05	-1.166e+05	5.713e+04
1	22	154	8.79	-10.87	-4.89	2.81	9.04	-3.745e+04	-1.531e+05	-1.201e+05	-7.047e+04	5.223e+04
1	22	155	1.60	-17.99	-12.38	-4.02	8.86	6.199e+04	-7.994e+04	-4.342e+04	-2.547e+04	6.204e+04
1	22	156	-8.63	-23.20	-19.65	-12.18	6.25	-8526.35	-8.208e+04	-6.177e+04	-2.884e+04	3.288e+04
1	22	157	24.62	-20.81	-20.68	24.50	-2.39	-1.802e+05	-3.029e+05	-2.843e+05	-1.988e+05	4.402e+04
1	22	158	8.06	-16.14	-15.82	7.74	2.75	-1.350e+05	-2.578e+05	-2.428e+05	-1.500e+05	4.022e+04
1	22	159	2.98	-16.68	-14.86	1.16	5.70	-8.310e+04	-2.205e+05	-2.069e+05	-9.667e+04	4.100e+04
1	22	160	8.16	-19.29	-16.05	4.93	8.85	-2.152e+04	-1.954e+05	-1.813e+05	-3.561e+04	4.745e+04
1	22	161	4.60	-7.45	-6.09	3.24	3.82	-4734.59	-1.952e+05	-1.818e+05	-1.813e+04	4.870e+04
1	22	162	-5.40	-10.22	-9.80	-5.82	1.37	1.177e+04	-1.598e+05	-1.476e+05	-403.82	4.405e+04
1	22	163	16.58	-25.20	-14.62	6.01	-18.17	-1.966e+05	-3.128e+05	-3.107e+05	-1.988e+05	1.550e+04
1	22	164	2.54	-14.45	-12.18	0.27	-5.78	-1.448e+05	-2.654e+05	-2.642e+05	-1.460e+05	1.182e+04
1	22	165	-2.08	-9.90	-9.88	-2.10	0.41	-9.253e+04	-2.207e+05	-2.200e+05	-9.317e+04	9045.33
1	22	166	2.50	-6.21	-4.43	0.72	3.51	-4.247e+04	-1.665e+05	-1.662e+05	-4.274e+04	5761.89
1	22	167	2.72e-02	-12.12	-11.82	-0.27	1.88	6.446e+04	-8.855e+04	-8.847e+04	6.438e+04	3627.41
1	22	168	-7.03	-14.29	-14.17	-7.15	-0.93	-8349.47	-8.921e+04	-8.909e+04	-8472.86	3156.29
1	22	169	3.43	-27.14	-5.20	-18.51	-13.76	-2.058e+05	-3.133e+05	-3.111e+05	-2.079e+05	-1.501e+04
1	22	170	-4.88	-12.14	-6.76	-10.27	-3.18	-1.483e+05	-2.669e+05	-2.633e+05	-1.520e+05	-2.061e+04
1	22	171	-6.57	-9.73	-9.43	-6.87	0.93	-8.896e+04	-2.276e+05	-2.221e+05	-9.446e+04	-2.705e+04
1	22	172	3.51	-12.69	-12.67	3.49	0.54	-2.344e+04	-2.004e+05	-1.923e+05	-3.154e+04	-3.699e+04
1	22	173	1.71	-1.63	-1.41	1.49	0.82	-4769.20	-1.987e+05	-1.887e+05	-1.477e+04	-4.289e+04
1	22	174	-3.68	-7.95	-3.73	-7.90	0.45	1.218e+04	-1.623e+05	-1.517e+05	1576.95	-4.167e+04
1	22	175	0.12	-25.18	-0.21	-24.85	2.87	-2.027e+05	-3.058e+05	-2.879e+05	-2.206e+05	-3.909e+04
1	22	176	-2.85	-14.84	-4.80	-12.90	4.42	-1.448e+05	-2.612e+05	-2.391e+05	-1.669e+05	-4.563e+04
1	22	177	-1.17	-12.77	-5.61	-8.33	5.64	-9.085e+04	-2.165e+05	-1.912e+05	-1.161e+05	-5.040e+04
1	22	178	4.32	-8.25	-2.19	-1.74	6.28	-3.963e+04	-1.616e+05	-1.353e+05	-6.592e+04	-5.016e+04
1	22	179	-1.88	-6.60	-6.21	-2.27	1.30	6.410e+04	-8.594e+04	-5.260e+04	3.076e+04	-6.238e+04
1	22	180	-5.01	-8.06	-5.55	-7.53	-1.16	-6976.22	-8.741e+04	-6.973e+04	-2.466e+04	-3.331e+04
1	22	181	3.83	-24.51	-5.55	-15.13	13.34	-1.885e+05	-2.928e+05	-2.519e+05	-2.294e+05	-5.090e+04
1	22	182	0.34	-17.21	-8.69	-8.17	8.77	-1.317e+05	-2.526e+05	-2.012e+05	-1.831e+05	-5.981e+04
1	22	183	-1.31	-13.07	-9.54	-4.84	5.39	-7.428e+04	-2.184e+05	-1.535e+05	-1.391e+05	-7.169e+04
1	22	184	3.45	-4.42	-3.89	2.92	-1.98	-1.546e+04	-1.960e+05	-1.113e+05	-1.002e+05	-9.012e+04
1	22	185	7.10	-3.08	0.75	3.27	4.93	-5184.24	-1.977e+05	-1.048e+05	-9.810e+04	-9.620e+04
1	22	186	2.14	-9.61	-3.64	-3.83	5.87	1.099e+04	-1.643e+05	-7.809e+04	-7.518e+04	-8.761e+04
1	22	187	8.55	-33.79	-17.37	-7.87	20.63	-2.213e+05	-3.165e+05	-2.589e+05	-2.789e+05	-4.650e+04
1	22	188	3.22	-23.42	-16.56	-3.65	11.65	-1.554e+05	-2.691e+05	-1.934e+05	-2.311e+05	-5.359e+04
1	22	189	3.90	-19.86	-15.58	-0.38	9.13	-9.629e+04	-2.229e+05	-1.347e+05	-1.845e+05	-5.817e+04
1	22	190	8.47	-14.32	-10.42	4.57	8.58	-4.077e+04	-1.661e+05	-7.643e+04	-1.304e+05	-5.654e+04
1	22	191	2.27	-7.22	-5.79	0.85	3.39	6.465e+04	-8.906e+04	2.500e+04	-4.942e+04	-6.725e+04
1	22	192	-0.37	-4.63	-3.51	-1.48	1.87	-6854.18	-9.038e+04	-2.981e+04	-6.742e+04	-3.729e+04
1	22	193	14.46	-44.28	-35.62	5.81	20.82	-2.491e+05	-3.344e+05	-2.622e+05	-3.213e+05	-3.080e+04
1	22	194	6.35	-28.16	-25.22	3.41	9.63	-1.717e+05	-2.831e+05	-1.838e+05	-2.710e+05	-3.463e+04
1	22	195	2.97	-19.67	-18.58	1.89	4.83	-1.009e+05	-2.395e+05	-1.129e+05	-2.276e+05	-3.892e+04
1	22	196	0.37	-4.22	-4.22	0.37	-0.12	-2.817e+04	-2.094e+05	-4.156e+04	-1.960e+05	-4.741e+04
1	22	197	11.92	-2.63	-1.95	11.24	3.06	-6007.40	-2.055e+05	-1.929e+04	-1.922e+05	-4.974e+04
1	22	198	7.17	-12.14	-11.00	6.04	4.54	1.240e+04	-1.682e+05	-13.77	-1.557e+05	-4.569e+04
1	39	1	6.98	6.98	6.98	6.98	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05
1	39	7	34.08	-30.12	-14.93	18.89	-27.28	-2.464e+05	-3.352e+05	-2.799e+05	-3.017e+05	4.306e+04

**PROGETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	39	8	50.99	-39.79	0.79	10.41	-45.14	-2.928e+05	-3.683e+05	-3.316e+05	-3.295e+05	3.770e+04
1	39	9	102.92	-67.14	-42.00	77.78	-60.36	-3.300e+05	-4.037e+05	-3.449e+05	-3.888e+05	2.964e+04
1	39	10	13.17	-63.42	-62.88	12.63	-6.40	-2.702e+05	-3.584e+05	-2.834e+05	-3.451e+05	3.156e+04
1	39	11	15.67	-385.87	-361.14	-9.06	96.54	-2.950e+05	-4.290e+05	-2.966e+05	-4.275e+05	-1.426e+04
1	39	12	19.80	-83.24	-64.45	1.02	39.79	-2.682e+05	-3.717e+05	-2.687e+05	-3.712e+05	7399.57
1	39	13	270.57	-140.23	157.36	-27.02	183.55	-2.649e+05	-4.569e+05	-2.959e+05	-4.259e+05	-7.061e+04
1	39	14	60.97	-57.19	25.74	-21.96	54.05	-2.478e+05	-3.758e+05	-2.539e+05	-3.696e+05	-2.733e+04
1	39	15	318.69	-72.24	318.11	-71.67	-15.02	-2.310e+05	-4.335e+05	-3.051e+05	-3.594e+05	-9.755e+04
1	39	16	85.81	-39.76	84.94	-38.89	10.40	-2.230e+05	-3.630e+05	-2.504e+05	-3.357e+05	-5.553e+04
1	39	17	62.95	-170.00	-21.27	-85.77	-111.92	-2.068e+05	-3.712e+05	-3.008e+05	-2.772e+05	-8.135e+04
1	39	18	62.62	-50.46	47.60	-35.45	-38.37	-2.009e+05	-3.363e+05	-2.522e+05	-2.850e+05	-6.567e+04
1	39	19	50.47	-71.42	-29.53	8.59	-57.89	-1.895e+05	-3.301e+05	-2.923e+05	-2.274e+05	-6.236e+04
1	39	20	28.09	-73.99	-12.79	-33.11	-50.02	-1.835e+05	-3.094e+05	-2.524e+05	-2.406e+05	-6.268e+04
1	39	21	57.66	-73.84	27.52	-43.70	-55.27	-3.428e+05	-3.981e+05	-3.798e+05	-3.611e+05	2.602e+04
1	39	22	317.15	-81.09	95.27	140.79	-197.82	-4.042e+05	-5.069e+05	-4.228e+05	-4.883e+05	3.959e+04
1	39	23	564.16	-81.44	50.67	432.06	-260.45	-4.256e+05	-5.740e+05	-4.294e+05	-5.702e+05	2.345e+04
1	39	24	796.99	-337.40	587.14	-127.55	-440.47	-2.465e+05	-5.660e+05	-3.182e+05	-4.944e+05	-1.333e+05
1	39	25	31.79	-953.19	-358.02	-563.38	-481.67	-2.205e+05	-4.528e+05	-3.746e+05	-2.988e+05	-1.098e+05
1	39	26	154.48	-234.49	-127.84	47.83	-173.52	-1.765e+05	-3.873e+05	-3.619e+05	-2.019e+05	-6.855e+04
1	39	27	85.91	-65.31	-53.76	74.36	-40.16	-1.863e+05	-3.453e+05	-3.310e+05	-2.006e+05	-4.550e+04
1	39	28	45.90	-120.19	44.34	-118.63	-16.00	-3.744e+05	-4.058e+05	-4.035e+05	-3.767e+05	8198.53
1	39	29	57.25	-562.72	52.32	-557.79	-55.06	-4.465e+05	-3.979e+05	-4.514e+05	-4.867e+05	2.118e+04
1	39	30	376.24	-2026.29	368.95	-2019.00	132.14	-5.954e+05	-7.177e+05	-6.102e+05	-7.028e+05	3.998e+04
1	39	31	1997.74	-402.19	-394.89	1990.44	-132.14	-1.062e+05	-4.369e+05	-4.320e+05	-1.111e+05	-3.998e+04
1	39	32	547.36	-74.66	-69.75	542.44	55.07	-1.911e+05	-4.109e+05	-4.088e+05	-1.932e+05	-2.118e+04
1	39	33	105.31	-59.49	-57.93	103.74	16.00	-1.874e+05	-3.518e+05	-3.514e+05	-1.878e+05	-8198.42
1	39	34	51.84	-100.87	40.37	-89.41	40.24	-3.619e+05	-3.952e+05	-3.905e+05	-3.667e+05	-1.158e+04
1	39	35	220.19	-169.12	114.05	-62.98	173.36	-4.424e+05	-4.866e+05	-4.432e+05	-4.857e+05	-6045.13
1	39	36	945.86	-41.90	349.30	554.66	483.09	-5.108e+05	-5.867e+05	-5.108e+05	-5.866e+05	2457.99
1	39	37	310.97	-825.07	-615.70	101.61	440.47	-3.860e+05	-6.576e+05	-4.957e+05	-5.479e+05	1.333e+05
1	39	38	71.57	-571.73	-59.39	-440.77	259.03	-2.761e+05	-4.951e+05	-4.560e+05	-3.153e+05	8.391e+04
1	39	39	66.86	-331.86	-109.06	-155.94	197.98	-1.928e+05	-3.888e+05	-3.823e+05	-1.993e+05	3.501e+04
1	39	40	59.13	-71.36	-40.86	28.63	55.22	-1.994e+05	-3.484e+05	-3.417e+05	-2.061e+05	3.106e+04
1	39	41	57.38	-64.92	16.07	-23.61	57.84	-3.163e+05	-3.722e+05	-3.496e+05	-3.389e+05	-2.747e+04
1	39	42	155.90	-77.27	7.07	71.55	112.04	-3.718e+05	-4.086e+05	-3.746e+05	-4.020e+05	-1.413e+04
1	39	43	58.43	-333.82	-333.25	57.87	14.86	-3.750e+05	-4.532e+05	-3.825e+05	-4.457e+05	2.295e+04
1	39	44	123.38	-286.49	-172.71	9.60	-183.55	-3.362e+05	-4.883e+05	-3.840e+05	-4.405e+05	7.061e+04
1	39	45	370.73	-29.47	345.99	-4.73	-96.38	-2.953e+05	-4.735e+05	-3.910e+05	-3.777e+05	8.886e+04
1	39	46	52.84	-117.03	27.78	-91.98	60.24	-2.429e+05	-3.817e+05	-3.343e+05	-2.904e+05	6.584e+04
1	39	47	25.78	-65.41	-14.13	-25.50	45.24	-2.097e+05	-3.373e+05	-3.103e+05	-2.367e+05	5.213e+04
1	39	48	59.89	-40.97	-0.60	19.51	49.42	-2.664e+05	-3.417e+05	-2.982e+05	-3.099e+05	-3.718e+04
1	39	49	36.83	-77.42	-62.69	22.11	38.28	-3.032e+05	-3.677e+05	-3.141e+05	-3.569e+05	-2.416e+04
1	39	50	26.39	-100.86	-100.01	25.54	-10.35	-3.169e+05	-3.858e+05	-3.169e+05	-3.858e+05	-1557.46
1	39	51	43.22	-75.47	-40.63	8.38	-54.05	-3.017e+05	-3.942e+05	-3.106e+05	-3.853e+05	2.733e+04
1	39	52	68.56	-33.56	49.41	-14.41	-39.86	-2.684e+05	-3.805e+05	-2.985e+05	-3.503e+05	4.968e+04
1	39	53	48.41	-26.65	47.86	-26.09	6.45	-2.311e+05	-3.485e+05	-2.828e+05	-2.968e+05	5.827e+04
1	39	54	17.08	-48.02	1.33	-32.27	27.88	-2.019e+05	-3.176e+05	-2.707e+05	-2.489e+05	5.680e+04
1	39	55	10.46	-32.82	-20.83	-1.53	-19.37	-2.264e+05	-3.271e+05	-2.288e+05	-3.247e+05	1.550e+04
1	39	56	13.16	-20.44	3.63	-10.90	-15.15	-2.065e+05	-3.171e+05	-2.266e+05	-2.970e+05	4.261e+04
1	39	57	-0.33	-17.15	-14.64	-2.84	-5.99	-1.607e+05	-2.765e+05	-1.620e+05	-2.752e+05	1.182e+04
1	39	58	-2.79	-10.19	-4.35	-8.62	-3.02	-1.491e+05	-2.686e+05	-1.653e+05	-2.525e+05	4.081e+04
1	39	59	-1.94	-12.57	-12.56	-1.95	0.33	-1.005e+05	-2.289e+05	-1.012e+05	-2.283e+05	9045.33
1	39	60	-5.28	-9.38	-6.55	-8.11	1.89	-9.007e+04	-2.284e+05	-1.045e+05	-2.140e+05	4.229e+04
1	39	61	4.02	-9.36	-8.37	3.03	3.50	-4.444e+04	-1.722e+05	-4.470e+04	-1.720e+05	5761.88
1	39	62	4.01	-12.09	0.95	-9.03	6.32	-2.414e+04	-2.012e+05	-3.901e+04	-1.863e+05	4.912e+04
1	39	63	-1.94	-5.71	-3.77	-3.89	1.89	6.522e+04	-9.262e+04	6.514e+04	-9.254e+04	3627.39
1	39	64	2.50	-0.22	1.11	1.17	1.36	-5271.35	-1.994e+05	-1.921e+04	-1.855e+05	5.012e+04
1	39	65	-4.54	-6.36	-5.61	-5.29	-0.89	-7663.76	-9.282e+04	-7780.91	-9.270e+04	3156.34
1	39	66	-3.20	-8.15	-7.89	-3.45	-1.09	1.201e+04	-1.633e+05	-543.72	-1.507e+05	4.519e+04
1	39	67	11.53	-17.06	11.22	-16.74	2.99	-1.822e+05	-2.966e+05	-2.271e+05	-2.517e+05	5.589e+04
1	39	68	0.80	-11.97	-1.23	-9.94	4.66	-1.332e+05	-2.533e+05	-1.751e+05	-2.114e+05	5.723e+04
1	39	69	-2.35	-10.10	-6.00	-6.44	3.87	-8.486e+04	-2.109e+05	-1.250e+05	-1.707e+05	5.870e+04
1	39	70	1.76	-5.30	-2.59	-0.95	3.43	-3.848e+04	-1.578e+05	-7.396e+04	-1.224e+05	5.455e+04
1	39	71	-1.19	-11.20	-5.15	-7.24	4.90	6.292e+04	-8.323e+04	2.440e+04	-4.471e+04	6.439e+04
1	39	72	-7.17	-15.31	-8.92	-13.56	3.35	-7941.89	-8.511e+04	-2.996e+04	-6.309e+04	3.485e+04
1	39	73	11.69	-20.43	1.88	-10.62	14.79	-1.557e+05	-2.733e+05	-2.258e+05	-2.033e+05	5.769e+04
1	39	74	4.04	-15.25	-5.54	-5.67	9.64	-1.130e+05	-2.370e+05	-1.840e+05	-1.660e+05	6.137e+04
1	39	75	1.07	-15.25	-9.22	-4.97	7.88	-6.507e+04	-2.064e+05	-1.430e+05	-1.285e+05	7.032e+04
1	39	76	8.80	-16.16	-7.00	-0.37	12.03	-1.204e+04	-1.868e+05	-1.050e+05	-9.382e+04	8.718e+04
1	39	77	1.61	-7.19	-4.02	-1.56	4.22	-4637.12	-1.908e+05	-1.011e+05	-9.440e+04	9.304e+04
1	39	78	-5.00	-10.23	-7.52	-7.71	2.62	1.058e+04	-1.588e+05	-7.557e+04	-7.266e+04	8.468e+04

**PROJETTO engineering s.r.l.**  
**società d'ingegneria**

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	39	79	20.63	-26.02	-9.41	4.03	22.34	-1.645e+05	-2.851e+05	-2.607e+05	-1.889e+05	4.848e+04
1	39	80	9.68	-18.32	-11.19	2.54	12.20	-1.233e+05	-2.446e+05	-2.193e+05	-1.486e+05	4.927e+04
1	39	81	4.70	-15.09	-11.73	1.33	7.43	-7.990e+04	-2.040e+05	-1.775e+05	-1.065e+05	5.092e+04
1	39	82	8.21	-9.81	-7.77	6.18	5.70	-3.758e+04	-1.531e+05	-1.273e+05	-6.345e+04	4.817e+04
1	39	83	1.50	-17.42	-14.36	-1.56	6.96	6.231e+04	-8.004e+04	-4.789e+04	3.016e+04	5.952e+04
1	39	84	-8.51	-22.04	-17.63	-12.92	6.35	-8159.75	-8.205e+04	-6.540e+04	-2.481e+04	3.087e+04
1	39	85	29.97	-31.12	-22.52	21.37	21.25	-1.663e+05	-2.928e+05	-2.869e+05	-1.723e+05	2.682e+04
1	39	86	13.57	-21.76	-18.72	10.53	9.91	-1.273e+05	-2.509e+05	-2.448e+05	-1.334e+05	2.679e+04
1	39	87	6.42	-20.69	-19.36	5.10	5.85	-7.896e+04	-2.157e+05	-2.086e+05	-8.610e+04	3.043e+04
1	39	88	9.67	-23.07	-22.05	8.65	5.70	-1.979e+04	-1.918e+05	-1.826e+05	-2.899e+04	3.870e+04
1	39	89	5.34	-12.27	-11.48	4.55	3.64	-4158.08	-1.925e+05	-1.820e+05	-1.469e+04	4.327e+04
1	39	90	-3.82	-14.19	-13.22	-4.80	3.03	1.175e+04	-1.574e+05	-1.467e+05	1046.90	4.117e+04
1	39	91	38.07	-30.65	-30.22	37.64	5.45	-1.635e+05	-2.946e+05	-2.944e+05	-1.637e+05	-4648.89
1	39	92	17.80	-23.21	-23.13	17.73	1.73	-1.273e+05	-2.515e+05	-2.514e+05	-1.274e+05	-3544.47
1	39	93	10.11	-19.13	-19.13	10.11	-0.12	-8.379e+04	-2.104e+05	-2.104e+05	-8.385e+04	-2713.60
1	39	94	11.39	-13.19	-13.14	11.34	-1.05	-4.043e+04	-1.596e+05	-1.596e+05	-4.046e+04	-1728.56
1	39	95	3.82	-21.08	-21.07	3.80	-0.56	6.350e+04	-8.373e+04	-8.372e+04	6.349e+04	-1088.21
1	39	96	-8.93	-24.55	-24.54	-8.93	0.28	-9268.26	-8.488e+04	-8.487e+04	-9280.12	-946.92
1	39	97	38.36	-31.27	-27.16	34.25	-16.41	-1.590e+05	-2.893e+05	-2.788e+05	-1.695e+05	-3.552e+04
1	39	98	18.33	-23.84	-21.43	15.93	-9.78	-1.235e+05	-2.479e+05	-2.386e+05	-1.328e+05	-3.267e+04
1	39	99	9.52	-23.00	-20.99	7.51	-7.84	-7.731e+04	-2.135e+05	-2.040e+05	-8.677e+04	-3.461e+04
1	39	100	11.19	-25.18	-23.06	9.08	-8.51	-1.927e+04	-1.902e+05	-1.793e+05	-3.021e+04	-4.183e+04
1	39	101	6.39	-14.19	-12.88	5.07	-5.03	-4165.49	-1.914e+05	-1.799e+05	-1.570e+04	-4.501e+04
1	39	102	-3.11	-16.11	-15.04	-4.17	-3.57	1.162e+04	-1.566e+05	-1.454e+05	452.73	-4.189e+04
1	39	103	34.54	-31.50	-14.74	17.78	-28.74	-1.529e+05	-2.782e+05	-2.469e+05	-1.841e+05	-5.421e+04
1	39	104	18.03	-23.39	-13.62	8.25	-17.58	-1.168e+05	-2.391e+05	-2.109e+05	-1.469e+05	-5.266e+04
1	39	105	10.19	-19.55	-13.14	3.78	-12.23	-7.660e+04	-2.000e+05	-1.700e+05	-1.066e+05	-5.294e+04
1	39	106	12.55	-13.60	-8.58	7.53	-10.30	-3.703e+04	-1.505e+05	-1.227e+05	-6.482e+04	-4.879e+04
1	39	107	3.10	-21.40	-16.21	-2.09	-10.01	6.164e+04	-7.820e+04	-4.514e+04	2.857e+04	-5.942e+04
1	39	108	-9.36	-26.82	-21.86	-14.32	-7.87	-8670.37	-8.041e+04	-6.301e+04	-2.606e+04	-3.074e+04
1	39	109	25.17	-28.80	2.46	-6.09	-26.64	-1.424e+05	-2.642e+05	-2.094e+05	-1.973e+05	-6.060e+04
1	39	110	13.00	-21.78	-4.15	-4.63	-17.39	-1.054e+05	-2.299e+05	-1.725e+05	-1.628e+05	-6.204e+04
1	39	111	6.49	-20.59	-8.04	-6.06	-13.51	-6.138e+04	-2.011e+05	-1.351e+05	-1.273e+05	-6.973e+04
1	39	112	11.40	-21.51	-6.78	-3.33	-16.36	-1.071e+04	-1.827e+05	-9.970e+04	-9.368e+04	-8.593e+04
1	39	113	3.33	-13.03	-5.49	-4.20	-8.15	-4445.84	-1.879e+05	-9.796e+04	-9.436e+04	-9.169e+04
1	39	114	-3.02	-15.53	-9.22	-9.33	-6.26	1.040e+04	-1.565e+05	-7.382e+04	-7.225e+04	-8.343e+04
1	39	115	27.93	-25.00	21.47	-18.54	-17.32	-1.623e+05	-2.845e+05	-2.047e+05	-2.421e+05	-5.820e+04
1	39	116	13.02	-19.73	6.16	-12.86	-13.33	-1.220e+05	-2.440e+05	-1.612e+05	-2.048e+05	-5.695e+04
1	39	117	6.19	-16.64	-0.21	-10.24	-10.25	-7.916e+04	-2.038e+05	-1.166e+05	-1.664e+05	-5.713e+04
1	39	118	8.83	-10.91	2.78	-4.86	-9.10	-3.745e+04	-1.531e+05	-7.047e+04	-1.201e+05	-5.223e+04
1	39	119	1.63	-18.03	-4.05	-12.34	-8.91	6.199e+04	-7.994e+04	2.547e+04	-4.342e+04	-6.204e+04
1	39	120	-8.60	-23.23	-12.16	-19.66	-6.28	-8526.38	-8.208e+04	-2.884e+04	-6.177e+04	-3.288e+04
1	39	121	24.76	-20.94	24.33	-20.51	4.40	-1.802e+05	-3.029e+05	-1.988e+05	-2.843e+05	-4.402e+04
1	39	122	8.28	-16.36	7.97	-16.05	-2.74	-1.350e+05	-2.578e+05	-1.500e+05	-2.428e+05	-4.022e+04
1	39	123	3.06	-16.76	1.28	-14.97	-5.67	-8.310e+04	-2.205e+05	-9.667e+04	-2.069e+05	-4.100e+04
1	39	124	8.16	-19.28	4.94	-16.06	-8.83	-2.152e+04	-1.954e+05	-3.561e+04	-1.813e+05	-4.745e+04
1	39	125	4.57	-7.42	3.23	-6.07	-3.78	-4734.60	-1.952e+05	-1.813e+04	-1.818e+05	-4.870e+04
1	39	126	-5.43	-10.19	-5.84	-9.78	-1.33	1.177e+04	-1.598e+05	-403.84	-1.476e+05	-4.405e+04
1	39	127	17.51	-26.13	5.73	-14.35	19.37	-1.966e+05	-3.128e+05	-1.988e+05	-3.107e+05	-1.550e+04
1	39	128	2.65	-14.56	0.22	-12.13	5.99	-1.448e+05	-2.654e+05	-1.460e+05	-2.642e+05	-1.182e+04
1	39	129	-2.10	-9.88	-2.11	-9.86	-0.33	-9.253e+04	-2.207e+05	-9.317e+04	-2.200e+05	-9045.34
1	39	130	2.49	-6.20	0.72	-4.43	-3.50	-4.247e+04	-1.665e+05	-4.274e+04	-1.662e+05	-5761.88
1	39	131	2.88e-02	-12.12	-0.27	-11.82	-1.89	6.446e+04	-8.855e+04	6.438e+04	-8.847e+04	-3627.41
1	39	132	-7.04	-14.28	-7.15	-14.17	0.89	-8349.46	-8.921e+04	-8472.85	-8.909e+04	-3156.29
1	39	133	4.96	-28.67	-18.94	-4.78	15.26	-2.058e+05	-3.133e+05	-2.079e+05	-3.111e+05	1.501e+04
1	39	134	-4.81	-12.21	-10.60	-6.43	3.06	-1.483e+05	-2.669e+05	-1.520e+05	-2.633e+05	2.061e+04
1	39	135	-6.66	-9.64	-7.00	-9.30	-0.95	-8.896e+04	-2.276e+05	-9.446e+04	-2.221e+05	2.705e+04
1	39	136	3.51	-12.69	3.49	-12.67	-0.54	-2.344e+04	-2.004e+05	-3.154e+04	-1.923e+05	3.699e+04
1	39	137	1.73	-1.65	1.53	-1.45	-0.80	-4769.22	-1.987e+05	-1.477e+04	-1.887e+05	4.289e+04
1	39	138	-3.72	-7.91	-7.87	-3.76	-0.41	1.218e+04	-1.623e+05	1576.92	-1.517e+05	4.167e+04
1	39	139	1.23	-26.29	-26.06	1.00	-2.50	-2.027e+05	-3.058e+05	-2.206e+05	-2.879e+05	3.909e+04
1	39	140	-2.76	-14.94	-13.05	-4.65	-4.41	-1.448e+05	-2.612e+05	-1.669e+05	-2.391e+05	4.563e+04
1	39	141	-1.22	-12.72	-8.31	-5.62	-5.59	-9.085e+04	-2.165e+05	-1.161e+05	-1.912e+05	5.040e+04
1	39	142	4.38	-8.31	-1.77	-2.16	-6.34	-3.963e+04	-1.616e+05	-6.592e+04	-1.353e+05	5.016e+04
1	39	143	-1.84	-6.64	-2.27	-6.21	-1.38	6.410e+04	-8.594e+04	3.076e+04	-5.260e+04	6.238e+04
1	39	144	-5.00	-8.08	-7.56	-5.51	1.15	-6976.25	-8.741e+04	-2.466e+04	-6.973e+04	3.331e+04
1	39	145	5.19	-25.87	-16.55	-4.12	-14.23	-1.885e+05	-2.928e+05	-2.294e+05	-2.519e+05	5.090e+04
1	39	146	0.97	-17.83	-8.49	-8.37	-9.40	-1.317e+05	-2.526e+05	-1.831e+05	-2.012e+05	5.981e+04
1	39	147	-1.16	-13.22	-5.07	-9.31	-5.64	-7.428e+04	-2.184e+05	-1.391e+05	-1.535e+05	7.169e+04
1	39	148	3.43	-4.39	2.83	-3.80	2.07	-1.546e+04	-1.960e+05	-1.002e+05	-1.113e+05	9.012e+04
1	39	149	7.04	-3.02	3.25	0.77	-4.87	-5184.24	-1.977e+05	-9.810e+04	-1.048e+05	9.620e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	39	150	2.13	-9.60	-3.83	-3.63	-5.87	1.099e+04	-1.643e+05	-7.518e+04	-7.809e+04	8.761e+04
1	39	151	10.07	-35.31	-6.38	-18.86	-21.82	-2.213e+05	-3.165e+05	-2.789e+05	-2.589e+05	4.650e+04
1	39	152	3.60	-23.80	-3.39	-16.81	-11.94	-1.554e+05	-2.691e+05	-2.311e+05	-1.934e+05	5.359e+04
1	39	153	3.95	-19.92	-0.32	-15.64	-9.15	-9.629e+04	-2.229e+05	-1.845e+05	-1.347e+05	5.817e+04
1	39	154	8.56	-14.40	4.67	-10.52	-8.61	-4.077e+04	-1.661e+05	-1.304e+05	-7.643e+04	5.654e+04
1	39	155	2.35	-7.30	0.91	-5.85	-3.45	6.465e+04	-8.906e+04	-4.942e+04	2.500e+04	6.725e+04
1	39	156	-0.37	-4.63	-1.44	-3.55	-1.85	-6854.15	-9.038e+04	-6.742e+04	-2.981e+04	3.729e+04
1	39	157	15.42	-45.24	6.83	-36.64	-21.15	-2.491e+05	-3.344e+05	-3.213e+05	-2.622e+05	3.080e+04
1	39	158	6.69	-28.50	3.67	-25.47	-9.87	-1.717e+05	-2.831e+05	-2.710e+05	-1.838e+05	3.463e+04
1	39	159	3.06	-19.76	1.95	-18.65	-4.90	-1.009e+05	-2.395e+05	-2.276e+05	-1.129e+05	3.892e+04
1	39	160	0.36	-4.21	0.35	-4.21	8.98e-02	-2.817e+04	-2.094e+05	-1.960e+05	-4.156e+04	4.741e+04
1	39	161	11.89	-2.60	11.20	-1.92	-3.08	-6007.39	-2.055e+05	-1.922e+05	-1.929e+04	4.974e+04
1	39	162	7.14	-12.10	6.00	-10.96	-4.53	1.240e+04	-1.682e+05	-1.557e+05	-13.74	4.569e+04
1	39	163	14.78	-53.18	14.34	-52.74	-5.45	-2.636e+05	-3.412e+05	-3.410e+05	-2.639e+05	4648.59
1	39	164	8.24	-32.23	8.16	-32.15	-1.73	-1.804e+05	-2.882e+05	-2.881e+05	-1.805e+05	3544.56
1	39	165	7.31	-24.78	7.31	-24.78	0.12	-1.104e+05	-2.380e+05	-2.379e+05	-1.105e+05	2713.60
1	39	166	11.78	-19.03	11.75	-18.99	1.05	-4.696e+04	-1.786e+05	-1.786e+05	-4.698e+04	1728.57
1	39	167	5.39	-7.87	5.36	-7.84	0.56	6.603e+04	-9.729e+04	-9.728e+04	6.602e+04	1088.23
1	39	168	5.09	-3.85	5.09	-3.84	-0.28	-6963.70	-9.693e+04	-9.692e+04	-6973.66	946.87
1	39	169	15.56	-53.64	11.48	-49.56	16.30	-2.581e+05	-3.362e+05	-3.293e+05	-2.649e+05	-2.210e+04
1	39	170	8.78	-33.27	6.39	-30.87	9.74	-1.762e+05	-2.853e+05	-2.771e+05	-1.844e+05	-2.875e+04
1	39	171	5.38	-22.86	3.58	-21.06	6.89	-1.029e+05	-2.415e+05	-2.321e+05	-1.122e+05	-3.473e+04
1	39	172	2.42	-5.69	1.37	-4.64	2.73	-2.885e+04	-2.108e+05	-1.993e+05	-4.034e+04	-4.427e+04
1	39	173	13.83	-3.67	12.60	-2.44	4.47	-6047.90	-2.066e+05	-1.943e+05	-1.828e+04	-4.800e+04
1	39	174	9.07	-12.83	7.82	-11.58	5.08	1.252e+04	-1.689e+05	-1.570e+05	580.52	-4.498e+04
1	39	175	15.56	-49.19	-1.01	-32.62	28.25	-2.349e+05	-3.214e+05	-2.927e+05	-2.637e+05	-4.076e+04
1	39	176	8.65	-32.16	-0.98	-22.53	17.33	-1.630e+05	-2.735e+05	-2.414e+05	-1.951e+05	-5.019e+04
1	39	177	8.42	-25.43	1.08	-18.09	13.95	-1.002e+05	-2.263e+05	-1.919e+05	-1.345e+05	-5.615e+04
1	39	178	12.60	-19.01	5.48	-11.89	13.20	-4.159e+04	-1.685e+05	-1.350e+05	-7.506e+04	-5.592e+04
1	39	179	6.36	-8.93	2.76	-5.33	6.49	6.523e+04	-9.081e+04	-5.217e+04	2.659e+04	-6.735e+04
1	39	180	4.50	-3.87	2.79	-2.16	3.38	-6458.52	-9.191e+04	-6.981e+04	-2.856e+04	-3.741e+04
1	39	181	13.54	-39.33	-17.21	-8.58	26.08	-2.035e+05	-3.002e+05	-2.458e+05	-2.579e+05	-4.799e+04
1	39	182	7.50	-26.79	-9.89	-9.40	17.14	-1.402e+05	-2.588e+05	-1.946e+05	-2.044e+05	-5.915e+04
1	39	183	4.08	-18.55	-6.24	-8.22	11.27	-7.849e+04	-2.232e+05	-1.470e+05	-1.548e+05	-7.228e+04
1	39	184	3.73	-1.95	2.61	-0.84	2.26	-1.704e+04	-1.999e+05	-1.055e+05	-1.115e+05	-9.138e+04
1	39	185	12.90	-4.76	4.71	3.42	8.81	-5459.33	-2.006e+05	-1.012e+05	-1.048e+05	-9.755e+04
1	39	186	7.44	-11.58	-2.12	-2.01	9.51	1.115e+04	-1.666e+05	-7.694e+04	-7.850e+04	-8.887e+04
1	39	187	8.98	-42.54	-36.30	2.75	16.81	-2.245e+05	-3.160e+05	-2.431e+05	-2.975e+05	-3.677e+04
1	39	188	5.00	-27.15	-20.43	-1.72	13.07	-1.570e+05	-2.695e+05	-1.808e+05	-2.457e+05	-4.590e+04
1	39	189	5.51	-21.41	-14.10	-1.81	11.98	-9.713e+04	-2.230e+05	-1.246e+05	-1.956e+05	-5.197e+04
1	39	190	10.12	-15.48	-7.12	1.76	12.01	-4.092e+04	-1.661e+05	-6.940e+04	-1.376e+05	-5.248e+04
1	39	191	3.27	-7.75	-3.36	-1.11	5.39	6.495e+04	-8.914e+04	2.969e+04	-5.388e+04	-6.473e+04
1	39	192	1.17	-4.89	-4.31	0.59	1.78	-6505.35	-9.033e+04	-2.578e+04	-7.105e+04	-3.527e+04
1	39	193	5.28	-40.05	-39.60	4.83	-4.50	-2.336e+05	-3.259e+05	-2.357e+05	-3.239e+05	-1.360e+04
1	39	194	1.30	-23.21	-22.91	1.00	2.70	-1.632e+05	-2.771e+05	-1.673e+05	-2.730e+05	-2.120e+04
1	39	195	-0.84	-16.43	-14.83	-2.44	4.73	-9.624e+04	-2.352e+05	-1.023e+05	-2.292e+05	-2.835e+04
1	39	196	0.91	-7.05	-0.50	-5.63	3.04	-2.621e+04	-2.061e+05	-3.495e+04	-1.973e+05	-3.866e+04
1	39	197	7.14	-1.93	-0.59	5.80	3.22	-5353.95	-2.029e+05	-1.585e+04	-1.924e+05	-4.431e+04
1	39	198	3.19	-10.54	-9.92	2.57	2.84	1.240e+04	-1.657e+05	1436.95	-1.548e+05	-4.282e+04
1	54	1	6.98	6.98	6.98	6.98	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05	-7.541e+05
1	54	7	15.26	-48.35	-20.74	-12.35	31.53	-1.997e+05	-3.154e+05	-2.539e+05	-2.612e+05	5.775e+04
1	54	8	36.75	-34.11	-24.99	27.63	23.73	-2.212e+05	-3.417e+05	-2.988e+05	-2.640e+05	5.765e+04
1	54	9	38.07	-108.45	-54.76	-15.61	70.59	-2.396e+05	-3.772e+05	-3.011e+05	-3.157e+05	6.842e+04
1	54	10	31.13	-49.14	3.06	-21.07	38.28	-2.140e+05	-3.380e+05	-2.487e+05	-3.033e+05	5.563e+04
1	54	11	95.79	-147.95	29.49	-81.65	108.46	-2.340e+05	-3.999e+05	-2.564e+05	-3.776e+05	5.662e+04
1	54	12	53.40	-43.86	45.56	-36.01	26.49	-2.202e+05	-3.549e+05	-2.326e+05	-3.424e+05	3.900e+04
1	54	13	338.70	-49.77	335.76	-46.83	-33.65	-2.485e+05	-4.192e+05	-2.495e+05	-4.182e+05	1.305e+04
1	54	14	64.79	-39.54	63.86	-38.61	-9.81	-2.240e+05	-3.616e+05	-2.241e+05	-3.614e+05	5057.97
1	54	15	40.22	-206.84	-96.23	-70.40	-122.85	-2.459e+05	-3.991e+05	-2.548e+05	-3.902e+05	-3.587e+04
1	54	16	36.98	-47.92	17.83	-28.77	-35.49	-2.285e+05	-3.565e+05	-2.360e+05	-3.490e+05	-3.006e+04
1	54	17	30.34	-74.80	-58.57	14.11	-37.98	-2.624e+05	-3.832e+05	-3.093e+05	-3.363e+05	-5.887e+04
1	54	18	14.70	-44.53	-17.57	-12.26	-29.50	-2.267e+05	-3.422e+05	-2.545e+05	-3.144e+05	-4.935e+04
1	54	19	28.05	-19.63	-19.29	27.71	-4.01	-2.402e+05	-3.489e+05	-3.061e+05	-2.830e+05	-5.310e+04
1	54	20	6.85	-30.90	-20.93	-3.11	-16.64	-2.112e+05	-3.203e+05	-2.590e+05	-2.725e+05	-5.414e+04
1	54	21	51.77	-27.78	-27.34	51.34	-5.87	-2.432e+05	-3.653e+05	-3.453e+05	-2.632e+05	4.524e+04
1	54	22	194.71	-46.87	-46.39	194.23	10.77	-2.683e+05	-4.276e+05	-3.760e+05	-3.199e+05	7.456e+04
1	54	23	20.02	-591.10	-348.59	-222.49	298.99	-2.860e+05	-4.687e+05	-3.539e+05	-4.007e+05	8.832e+04
1	54	24	1234.43	-252.55	1229.88	-248.00	82.12	-2.219e+05	-4.688e+05	-2.243e+05	-4.663e+05	2.467e+04
1	54	25	43.04	-354.57	-272.86	-38.67	-160.66	-3.231e+05	-4.919e+05	-3.640e+05	-4.510e+05	-7.233e+04
1	54	26	224.65	-19.85	-4.91	209.70	58.57	-3.105e+05	-4.496e+05	-3.872e+05	-3.728e+05	-6.919e+04
1	54	27	39.14	-23.26	-12.01	27.89	23.98	-2.718e+05	-3.753e+05	-3.543e+05	-2.928e+05	-4.164e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	54	28	34.48	-36.87	-16.44	14.05	-32.25	-2.622e+05	-3.752e+05	-3.726e+05	-2.648e+05	1.686e+04
1	54	29	163.75	-88.54	-20.15	95.36	-112.15	-2.983e+05	-4.432e+05	-4.287e+05	-3.128e+05	4.349e+04
1	54	30	489.71	-214.22	-83.48	358.97	273.75	-3.163e+05	-5.405e+05	-5.047e+05	-3.522e+05	8.222e+04
1	54	31	187.79	-517.78	57.54	-387.53	-273.75	-4.091e+05	-5.902e+05	-5.376e+05	-4.617e+05	-8.222e+04
1	54	32	71.68	-179.67	2.72	-110.70	112.15	-3.464e+05	-4.584e+05	-4.377e+05	-3.671e+05	-4.349e+04
1	54	33	22.92	-49.00	2.86	-28.94	32.25	-2.964e+05	-3.856e+05	-3.823e+05	-2.997e+05	-1.686e+04
1	54	34	9.52	-53.84	-1.37	-42.94	-23.91	-2.720e+05	-3.697e+05	-3.672e+05	-2.745e+05	-1.544e+04
1	54	35	6.05	-239.79	-8.88	-224.85	-58.73	-3.145e+05	-4.182e+05	-4.179e+05	-3.148e+05	-5403.59
1	54	36	347.00	-52.91	264.14	29.95	162.09	-4.221e+05	-5.337e+05	-5.214e+05	-4.345e+05	-3.503e+04
1	54	37	226.60	-1262.98	-1258.44	222.06	-82.12	-5.572e+05	-6.083e+05	-5.895e+05	-5.760e+05	-2.467e+04
1	54	38	583.78	-30.13	339.87	213.77	-300.41	-4.779e+05	-5.383e+05	-5.315e+05	-4.847e+05	1.904e+04
1	54	39	33.05	-209.84	32.59	-209.38	-10.62	-3.677e+05	-4.292e+05	-4.292e+05	-3.677e+05	36.90
1	54	40	14.41	-66.83	14.00	-66.41	5.82	-3.022e+05	-3.781e+05	-3.762e+05	-3.041e+05	1.184e+04
1	54	41	6.15	-43.06	5.83	-42.74	3.96	-2.644e+05	-3.547e+05	-3.358e+05	-2.833e+05	-3.672e+04
1	54	42	60.68	-44.65	44.37	-28.33	38.10	-3.174e+05	-3.954e+05	-3.699e+05	-3.429e+05	-3.660e+04
1	54	43	192.15	-54.46	81.08	56.61	122.69	-3.842e+05	-4.636e+05	-4.328e+05	-4.150e+05	-3.873e+04
1	54	44	32.35	-354.06	-351.11	29.40	33.64	-4.235e+05	-4.551e+05	-4.304e+05	-4.482e+05	-1.305e+04
1	54	45	133.65	-110.44	-44.65	67.86	-108.31	-4.113e+05	-4.475e+05	-4.312e+05	-4.276e+05	1.798e+04
1	54	46	94.35	-52.39	40.54	1.41	-70.71	-3.427e+05	-3.988e+05	-3.780e+05	-3.635e+05	2.706e+04
1	54	47	20.48	-51.55	11.65	-42.72	-23.63	-2.845e+05	-3.608e+05	-3.431e+05	-3.022e+05	3.218e+04
1	54	48	16.93	-19.87	7.55	-10.49	16.04	-2.386e+05	-3.310e+05	-2.915e+05	-2.781e+05	-4.572e+04
1	54	49	30.16	-28.75	2.48	-1.08	29.40	-2.784e+05	-3.609e+05	-3.118e+05	-3.275e+05	-4.048e+04
1	54	50	34.23	-51.71	-32.90	15.42	35.54	-3.179e+05	-3.859e+05	-3.313e+05	-3.725e+05	-2.702e+04
1	54	51	25.94	-79.67	-78.75	25.02	9.81	-3.399e+05	-3.940e+05	-3.403e+05	-3.935e+05	-5058.08
1	54	52	30.38	-68.36	-60.60	22.63	-26.57	-3.282e+05	-3.855e+05	-3.347e+05	-3.791e+05	1.808e+04
1	54	53	35.09	-45.57	-18.09	7.61	-38.23	-2.923e+05	-3.639e+05	-3.176e+05	-3.386e+05	3.420e+04
1	54	54	34.25	-28.15	7.14	-1.03	-30.93	-2.507e+05	-3.353e+05	-2.966e+05	-2.894e+05	4.211e+04
1	54	55	6.17	-37.33	-37.05	5.88	3.52	-2.444e+05	-3.321e+05	-2.445e+05	-3.320e+05	-2874.17
1	54	56	6.23	-37.13	-34.82	3.92	-9.75	-2.390e+05	-3.272e+05	-2.465e+05	-3.196e+05	2.464e+04
1	54	57	2.80	-24.16	-24.12	2.75	1.11	-1.702e+05	-2.811e+05	-1.702e+05	-2.810e+05	-2205.39
1	54	58	3.13	-24.84	-23.29	1.59	-6.39	-1.660e+05	-2.782e+05	-1.744e+05	-2.697e+05	2.955e+04
1	54	59	2.96	-19.38	-19.38	2.96	-0.11	-1.052e+05	-2.327e+05	-1.052e+05	-2.326e+05	-1683.55
1	54	60	0.71	-17.76	-16.59	-0.46	-4.49	-9.781e+04	-2.361e+05	-1.072e+05	-2.267e+05	3.475e+04
1	54	61	7.77	-14.45	-14.42	7.74	-0.77	-4.555e+04	-1.750e+05	-4.556e+04	-1.750e+05	-1036.24
1	54	62	-1.59	-3.48	-2.52	-2.54	-0.94	-2.693e+04	-2.069e+05	-3.833e+04	-1.955e+05	4.384e+04
1	54	63	1.22	-6.12	-6.09	1.20	-0.42	6.556e+04	-9.476e+04	6.555e+04	-9.476e+04	-662.38
1	54	64	9.44	-2.16	-1.33	8.61	-2.99	-5628.05	-2.037e+05	-1.774e+04	-1.916e+05	4.746e+04
1	54	65	0.48	-4.56	-4.55	0.47	0.18	-7491.54	-9.473e+04	-7495.84	-9.473e+04	-612.89
1	54	66	5.10	-11.41	-10.51	4.21	-3.73	1.243e+04	-1.666e+05	629.80	-1.548e+05	4.443e+04
1	54	67	6.04	-33.90	-23.78	-4.08	-17.37	-2.192e+05	-3.130e+05	-2.483e+05	-2.839e+05	4.338e+04
1	54	68	3.02	-23.79	-17.55	-3.23	-11.33	-1.540e+05	-2.669e+05	-1.857e+05	-2.352e+05	5.072e+04
1	54	69	3.83	-19.81	-14.70	-1.28	-9.73	-9.547e+04	-2.213e+05	-1.290e+05	-1.877e+05	5.563e+04
1	54	70	8.41	-14.20	-8.94	3.15	-9.55	-4.046e+04	-1.650e+05	-7.289e+04	-1.326e+05	5.466e+04
1	54	71	1.94	-7.08	-4.84	-0.30	-3.89	6.462e+04	-8.845e+04	2.701e+04	-5.083e+04	6.590e+04
1	54	72	-0.37	-4.69	-3.98	-1.09	-1.60	-6975.01	-8.981e+04	-2.819e+04	-6.860e+04	3.615e+04
1	54	73	5.79	-27.81	-10.22	-11.80	-16.78	-1.919e+05	-2.931e+05	-2.462e+05	-2.388e+05	5.045e+04
1	54	74	2.47	-20.07	-9.20	-8.40	-11.26	-1.335e+05	-2.532e+05	-1.963e+05	-1.904e+05	5.974e+04
1	54	75	5.96e-02	-14.51	-8.30	-6.15	-7.20	-7.517e+04	-2.189e+05	-1.494e+05	-1.447e+05	7.183e+04
1	54	76	1.43	-1.61	-1.45	1.28	0.66	-1.579e+04	-1.966e+05	-1.080e+05	-1.044e+05	9.040e+04
1	54	77	8.82	-3.54	2.14	3.14	-6.16	-5197.25	-1.982e+05	-1.028e+05	-1.006e+05	9.651e+04
1	54	78	3.77	-10.28	-3.22	-3.29	-7.03	1.109e+04	-1.647e+05	-7.727e+04	-7.635e+04	8.790e+04
1	54	79	3.36	-30.46	-1.57	-25.53	-11.93	-2.130e+05	-3.096e+05	-2.869e+05	-2.357e+05	4.094e+04
1	54	80	1.12	-20.56	-3.73	-15.71	-9.03	-1.505e+05	-2.643e+05	-2.378e+05	-1.770e+05	4.808e+04
1	54	81	2.10	-17.10	-3.26	-11.73	-8.61	-9.374e+04	-2.192e+05	-1.899e+05	-1.230e+05	5.303e+04
1	54	82	6.84	-11.74	0.64	-5.54	-8.76	-4.015e+04	-1.636e+05	-1.342e+05	-6.952e+04	5.255e+04
1	54	83	-5.34e-02	-6.37	-2.94	-3.48	-3.14	6.443e+04	-8.741e+04	-5.190e+04	2.891e+04	6.428e+04
1	54	84	-2.53	-5.56	-2.60	-5.49	-0.46	-6954.63	-8.881e+04	-6.939e+04	-2.637e+04	3.482e+04
1	54	85	7.73e-02	-28.08	3.00e-02	-28.04	1.15	-2.245e+05	-3.203e+05	-3.163e+05	-2.286e+05	1.930e+04
1	54	86	-2.01	-17.63	-2.29	-17.35	-2.06	-1.582e+05	-2.728e+05	-2.672e+05	-1.639e+05	2.484e+04
1	54	87	-3.48	-13.24	-4.72	-12.01	-3.25	-9.390e+04	-2.322e+05	-2.249e+05	-1.012e+05	3.083e+04
1	54	88	0.68	-7.64	-7.42	0.46	-1.33	-2.539e+04	-2.039e+05	-1.942e+05	-3.505e+04	4.039e+04
1	54	89	4.93	-1.00	3.93	-2.73e-03	-2.22	-5233.27	-2.015e+05	-1.904e+05	-1.626e+04	4.518e+04
1	54	90	1.05	-9.80	0.58	-9.32	-2.22	1.232e+04	-1.646e+05	-1.534e+05	1111.61	4.310e+04
1	54	91	2.65	-22.84	-3.62	-16.57	10.98	-2.221e+05	-3.229e+05	-3.220e+05	-2.230e+05	-9581.20
1	54	92	-3.01	-13.69	-4.38	-12.31	3.57	-1.584e+05	-2.736e+05	-2.731e+05	-1.588e+05	-7351.09
1	54	93	-3.22	-10.98	-3.24	-10.96	-0.42	-9.933e+04	-2.269e+05	-2.267e+05	-9.958e+04	-5611.83
1	54	94	2.54	-7.71	1.84	-7.01	-2.58	-4.418e+04	-1.710e+05	-1.709e+05	-4.427e+04	-3454.13
1	54	95	-2.51	-5.87	-5.14	-3.24	-1.38	6.503e+04	-9.181e+04	-9.178e+04	6.500e+04	-2207.91
1	54	96	-5.49	-7.01	-6.66	-5.84	0.64	-7887.98	-9.209e+04	-9.204e+04	-7937.58	-2043.09
1	54	97	3.81	-14.46	-9.10	-1.55	8.32	-2.077e+05	-3.150e+05	-2.997e+05	-2.230e+05	-3.745e+04
1	54	98	-4.95	-8.91	-7.75	-6.10	1.80	-1.497e+05	-2.676e+05	-2.546e+05	-1.627e+05	-3.698e+04

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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	54	99	-5.80	-9.22	-8.04	-6.98	-1.63	-9.021e+04	-2.279e+05	-2.156e+05	-1.025e+05	-3.933e+04
1	54	100	3.47	-11.75	-9.49	1.21	-5.41	-2.417e+04	-2.009e+05	-1.875e+05	-3.756e+04	-4.676e+04
1	54	101	2.09	-0.17	0.75	1.17	-1.11	-5238.40	-1.992e+05	-1.861e+05	-1.836e+04	-4.872e+04
1	54	102	-3.28	-8.08	-3.48	-7.87	0.97	1.202e+04	-1.631e+05	-1.509e+05	-121.46	-4.448e+04
1	54	103	3.48	-12.93	-12.52	3.07	-2.57	-1.871e+05	-2.973e+05	-2.586e+05	-2.259e+05	-5.262e+04
1	54	104	-2.10	-10.51	-8.78	-3.83	-3.40	-1.361e+05	-2.542e+05	-2.167e+05	-1.735e+05	-5.497e+04
1	54	105	-3.86	-9.00	-6.17	-6.69	-2.55	-8.638e+04	-2.116e+05	-1.747e+05	-1.233e+05	-5.708e+04
1	54	106	0.30	-3.97	-1.03	-2.65	-1.97	-3.893e+04	-1.584e+05	-1.249e+05	-7.238e+04	-5.364e+04
1	54	107	-1.82	-9.93	-7.00	-4.76	-3.90	6.306e+04	-8.366e+04	-4.621e+04	-2.560e+04	-6.397e+04
1	54	108	-7.05	-13.95	-12.26	-8.73	-2.96	-7845.68	-8.545e+04	-6.428e+04	-2.901e+04	-3.456e+04
1	54	109	4.24	-15.01	-7.97	-2.81	-9.27	-1.628e+05	-2.763e+05	-2.126e+05	-2.265e+05	-5.636e+04
1	54	110	7.17e-02	-12.19	-5.56	-6.56	-6.11	-1.170e+05	-2.396e+05	-1.728e+05	-1.839e+05	-6.105e+04
1	54	111	-1.27	-12.92	-5.29	-8.90	-5.54	-6.712e+04	-2.085e+05	-1.334e+05	-1.422e+05	-7.056e+04
1	54	112	7.65	-13.97	-0.69	-5.63	-10.52	-1.285e+04	-1.884e+05	-9.724e+04	-1.040e+05	-8.771e+04
1	54	113	0.95	-4.99	-1.11	-2.93	-2.83	-4821.67	-1.921e+05	-9.641e+04	-1.005e+05	-9.360e+04
1	54	114	-5.69	-8.26	-7.05	-6.90	-1.29	1.060e+04	-1.598e+05	-7.376e+04	-7.546e+04	-8.520e+04
1	54	115	10.30	-18.35	3.85e-02	-8.08	-13.74	-1.762e+05	-2.905e+05	-2.024e+05	-2.642e+05	-4.809e+04
1	54	116	4.14	-14.28	-0.31	-9.83	-7.88	-1.300e+05	-2.490e+05	-1.573e+05	-2.216e+05	-5.006e+04
1	54	117	0.91	-11.95	-1.11	-9.93	-4.68	-8.341e+04	-2.074e+05	-1.120e+05	-1.788e+05	-5.225e+04
1	54	118	4.81	-6.85	3.72	-5.75	-3.40	-3.848e+04	-1.555e+05	-6.614e+04	-1.279e+05	-4.972e+04
1	54	119	0.12	-14.25	-2.18	-11.94	-5.27	6.267e+04	-8.171e+04	2.914e+04	-4.818e+04	-6.096e+04
1	54	120	-7.94	-18.67	-11.54	-15.07	-5.06	-7862.68	-8.353e+04	-2.564e+04	-6.576e+04	-3.208e+04
1	54	121	16.94	-22.22	11.60	-16.88	-13.44	-1.828e+05	-3.003e+05	-1.897e+05	-2.935e+05	-2.753e+04
1	54	122	6.72	-16.74	4.87	-14.89	-6.32	-1.362e+05	-2.568e+05	-1.432e+05	-2.498e+05	-2.823e+04
1	54	123	2.35	-16.77	1.48	-15.91	-3.97	-8.340e+04	-2.202e+05	-9.137e+04	-2.122e+05	-3.205e+04
1	54	124	7.58	-19.38	6.73	-18.53	-4.71	-2.152e+04	-1.951e+05	-3.147e+04	-1.851e+05	-4.036e+04
1	54	125	4.16	-8.49	3.62	-7.95	-2.56	-4571.91	-1.949e+05	-1.561e+04	-1.839e+05	-4.449e+04
1	54	126	-5.00	-10.88	-5.67	-10.22	-1.86	1.180e+04	-1.593e+05	773.29	-1.483e+05	-4.202e+04
1	54	127	22.22	-22.04	21.94	-21.76	-3.52	-1.830e+05	-3.034e+05	-1.831e+05	-3.034e+05	2874.46
1	54	128	9.74	-17.77	9.70	-17.72	-1.11	-1.377e+05	-2.585e+05	-1.378e+05	-2.584e+05	2205.30
1	54	129	4.71	-14.77	4.71	-14.77	0.11	-8.912e+04	-2.157e+05	-8.914e+04	-2.157e+05	1683.55
1	54	130	6.81	-9.18	6.77	-9.14	0.77	-4.187e+04	-1.632e+05	-4.188e+04	-1.632e+05	1036.24
1	54	131	2.06	-16.91	2.06	-16.90	0.42	6.396e+04	-8.625e+04	6.396e+04	-8.625e+04	662.37
1	54	132	-8.21	-19.93	-8.22	-19.93	-0.18	-8753.13	-8.707e+04	-8757.92	-8.706e+04	612.94
1	54	133	21.85	-21.94	19.51	-19.60	9.86	-1.781e+05	-2.984e+05	-1.880e+05	-2.885e+05	3.298e+04
1	54	134	9.90	-18.19	8.34	-16.63	6.43	-1.338e+05	-2.551e+05	-1.429e+05	-2.460e+05	3.187e+04
1	54	135	4.42	-18.33	3.04	-16.95	5.44	-8.236e+04	-2.188e+05	-9.178e+04	-2.094e+05	3.460e+04
1	54	136	8.59	-20.78	6.96	-19.15	6.73	-2.119e+04	-1.941e+05	-3.223e+04	-1.831e+05	4.227e+04
1	54	137	4.88	-9.80	3.96	-8.89	3.55	-4585.44	-1.942e+05	-1.624e+04	-1.826e+05	4.555e+04
1	54	138	-4.53	-12.14	-5.24	-11.42	2.22	1.171e+04	-1.589e+05	403.40	-1.476e+05	4.244e+04
1	54	139	19.25	-21.99	8.94	-11.67	17.86	-1.689e+05	-2.864e+05	-1.995e+05	-2.557e+05	5.159e+04
1	54	140	9.66	-17.75	3.27	-11.37	11.59	-1.259e+05	-2.457e+05	-1.563e+05	-2.153e+05	5.213e+04
1	54	141	4.56	-14.96	0.38	-10.79	8.01	-8.134e+04	-2.050e+05	-1.121e+05	-1.742e+05	5.347e+04
1	54	142	7.74	-9.41	4.58	-6.25	6.65	-3.817e+04	-1.539e+05	-6.699e+04	-1.251e+05	5.005e+04
1	54	143	1.24	-16.97	-2.58	-13.15	7.41	6.224e+04	-8.056e+04	2.815e+04	-4.647e+04	6.087e+04
1	54	144	-8.56	-21.93	-12.50	-17.98	6.10	-8161.92	-8.250e+04	-2.643e+04	-6.423e+04	3.200e+04
1	54	145	13.66	-21.06	-4.45	-2.95	17.34	-1.544e+05	-2.709e+05	-2.089e+05	-2.164e+05	5.813e+04
1	54	146	6.28	-16.75	-4.83	-5.64	11.51	-1.123e+05	-2.353e+05	-1.708e+05	-1.768e+05	6.145e+04
1	54	147	2.44	-16.56	-5.99	-8.13	9.44	-6.483e+04	-2.053e+05	-1.327e+05	-1.374e+05	7.017e+04
1	54	148	9.43	-17.60	-2.71	-5.45	13.45	-1.202e+04	-1.859e+05	-9.712e+04	-1.008e+05	8.690e+04
1	54	149	2.11	-8.95	-2.92	-3.93	5.51	-4729.46	-1.902e+05	-9.637e+04	-9.856e+04	9.273e+04
1	54	150	-4.31	-11.87	-8.13	-8.05	3.78	1.045e+04	-1.583e+05	-7.349e+04	-7.440e+04	8.439e+04
1	54	151	15.86	-19.38	-14.23	10.70	12.45	-1.747e+05	-2.901e+05	-2.527e+05	-2.121e+05	5.403e+04
1	54	152	6.43	-15.85	-10.85	1.44	9.29	-1.291e+05	-2.485e+05	-2.126e+05	-1.650e+05	5.477e+04
1	54	153	1.88	-13.24	-8.79	-2.58	6.89	-8.290e+04	-2.073e+05	-1.720e+05	-1.182e+05	5.606e+04
1	54	154	5.09	-7.63	-3.74	1.20	5.86	-3.839e+04	-1.555e+05	-1.235e+05	-7.035e+04	5.215e+04
1	54	155	0.21	-14.66	-10.52	-3.93	6.66	6.245e+04	-8.162e+04	-4.541e+04	2.625e+04	6.249e+04
1	54	156	-8.07	-19.39	-16.47	-10.99	4.95	-8142.42	-8.354e+04	-6.343e+04	-2.825e+04	3.334e+04
1	54	157	12.80	-15.76	-15.72	12.76	-1.05	-1.913e+05	-3.065e+05	-2.919e+05	-2.059e+05	3.831e+04
1	54	158	2.70	-13.05	-12.76	2.41	2.10	-1.409e+05	-2.610e+05	-2.486e+05	-1.533e+05	3.658e+04
1	54	159	-0.14	-14.09	-12.69	-1.55	4.20	-8.596e+04	-2.231e+05	-2.112e+05	-9.780e+04	3.851e+04
1	54	160	6.43	-16.73	-14.28	3.98	7.12	-2.259e+04	-1.973e+05	-1.844e+05	-3.551e+04	4.572e+04
1	54	161	3.63	-5.19	-4.20	2.64	2.78	-4933.12	-1.965e+05	-1.838e+05	-1.773e+04	4.783e+04
1	54	162	-6.13	-8.10	-7.79	-6.44	0.71	1.183e+04	-1.609e+05	-1.490e+05	-78.45	4.376e+04
1	54	163	7.55	-18.34	-12.26	1.47	-10.98	-2.037e+05	-3.142e+05	-3.134e+05	-2.046e+05	9580.90
1	54	164	-0.80	-11.89	-10.59	-2.11	-3.57	-1.487e+05	-2.668e+05	-2.664e+05	-1.491e+05	7351.18
1	54	165	-3.68	-8.61	-8.58	-3.71	0.42	-9.451e+04	-2.218e+05	-2.216e+05	-9.476e+04	5611.83
1	54	166	0.95	-4.83	-3.23	-0.65	2.58	-4.307e+04	-1.674e+05	-1.673e+05	-4.317e+04	3454.13
1	54	167	-0.61	-10.76	-10.57	-0.80	1.38	6.455e+04	-8.926e+04	-8.923e+04	6.452e+04	2207.93
1	54	168	-6.86	-12.86	-12.79	-6.93	-0.64	-8264.98	-8.980e+04	-8.974e+04	-8316.21	2043.03
1	54	169	-1.00	-19.33	-6.58	-13.76	-8.43	-2.075e+05	-3.124e+05	-3.084e+05	-2.115e+05	-2.017e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	54	170	-6.07	-10.06	-7.29	-8.84	-1.84	-1.492e+05	-2.665e+05	-2.612e+05	-1.546e+05	-2.444e+04
1	54	171	-6.41	-9.53	-9.37	-6.57	0.68	-8.954e+04	-2.274e+05	-2.205e+05	-9.642e+04	-3.002e+04
1	54	172	3.24	-12.21	-12.21	3.23	-0.37	-2.374e+04	-2.004e+05	-1.911e+05	-3.299e+04	-3.934e+04
1	54	173	1.58	-1.14	-1.03	1.47	0.55	-4909.80	-1.988e+05	-1.881e+05	-1.562e+04	-4.429e+04
1	54	174	-3.66	-7.95	-3.73	-7.88	0.54	1.214e+04	-1.624e+05	-1.515e+05	1154.71	-4.238e+04
1	54	175	-2.94	-18.20	-3.23	-17.91	2.08	-1.998e+05	-3.031e+05	-2.810e+05	-2.219e+05	-4.235e+04
1	54	176	-4.23	-12.03	-5.82	-10.44	3.14	-1.432e+05	-2.591e+05	-2.338e+05	-1.685e+05	-4.789e+04
1	54	177	-2.40	-11.12	-5.89	-7.63	4.27	-9.004e+04	-2.151e+05	-1.873e+05	-1.179e+05	-5.202e+04
1	54	178	2.99	-6.77	-2.08	-1.71	4.88	-3.952e+04	-1.607e+05	-1.328e+05	-6.750e+04	-5.107e+04
1	54	179	-2.62	-6.49	-6.46	-2.66	0.38	6.386e+04	-8.540e+04	-5.110e+04	2.955e+04	-6.279e+04
1	54	180	-5.68	-8.88	-6.81	-7.75	-1.53	-7204.75	-8.694e+04	-6.854e+04	-2.561e+04	-3.360e+04
1	54	181	-0.25	-18.40	-6.78	-11.87	8.71	-1.829e+05	-2.883e+05	-2.425e+05	-2.287e+05	-5.223e+04
1	54	182	-2.09	-13.86	-8.47	-7.48	5.86	-1.284e+05	-2.492e+05	-1.944e+05	-1.833e+05	-6.013e+04
1	54	183	-3.42	-10.95	-8.99	-5.38	3.30	-7.269e+04	-2.159e+05	-1.487e+05	-1.399e+05	-7.145e+04
1	54	184	3.35	-5.37	-3.48	1.47	-3.59	-1.488e+04	-1.942e+05	-1.079e+05	-1.011e+05	-8.959e+04
1	54	185	4.84	-2.36	0.33	2.15	3.48	-5073.90	-1.964e+05	-1.028e+05	-9.870e+04	-9.564e+04
1	54	186	0.16	-8.91	-4.30	-4.44	4.54	1.095e+04	-1.632e+05	-7.700e+04	-7.530e+04	-8.709e+04
1	54	187	2.40	-24.98	-14.87	-7.71	13.22	-2.111e+05	-3.096e+05	-2.453e+05	-2.754e+05	-4.689e+04
1	54	188	-0.45	-18.26	-13.96	-4.76	7.63	-1.495e+05	-2.640e+05	-1.847e+05	-2.289e+05	-5.279e+04
1	54	189	0.80	-16.13	-13.20	-2.12	6.40	-9.319e+04	-2.191e+05	-1.291e+05	-1.831e+05	-5.684e+04
1	54	190	5.57	-10.98	-8.06	2.65	6.30	-4.006e+04	-1.635e+05	-7.374e+04	-1.298e+05	-5.499e+04
1	54	191	-0.82	-5.92	-5.23	-1.51	1.75	6.422e+04	-8.733e+04	-2.602e+04	-4.913e+04	-6.581e+04
1	54	192	-3.73	-5.20	-4.94	-4.00	0.57	-7226.99	-8.882e+04	-2.898e+04	-6.706e+04	-3.608e+04
1	54	193	6.52	-32.20	-26.87	1.19	13.34	-2.336e+05	-3.259e+05	-2.448e+05	-3.147e+05	-3.009e+04
1	54	194	1.67	-21.65	-19.81	-0.16	6.28	-1.633e+05	-2.767e+05	-1.740e+05	-2.660e+05	-3.319e+04
1	54	195	-0.86	-15.68	-15.04	-1.50	3.03	-9.666e+04	-2.349e+05	-1.076e+05	-2.239e+05	-3.730e+04
1	54	196	-1.57	-3.89	-2.30	-3.17	-1.08	-2.654e+04	-2.060e+05	-3.908e+04	-1.935e+05	-4.575e+04
1	54	197	8.11	-1.43	-0.99	7.67	2.00	-5623.55	-2.031e+05	-1.837e+04	-1.903e+05	-4.852e+04
1	54	198	3.82	-10.91	-10.09	3.00	3.37	1.234e+04	-1.662e+05	259.82	-1.541e+05	-4.484e+04
1	72	1	6.98	6.98	6.98	6.98						
1	72	7	8.53	-32.58	-2.07	-21.97						
1	72	8	13.99	-43.82	-11.65	-18.19						
1	72	9	30.34	-74.80	14.11	-58.57						
1	72	10	27.19	-18.77	26.74	-18.32						
1	72	11	224.65	-19.85	209.70	-4.91						
1	72	12	38.77	-22.89	26.90	-11.02						
1	72	13	71.68	-179.67	-110.70	2.72						
1	72	14	23.27	-49.35	-28.84	2.75						
1	72	15	33.05	-209.84	-209.38	32.59						
1	72	16	13.48	-65.89	-65.49	13.07						
1	72	17	94.35	-52.39	1.41	40.54						
1	72	18	20.69	-51.76	-41.96	10.89						
1	72	19	33.84	-44.33	7.51	-17.99						
1	72	20	35.28	-29.17	-2.97	9.08						
1	72	21	36.02	-46.96	-28.35	17.41						
1	72	22	40.22	-206.84	-70.40	-96.23						
1	72	23	43.04	-354.57	-38.67	-272.86						
1	72	24	187.79	-517.78	-387.53	57.54						
1	72	25	583.78	-30.13	213.77	339.87						
1	72	26	133.65	-110.44	67.86	-44.65						
1	72	27	30.07	-68.05	22.78	-60.76						
1	72	28	65.11	-39.86	-38.96	64.21						
1	72	29	338.70	-49.77	-46.83	335.76						
1	72	30	1234.43	-252.55	-248.00	1229.88						
1	72	31	226.60	-1262.98	222.06	-1258.44						
1	72	32	32.35	-354.06	29.40	-351.11						
1	72	33	26.27	-79.99	25.38	-79.10						
1	72	34	53.09	-43.55	-36.17	45.71						
1	72	35	95.79	-147.95	-81.65	29.49						
1	72	36	20.02	-591.10	-222.49	-348.59						
1	72	37	489.71	-214.22	358.97	-83.48						
1	72	38	347.00	-52.91	29.95	264.14						
1	72	39	192.15	-54.46	56.61	81.08						
1	72	40	33.27	-50.75	15.01	-32.48						
1	72	41	29.88	-47.89	-20.97	2.96						
1	72	42	38.07	-108.45	-15.61	-54.76						
1	72	43	194.71	-46.87	194.23	-46.39						
1	72	44	163.75	-88.54	95.36	-20.15						
1	72	45	6.05	-239.79	-224.85	-8.88						
1	72	46	60.68	-44.65	-28.33	44.37						
1	72	47	29.43	-28.02	-1.70	3.10						

**PROGETTO engineering s.r.l.**  
società d'ingegneria

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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	72	48	16.29	-49.38	-10.42	-22.67	-32.26	-1.997e+05	-3.154e+05	-2.612e+05	-2.539e+05	-5.775e+04
1	72	49	36.98	-34.34	26.87	-24.23	-24.88	-2.212e+05	-3.417e+05	-2.640e+05	-2.988e+05	-5.765e+04
1	72	50	50.84	-26.84	50.42	-26.42	5.69	-2.432e+05	-3.653e+05	-2.632e+05	-3.453e+05	-4.524e+04
1	72	51	34.84	-37.23	13.95	-16.34	32.70	-2.622e+05	-3.752e+05	-2.648e+05	-3.726e+05	-1.686e+04
1	72	52	9.13	-53.44	-41.94	-2.37	24.24	-2.720e+05	-3.697e+05	-2.745e+05	-2.745e+05	1.544e+04
1	72	53	5.28	-42.20	-41.77	4.85	-4.49	-2.644e+05	-3.547e+05	-2.833e+05	-3.358e+05	3.672e+04
1	72	54	18.61	-21.55	-11.53	8.59	-17.38	-2.386e+05	-3.310e+05	-2.781e+05	-2.915e+05	4.572e+04
1	72	55	8.11	-18.89	1.30	-12.09	11.73	-2.037e+05	-3.142e+05	-2.046e+05	-3.134e+05	-9580.90
1	72	56	5.76e-02	-20.40	-13.91	-6.42	9.52	-2.075e+05	-3.124e+05	-2.115e+05	-3.084e+05	2.017e+04
1	72	57	-0.74	-11.96	-2.14	-10.56	3.71	-1.487e+05	-2.668e+05	-1.491e+05	-2.664e+05	-7351.19
1	72	58	-6.06	-10.07	-9.05	-7.08	1.75	-1.492e+05	-2.665e+05	-1.546e+05	-2.612e+05	2.444e+04
1	72	59	-3.69	-8.60	-3.72	-8.57	-0.37	-9.451e+04	-2.218e+05	-9.476e+04	-2.216e+05	-5611.84
1	72	60	-6.49	-9.45	-6.66	-9.28	-0.70	-8.954e+04	-2.274e+05	-9.642e+04	-2.205e+05	3.002e+04
1	72	61	0.94	-4.82	-0.65	-3.23	-2.58	-4.307e+04	-1.674e+05	-4.317e+04	-1.673e+05	-3454.13
1	72	62	3.24	-12.21	3.23	-12.20	0.37	-2.374e+04	-2.004e+05	-3.299e+04	-1.911e+05	3.934e+04
1	72	63	-0.60	-10.76	-0.80	-10.57	-1.39	6.455e+04	-8.926e+04	6.452e+04	-8.923e+04	-2207.93
1	72	64	1.60	-1.16	1.49	-1.05	-0.53	-4909.81	-1.988e+05	-1.562e+04	-1.881e+05	4.429e+04
1	72	65	-6.87	-12.85	-6.93	-12.79	0.61	-8264.97	-8.980e+04	-8316.19	-8.974e+04	-2043.03
1	72	66	-3.69	-7.92	-7.86	-3.76	-0.52	1.214e+04	-1.624e+05	1154.69	-1.515e+05	4.238e+04
1	72	67	-2.21	-18.93	-18.69	-2.45	-1.99	-1.998e+05	-3.031e+05	-2.219e+05	-2.810e+05	4.235e+04
1	72	68	-4.16	-12.10	-10.52	-5.74	-3.17	-1.432e+05	-2.591e+05	-1.685e+05	-2.338e+05	5.789e+04
1	72	69	-2.43	-11.09	-7.61	-5.91	-4.24	-9.004e+04	-2.151e+05	-1.179e+05	-1.873e+05	5.202e+04
1	72	70	3.03	-6.82	-1.73	-2.06	-4.92	-3.952e+04	-1.607e+05	-6.750e+04	-1.328e+05	5.107e+04
1	72	71	-2.61	-6.50	-2.66	-6.45	-0.43	6.386e+04	-8.540e+04	2.955e+04	-5.110e+04	6.279e+04
1	72	72	-5.68	-8.88	-7.77	-6.78	1.52	-7204.78	-8.694e+04	-2.561e+04	-6.854e+04	3.360e+04
1	72	73	0.56	-19.21	-12.79	-5.86	-9.26	-1.829e+05	-2.883e+05	-2.287e+05	-2.425e+05	5.223e+04
1	72	74	-1.70	-14.25	-7.69	-8.27	-6.27	-1.284e+05	-2.492e+05	-1.833e+05	-1.944e+05	6.013e+04
1	72	75	-3.34	-11.03	-5.54	-8.83	-3.47	-7.269e+04	-2.159e+05	-1.399e+05	-1.487e+05	7.145e+04
1	72	76	3.37	-5.39	1.41	-3.42	3.66	-1.488e+04	-1.942e+05	-1.011e+05	-1.079e+05	8.959e+04
1	72	77	4.80	-2.31	2.14	0.35	-3.44	-5073.89	-1.964e+05	-9.870e+04	-1.028e+05	9.564e+04
1	72	78	0.16	-8.90	-4.45	-4.30	-4.53	1.095e+04	-1.632e+05	-7.530e+04	-7.700e+04	8.709e+04
1	72	79	3.43	-26.01	-6.74	-15.85	-14.00	-2.111e+05	-3.096e+05	-2.754e+05	-2.453e+05	4.689e+04
1	72	80	-0.19	-18.52	-4.58	-14.13	-7.83	-1.495e+05	-2.640e+05	-2.289e+05	-1.847e+05	5.279e+04
1	72	81	0.84	-16.17	-2.08	-13.24	-6.42	-9.319e+04	-2.191e+05	-1.831e+05	-1.291e+05	5.684e+04
1	72	82	5.63	-11.04	2.72	-8.13	-6.32	-4.006e+04	-1.635e+05	-1.298e+05	-7.374e+04	5.499e+04
1	72	83	-0.76	-5.98	-1.47	-5.27	-1.79	6.422e+04	-8.733e+04	-4.913e+04	2.602e+04	6.581e+04
1	72	84	-3.72	-5.21	-3.97	-4.96	-0.55	-7226.96	-8.882e+04	-6.706e+04	-2.898e+04	3.608e+04
1	72	85	7.08	-32.76	1.81	-27.49	-13.50	-2.336e+05	-3.259e+05	-3.147e+05	-2.448e+05	3.009e+04
1	72	86	1.89	-21.86	-1.09e-03	-19.97	-6.43	-1.633e+05	-2.767e+05	-2.660e+05	-1.740e+05	3.319e+04
1	72	87	-0.80	-15.74	-1.46	-15.08	-3.07	-9.666e+04	-2.349e+05	-2.239e+05	-1.076e+05	3.730e+04
1	72	88	-1.59	-3.88	-3.18	-2.29	1.06	-2.654e+04	-2.060e+05	-1.935e+05	-3.908e+04	4.575e+04
1	72	89	8.09	-1.40	7.64	-0.96	-2.01	-5623.54	-2.031e+05	-1.903e+05	-1.837e+04	4.852e+04
1	72	90	3.79	-10.88	2.97	-10.06	-3.37	1.234e+04	-1.662e+05	-1.541e+05	259.84	4.484e+04
1	72	91	6.70	-37.86	6.46	-37.62	-3.30	-2.444e+05	-3.321e+05	-3.320e+05	-2.445e+05	2874.17
1	72	92	2.90	-24.27	2.86	-24.22	-1.07	-1.702e+05	-2.811e+05	-2.810e+05	-1.702e+05	2205.39
1	72	93	2.98	-19.41	2.98	-19.41	0.13	-1.052e+05	-2.327e+05	-2.326e+05	-1.052e+05	1683.55
1	72	94	7.78	-14.46	7.75	-14.43	0.77	-4.555e+04	-1.750e+05	-1.750e+05	-4.556e+04	1036.24
1	72	95	1.22	-6.12	1.20	-6.09	0.42	6.556e+04	-9.476e+04	-9.476e+04	6.555e+04	662.38
1	72	96	0.49	-4.57	0.49	-4.57	-0.19	-7491.55	-9.473e+04	-9.473e+04	-7495.85	612.89
1	72	97	7.21	-38.12	4.56	-35.46	10.65	-2.390e+05	-3.272e+05	-3.196e+05	-2.465e+05	-2.464e+04
1	72	98	3.24	-24.94	1.64	-23.35	6.51	-1.660e+05	-2.782e+05	-2.697e+05	-1.744e+05	-2.955e+04
1	72	99	0.73	-17.78	-0.46	-16.59	4.54	-9.781e+04	-2.361e+05	-2.267e+05	-1.072e+05	-3.475e+04
1	72	100	-1.56	-3.50	-2.55	-2.51	0.97	-2.693e+04	-2.069e+05	-1.955e+05	-3.833e+04	-4.384e+04
1	72	101	9.44	-2.15	8.60	-1.31	3.01	-5628.04	-2.037e+05	-1.916e+05	-1.774e+04	-4.746e+04
1	72	102	5.09	-11.39	4.19	-10.49	3.74	1.243e+04	-1.666e+05	-1.548e+05	629.83	-4.443e+04
1	72	103	7.24	-35.09	-3.42	-24.43	18.37	-2.192e+05	-3.130e+05	-2.839e+05	-2.483e+05	-4.338e+04
1	72	104	3.29	-24.06	-3.08	-17.70	11.56	-1.540e+05	-2.669e+05	-2.352e+05	-1.857e+05	-5.072e+04
1	72	105	3.90	-19.87	-1.22	-14.76	9.77	-9.547e+04	-2.213e+05	-1.877e+05	-1.290e+05	-5.563e+04
1	72	106	8.44	-14.23	3.22	-9.01	9.54	-4.046e+04	-1.650e+05	-1.326e+05	-7.289e+04	-5.466e+04
1	72	107	1.97	-7.11	-0.25	-4.89	3.91	6.462e+04	-8.845e+04	-5.083e+04	-2.701e+04	-6.590e+04
1	72	108	-0.38	-4.68	-1.07	-3.99	1.58	-6974.98	-8.981e+04	-6.860e+04	-2.819e+04	-3.615e+04
1	72	109	6.25	-28.27	-13.52	-8.51	17.08	-1.919e+05	-2.931e+05	-2.388e+05	-2.462e+05	-5.045e+04
1	72	110	2.68	-20.28	-8.78	-8.82	11.48	-1.335e+05	-2.532e+05	-1.904e+05	-1.963e+05	-5.974e+04
1	72	111	0.11	-14.56	-6.44	-8.01	7.30	-7.517e+04	-2.189e+05	-1.447e+05	-1.494e+05	-7.183e+04
1	72	112	1.35	-1.53	1.17	-1.34	-0.70	-1.579e+04	-1.966e+05	-1.044e+05	-1.080e+05	-9.040e+04
1	72	113	8.80	-3.52	3.11	2.17	6.14	-5197.25	-1.982e+05	-1.006e+05	-1.028e+05	-9.651e+04
1	72	114	3.77	-10.28	-3.30	-3.22	7.02	1.109e+04	-1.647e+05	-7.635e+04	-7.727e+04	-8.790e+04
1	72	115	3.13	-30.24	-25.83	-1.28	11.30	-2.130e+05	-3.096e+05	-2.357e+05	-2.869e+05	-4.094e+04
1	72	116	1.02	-20.46	-15.69	-3.75	8.93	-1.505e+05	-2.643e+05	-1.770e+05	-2.378e+05	-4.808e+04
1	72	117	2.04	-17.03	-11.69	-3.31	8.56	-9.374e+04	-2.192e+05	-1.230e+05	-1.899e+05	-5.303e+04
1	72	118	6.87	-11.78	-5.52	0.61	8.81	-4.015e+04	-1.636e+05	-6.952e+04	-1.342e+05	-5.255e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	72	119	-1.63e-02	-6.40	-3.45	-2.96	3.18	6.443e+04	-8.741e+04	2.891e+04	-5.190e+04	-6.427e+04
1	72	120	-2.51	-5.58	-5.50	-2.59	0.48	-6954.66	-8.881e+04	-2.637e+04	-6.939e+04	-3.482e+04
1	72	121	4.34e-02	-28.05	-27.81	-0.19	-2.55	-2.245e+05	-3.203e+05	-2.286e+05	-3.163e+05	-1.931e+04
1	72	122	-1.87	-17.77	-17.49	-2.14	2.07	-1.582e+05	-2.728e+05	-1.639e+05	-2.672e+05	-2.484e+04
1	72	123	-3.43	-13.29	-12.08	-4.64	3.24	-9.390e+04	-2.322e+05	-1.012e+05	-2.249e+05	-3.083e+04
1	72	124	0.67	-7.63	0.45	-7.41	1.32	-2.539e+04	-2.039e+05	-3.505e+04	-1.942e+05	-4.039e+04
1	72	125	4.90	-0.98	6.76e-03	3.92	2.20	-5233.28	-2.015e+05	-1.626e+04	-1.904e+05	-4.518e+04
1	72	126	1.03	-9.78	-9.31	0.57	2.19	1.232e+04	-1.646e+05	1111.58	-1.534e+05	-4.310e+04
1	72	127	3.22	-23.41	-16.40	-3.79	-11.72	-2.221e+05	-3.229e+05	-2.230e+05	-3.220e+05	9581.20
1	72	128	-2.94	-13.76	-12.28	-4.41	-3.71	-1.584e+05	-2.736e+05	-1.588e+05	-2.731e+05	7351.10
1	72	129	-3.23	-10.97	-10.95	-3.25	0.37	-9.933e+04	-2.269e+05	-9.958e+04	-2.267e+05	5611.83
1	72	130	2.53	-7.70	-7.01	1.83	2.58	-4.418e+04	-1.710e+05	-4.427e+04	-1.709e+05	3454.12
1	72	131	-2.51	-5.87	-3.24	-5.14	1.39	6.503e+04	-9.181e+04	6.500e+04	-9.178e+04	2207.91
1	72	132	-5.51	-6.99	-5.83	-6.67	-0.61	-7887.97	-9.209e+04	-7937.57	-9.204e+04	2043.09
1	72	133	4.87	-15.52	-1.40	-9.25	-9.41	-2.077e+05	-3.150e+05	-2.230e+05	-2.997e+05	3.745e+04
1	72	134	-4.93	-8.92	-5.90	-7.96	-1.71	-1.497e+05	-2.676e+05	-1.627e+05	-2.546e+05	3.698e+04
1	72	135	-5.75	-9.27	-6.89	-8.13	1.64	-9.021e+04	-2.279e+05	-1.025e+05	-2.156e+05	3.933e+04
1	72	136	3.47	-11.75	1.21	-9.49	5.41	-2.417e+04	-2.009e+05	-3.756e+04	-1.875e+05	4.676e+04
1	72	137	2.07	-0.15	1.14	0.78	1.09	-5238.41	-1.992e+05	-1.836e+04	-1.861e+05	4.872e+04
1	72	138	-3.25	-8.11	-7.90	-3.46	-0.99	1.202e+04	-1.631e+05	-121.49	-1.509e+05	4.448e+04
1	72	139	4.20	-13.65	3.85	-13.30	2.48	-1.871e+05	-2.973e+05	-2.259e+05	-2.586e+05	5.262e+04
1	72	140	-2.03	-10.58	-3.75	-8.86	3.42	-1.361e+05	-2.542e+05	-1.735e+05	-2.167e+05	5.497e+04
1	72	141	-3.89	-8.97	-6.70	-6.15	2.52	-8.638e+04	-2.116e+05	-1.233e+05	-1.747e+05	5.708e+04
1	72	142	0.33	-4.00	-2.63	-1.05	2.02	-3.893e+04	-1.584e+05	-7.238e+04	-1.249e+05	5.364e+04
1	72	143	-1.77	-9.99	-4.76	-7.00	3.95	6.306e+04	-8.366e+04	2.560e+04	-4.621e+04	6.397e+04
1	72	144	-7.03	-13.97	-8.70	-12.29	2.97	-7845.71	-8.545e+04	-2.901e+04	-6.428e+04	3.456e+04
1	72	145	5.04	-15.81	-1.88	-8.89	9.82	-1.628e+05	-2.763e+05	-2.265e+05	-2.126e+05	5.636e+04
1	72	146	0.46	-12.58	-6.35	-5.77	6.52	-1.170e+05	-2.396e+05	-1.839e+05	-1.728e+05	6.105e+04
1	72	147	-1.16	-13.04	-8.74	-5.45	5.71	-6.712e+04	-2.085e+05	-1.422e+05	-1.334e+05	7.056e+04
1	72	148	7.57	-13.88	-5.57	-0.75	10.45	-1.285e+04	-1.884e+05	-1.404e+05	-9.724e+04	8.771e+04
1	72	149	0.91	-4.95	-2.91	-1.13	2.79	-4821.67	-1.921e+05	-1.005e+05	-9.641e+04	9.360e+04
1	72	150	-5.69	-8.26	-6.90	-7.05	1.28	1.060e+04	-1.598e+05	-7.546e+04	-7.376e+04	8.520e+04
1	72	151	11.35	-19.39	-9.06	1.02	14.52	-1.762e+05	-2.905e+05	-2.642e+05	-2.024e+05	4.809e+04
1	72	152	4.40	-14.54	-10.00	-0.14	8.08	-1.300e+05	-2.490e+05	-2.216e+05	-1.573e+05	5.006e+04
1	72	153	0.95	-11.99	-9.97	-1.07	4.70	-8.341e+04	-2.074e+05	-1.788e+05	-1.120e+05	5.225e+04
1	72	154	4.88	-6.91	-5.82	3.79	3.42	-3.848e+04	-1.555e+05	-1.279e+05	-6.614e+04	4.972e+04
1	72	155	0.18	-14.30	-11.98	-2.14	5.31	6.267e+04	-8.171e+04	-4.818e+04	2.914e+04	6.096e+04
1	72	156	-7.95	-18.66	-15.10	-11.51	5.05	-7862.65	-8.353e+04	-6.576e+04	-2.564e+04	3.208e+04
1	72	157	17.50	-22.78	-17.50	12.22	13.60	-1.828e+05	-3.003e+05	-2.935e+05	-1.897e+05	2.753e+04
1	72	158	6.93	-16.96	-15.05	5.03	6.47	-1.362e+05	-2.568e+05	-2.498e+05	-1.432e+05	2.823e+04
1	72	159	2.41	-16.83	-15.95	1.53	4.02	-8.340e+04	-2.202e+05	-2.122e+05	-9.137e+04	3.205e+04
1	72	160	7.58	-19.38	-18.52	6.72	4.73	-2.152e+04	-1.951e+05	-1.851e+05	-3.147e+04	4.036e+04
1	72	161	4.14	-8.47	-7.92	3.60	2.57	-4571.90	-1.949e+05	-1.839e+05	-1.561e+04	4.449e+04
1	72	162	-5.03	-10.86	-10.19	-5.70	1.86	1.180e+04	-1.593e+05	-1.483e+05	773.31	4.202e+04
1	72	163	22.75	-22.58	-22.33	22.51	3.29	-1.830e+05	-3.034e+05	-3.034e+05	-1.831e+05	-2874.46
1	72	164	9.85	-17.87	-17.83	9.80	1.07	-1.377e+05	-2.585e+05	-2.584e+05	-1.378e+05	-2205.30
1	72	165	4.74	-14.80	-14.80	4.74	-0.13	-8.912e+04	-2.157e+05	-2.157e+05	-8.914e+04	-1683.55
1	72	166	6.81	-9.19	-9.15	6.78	-0.77	-4.187e+04	-1.632e+05	-1.632e+05	-4.188e+04	-1036.24
1	72	167	2.06	-16.91	-16.90	2.05	-0.42	6.396e+04	-8.625e+04	-8.625e+04	6.396e+04	-662.37
1	72	168	-8.20	-19.95	-19.95	-8.20	0.19	-8753.14	-8.707e+04	-8.706e+04	-8757.93	-612.95
1	72	169	22.84	-22.92	-20.24	20.15	-10.76	-1.781e+05	-2.984e+05	-2.885e+05	-1.880e+05	-3.298e+04
1	72	170	10.01	-18.30	-16.69	8.40	-6.55	-1.338e+05	-2.551e+05	-2.460e+05	-1.429e+05	-3.187e+04
1	72	171	4.44	-18.35	-16.94	3.03	-5.48	-8.236e+04	-2.188e+05	-2.094e+05	-9.178e+04	-3.460e+04
1	72	172	8.59	-20.78	-19.14	6.95	-6.75	-2.119e+04	-1.941e+05	-1.831e+05	-3.223e+04	-4.227e+04
1	72	173	4.87	-9.80	-8.87	3.95	-3.57	-4585.43	-1.942e+05	-1.826e+05	-1.624e+04	-4.555e+04
1	72	174	-4.54	-12.13	-11.40	-5.26	-2.24	1.171e+04	-1.589e+05	-1.476e+05	403.42	-4.244e+04
1	72	175	20.45	-23.18	-12.33	9.59	-18.86	-1.689e+05	-2.864e+05	-2.557e+05	-1.995e+05	-5.159e+04
1	72	176	9.93	-18.02	-11.52	3.42	-11.81	-1.259e+05	-2.457e+05	-2.153e+05	-1.563e+05	-5.213e+04
1	72	177	4.63	-15.03	-10.85	0.44	-8.05	-8.134e+04	-2.050e+05	-1.742e+05	-1.121e+05	-5.347e+04
1	72	178	7.78	-9.45	-6.32	4.65	-6.64	-3.817e+04	-1.539e+05	-1.251e+05	-6.699e+04	-5.005e+04
1	72	179	1.28	-17.01	-13.20	-2.53	-7.43	6.224e+04	-8.056e+04	-4.647e+04	2.815e+04	-6.087e+04
1	72	180	-8.57	-21.91	-18.00	-12.49	-6.08	-8161.89	-8.250e+04	-6.423e+04	-2.643e+04	-3.200e+04
1	72	181	14.11	-21.51	-1.23	-6.17	-17.63	-1.544e+05	-2.709e+05	-2.164e+05	-2.089e+05	-5.813e+04
1	72	182	6.49	-16.96	-5.26	-5.22	-11.73	-1.123e+05	-2.353e+05	-1.768e+05	-1.708e+05	-6.145e+04
1	72	183	2.50	-16.62	-7.84	-6.27	-9.53	-6.483e+04	-2.053e+05	-1.374e+05	-1.327e+05	-7.017e+04
1	72	184	9.39	-17.55	-5.34	-2.82	-13.41	-1.202e+04	-1.859e+05	-1.008e+05	-9.712e+04	-8.690e+04
1	72	185	2.08	-8.93	-3.89	-2.95	-5.49	-4729.46	-1.902e+05	-9.856e+04	-9.637e+04	-9.273e+04
1	72	186	-4.32	-11.86	-8.05	-8.13	-3.77	1.045e+04	-1.583e+05	-7.440e+04	-7.349e+04	-8.439e+04
1	72	187	15.63	-19.15	11.00	-14.52	-11.82	-1.747e+05	-2.901e+05	-2.121e+05	-2.527e+05	-5.403e+04
1	72	188	6.34	-15.75	1.42	-10.83	-9.19	-1.291e+05	-2.485e+05	-1.650e+05	-2.126e+05	-5.477e+04
1	72	189	1.81	-13.18	-2.62	-8.75	-6.84	-8.290e+04	-2.073e+05	-1.182e+05	-1.720e+05	-5.606e+04

**PROGETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	72	190	5.12	-7.66	1.17	-3.71	-5.90	-3.839e+04	-1.555e+05	-7.035e+04	-1.235e+05	-5.216e+04
1	72	191	0.23	-14.68	-3.96	-10.49	-6.70	6.245e+04	-8.162e+04	2.625e+04	-4.541e+04	-6.249e+04
1	72	192	-8.04	-19.41	-10.97	-16.48	-4.97	-8142.45	-8.354e+04	-2.825e+04	-6.343e+04	-3.334e+04
1	72	193	12.75	-15.71	12.54	-15.50	2.45	-1.913e+05	-3.065e+05	-2.059e+05	-2.919e+05	-3.831e+04
1	72	194	2.84	-13.19	2.55	-12.91	-2.11	-1.409e+05	-2.610e+05	-1.533e+05	-2.486e+05	-3.658e+04
1	72	195	-8.88e-02	-14.14	-1.47	-12.76	-4.18	-8.596e+04	-2.231e+05	-9.780e+04	-2.112e+05	-3.851e+04
1	72	196	6.42	-16.72	3.98	-14.28	-7.11	-2.259e+04	-1.973e+05	-3.551e+04	-1.844e+05	-4.572e+04
1	72	197	3.60	-5.17	2.63	-4.19	-2.75	-4933.13	-1.965e+05	-1.773e+04	-1.838e+05	-4.783e+04
1	72	198	-6.16	-8.07	-6.45	-7.78	-0.69	1.183e+04	-1.609e+05	-78.47	-1.490e+05	-4.376e+04
1	87	1	6.97	6.97	6.97	6.97		-7.534e+05	-7.534e+05	-7.534e+05	-7.534e+05	
1	87	7	-6.44	-7.05	-6.80	-6.69	0.30	-2.252e+05	-3.250e+05	-2.751e+05	-2.751e+05	4.988e+04
1	87	8	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.532e+05	-3.505e+05	-3.207e+05	-2.830e+05	4.487e+04
1	87	9	-7.04	-7.16	-7.11	-7.11	-5.97e-02	-2.917e+05	-3.870e+05	-3.393e+05	-3.393e+05	4.769e+04
1	87	10	-6.73	-7.51	-7.51	-6.73	2.38e-02	-2.532e+05	-3.505e+05	-2.830e+05	-3.207e+05	4.487e+04
1	87	11	-6.88	-7.58	-7.57	-6.89	7.82e-02	-3.255e+05	-4.204e+05	-3.435e+05	-4.023e+05	3.726e+04
1	87	12	-6.69	-7.52	-7.52	-6.69	-3.71e-02	-2.741e+05	-3.699e+05	-2.835e+05	-3.605e+05	2.851e+04
1	87	13	-7.67	-8.71	-7.67	-8.71	-6.60e-04	-3.397e+05	-4.329e+05	-3.397e+05	-4.329e+05	-7.80e-02
1	87	14	-6.79	-7.44	-7.44	-6.79	-6.90e-04	-2.821e+05	-3.772e+05	-2.821e+05	-3.772e+05	-5.54e-02
1	87	15	-6.88	-7.58	-7.57	-6.89	-7.92e-02	-3.255e+05	-4.204e+05	-3.435e+05	-4.023e+05	-3.726e+04
1	87	16	-6.67	-7.53	-7.53	-6.67	2.47e-02	-2.741e+05	-3.699e+05	-2.835e+05	-3.605e+05	-2.851e+04
1	87	17	-7.04	-7.16	-7.10	-7.11	5.97e-02	-2.917e+05	-3.870e+05	-3.393e+05	-3.393e+05	-4.769e+04
1	87	18	-6.66	-7.54	-7.54	-6.67	-4.89e-02	-3.252e+05	-3.505e+05	-2.830e+05	-3.207e+05	-4.487e+04
1	87	19	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.532e+05	-3.505e+05	-3.207e+05	-2.830e+05	-4.486e+04
1	87	20	-6.44	-7.05	-6.69	-6.80	-0.30	-2.252e+05	-3.250e+05	-2.751e+05	-2.751e+05	-4.988e+04
1	87	21	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.741e+05	-3.699e+05	-3.605e+05	-2.835e+05	2.851e+04
1	87	22	-6.88	-7.58	-6.89	-7.57	7.93e-02	-3.255e+05	-4.204e+05	-4.023e+05	-3.435e+05	3.726e+04
1	87	23	-3.65	-5.07	-4.36	-4.36	-0.71	-3.887e+05	-4.960e+05	-4.424e+05	-4.424e+05	5.362e+04
1	87	24	-12.96	-14.27	-14.27	-12.96	-4.15e-04	-4.066e+05	-5.207e+05	-4.066e+05	-5.207e+05	-1.45e-02
1	87	25	-3.65	-5.07	-4.36	-4.36	0.71	-3.887e+05	-4.960e+05	-4.424e+05	-4.424e+05	-5.362e+04
1	87	26	-6.88	-7.58	-6.89	-7.57	-7.82e-02	-3.255e+05	-4.204e+05	-4.023e+05	-3.435e+05	3.726e+04
1	87	27	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.741e+05	-3.699e+05	-3.605e+05	-2.835e+05	-2.851e+04
1	87	28	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.821e+05	-3.772e+05	-2.821e+05	-3.772e+05	5.53e-02
1	87	29	-7.67	-8.71	-8.71	-7.67	6.60e-04	-3.397e+05	-4.329e+05	-4.329e+05	-3.397e+05	7.79e-02
1	87	30	-12.96	-14.27	-12.96	-14.27	4.15e-04	-4.066e+05	-5.207e+05	-5.207e+05	-4.066e+05	1.40e-02
1	87	31	-12.96	-14.27	-12.96	-14.27	-4.15e-04	-4.066e+05	-5.207e+05	-5.207e+05	-4.066e+05	1.40e-02
1	87	32	-7.67	-8.71	-8.71	-7.67	6.60e-04	-3.397e+05	-4.329e+05	-4.329e+05	-3.397e+05	7.79e-02
1	87	33	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.821e+05	-3.772e+05	-2.821e+05	-3.772e+05	5.53e-02
1	87	34	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.741e+05	-3.699e+05	-3.605e+05	-2.835e+05	-2.851e+04
1	87	35	-6.88	-7.58	-6.89	-7.57	-7.82e-02	-3.255e+05	-4.204e+05	-4.023e+05	-3.435e+05	3.726e+04
1	87	36	-3.65	-5.07	-4.36	-4.36	0.71	-3.887e+05	-4.960e+05	-4.424e+05	-4.424e+05	-5.362e+04
1	87	37	-12.96	-14.27	-14.27	-12.96	-4.15e-04	-4.066e+05	-5.207e+05	-4.066e+05	-5.207e+05	-1.45e-02
1	87	38	-3.65	-5.07	-4.36	-4.36	-0.71	-3.887e+05	-4.960e+05	-4.424e+05	-4.424e+05	5.362e+04
1	87	39	-6.88	-7.58	-6.89	-7.57	7.93e-02	-3.255e+05	-4.204e+05	-4.023e+05	-3.435e+05	3.726e+04
1	87	40	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.741e+05	-3.699e+05	-3.605e+05	-2.835e+05	2.851e+04
1	87	41	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.532e+05	-3.505e+05	-3.207e+05	-2.830e+05	-4.486e+04
1	87	42	-7.04	-7.16	-7.10	-7.11	5.97e-02	-2.917e+05	-3.870e+05	-3.393e+05	-3.393e+05	-4.769e+04
1	87	43	-6.88	-7.58	-7.57	-6.89	-7.92e-02	-3.255e+05	-4.204e+05	-3.435e+05	-4.023e+05	-3.726e+04
1	87	44	-7.67	-8.71	-7.67	-8.71	-6.60e-04	-3.397e+05	-4.329e+05	-3.397e+05	-4.329e+05	-7.80e-02
1	87	45	-6.88	-7.58	-7.57	-6.89	7.82e-02	-3.255e+05	-4.204e+05	-3.435e+05	-4.023e+05	3.726e+04
1	87	46	-7.04	-7.16	-7.11	-7.10	-5.97e-02	-2.917e+05	-3.870e+05	-3.393e+05	-3.393e+05	4.769e+04
1	87	47	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.532e+05	-3.505e+05	-3.207e+05	-2.830e+05	4.487e+04
1	87	48	-6.44	-7.05	-6.69	-6.80	-0.30	-2.252e+05	-3.250e+05	-2.751e+05	-2.751e+05	-4.988e+04
1	87	49	-6.66	-7.54	-7.54	-6.67	-4.89e-02	-2.532e+05	-3.505e+05	-2.830e+05	-3.207e+05	-4.487e+04
1	87	50	-6.67	-7.53	-7.53	-6.67	2.47e-02	-2.741e+05	-3.699e+05	-2.835e+05	-3.605e+05	-2.851e+04
1	87	51	-6.79	-7.44	-7.44	-6.79	-6.90e-04	-2.821e+05	-3.772e+05	-2.821e+05	-3.772e+05	-5.54e-02
1	87	52	-6.69	-7.52	-7.52	-6.69	-3.71e-02	-2.741e+05	-3.699e+05	-2.835e+05	-3.605e+05	2.851e+04
1	87	53	-6.73	-7.51	-7.51	-6.73	2.38e-02	-2.532e+05	-3.505e+05	-2.830e+05	-3.207e+05	4.487e+04
1	87	54	-6.44	-7.05	-6.80	-6.69	0.30	-2.252e+05	-3.250e+05	-2.751e+05	-2.751e+05	4.988e+04
1	87	55	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.137e+05	-3.175e+05	-2.137e+05	-3.175e+05	0.15
1	87	56	-7.64	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.126e+05	-2.171e+05	-3.039e+05	2.878e+04
1	87	57	-7.21	-7.48	-7.21	-7.48	-2.41e-04	-1.539e+05	-2.696e+05	-1.539e+05	-2.696e+05	-4.32e-02
1	87	58	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.665e+05	-1.585e+05	-2.577e+05	3.068e+04
1	87	59	-5.91	-7.33	-7.33	-5.91	-1.21e-04	-9.713e+04	-2.240e+05	-9.713e+04	-2.240e+05	-1.34e-03
1	87	60	-6.66	-8.81	-6.77	-8.70	0.47	-9.005e+04	-2.273e+05	-9.944e+04	-2.179e+05	3.465e+04
1	87	61	-0.70	-3.82	-3.82	-0.70	-2.99e-05	-4.371e+04	-1.690e+05	-4.371e+04	-1.690e+05	-2.28e-03
1	87	62	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.303e+04
1	87	63	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.473e+04	-9.043e+04	6.473e+04	-9.043e+04	-7.15e-03
1	87	64	1.37	-0.19	1.32	-0.14	0.28	-5108.28	-1.989e+05	-1.698e+04	-1.870e+05	4.648e+04
1	87	65	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8124.46	-9.083e+04	-8124.46	-9.083e+04	2.64e-02
1	87	66	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.627e+05	519.05	-1.511e+05	4.341e+04
1	87	67	-7.31	-7.97	-7.42	-7.87	0.24	-1.940e+05	-2.994e+05	-2.238e+05	-2.696e+05	4.744e+04

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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	87	68	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	69	-5.56	-7.62	-7.15	-6.03	-0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	70	-0.38	-3.35	-2.18	-1.55	-1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	71	-2.90	-7.53	-3.71	-6.72	1.76	6.340e+04	-8.443e+04	-4.861e+04	2.758e+04	6.334e+04
1	87	72	-6.55	-11.22	-8.24	-9.53	2.24	-7569.04	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	73	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.817e+05	-2.274e+05	-2.274e+05	5.424e+04
1	87	74	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.835e+05	-1.835e+05	6.054e+04
1	87	75	-6.02	-8.25	-7.14	-7.14	1.12	-7.002e+04	-2.119e+05	-1.410e+05	-1.410e+05	7.095e+04
1	87	76	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.860e+04
1	87	77	-6.21e-02	-0.72	-0.39	-0.39	-0.33	-4971.17	-1.941e+05	-9.954e+04	-9.954e+04	9.457e+04
1	87	78	-4.05	-7.30	-5.67	-5.67	-1.62	1.077e+04	-1.614e+05	-7.534e+04	-7.534e+04	8.610e+04
1	87	79	-7.30	-8.01	-7.89	-7.41	0.26	-1.940e+05	-2.994e+05	-2.696e+05	-2.238e+05	4.744e+04
1	87	80	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	81	-5.56	-7.62	-6.03	-7.15	-0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	82	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	83	-2.90	-7.53	-6.73	-3.70	1.76	6.340e+04	-8.443e+04	-4.861e+04	2.758e+04	6.334e+04
1	87	84	-6.55	-11.22	-9.53	-8.23	2.24	-7568.89	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	85	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	2.878e+04
1	87	86	-7.46	-7.53	-7.52	-7.47	2.00e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	3.068e+04
1	87	87	-6.66	-8.81	-8.70	-6.77	0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	3.465e+04
1	87	88	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.303e+04
1	87	89	1.37	-0.19	-0.14	1.32	0.28	-5108.31	-1.989e+05	-1.870e+05	-1.698e+04	4.648e+04
1	87	90	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.627e+05	-1.511e+05	519.03	4.341e+04
1	87	91	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.137e+05	-3.175e+05	-3.175e+05	-2.137e+05	-0.15
1	87	92	-7.21	-7.48	-7.48	-7.21	2.41e-04	-1.539e+05	-2.696e+05	-2.696e+05	-1.539e+05	4.41e-02
1	87	93	-5.91	-7.33	-5.91	-7.33	1.21e-04	-9.713e+04	-2.240e+05	-2.240e+05	-9.713e+04	1.04e-03
1	87	94	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.371e+04	-1.690e+05	-1.690e+05	-4.371e+04	2.07e-03
1	87	95	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.473e+04	-9.043e+04	-9.043e+04	6.473e+04	7.96e-03
1	87	96	-6.38	-9.72	-9.72	-6.38	-1.68e-04	-8124.47	-9.083e+04	-9.083e+04	-8124.47	-2.70e-02
1	87	97	-7.64	-7.85	-7.83	-7.65	-5.54e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	2.878e+04
1	87	98	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	3.068e+04
1	87	99	-6.66	-8.81	-8.70	-6.77	-0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	3.465e+04
1	87	100	2.83	-11.45	-10.84	2.22	-2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.303e+04
1	87	101	1.37	-0.19	-0.14	1.32	-0.28	-5108.27	-1.989e+05	-1.870e+05	-1.698e+04	4.648e+04
1	87	102	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.627e+05	-1.511e+05	519.07	-4.341e+04
1	87	103	-7.31	-7.97	-7.87	-7.42	-0.24	-1.940e+05	-2.994e+05	-2.696e+05	-2.238e+05	4.744e+04
1	87	104	-7.06	-7.36	-7.29	-7.13	-0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	105	-5.56	-7.62	-6.03	-7.15	0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	106	-0.38	-3.35	-1.55	-2.18	1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	107	-2.90	-7.53	-6.72	-3.71	-1.76	6.340e+04	-8.443e+04	-4.861e+04	2.758e+04	6.334e+04
1	87	108	-6.55	-11.22	-9.53	-8.24	-2.24	-7569.01	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	109	-7.07	-7.63	-7.37	-7.33	-0.28	-1.732e+05	-2.817e+05	-2.274e+05	-2.274e+05	5.424e+04
1	87	110	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.835e+05	-1.835e+05	6.054e+04
1	87	111	-6.02	-8.25	-7.14	-7.14	1.12	-7.002e+04	-2.119e+05	-1.410e+05	-1.410e+05	7.095e+04
1	87	112	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.860e+04
1	87	113	-6.21e-02	-0.72	-0.39	-0.39	0.33	-4971.17	-1.941e+05	-9.954e+04	-9.954e+04	9.457e+04
1	87	114	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.534e+04	-7.534e+04	8.610e+04
1	87	115	-7.30	-8.01	-7.41	-7.89	-0.26	-1.940e+05	-2.994e+05	-2.696e+05	-2.238e+05	4.744e+04
1	87	116	-7.06	-7.36	-7.13	-7.29	-0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	117	-5.56	-7.62	-7.15	-6.02	0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	118	-0.37	-3.34	-1.55	-2.17	1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	119	-2.90	-7.53	-3.70	-6.73	-1.76	6.340e+04	-8.443e+04	-4.861e+04	2.758e+04	6.334e+04
1	87	120	-6.55	-11.22	-8.23	-9.53	-2.24	-7568.92	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	121	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	2.878e+04
1	87	122	-7.46	-7.53	-7.47	-7.52	-2.00e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	3.068e+04
1	87	123	-6.66	-8.81	-8.70	-6.77	-0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	3.465e+04
1	87	124	2.83	-11.45	2.22	-10.84	-2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.303e+04
1	87	125	1.37	-0.19	1.32	-0.14	-0.28	-5108.32	-1.989e+05	-1.870e+05	-1.698e+04	4.648e+04
1	87	126	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.627e+05	-1.511e+05	519.05	-4.341e+04
1	87	127	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.137e+05	-3.175e+05	-3.175e+05	-2.137e+05	0.15
1	87	128	-7.21	-7.48	-7.21	-7.48	-2.41e-04	-1.539e+05	-2.696e+05	-2.696e+05	-1.539e+05	-4.32e-02
1	87	129	-5.91	-7.33	-5.91	-7.33	-1.21e-04	-9.713e+04	-2.240e+05	-2.240e+05	-9.713e+04	-1.34e-03
1	87	130	-0.70	-3.82	-0.70	-3.82	-2.99e-05	-4.371e+04	-1.690e+05	-1.690e+05	-4.371e+04	-2.28e-03
1	87	131	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.473e+04	-9.043e+04	-9.043e+04	6.473e+04	-7.15e-03
1	87	132	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8124.46	-9.083e+04	-9.083e+04	-8124.46	-2.64e-02
1	87	133	-7.64	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	2.878e+04
1	87	134	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	3.068e+04
1	87	135	-6.66	-8.81	-8.70	-6.77	-0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	3.465e+04
1	87	136	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.303e+04
1	87	137	1.37	-0.19	1.32	-0.14	0.28	-5108.28	-1.989e+05	-1.870e+05	-1.698e+04	4.648e+04
1	87	138	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.627e+05	-1.511e+05	519.05	-4.341e+04

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

1	87	139	-7.31	-7.97	-7.42	-7.87	0.24	-1.940e+05	-2.994e+05	-2.238e+05	-2.696e+05	4.744e+04
1	87	140	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	141	-5.56	-7.62	-7.15	-6.03	-0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	142	-0.38	-3.35	-2.18	-1.55	-1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	143	-2.90	-7.53	-3.71	-6.72	1.76	6.340e+04	-8.443e+04	2.758e+04	-4.861e+04	6.334e+04
1	87	144	-6.55	-11.22	-8.24	-9.53	2.24	-7569.04	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	145	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.817e+05	-2.274e+05	-2.274e+05	5.424e+04
1	87	146	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.835e+05	-1.835e+05	6.054e+04
1	87	147	-6.02	-8.25	-7.14	-7.14	1.12	-7.002e+04	-2.119e+05	-1.410e+05	-1.410e+05	7.095e+04
1	87	148	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.860e+04
1	87	149	-6.21e-02	-0.72	-0.39	-0.39	-0.33	-4971.17	-1.941e+05	-9.954e+04	-9.954e+04	9.457e+04
1	87	150	-4.05	-7.30	-5.67	-5.67	-1.62	1.077e+04	-1.614e+05	-7.534e+04	-7.534e+04	8.610e+04
1	87	151	-7.30	-8.01	-7.89	-7.41	0.26	-1.940e+05	-2.994e+05	-2.238e+05	-2.238e+05	4.744e+04
1	87	152	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	5.138e+04
1	87	153	-5.56	-7.62	-6.02	-7.15	-0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	5.450e+04
1	87	154	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	5.231e+04
1	87	155	-2.90	-7.53	-6.73	-3.70	1.76	6.340e+04	-8.443e+04	2.758e+04	-4.861e+04	6.334e+04
1	87	156	-6.55	-11.22	-9.53	-8.23	2.24	-7568.89	-8.609e+04	-2.729e+04	-6.636e+04	3.405e+04
1	87	157	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	2.878e+04
1	87	158	-7.46	-7.53	-7.52	-7.47	2.00e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	3.068e+04
1	87	159	-6.66	-8.81	-8.70	-6.77	0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	3.465e+04
1	87	160	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.303e+04
1	87	161	1.37	-0.19	-0.14	1.32	0.28	-5108.31	-1.989e+05	-1.870e+05	-1.698e+04	4.648e+04
1	87	162	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.627e+05	-1.511e+05	519.03	4.341e+04
1	87	163	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.137e+05	-3.175e+05	-3.175e+05	-2.137e+05	-0.15
1	87	164	-7.21	-7.48	-7.48	-7.21	2.41e-04	-1.539e+05	-2.696e+05	-2.696e+05	-1.539e+05	4.41e-02
1	87	165	-5.91	-7.33	-5.91	-7.33	1.21e-04	-9.713e+04	-2.240e+05	-2.240e+05	-9.713e+04	1.04e-03
1	87	166	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.371e+04	-1.690e+05	-1.690e+05	-4.371e+04	2.07e-03
1	87	167	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.473e+04	-9.043e+04	-9.043e+04	6.473e+04	7.96e-03
1	87	168	-6.38	-9.72	-9.72	-6.38	-1.68e-04	-8124.47	-9.083e+04	-9.083e+04	-8124.47	-2.70e-02
1	87	169	-7.64	-7.85	-7.83	-7.65	-5.54e-02	-2.084e+05	-3.126e+05	-3.039e+05	-2.171e+05	-2.878e+04
1	87	170	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	-3.068e+04
1	87	171	-6.66	-8.81	-8.70	-6.77	0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	-3.465e+04
1	87	172	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	-4.303e+04
1	87	173	1.37	-0.19	-0.14	1.32	-0.28	-5108.27	-1.989e+05	-1.870e+05	-1.698e+04	-4.648e+04
1	87	174	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.627e+05	-1.511e+05	519.07	-4.341e+04
1	87	175	-7.31	-7.97	-7.87	-7.42	-0.24	-1.940e+05	-2.994e+05	-2.696e+05	-2.238e+05	-4.744e+04
1	87	176	-7.06	-7.36	-7.29	-7.13	-0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	-5.138e+04
1	87	177	-5.56	-7.62	-6.03	-7.15	0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	-5.450e+04
1	87	178	-0.38	-3.35	-1.55	-2.18	1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	-5.231e+04
1	87	179	-2.90	-7.53	-6.72	-3.71	-1.76	6.340e+04	-8.443e+04	2.758e+04	-4.861e+04	-6.334e+04
1	87	180	-6.55	-11.22	-9.53	-8.24	-2.24	-7569.01	-8.609e+04	-2.729e+04	-6.636e+04	-3.405e+04
1	87	181	-7.07	-7.63	-7.37	-7.33	-0.28	-1.732e+05	-2.817e+05	-2.274e+05	-2.274e+05	-5.424e+04
1	87	182	-6.89	-7.14	-7.01	-7.01	-0.12	-1.229e+05	-2.440e+05	-1.835e+05	-1.835e+05	-6.054e+04
1	87	183	-6.02	-8.25	-7.14	-7.14	1.12	-7.002e+04	-2.119e+05	-1.410e+05	-1.410e+05	-7.095e+04
1	87	184	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	-8.860e+04
1	87	185	-6.21e-02	-0.72	-0.39	-0.39	0.33	-4971.17	-1.941e+05	-9.954e+04	-9.954e+04	9.457e+04
1	87	186	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.534e+04	-7.534e+04	-8.610e+04
1	87	187	-7.30	-8.01	-7.41	-7.89	-0.26	-1.940e+05	-2.994e+05	-2.238e+05	-2.696e+05	-4.744e+04
1	87	188	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.561e+05	-1.709e+05	-2.251e+05	-5.138e+04
1	87	189	-5.56	-7.62	-7.15	-6.02	0.86	-8.839e+04	-2.130e+05	-1.205e+05	-1.809e+05	-5.450e+04
1	87	190	-0.37	-3.34	-1.55	-2.17	1.45	-3.931e+04	-1.594e+05	-6.990e+04	-1.288e+05	-5.231e+04
1	87	191	-2.90	-7.53	-3.70	-6.73	-1.76	6.340e+04	-8.443e+04	2.758e+04	-4.861e+04	-6.334e+04
1	87	192	-6.55	-11.22	-8.23	-9.53	-2.24	-7568.92	-8.609e+04	-2.729e+04	-6.636e+04	-3.405e+04
1	87	193	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.126e+05	-2.171e+05	-3.039e+05	-2.878e+04
1	87	194	-7.46	-7.53	-7.47	-7.52	-2.00e-02	-1.498e+05	-2.665e+05	-2.577e+05	-1.585e+05	-3.068e+04
1	87	195	-6.66	-8.81	-8.70	-6.77	0.47	-9.005e+04	-2.273e+05	-2.179e+05	-9.944e+04	-3.465e+04
1	87	196	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	-4.303e+04
1	87	197	1.37	-0.19	1.32	-0.14	-0.28	-5108.32	-1.989e+05	-1.870e+05	-1.698e+04	-4.648e+04
1	87	198	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.627e+05	-1.511e+05	519.07	-4.341e+04
1	88	1	6.97	6.97	6.97	6.97	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05
1	88	7	3.85	-14.25	-2.73	-7.68	8.71	-2.148e+05	-3.206e+05	-2.705e+05	-2.649e+05	5.282e+04
1	88	8	8.32	-18.91	-5.71	-4.87	13.61	-2.370e+05	-3.452e+05	-3.145e+05	-2.677e+05	4.876e+04
1	88	9	27.51	-31.71	13.17	-17.37	25.37	-2.716e+05	-3.826e+05	-3.320e+05	-3.222e+05	5.529e+04
1	88	10	7.56	-17.91	5.80	-16.15	6.46	-2.424e+05	-3.470e+05	-2.783e+05	-3.111e+05	4.964e+04
1	88	11	34.53	-66.13	33.71	-65.31	-9.07	-3.056e+05	-4.165e+05	-3.374e+05	-3.847e+05	5.013e+04
1	88	12	11.41	-24.52	10.13	-23.24	-6.65	-2.664e+05	-3.677e+05	-2.801e+05	-3.540e+05	3.468e+04
1	88	13	45.19	-63.05	-6.00	-11.86	-54.04	-3.366e+05	-4.343e+05	-3.384e+05	-4.324e+05	1.330e+04
1	88	14	10.04	-24.38	-6.84	-7.51	-17.21	-2.808e+05	-3.773e+05	-2.813e+05	-3.769e+05	6518.89
1	88	15	52.77	-48.96	-47.67	51.48	-11.40	-3.398e+05	-4.272e+05	-3.476e+05	-4.194e+05	-2.489e+04
1	88	16	10.77	-26.01	-24.50	9.26	-7.31	-2.796e+05	-3.722e+05	-2.854e+05	-3.664e+05	-2.252e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	88	17	17.23	-40.98	-28.13	4.38	24.14	-3.099e+05	-3.915e+05	-3.456e+05	-3.559e+05	-4.049e+04
1	88	18	4.14	-22.13	-20.84	2.85	5.67	-2.625e+05	-3.540e+05	-2.866e+05	-3.299e+05	-4.029e+04
1	88	19	4.40	-22.13	-8.31	-9.43	13.25	-2.684e+05	-3.556e+05	-3.262e+05	-2.978e+05	-4.122e+04
1	88	20	-0.12	-16.40	-10.94	-5.58	7.68	-2.348e+05	-3.291e+05	-2.790e+05	-2.849e+05	-4.708e+04
1	88	21	13.13	-23.99	-18.69	7.83	12.99	-2.517e+05	-3.637e+05	-4.518e+05	-4.793e+05	3.196e+04
1	88	22	44.70	-37.21	-10.29	17.79	38.47	-2.896e+05	-4.172e+05	-3.969e+05	-3.099e+05	4.672e+04
1	88	23	268.86	-112.80	98.76	57.31	189.70	-3.401e+05	-4.949e+05	-4.305e+05	-4.046e+05	7.629e+04
1	88	24	8.24	-35.54	-5.40	-21.90	-20.28	-4.043e+05	-5.210e+05	-4.050e+05	-5.204e+05	-8546.92
1	88	25	99.60	-263.95	-104.27	-60.08	180.42	-4.305e+05	-5.006e+05	-4.518e+05	-4.793e+05	-3.220e+04
1	88	26	21.99	-59.57	-7.04	-30.55	39.05	-3.594e+05	-4.238e+05	-4.065e+05	-3.767e+05	-2.852e+04
1	88	27	10.08	-27.60	4.34	-21.87	13.54	-2.959e+05	-3.759e+05	-3.668e+05	-3.050e+05	-2.540e+04
1	88	28	16.81	-32.22	-32.22	16.81	-0.54	-2.571e+05	-3.702e+05	-3.702e+05	-2.571e+05	194.31
1	88	29	54.28	-116.39	-116.37	54.26	-1.65	-2.979e+05	-4.204e+05	-4.204e+05	-2.979e+05	396.64
1	88	30	292.87	-318.13	-318.12	292.87	-0.59	-3.532e+05	-5.164e+05	-5.164e+05	-3.532e+05	-251.98
1	88	31	292.21	-321.39	292.21	-321.39	0.59	-4.599e+05	-5.247e+05	-5.247e+05	-4.599e+05	252.00
1	88	32	98.98	-69.61	98.96	-69.59	1.66	-3.814e+05	-4.452e+05	-4.452e+05	-3.814e+05	-396.48
1	88	33	18.65	-31.69	18.64	-31.69	0.55	-3.070e+05	-3.840e+05	-3.840e+05	-3.070e+05	-194.20
1	88	34	12.78	-23.66	-17.72	6.83	-13.46	-2.521e+05	-3.638e+05	-3.540e+05	-2.619e+05	-3.159e+04
1	88	35	45.07	-36.41	-6.74	15.41	-39.21	-2.905e+05	-4.176e+05	-3.979e+05	-3.102e+05	-4.597e+04
1	88	36	253.82	-106.90	95.55	51.36	-179.00	-3.427e+05	-4.952e+05	-4.327e+05	-4.052e+05	-7.499e+04
1	88	37	8.85	-35.98	-23.12	-4.01	20.28	-4.075e+05	-5.213e+05	-4.081e+05	-5.207e+05	8546.89
1	88	38	105.49	-278.99	-107.48	-66.02	-191.12	-4.335e+05	-5.005e+05	-4.540e+05	-4.793e+05	3.090e+04
1	88	39	22.84	-59.25	-3.49	-32.92	-38.32	-3.606e+05	-4.239e+05	-4.075e+05	-3.770e+05	2.777e+04
1	88	40	10.45	-27.98	5.35	-22.88	-13.04	-2.963e+05	-3.760e+05	-3.671e+05	-3.051e+05	2.504e+04
1	88	41	7.94	-18.67	-5.14	-5.59	-13.30	-2.376e+05	-3.454e+05	-3.151e+05	-2.680e+05	-4.848e+04
1	88	42	26.69	-31.33	13.94	-18.59	-24.02	-2.727e+05	-3.829e+05	-3.323e+05	-3.227e+05	-5.485e+04
1	88	43	33.81	-66.54	32.53	-65.26	11.24	-3.076e+05	-4.168e+05	-3.394e+05	-3.850e+05	-4.959e+04
1	88	44	46.63	-61.51	-9.33	-5.55	54.04	-3.390e+05	-4.350e+05	-3.409e+05	-4.331e+05	-1.330e+04
1	88	45	52.37	-49.69	-48.85	51.53	9.22	-3.419e+05	-4.273e+05	-3.496e+05	-4.197e+05	2.435e+04
1	88	46	17.62	-41.81	-27.37	3.18	-25.49	-3.111e+05	-3.918e+05	-3.466e+05	-3.563e+05	4.005e+04
1	88	47	4.66	-22.49	-7.62	-10.20	-13.51	-2.690e+05	-3.558e+05	-3.268e+05	-2.981e+05	4.094e+04
1	88	48	3.52	-13.96	-2.43	-8.01	-8.28	-2.154e+05	-3.209e+05	-2.711e+05	-2.652e+05	-5.265e+04
1	88	49	7.19	-17.61	5.76	-16.18	-5.77	-2.433e+05	-3.473e+05	-2.792e+05	-3.114e+05	-4.942e+04
1	88	50	11.05	-24.20	9.44	-22.59	7.36	-2.677e+05	-3.681e+05	-2.814e+05	-3.544e+05	-3.448e+04
1	88	51	10.18	-24.29	-8.04	-6.07	17.21	-2.823e+05	-3.777e+05	-2.828e+05	-3.773e+05	-6519.01
1	88	52	11.06	-26.36	-25.16	9.86	6.58	-2.809e+05	-3.726e+05	-2.867e+05	-3.668e+05	2.232e+04
1	88	53	4.33	-22.44	-20.81	2.70	-6.41	-2.635e+05	-3.543e+05	-2.875e+05	-3.302e+05	4.006e+04
1	88	54	0.23	-16.79	-10.86	-5.69	-8.11	-2.354e+05	-3.294e+05	-2.796e+05	-2.852e+05	4.691e+04
1	88	55	-2.78	-12.69	-7.74	-7.73	4.95	-2.139e+05	-3.178e+05	-2.140e+05	-3.176e+05	-3998.87
1	88	56	-3.38	-13.77	-13.58	-3.57	1.40	-2.120e+05	-3.145e+05	-2.186e+05	-3.079e+05	2.519e+04
1	88	57	-5.65	-9.03	-7.31	-7.37	1.69	-1.540e+05	-2.698e+05	-1.541e+05	-2.697e+05	-3209.75
1	88	58	-5.60	-10.19	-10.19	-5.61	9.51e-02	-1.517e+05	-2.680e+05	-1.589e+05	-2.608e+05	2.797e+04
1	88	59	-5.67	-7.54	-7.39	-5.82	0.50	-9.718e+04	-2.241e+05	-9.723e+04	-2.241e+05	-2539.82
1	88	60	-7.68	-8.03	-8.03	-7.68	-3.94e-03	-9.098e+04	-2.285e+05	-9.919e+04	-2.203e+05	3.258e+04
1	88	61	-0.61	-3.87	-3.87	-0.62	0.14	-4.372e+04	-1.691e+05	-4.375e+04	-1.690e+05	-1881.97
1	88	62	2.26	-10.64	1.85	-10.22	2.27	-2.430e+04	-2.013e+05	-3.469e+04	-1.909e+05	4.159e+04
1	88	63	-2.04	-7.79	-2.04	-7.78	-0.11	6.477e+04	-9.044e+04	6.476e+04	-9.043e+04	-1103.20
1	88	64	1.10	0.84	1.09	0.85	4.77e-02	-5124.12	-1.997e+05	-1.647e+04	-1.884e+05	4.560e+04
1	88	65	-6.38	-9.68	-6.38	-9.68	-8.14e-02	-8129.45	-9.083e+04	-8129.46	-9.083e+04	30.89
1	88	66	-1.98	-8.04	-7.97	-2.05	-0.65	1.212e+04	-1.633e+05	609.02	-1.518e+05	4.344e+04
1	88	67	-4.00	-13.58	-12.38	-5.20	-3.17	-1.996e+05	-3.026e+05	-2.260e+05	-2.762e+05	4.496e+04
1	88	68	-4.84	-10.60	-9.51	-5.93	-2.25	-1.431e+05	-2.586e+05	-1.717e+05	-2.300e+05	4.987e+04
1	88	69	-3.51	-9.89	-8.32	-5.08	-2.75	-9.002e+04	-2.148e+05	-1.204e+05	-1.844e+05	5.358e+04
1	88	70	1.67	-4.98	-2.82	-0.49	-3.11	-3.985e+04	-1.604e+05	-6.929e+04	-1.310e+05	5.181e+04
1	88	71	-3.61	-5.81	-3.69	-5.73	0.42	6.422e+04	-8.464e+04	2.889e+04	-4.932e+04	6.333e+04
1	88	72	-6.55	-10.03	-7.88	-8.70	1.70	-7645.12	-8.625e+04	-2.742e+04	-6.648e+04	3.411e+04
1	88	73	-3.58	-12.73	-8.80	-7.50	-4.53	-1.792e+05	-2.854e+05	-2.301e+05	-2.346e+05	5.306e+04
1	88	74	-4.14	-10.56	-7.37	-7.33	-3.21	-1.265e+05	-2.470e+05	-1.849e+05	-1.887e+05	6.024e+04
1	88	75	-5.71	-8.47	-6.76	-7.43	-1.34	-7.182e+04	-2.143e+05	-1.415e+05	-1.446e+05	7.121e+04
1	88	76	3.90	-6.90	-1.14	-1.87	5.39	-1.442e+04	-1.930e+05	-1.026e+05	-1.049e+05	8.930e+04
1	88	77	2.55	-1.27	0.67	0.61	-1.91	-5050.34	-1.961e+05	-9.980e+04	-1.014e+05	9.553e+04
1	88	78	-0.26	-7.02	-3.99	-3.29	-3.36	1.088e+04	-1.632e+05	-7.606e+04	-7.629e+04	8.705e+04
1	88	79	-2.36	-14.63	-6.62	-10.37	-5.84	-2.029e+05	-3.042e+05	-2.740e+05	-2.331e+05	4.636e+04
1	88	80	-3.52	-11.65	-5.73	-9.44	-3.62	-1.451e+05	-2.600e+05	-2.281e+05	-1.770e+05	5.149e+04
1	88	81	-2.24	-10.87	-4.23	-8.88	-3.63	-9.111e+04	-2.159e+05	-1.828e+05	-1.243e+05	5.513e+04
1	88	82	3.11	-5.88	0.62	-3.40	-4.02	-4.021e+04	-1.612e+05	-1.296e+05	-7.175e+04	5.311e+04
1	88	83	-4.00	-4.56	-4.53	-4.03	-0.12	6.472e+04	-8.478e+04	-4.816e+04	2.810e+04	6.429e+04
1	88	84	-6.42	-9.42	-8.11	-7.72	1.49	-7706.76	-8.644e+04	-6.668e+04	-2.747e+04	3.414e+04
1	88	85	-0.90	-16.38	-2.39	-14.90	-4.56	-2.201e+05	-3.183e+05	-3.096e+05	-2.288e+05	2.794e+04
1	88	86	-3.05	-12.69	-3.77	-11.98	-2.53	-1.563e+05	-2.712e+05	-2.622e+05	-1.653e+05	3.084e+04
1	88	87	-5.36	-10.04	-5.66	-9.74	-1.14	-9.335e+04	-2.310e+05	-2.213e+05	-1.030e+05	3.522e+04

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Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	88	88	1.26	-8.60	-8.21	0.87	1.92	-2.507e+04	-2.032e+05	-1.917e+05	-3.660e+04	4.383e+04
1	88	89	3.05	0.62	2.84	0.82	-0.68	-5254.41	-2.017e+05	-1.895e+05	-1.742e+04	4.735e+04
1	88	90	1.17	-7.62	0.72	-7.17	-1.94	1.224e+04	-1.651e+05	-1.534e+05	501.44	4.410e+04
1	88	91	-3.72e-02	-16.89	-3.89e-02	-16.89	0.17	-2.264e+05	-3.236e+05	-3.236e+05	-2.264e+05	-119.40
1	88	92	-2.69	-12.70	-2.69	-12.70	6.90e-02	-1.609e+05	-2.745e+05	-2.745e+05	-1.609e+05	-96.15
1	88	93	-2.08	-11.04	-2.08	-11.04	2.98e-02	-1.007e+05	-2.277e+05	-2.277e+05	-1.007e+05	-76.54
1	88	94	3.19	-6.72	3.19	-6.72	1.33e-02	-4.494e+04	-1.714e+05	-1.714e+05	-4.494e+04	-57.02
1	88	95	-3.52	-4.40	-4.40	-3.52	3.60e-03	6.622e+04	-9.104e+04	-9.104e+04	6.622e+04	-35.07
1	88	96	-6.34	-7.81	-7.81	-6.34	-2.14e-03	-8287.23	-9.140e+04	-9.140e+04	-8287.23	-1.54
1	88	97	-1.02	-16.21	-2.64	-14.58	4.70	-2.199e+05	-3.182e+05	-3.093e+05	-2.287e+05	-2.815e+04
1	88	98	-3.12	-12.60	-3.88	-11.83	2.58	-1.562e+05	-2.711e+05	-2.620e+05	-1.653e+05	-3.100e+04
1	88	99	-5.41	-9.98	-5.72	-9.67	1.15	-9.329e+04	-2.309e+05	-2.211e+05	-1.031e+05	-3.535e+04
1	88	100	1.29	-8.63	-8.24	0.90	-1.93	-2.505e+04	-2.032e+05	-1.916e+05	-3.663e+04	-4.392e+04
1	88	101	3.01	0.63	2.80	0.84	0.67	-5251.69	-2.017e+05	-1.895e+05	-1.745e+04	-4.740e+04
1	88	102	1.12	-7.62	0.67	-7.17	1.93	1.224e+04	-1.651e+05	-1.534e+05	497.41	-4.409e+04
1	88	103	-2.46	-14.40	-6.77	-10.08	5.73	-2.025e+05	-3.040e+05	-2.736e+05	-2.330e+05	-4.651e+04
1	88	104	-3.64	-11.51	-5.84	-9.30	3.53	-1.449e+05	-2.599e+05	-2.278e+05	-1.770e+05	-5.158e+04
1	88	105	-2.34	-10.78	-4.30	-8.81	3.57	-9.101e+04	-2.158e+05	-2.125e+05	-1.243e+05	-5.518e+04
1	88	106	3.02	-5.83	0.57	-3.38	3.96	-4.016e+04	-1.611e+05	-1.295e+05	-7.178e+04	-5.315e+04
1	88	107	-4.02	-4.59	-4.58	-4.03	7.49e-02	6.468e+04	-8.476e+04	-4.811e+04	2.802e+04	-6.430e+04
1	88	108	-6.41	-9.47	-8.15	-7.74	-1.52	-7701.51	-8.642e+04	-6.666e+04	-2.746e+04	-3.414e+04
1	88	109	-3.74	-12.50	-8.86	-7.37	4.32	-1.789e+05	-2.852e+05	-2.296e+05	-2.344e+05	-5.313e+04
1	88	110	-4.27	-10.41	-7.39	-7.29	3.07	-1.263e+05	-2.469e+05	-1.845e+05	-1.886e+05	-6.026e+04
1	88	111	-5.82	-8.39	-6.77	-7.43	1.24	-7.171e+04	-2.141e+05	-1.413e+05	-1.446e+05	-7.120e+04
1	88	112	3.94	-7.00	-1.16	-1.89	-5.46	-1.439e+04	-1.929e+05	-1.024e+05	-1.049e+05	-8.926e+04
1	88	113	2.44	-1.24	0.63	0.57	1.84	-5040.55	-1.960e+05	-9.969e+04	-1.013e+05	-9.547e+04
1	88	114	-0.39	-7.02	-4.06	-3.35	3.30	1.087e+04	-1.631e+05	-7.601e+04	-7.625e+04	-8.700e+04
1	88	115	-4.25	-13.33	-12.30	-5.28	2.87	-1.991e+05	-3.023e+05	-2.254e+05	-2.759e+05	-4.502e+04
1	88	116	-5.01	-10.42	-9.44	-5.99	2.09	-1.428e+05	-2.584e+05	-1.713e+05	-2.298e+05	-4.986e+04
1	88	117	-3.64	-9.77	-8.27	-5.15	2.64	-8.985e+04	-2.146e+05	-1.202e+05	-1.843e+05	-5.354e+04
1	88	118	1.54	-4.89	-2.78	-0.57	3.02	-3.978e+04	-1.603e+05	-6.917e+04	-1.310e+05	-5.176e+04
1	88	119	-3.58	-5.92	-3.68	-5.81	-0.49	6.415e+04	-8.462e+04	2.887e+04	-4.934e+04	-6.328e+04
1	88	120	-6.54	-10.11	-7.90	-8.76	-1.73	-7635.36	-8.622e+04	-2.741e+04	-6.645e+04	-3.410e+04
1	88	121	-3.58	-13.55	-13.28	-3.85	-1.62	-2.113e+05	-3.142e+05	-2.179e+05	-3.076e+05	-2.523e+04
1	88	122	-5.77	-10.03	-10.02	-5.78	-0.21	-1.513e+05	-2.677e+05	-1.585e+05	-2.605e+05	-2.796e+04
1	88	123	-7.78	-7.96	-7.93	-7.81	-6.57e-02	-9.077e+04	-2.282e+05	-9.896e+04	-2.201e+05	-3.254e+04
1	88	124	2.32	-10.75	1.89	-10.33	-2.31	-2.424e+04	-2.011e+05	-3.460e+04	-1.907e+05	-4.154e+04
1	88	125	1.12	0.71	1.11	0.73	-8.55e-02	-5108.76	-1.995e+05	-1.644e+04	-1.882e+05	-4.555e+04
1	88	126	-2.13	-8.05	-7.98	-2.19	0.61	1.211e+04	-1.632e+05	608.46	-1.517e+05	-4.340e+04
1	88	127	-2.78	-12.71	-7.35	-8.14	-4.95	-2.131e+05	-3.174e+05	-2.132e+05	-3.172e+05	3999.17
1	88	128	-5.63	-9.06	-7.10	-7.59	-1.69	-1.536e+05	-2.695e+05	-1.537e+05	-2.694e+05	3209.67
1	88	129	-5.81	-7.44	-7.26	-5.99	-0.50	-9.696e+04	-2.239e+05	-9.701e+04	-2.238e+05	2539.82
1	88	130	-0.77	-3.78	-3.77	-0.77	-0.14	-4.363e+04	-1.689e+05	-4.366e+04	-1.689e+05	1881.97
1	88	131	-1.99	-7.91	-1.99	-7.91	0.11	6.470e+04	-9.039e+04	6.469e+04	-9.038e+04	1103.18
1	88	132	-6.38	-9.76	-6.38	-9.76	8.18e-02	-8117.84	-9.078e+04	-8117.85	-9.078e+04	-30.84
1	88	133	-1.56	-12.25	-1.72	-12.10	-1.29	-2.046e+05	-3.107e+05	-2.156e+05	-2.997e+05	3.235e+04
1	88	134	-4.75	-9.43	-4.75	-9.43	-5.63e-02	-1.477e+05	-2.650e+05	-1.581e+05	-2.546e+05	3.337e+04
1	88	135	-5.31	-9.92	-5.51	-9.72	0.95	-8.902e+04	-2.262e+05	-9.966e+04	-2.155e+05	3.670e+04
1	88	136	3.42	-12.28	2.59	-11.46	3.51	-2.376e+04	-1.995e+05	-3.583e+04	-1.874e+05	4.444e+04
1	88	137	1.64	-1.22	1.55	-1.12	0.51	-5078.19	-1.980e+05	-1.749e+04	-1.856e+05	4.734e+04
1	88	138	-4.91	-8.04	-7.78	-5.17	-0.86	1.201e+04	-1.619e+05	430.71	-1.503e+05	4.337e+04
1	88	139	-1.03	-11.94	-2.44	-10.53	3.66	-1.882e+05	-2.963e+05	-2.215e+05	-2.630e+05	4.990e+04
1	88	140	-3.52	-9.88	-4.75	-8.65	2.51	-1.366e+05	-2.536e+05	-1.701e+05	-2.201e+05	5.287e+04
1	88	141	-5.34	-7.62	-5.99	-6.97	1.03	-8.668e+04	-2.112e+05	-1.205e+05	-1.773e+05	5.540e+04
1	88	142	-1.49	-2.65	-1.53	-2.61	0.21	-3.873e+04	-1.582e+05	-7.049e+04	-1.265e+05	5.279e+04
1	88	143	-2.03	-9.40	-3.72	-7.72	3.10	6.258e+04	-8.418e+04	2.627e+04	-4.787e+04	6.333e+04
1	88	144	-6.54	-12.40	-8.59	-10.36	2.79	-7491.46	-8.588e+04	-2.715e+04	-6.622e+04	3.398e+04
1	88	145	-1.42	-11.68	-5.86	-7.23	5.09	-1.670e+05	-2.779e+05	-2.247e+05	-2.202e+05	5.539e+04
1	88	146	-3.22	-10.13	-6.65	-6.70	3.46	-1.193e+05	-2.410e+05	-1.820e+05	-1.782e+05	6.081e+04
1	88	147	-3.59	-10.76	-7.51	-6.84	3.57	-6.816e+04	-2.095e+05	-1.404e+05	-1.373e+05	7.066e+04
1	88	148	6.05	-11.37	-3.02	-2.30	8.71	-1.341e+04	-1.891e+05	-1.024e+05	-1.001e+05	8.786e+04
1	88	149	-0.17	-2.67	-1.45	-1.39	1.25	-4886.55	-1.920e+05	-9.924e+04	-9.768e+04	9.357e+04
1	88	150	-7.34	-8.07	-7.36	-8.05	0.12	1.065e+04	-1.596e+05	-7.459e+04	-7.436e+04	8.512e+04
1	88	151	-2.23e-02	-13.59	-9.16	-4.45	6.36	-1.850e+05	-2.945e+05	-2.652e+05	-2.143e+05	4.849e+04
1	88	152	-2.47	-11.19	-8.84	-4.82	3.87	-1.347e+05	-2.521e+05	-2.220e+05	-1.648e+05	5.125e+04
1	88	153	-4.36	-8.87	-7.81	-5.42	1.91	-8.563e+04	-2.100e+05	-1.789e+05	-1.167e+05	5.385e+04
1	88	154	-0.54	-4.11	-3.72	-0.93	1.12	-3.840e+04	-1.575e+05	-1.278e+05	-6.804e+04	5.149e+04
1	88	155	-1.57	-10.72	-8.91	-3.38	3.64	6.207e+04	-8.404e+04	-4.902e+04	-2.706e+04	6.237e+04
1	88	156	-6.65	-13.04	-10.94	-8.75	3.00	-7429.54	-8.569e+04	-6.602e+04	-2.710e+04	3.395e+04
1	88	157	1.14	-14.79	-13.28	-0.36	4.66	-1.967e+05	-3.067e+05	-2.980e+05	-2.054e+05	2.960e+04
1	88	158	-2.22	-12.00	-11.27	-2.95	2.57	-1.433e+05	-2.617e+05	-2.532e+05	-1.517e+05	3.051e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	88	159	-3.29	-12.25	-11.74	-3.80	2.08	-8.673e+04	-2.236e+05	-2.145e+05	-9.580e+04	3.405e+04
1	88	160	4.40	-14.31	-13.47	3.56	3.86	-2.303e+04	-1.975e+05	-1.866e+05	-3.392e+04	4.221e+04
1	88	161	2.10	-3.41	-3.12	1.81	1.23	-4962.51	-1.960e+05	-1.844e+05	-1.655e+04	4.559e+04
1	88	162	-7.72	-8.80	-7.94	-8.59	0.43	1.189e+04	-1.601e+05	-1.488e+05	538.24	4.271e+04
1	88	163	1.79	-15.83	-15.82	1.79	-0.17	-2.008e+05	-3.113e+05	-3.113e+05	-2.008e+05	119.10
1	88	164	-1.70	-12.27	-12.27	-1.71	-6.86e-02	-1.469e+05	-2.645e+05	-2.645e+05	-1.469e+05	96.24
1	88	165	-3.61	-9.73	-9.73	-3.61	-2.96e-02	-9.351e+04	-2.202e+05	-2.202e+05	-9.351e+04	76.54
1	88	166	-0.93	-4.58	-4.58	-0.93	-1.33e-02	-4.247e+04	-1.665e+05	-1.665e+05	-4.247e+04	57.03
1	88	167	-0.51	-11.30	-11.30	-0.51	-3.58e-03	6.323e+04	-8.977e+04	-8.977e+04	6.323e+04	35.09
1	88	168	-6.43	-11.63	-11.63	-6.43	1.80e-03	-7960.11	-9.021e+04	-9.021e+04	-7960.11	1.48
1	88	169	0.94	-14.68	-13.02	-0.71	-4.81	-1.969e+05	-3.068e+05	-2.983e+05	-2.054e+05	-2.939e+04
1	88	170	-2.33	-11.93	-11.15	-3.10	-2.62	-1.434e+05	-2.617e+05	-2.534e+05	-1.518e+05	-3.034e+04
1	88	171	-3.35	-12.20	-11.68	-3.87	-2.10	-8.678e+04	-2.237e+05	-2.147e+05	-9.578e+04	-3.392e+04
1	88	172	4.37	-14.27	-13.43	3.54	-3.86	-2.305e+04	-1.975e+05	-1.867e+05	-3.389e+04	-4.212e+04
1	88	173	2.09	-3.36	-3.07	1.80	-1.23	-4964.70	-1.960e+05	-1.845e+05	-1.652e+04	-4.554e+04
1	88	174	-7.68	-8.79	-7.88	-8.59	-0.43	1.189e+04	-1.602e+05	-1.488e+05	542.37	-4.271e+04
1	88	175	-0.28	-13.42	-8.96	-4.75	-6.22	-1.853e+05	-2.947e+05	-2.655e+05	-2.145e+05	-4.835e+04
1	88	176	-2.62	-11.08	-8.74	-4.96	-3.79	-1.349e+05	-2.523e+05	-2.223e+05	-1.648e+05	-5.116e+04
1	88	177	-4.45	-8.79	-7.75	-5.49	-1.85	-8.572e+04	-2.101e+05	-1.791e+05	-1.167e+05	-5.379e+04
1	88	178	-0.60	-4.03	-3.67	-0.97	-1.06	-3.844e+04	-1.575e+05	-1.280e+05	-6.800e+04	-5.145e+04
1	88	179	-1.60	-10.64	-8.86	-3.38	-3.59	6.211e+04	-8.405e+04	-4.908e+04	2.714e+04	-6.236e+04
1	88	180	-6.65	-12.98	-10.90	-8.73	-9.27	-7435.04	-8.570e+04	-6.603e+04	-2.711e+05	-3.395e+04
1	88	181	-1.66	-11.51	-5.87	-7.30	-4.87	-1.674e+05	-2.781e+05	-2.252e+05	-2.204e+05	-5.532e+04
1	88	182	-3.37	-10.00	-6.64	-6.73	-3.32	-1.195e+05	-2.411e+05	-1.823e+05	-1.783e+05	-6.079e+04
1	88	183	-3.68	-10.66	-7.50	-6.84	-3.47	-6.827e+04	-2.097e+05	-1.406e+05	-1.373e+05	-7.067e+04
1	88	184	6.02	-11.28	-3.00	-2.26	-8.64	-1.344e+04	-1.893e+05	-1.026e+05	-1.001e+05	-8.790e+04
1	88	185	-0.19	-2.56	-1.41	-1.34	-1.19	-4895.52	-1.922e+05	-9.935e+04	-9.770e+04	-9.363e+04
1	88	186	-7.28	-7.99	-7.28	-7.99	-4.96e-02	1.066e+04	-1.597e+05	-7.464e+04	-7.440e+04	-8.518e+04
1	88	187	-1.27	-11.75	-2.52	-10.50	-3.39	-1.887e+05	-2.965e+05	-2.220e+05	-2.632e+05	-4.984e+04
1	88	188	-3.69	-9.71	-4.82	-8.58	-2.34	-1.369e+05	-2.538e+05	-1.705e+05	-2.203e+05	-5.287e+04
1	88	189	-5.45	-7.48	-6.03	-6.90	-0.92	-8.684e+04	-2.113e+05	-1.208e+05	-1.774e+05	-5.543e+04
1	88	190	-1.54	-2.53	-1.55	-2.52	-0.12	-3.880e+04	-1.584e+05	-7.062e+04	-1.265e+05	-5.284e+04
1	88	191	-2.07	-9.28	-3.72	-7.64	-3.03	6.265e+04	-8.421e+04	2.628e+04	-4.784e+04	-6.339e+04
1	88	192	-6.54	-12.32	-8.57	-10.29	-2.75	-7500.98	-8.591e+04	-2.717e+04	-6.624e+04	-3.399e+04
1	88	193	-1.75	-12.05	-1.98	-11.82	1.52	-2.053e+05	-3.111e+05	-2.163e+05	-3.001e+05	-3.231e+04
1	88	194	-4.90	-9.27	-4.91	-9.26	0.17	-1.481e+05	-2.653e+05	-1.585e+05	-2.548e+05	-3.339e+04
1	88	195	-5.43	-9.77	-5.61	-9.59	-0.88	-8.922e+04	-2.264e+05	-9.988e+04	-2.157e+05	-3.673e+04
1	88	196	3.36	-12.16	2.54	-11.35	-3.47	-2.383e+04	-1.997e+05	-3.592e+04	-1.876e+05	-4.450e+04
1	88	197	1.61	-1.09	1.53	-1.00	-0.47	-5093.18	-1.982e+05	-1.753e+04	-1.857e+05	-4.739e+04
1	88	198	-4.75	-8.04	-7.77	-5.02	0.90	1.203e+04	-1.621e+05	431.17	-1.505e+05	-4.341e+04
1	89	1	6.97	6.97	6.97	6.97	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05	-7.532e+05
1	89	7	-6.44	-7.05	-6.79	-6.69	0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	89	8	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	4.485e+04
1	89	9	-7.04	-7.16	-7.10	-7.09	-5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	89	10	-6.73	-7.51	-7.51	-6.73	2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	89	11	-6.88	-7.58	-7.57	-6.89	7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	89	12	-6.69	-7.52	-7.52	-6.69	-3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-2.834e+05	2.850e+04
1	89	13	-7.66	-8.71	-7.66	-8.71	-6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	-7.79e-02
1	89	14	-6.79	-7.44	-7.44	-6.79	-6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	-5.54e-02
1	89	15	-6.88	-7.58	-7.57	-6.89	-7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	-3.724e+04
1	89	16	-6.67	-7.53	-7.53	-6.67	2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-2.834e+05	2.850e+04
1	89	17	-7.04	-7.16	-7.09	-7.10	5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	-4.767e+04
1	89	18	-6.66	-7.54	-7.54	-6.67	-4.89e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	-4.485e+04
1	89	19	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	-4.485e+04
1	89	20	-6.44	-7.05	-6.69	-6.79	-0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	-4.986e+04
1	89	21	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-2.834e+05	2.850e+04
1	89	22	-6.88	-7.58	-6.89	-7.57	7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	89	23	-3.65	-5.07	-4.36	-4.36	-0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	89	24	-12.96	-14.26	-14.26	-12.96	-4.15e-04	-4.065e+05	-5.205e+05	-4.065e+05	-5.205e+05	-1.45e-02
1	89	25	-3.65	-5.07	-4.36	-4.36	0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	-5.360e+04
1	89	26	-6.88	-7.58	-6.89	-7.57	-7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-3.724e+04	-3.724e+04
1	89	27	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-2.834e+05	-2.850e+04
1	89	28	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	5.53e-02
1	89	29	-7.66	-8.71	-8.71	-7.66	6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	7.79e-02
1	89	30	-12.96	-14.26	-12.96	-14.26	4.15e-04	-4.065e+05	-5.205e+05	-5.205e+05	-4.065e+05	1.40e-02
1	89	31	-12.96	-14.26	-12.96	-14.26	4.15e-04	-4.065e+05	-5.205e+05	-5.205e+05	-4.065e+05	1.40e-02
1	89	32	-7.66	-8.71	-8.71	-7.66	6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	7.79e-02
1	89	33	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	5.53e-02
1	89	34	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-2.834e+05	-2.850e+04
1	89	35	-6.88	-7.58	-6.89	-7.57	-7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-3.724e+04	-3.724e+04
1	89	36	-3.65	-5.07	-4.36	-4.36	0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	-5.360e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
 Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
 Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	89	37	-12.96	-14.26	-14.26	-12.96	-4.15e-04	-4.065e+05	-5.205e+05	-4.065e+05	-5.205e+05	-1.45e-02
1	89	38	-3.65	-5.07	-4.36	-4.36	-0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	89	39	-6.88	-7.58	-6.89	-7.57	7.92e-02	-3.254e+05	-4.203e+05	-4.022e+05	-3.435e+05	3.724e+04
1	89	40	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.740e+05	-3.698e+05	-3.604e+05	-2.834e+05	2.850e+04
1	89	41	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	-4.485e+04
1	89	42	-7.04	-7.16	-7.09	-7.10	5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	-4.767e+04
1	89	43	-6.88	-7.58	-7.57	-6.89	-7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	-3.724e+04
1	89	44	-7.66	-8.71	-7.66	-8.71	-6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	-7.79e-02
1	89	45	-6.88	-7.58	-7.57	-6.89	7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	89	46	-7.04	-7.16	-7.10	-7.09	-5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	89	47	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	4.485e+04
1	89	48	-6.44	-7.05	-6.69	-6.79	-0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	-4.986e+04
1	89	49	-6.66	-7.54	-7.54	-6.67	-4.89e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	-4.485e+04
1	89	50	-6.67	-7.53	-7.53	-6.67	2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	-2.850e+04
1	89	51	-6.79	-7.44	-7.44	-6.79	-6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	-5.54e-02
1	89	52	-6.69	-7.52	-7.52	-6.69	-3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	89	53	-6.73	-7.51	-7.51	-6.73	2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	89	54	-6.44	-7.05	-6.79	-6.69	0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	89	55	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.136e+05	-3.174e+05	-2.136e+05	-3.174e+05	0.15
1	89	56	-7.63	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	2.877e+04
1	89	57	-7.20	-7.48	-7.20	-7.48	-2.40e-04	-1.539e+05	-2.695e+05	-1.539e+05	-2.695e+05	-4.32e-02
1	89	58	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	89	59	-5.90	-7.33	-7.33	-5.90	-1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	-1.34e-03
1	89	60	-6.66	-8.81	-6.77	-8.70	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	89	61	-0.70	-3.82	-3.82	-0.70	-2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	-2.28e-03
1	89	62	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	89	63	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.472e+04	-9.041e+04	6.472e+04	-9.041e+04	-7.15e-03
1	89	64	1.37	-0.19	1.32	-0.14	0.28	-5108.79	-1.988e+05	-1.698e+04	-1.870e+05	4.647e+04
1	89	65	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8123.66	-9.081e+04	-8123.66	-9.081e+04	2.64e-02
1	89	66	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.626e+05	519.86	-1.511e+05	4.340e+04
1	89	67	-7.31	-7.97	-7.41	-7.87	0.24	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	89	68	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	89	69	-5.56	-7.62	-7.15	-6.03	-0.86	-8.838e+04	-2.130e+05	-1.205e+05	-1.808e+05	5.449e+04
1	89	70	-0.38	-3.35	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	89	71	-2.90	-7.53	-3.71	-6.72	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	89	72	-6.55	-11.21	-8.23	-9.53	2.24	-7568.31	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	89	73	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	89	74	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	89	75	-6.02	-8.25	-7.14	-7.14	1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	89	76	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	89	77	-6.16e-02	-0.72	-0.39	-0.39	-0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	89	78	-4.05	-7.30	-5.67	-5.67	-1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	89	79	-7.30	-8.00	-7.89	-7.41	0.26	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	89	80	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	5.137e+04
1	89	81	-5.56	-7.61	-6.02	-7.15	-0.86	-8.838e+04	-2.129e+05	-1.808e+05	-1.205e+05	5.449e+04
1	89	82	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-1.287e+05	-6.989e+04	5.230e+04
1	89	83	-2.89	-7.53	-6.72	-3.70	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	89	84	-6.54	-11.22	-9.53	-8.23	2.24	-7568.15	-8.606e+04	-6.635e+04	-2.729e+04	3.404e+04
1	89	85	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	2.877e+04
1	89	86	-7.46	-7.53	-7.52	-7.46	2.00e-02	-1.498e+05	-2.664e+05	-2.577e+05	-1.585e+05	3.067e+04
1	89	87	-6.66	-8.81	-8.70	-6.77	0.47	-9.004e+04	-2.273e+05	-2.179e+05	-9.942e+04	3.464e+04
1	89	88	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	89	89	1.37	-0.19	-0.14	1.32	0.28	-5108.82	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	89	90	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.626e+05	-1.511e+05	519.86	4.340e+04
1	89	91	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.136e+05	-3.174e+05	-3.174e+05	-2.136e+05	-0.15
1	89	92	-7.20	-7.48	-7.48	-7.20	2.40e-04	-1.539e+05	-2.695e+05	-2.695e+05	-1.539e+05	4.40e-02
1	89	93	-5.90	-7.33	-5.90	-7.33	1.21e-04	-9.712e+04	-2.240e+05	-2.240e+05	-9.712e+04	1.04e-03
1	89	94	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.370e+04	-1.690e+05	-1.690e+05	-4.370e+04	2.07e-03
1	89	95	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.472e+04	-9.041e+04	-9.041e+04	6.472e+04	7.95e-03
1	89	96	-6.38	-9.72	-9.72	-6.38	-1.68e-04	-8123.67	-9.081e+04	-9.081e+04	-8123.67	-2.70e-02
1	89	97	-7.63	-7.85	-7.83	-7.65	-5.53e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	-2.877e+04
1	89	98	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.664e+05	-2.577e+05	-1.585e+05	-3.067e+04
1	89	99	-6.66	-8.81	-8.70	-6.77	-0.47	-9.004e+04	-2.273e+05	-2.179e+05	-9.942e+04	3.464e+04
1	89	100	2.83	-11.45	-10.84	2.22	-2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	89	101	1.37	-0.19	-0.14	1.32	-0.28	-5108.78	-1.988e+05	-1.870e+05	-1.698e+04	-4.647e+04
1	89	102	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.86	-4.340e+04
1	89	103	-7.31	-7.97	-7.87	-7.41	-0.24	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	-4.743e+04
1	89	104	-7.06	-7.36	-7.29	-7.13	-0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	-5.137e+04
1	89	105	-5.56	-7.62	-6.03	-7.15	0.86	-8.838e+04	-2.129e+05	-1.808e+05	-1.205e+05	-5.449e+04
1	89	106	-0.38	-3.35	-1.55	-2.17	1.45	-3.931e+04	-1.593e+05	-1.287e+05	-6.989e+04	-5.230e+04
1	89	107	-2.90	-7.53	-6.72	-3.71	-1.76	6.339e+04	-8.441e+04	-4.859e+04	2.758e+04	-6.333e+04

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	89	108	-6.55	-11.21	-9.53	-8.23	-2.24	-7568.28	-8.606e+04	-6.635e+04	-2.729e+04	-3.404e+04
1	89	109	-7.07	-7.63	-7.37	-7.33	-0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	-5.423e+04
1	89	110	-6.89	-7.14	-7.01	-7.01	-0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	-6.053e+04
1	89	111	-6.02	-8.25	-7.14	-7.14	-1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	-7.094e+04
1	89	112	4.97	-9.13	-2.08	-2.08	-7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	-8.858e+04
1	89	113	-6.16e-02	-0.72	-0.39	-0.39	0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	-9.455e+04
1	89	114	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	-8.609e+04
1	89	115	-7.30	-8.00	-7.41	-7.89	-0.26	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	-4.743e+04
1	89	116	-7.06	-7.36	-7.13	-7.29	-0.13	-1.399e+05	-2.560e+05	-1.709e+05	-1.251e+05	-5.137e+04
1	89	117	-5.56	-7.61	-7.15	-6.02	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	-5.449e+04
1	89	118	-0.37	-3.34	-2.17	-1.55	1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	-5.230e+04
1	89	119	-2.89	-7.53	-3.70	-6.72	-1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	-6.333e+04
1	89	120	-6.54	-11.22	-8.23	-9.53	-2.24	-7568.18	-8.606e+04	-2.729e+04	-6.635e+04	-3.404e+04
1	89	121	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	-2.877e+04
1	89	122	-7.46	-7.53	-7.46	-7.52	-2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	-3.067e+04
1	89	123	-6.66	-8.81	-6.77	-8.70	-0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	-3.464e+04
1	89	124	2.83	-11.45	2.22	-10.84	-2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	-4.302e+04
1	89	125	1.37	-0.19	1.32	-0.14	-0.28	-5108.83	-1.988e+05	-1.698e+04	-1.870e+05	-4.647e+04
1	89	126	-3.48	-8.01	-7.88	-3.61	0.75	1.207e+04	-1.626e+05	519.82	-1.511e+05	-4.340e+04
1	89	127	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.136e+05	-3.174e+05	-2.136e+05	-3.174e+05	0.15
1	89	128	-7.20	-7.48	-7.20	-7.48	-2.40e-04	-1.539e+05	-2.695e+05	-2.695e+05	-2.695e+05	-4.32e-02
1	89	129	-5.90	-7.33	-7.33	-5.90	-1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	-1.34e-03
1	89	130	-0.70	-3.82	-3.82	-0.70	-2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	-2.28e-03
1	89	131	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.472e+04	-9.041e+04	6.472e+04	-9.041e+04	-7.15e-03
1	89	132	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8123.66	-9.081e+04	-8123.66	-9.081e+04	2.64e-02
1	89	133	-7.63	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	2.877e+04
1	89	134	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	89	135	-6.66	-8.81	-6.77	-8.70	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	89	136	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	89	137	1.37	-0.19	1.32	-0.14	0.28	-5108.79	-1.988e+05	-1.698e+04	-1.870e+05	4.647e+04
1	89	138	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.626e+05	519.86	-1.511e+05	4.340e+04
1	89	139	-7.31	-7.97	-7.41	-7.87	0.24	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	89	140	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	89	141	-5.56	-7.62	-7.15	-6.03	-0.86	-8.838e+04	-2.130e+05	-1.205e+05	-1.808e+05	5.449e+04
1	89	142	-0.38	-3.35	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	89	143	-2.90	-7.53	-3.71	-6.72	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	89	144	-6.55	-11.21	-8.23	-9.53	2.24	-7568.31	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	89	145	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	89	146	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	89	147	-6.02	-8.25	-7.14	-7.14	1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	89	148	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	89	149	-6.16e-02	-0.72	-0.39	-0.39	-0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	89	150	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	89	151	-7.30	-8.00	-7.89	-7.41	0.26	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	89	152	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	5.137e+04
1	89	153	-5.56	-7.61	-6.02	-7.15	-0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	89	154	-0.37	-3.34	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	89	155	-2.89	-7.53	-3.70	-6.72	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	89	156	-6.54	-11.22	-8.23	-9.53	2.24	-7568.15	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	89	157	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	2.877e+04
1	89	158	-7.46	-7.53	-7.52	-7.46	2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	89	159	-6.66	-8.81	-6.77	-8.70	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	89	160	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	89	161	1.37	-0.19	-0.14	1.32	0.28	-5108.82	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	89	162	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.626e+05	-1.511e+05	519.84	4.340e+04
1	89	163	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.136e+05	-3.174e+05	-2.136e+05	-3.174e+05	-0.15
1	89	164	-7.20	-7.48	-7.48	-7.20	2.40e-04	-1.539e+05	-2.695e+05	-2.695e+05	-1.539e+05	4.40e-02
1	89	165	-5.90	-7.33	-5.90	-7.33	1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	1.04e-03
1	89	166	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	2.07e-03
1	89	167	-2.02	-7.85	-2.02	-7.85	1.15e-05	6.472e+04	-9.041e+04	6.472e+04	-9.041e+04	7.95e-03
1	89	168	-6.38	-9.72	-6.38	-9.72	-1.68e-04	-8123.67	-9.081e+04	-8123.67	-9.081e+04	-2.70e-02
1	89	169	-7.63	-7.85	-7.83	-7.65	-5.53e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	-2.877e+04
1	89	170	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	89	171	-6.66	-8.81	-6.77	-8.70	-0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	89	172	2.83	-11.45	-10.84	2.22	-2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	89	173	1.37	-0.19	-0.14	1.32	-0.28	-5108.78	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	89	174	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.89	-4.340e+04
1	89	175	-7.31	-7.97	-7.87	-7.41	-0.24	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	89	176	-7.06	-7.36	-7.29	-7.13	-0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	5.137e+04
1	89	177	-5.56	-7.62	-6.03	-7.15	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	89	178	-0.38	-3.35	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04

**PROGETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015  
Certificate No. Q204



SR EN ISO 14001:2015  
Certificate No. E81



SR EN ISO/IEC 27001:2017  
Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	89	179	-2.90	-7.53	-6.72	-3.71	-1.76	6.339e+04	-8.441e+04	-4.859e+04	2.758e+04	-6.333e+04
1	89	180	-6.55	-11.21	-9.53	-8.23	-2.24	-7568.28	-8.606e+04	-6.635e+04	-2.729e+04	-3.404e+04
1	89	181	-7.07	-7.63	-7.37	-7.33	-0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	-5.423e+04
1	89	182	-6.89	-7.14	-7.01	-7.01	-0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	-6.053e+04
1	89	183	-6.02	-8.25	-7.14	-7.14	-1.12	-7.001e+04	-2.119e+05	-2.237e+05	-1.409e+05	-7.094e+04
1	89	184	4.97	-9.13	-2.08	-2.08	-7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	-8.858e+04
1	89	185	-6.16e-02	-0.72	-0.39	-0.39	0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	-9.455e+04
1	89	186	-4.05	-7.30	-5.67	-5.67	1.62	-1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	-8.609e+04
1	89	187	-7.30	-8.00	-7.41	-7.89	-0.26	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	-4.743e+04
1	89	188	-7.06	-7.36	-7.13	-7.29	-0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	-5.137e+04
1	89	189	-5.56	-7.61	-7.15	-6.02	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	-5.449e+04
1	89	190	-0.37	-3.34	-2.17	-1.55	1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	-5.230e+04
1	89	191	-2.89	-7.53	-3.70	-6.72	-1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	-6.333e+04
1	89	192	-6.54	-11.22	-8.23	-9.53	-2.24	-7568.18	-8.606e+04	-6.635e+04	-2.729e+04	-3.404e+04
1	89	193	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	-2.877e+04
1	89	194	-7.46	-7.53	-7.46	-7.52	-2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	-3.067e+04
1	89	195	-6.66	-8.81	-6.77	-8.70	-0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	-3.464e+04
1	89	196	2.83	-11.45	2.22	-10.84	-2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	-4.302e+04
1	89	197	1.37	-0.19	1.32	-0.14	-0.28	-5108.83	-1.988e+05	-1.698e+04	-1.870e+05	-4.647e+04
1	89	198	-3.48	-8.01	-7.88	-3.61	0.75	-1.207e+04	-1.626e+05	519.82	-1.511e+05	-4.340e+04
1	90	1	6.97	6.97	6.97	6.97						
1	90	7	-6.44	-7.05	-6.79	-6.69	0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	90	8	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	4.485e+04
1	90	9	-7.04	-7.16	-7.10	-7.09	-5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	90	10	-6.73	-7.51	-7.51	-6.73	2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	11	-6.88	-7.58	-7.57	-6.89	7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	12	-6.69	-7.52	-7.52	-6.69	-3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	13	-7.66	-8.71	-7.66	-8.71	-6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	-7.79e-02
1	90	14	-6.79	-7.44	-7.44	-6.79	-6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	-5.54e-02
1	90	15	-6.88	-7.58	-7.57	-6.89	7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	16	-6.67	-7.53	-7.53	-6.67	-2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	17	-7.04	-7.16	-7.09	-7.10	5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	90	18	-6.66	-7.54	-7.54	-6.67	-4.89e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	19	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	20	-6.44	-7.05	-6.69	-6.79	-0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	90	21	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	22	-6.88	-7.58	-6.89	-7.57	7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	23	-3.65	-5.07	-4.36	-4.36	-0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	90	24	-12.96	-14.26	-14.26	-12.96	-4.15e-04	-4.065e+05	-5.205e+05	-4.065e+05	-5.205e+05	-1.45e-02
1	90	25	-3.65	-5.07	-4.36	-4.36	0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	90	26	-6.88	-7.58	-6.89	-7.57	-7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	27	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	28	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	5.53e-02
1	90	29	-7.66	-8.71	-8.71	-7.66	6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	7.79e-02
1	90	30	-12.96	-14.26	-12.96	-14.26	4.15e-04	-4.065e+05	-5.205e+05	-4.065e+05	-5.205e+05	1.40e-02
1	90	31	-12.96	-14.26	-12.96	-14.26	4.15e-04	-4.065e+05	-5.205e+05	-5.205e+05	-4.065e+05	1.40e-02
1	90	32	-7.66	-8.71	-8.71	-7.66	6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	7.79e-02
1	90	33	-6.79	-7.44	-6.79	-7.44	6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	5.53e-02
1	90	34	-6.69	-7.52	-6.69	-7.52	3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	35	-6.88	-7.58	-6.89	-7.57	-7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	36	-3.65	-5.07	-4.36	-4.36	0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	90	37	-12.96	-14.26	-14.26	-12.96	-4.15e-04	-4.065e+05	-5.205e+05	-4.065e+05	-5.205e+05	-1.45e-02
1	90	38	-3.65	-5.07	-4.36	-4.36	-0.71	-3.886e+05	-4.958e+05	-4.422e+05	-4.422e+05	5.360e+04
1	90	39	-6.88	-7.58	-6.89	-7.57	7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	40	-6.67	-7.53	-6.67	-7.53	-2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	41	-6.73	-7.51	-6.73	-7.51	-2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	42	-7.04	-7.16	-7.09	-7.10	5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	90	43	-6.88	-7.58	-6.89	-7.57	-7.92e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	44	-7.66	-8.71	-8.71	-7.66	-6.59e-04	-3.396e+05	-4.328e+05	-3.396e+05	-4.328e+05	-7.79e-02
1	90	45	-6.88	-7.58	-6.89	-7.57	7.81e-02	-3.254e+05	-4.203e+05	-3.435e+05	-4.022e+05	3.724e+04
1	90	46	-7.04	-7.16	-7.10	-7.09	-5.97e-02	-2.916e+05	-3.869e+05	-3.393e+05	-3.393e+05	4.767e+04
1	90	47	-6.66	-7.54	-6.67	-7.54	4.89e-02	-2.531e+05	-3.504e+05	-3.207e+05	-2.829e+05	4.485e+04
1	90	48	-6.44	-7.05	-6.69	-6.79	-0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	90	49	-6.66	-7.54	-6.67	-7.54	-4.89e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	50	-6.67	-7.53	-6.67	-7.53	2.47e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	51	-6.79	-7.44	-6.79	-7.44	-6.90e-04	-2.820e+05	-3.771e+05	-2.820e+05	-3.771e+05	-5.54e-02
1	90	52	-6.69	-7.52	-6.69	-7.52	-3.70e-02	-2.740e+05	-3.698e+05	-2.834e+05	-3.604e+05	2.850e+04
1	90	53	-6.73	-7.51	-6.73	-7.51	2.38e-02	-2.531e+05	-3.504e+05	-2.829e+05	-3.207e+05	4.485e+04
1	90	54	-6.44	-7.05	-6.69	-6.79	0.30	-2.252e+05	-3.249e+05	-2.751e+05	-2.751e+05	4.986e+04
1	90	55	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.136e+05	-3.174e+05	-2.136e+05	-3.174e+05	0.15
1	90	56	-7.63	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	2.877e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. ED1

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	90	57	-7.20	-7.48	-7.20	-7.48	-2.40e-04	-1.539e+05	-2.695e+05	-1.539e+05	-2.695e+05	-4.32e-02
1	90	58	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	59	-5.90	-7.33	-7.33	-5.90	-1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	-1.34e-03
1	90	60	-6.66	-8.81	-6.77	-8.70	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	90	61	-0.70	-3.82	-3.82	-0.70	-2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	-2.28e-03
1	90	62	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	90	63	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.472e+04	-9.041e+04	6.472e+04	-9.041e+04	-7.15e-03
1	90	64	1.37	-0.19	1.32	-0.14	0.28	-5108.79	-1.988e+05	-1.698e+04	-1.870e+05	4.647e+04
1	90	65	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8123.66	-9.081e+04	-8123.66	-9.081e+04	2.64e-02
1	90	66	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.626e+05	519.86	-1.511e+05	4.340e+04
1	90	67	-7.31	-7.97	-7.41	-7.87	0.24	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	90	68	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	69	-5.56	-7.62	-7.15	-6.03	-0.86	-8.838e+04	-2.130e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	70	-0.38	-3.35	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	71	-2.90	-7.53	-3.71	-6.72	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	90	72	-6.55	-11.21	-8.23	-9.53	2.24	-7568.31	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	90	73	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	90	74	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	90	75	-6.02	-8.25	-7.14	-7.14	1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	90	76	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	90	77	-6.16e-02	-0.72	-0.39	-0.39	-0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	90	78	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	90	79	-7.30	-8.00	-7.89	-7.41	0.26	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	80	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	5.137e+04
1	90	81	-5.56	-7.61	-6.02	-7.15	-0.86	-8.838e+04	-2.129e+05	-1.808e+05	-1.205e+05	5.449e+04
1	90	82	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	83	-2.89	-7.53	-6.72	-3.70	1.76	6.339e+04	-8.441e+04	-4.859e+04	2.758e+04	6.333e+04
1	90	84	-6.54	-11.22	-9.53	-8.23	2.24	-7568.15	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	90	85	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	2.877e+04
1	90	86	-7.46	-7.53	-7.52	-7.46	2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	87	-6.66	-8.81	-8.70	-6.77	0.47	-9.004e+04	-2.273e+05	-2.179e+05	-9.942e+04	3.464e+04
1	90	88	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	89	1.37	-0.19	-0.14	1.32	0.28	-5108.82	-1.988e+05	-1.870e+05	-1.698e+04	4.647e+04
1	90	90	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.626e+05	-1.511e+05	519.84	4.340e+04
1	90	91	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.136e+05	-3.174e+05	-3.174e+05	-2.136e+05	-0.15
1	90	92	-7.20	-7.48	-7.48	-7.20	2.40e-04	-1.539e+05	-2.695e+05	-2.695e+05	-1.539e+05	4.40e-02
1	90	93	-5.90	-7.33	-5.90	-7.33	1.21e-04	-9.712e+04	-2.240e+05	-2.240e+05	-9.712e+04	1.04e-03
1	90	94	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	2.07e-03
1	90	95	-2.02	-7.85	-7.85	-2.02	1.15e-05	6.472e+04	-9.041e+04	-9.041e+04	6.472e+04	7.95e-03
1	90	96	-6.38	-9.72	-6.38	-9.72	-1.68e-04	-8123.67	-9.081e+04	-9.081e+04	-8123.67	-2.70e-02
1	90	97	-7.63	-7.85	-7.83	-7.65	-5.53e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	-2.877e+04
1	90	98	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	-3.067e+04
1	90	99	-6.66	-8.81	-8.70	-6.77	-0.47	-9.004e+04	-2.273e+05	-2.179e+05	-9.942e+04	3.464e+04
1	90	100	2.83	-11.45	-10.84	2.22	-2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	101	1.37	-0.19	-0.14	1.32	-0.28	-5108.78	-1.988e+05	-1.870e+05	-1.698e+04	4.647e+04
1	90	102	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.89	-4.340e+04
1	90	103	-7.31	-7.97	-7.87	-7.41	-0.24	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	104	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.560e+05	-2.251e+05	-1.709e+05	5.137e+04
1	90	105	-5.56	-7.62	-6.03	-7.15	0.86	-8.838e+04	-2.129e+05	-1.808e+05	-1.205e+05	5.449e+04
1	90	106	-0.38	-3.35	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	107	-2.90	-7.53	-6.72	-3.71	-1.76	6.339e+04	-8.441e+04	-4.859e+04	2.758e+04	6.333e+04
1	90	108	-6.55	-11.21	-9.53	-8.23	2.24	-7568.28	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	90	109	-7.07	-7.63	-7.37	-7.33	-0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	90	110	-6.89	-7.14	-7.01	-7.01	-0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	90	111	-6.02	-8.25	-7.14	-7.14	1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	90	112	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	90	113	-6.16e-02	-0.72	-0.39	-0.39	0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	90	114	-4.05	-7.30	-5.67	-5.67	1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	90	115	-7.30	-8.00	-7.41	-7.89	-0.26	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	116	-7.06	-7.36	-7.13	-7.29	-0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	117	-5.56	-7.61	-6.02	-7.15	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	118	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	119	-2.89	-7.53	-6.72	-3.70	-1.76	6.339e+04	-8.441e+04	-4.859e+04	2.758e+04	6.333e+04
1	90	120	-6.54	-11.22	-9.53	-8.23	2.24	-7568.18	-8.606e+04	-2.729e+04	-6.635e+04	3.404e+04
1	90	121	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	-2.877e+04
1	90	122	-7.46	-7.53	-7.46	-7.52	-2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	-3.067e+04
1	90	123	-6.66	-8.81	-6.77	-8.70	-0.47	-9.004e+04	-2.273e+05	-2.179e+05	-9.942e+04	3.464e+04
1	90	124	2.83	-11.45	2.22	-10.84	-2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	125	1.37	-0.19	1.32	-0.14	-0.28	-5108.83	-1.988e+05	-1.870e+05	-1.698e+05	4.647e+04
1	90	126	-3.48	-8.01	-7.88	-3.61	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.82	-4.340e+04
1	90	127	-7.55	-7.93	-7.55	-7.93	1.08e-03	-2.136e+05	-3.174e+05	-3.174e+05	-2.136e+05	0.15

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Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

1	90	128	-7.20	-7.48	-7.20	-7.48	-2.40e-04	-1.539e+05	-2.695e+05	-1.539e+05	-2.695e+05	-4.32e-02
1	90	129	-5.90	-7.33	-7.33	-5.90	-1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	-1.34e-03
1	90	130	-0.70	-3.82	-3.82	-0.70	-2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	-2.28e-03
1	90	131	-2.02	-7.85	-2.02	-7.85	-1.16e-05	6.472e+04	-9.041e+04	6.472e+04	-9.041e+04	-7.15e-03
1	90	132	-6.38	-9.72	-6.38	-9.72	1.69e-04	-8123.66	-9.081e+04	-8123.66	-9.081e+04	2.64e-02
1	90	133	-7.63	-7.85	-7.65	-7.83	5.53e-02	-2.084e+05	-3.125e+05	-2.171e+05	-3.038e+05	2.877e+04
1	90	134	-7.46	-7.52	-7.47	-7.52	1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	135	-6.66	-8.81	-6.77	-8.70	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	90	136	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-3.526e+04	-1.892e+05	4.302e+04
1	90	137	1.37	-0.19	1.32	-0.14	0.28	-5108.79	-1.988e+05	-1.698e+04	-1.870e+05	4.647e+04
1	90	138	-3.48	-8.01	-7.88	-3.61	-0.75	1.207e+04	-1.626e+05	519.86	-1.511e+05	4.340e+04
1	90	139	-7.31	-7.97	-7.41	-7.87	0.24	-1.940e+05	-2.993e+05	-2.237e+05	-2.696e+05	4.743e+04
1	90	140	-7.06	-7.36	-7.13	-7.29	0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	141	-5.56	-7.62	-7.15	-6.03	-0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	142	-0.38	-3.35	-2.17	-1.55	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	143	-2.90	-7.53	-3.71	-6.72	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	90	144	-6.55	-11.21	-8.23	-9.53	2.24	-7568.31	-8.606e+04	-6.635e+04	-2.729e+04	3.404e+04
1	90	145	-7.07	-7.63	-7.33	-7.37	0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	90	146	-6.89	-7.14	-7.01	-7.01	0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	90	147	-6.02	-8.25	-7.14	-7.14	1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	90	148	4.97	-9.13	-2.08	-2.08	7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	90	149	-6.16e-02	-0.72	-0.39	-0.39	-0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	90	150	-4.05	-7.30	-5.67	-5.67	-1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	90	151	-7.30	-8.00	-7.89	-7.41	0.26	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	152	-7.06	-7.36	-7.29	-7.13	0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	153	-5.56	-7.61	-6.02	-7.15	-0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	154	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	155	-2.89	-7.53	-6.72	-3.70	1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	90	156	-6.54	-11.22	-9.53	-8.23	2.24	-7568.15	-8.606e+04	-6.635e+04	-2.729e+04	3.404e+04
1	90	157	-7.62	-7.85	-7.84	-7.63	4.89e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	2.877e+04
1	90	158	-7.46	-7.53	-7.52	-7.46	2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	159	-6.66	-8.81	-8.70	-6.77	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	90	160	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	161	1.37	-0.19	-0.14	1.32	0.28	-5108.82	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	90	162	-3.48	-8.01	-3.61	-7.88	-0.75	1.207e+04	-1.626e+05	-1.511e+05	519.84	4.340e+04
1	90	163	-7.55	-7.93	-7.93	-7.55	-1.08e-03	-2.136e+05	-3.174e+05	-3.174e+05	-2.136e+05	-0.15
1	90	164	-7.20	-7.48	-7.48	-7.20	2.40e-04	-1.539e+05	-2.695e+05	-1.539e+05	-2.695e+05	4.40e-02
1	90	165	-5.90	-7.33	-5.90	-7.33	1.21e-04	-9.712e+04	-2.240e+05	-9.712e+04	-2.240e+05	1.04e-03
1	90	166	-0.70	-3.82	-0.70	-3.82	2.99e-05	-4.370e+04	-1.690e+05	-4.370e+04	-1.690e+05	2.07e-03
1	90	167	-2.02	-7.85	-2.02	-7.85	1.15e-05	6.472e+04	-9.041e+04	-9.041e+04	6.472e+04	7.95e-03
1	90	168	-6.38	-9.72	-6.38	-9.72	-1.68e-04	-8123.67	-9.081e+04	-8123.67	-9.081e+04	-2.70e-02
1	90	169	-7.63	-7.85	-7.83	-7.65	5.53e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	2.877e+04
1	90	170	-7.46	-7.52	-7.52	-7.47	-1.94e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	171	-6.66	-8.81	-8.70	-6.77	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	90	172	2.83	-11.45	-10.84	2.22	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	173	1.37	-0.19	-0.14	1.32	-0.28	-5108.78	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	90	174	-3.48	-8.01	-3.61	-7.88	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.89	-4.340e+04
1	90	175	-7.31	-7.97	-7.87	-7.41	-0.24	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	176	-7.06	-7.36	-7.29	-7.13	-0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	177	-5.56	-7.62	-6.03	-7.15	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	178	-0.38	-3.35	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	179	-2.90	-7.53	-6.72	-3.71	-1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	90	180	-6.55	-11.21	-9.53	-8.23	-2.24	-7568.28	-8.606e+04	-6.635e+04	-2.729e+04	3.404e+04
1	90	181	-7.07	-7.63	-7.33	-7.33	-0.28	-1.732e+05	-2.816e+05	-2.274e+05	-2.274e+05	5.423e+04
1	90	182	-6.89	-7.14	-7.01	-7.01	-0.12	-1.229e+05	-2.440e+05	-1.834e+05	-1.834e+05	6.053e+04
1	90	183	-6.02	-8.25	-7.14	-7.14	-1.12	-7.001e+04	-2.119e+05	-1.409e+05	-1.409e+05	7.094e+04
1	90	184	4.97	-9.13	-2.08	-2.08	-7.05	-1.392e+04	-1.911e+05	-1.025e+05	-1.025e+05	8.858e+04
1	90	185	-6.16e-02	-0.72	-0.39	-0.39	0.33	-4971.65	-1.941e+05	-9.952e+04	-9.952e+04	9.455e+04
1	90	186	-4.05	-7.30	-5.67	-5.67	-1.62	1.077e+04	-1.614e+05	-7.532e+04	-7.532e+04	8.609e+04
1	90	187	-7.30	-8.00	-7.41	-7.89	-0.26	-1.940e+05	-2.993e+05	-2.696e+05	-2.237e+05	4.743e+04
1	90	188	-7.06	-7.36	-7.13	-7.29	-0.13	-1.399e+05	-2.560e+05	-1.709e+05	-2.251e+05	5.137e+04
1	90	189	-5.56	-7.61	-6.02	-7.15	0.86	-8.838e+04	-2.129e+05	-1.205e+05	-1.808e+05	5.449e+04
1	90	190	-0.37	-3.34	-1.55	-2.17	-1.45	-3.931e+04	-1.593e+05	-6.989e+04	-1.287e+05	5.230e+04
1	90	191	-2.89	-7.53	-3.70	-6.72	-1.76	6.339e+04	-8.441e+04	2.758e+04	-4.859e+04	6.333e+04
1	90	192	-6.54	-11.22	-8.23	-9.53	2.24	-7568.18	-8.606e+04	-6.635e+04	-2.729e+04	3.404e+04
1	90	193	-7.62	-7.85	-7.63	-7.84	-4.89e-02	-2.084e+05	-3.125e+05	-3.038e+05	-2.171e+05	2.877e+04
1	90	194	-7.46	-7.53	-7.46	-7.52	-2.00e-02	-1.498e+05	-2.664e+05	-1.585e+05	-2.577e+05	3.067e+04
1	90	195	-6.66	-8.81	-8.70	-6.77	0.47	-9.004e+04	-2.273e+05	-9.942e+04	-2.179e+05	3.464e+04
1	90	196	2.83	-11.45	2.22	-10.84	2.89	-2.405e+04	-2.004e+05	-1.892e+05	-3.526e+04	4.302e+04
1	90	197	1.37	-0.19	1.32	-0.14	-0.28	-5108.83	-1.988e+05	-1.698e+05	-1.870e+05	4.647e+04
1	90	198	-3.48	-8.01	-7.88	-3.61	0.75	1.207e+04	-1.626e+05	-1.511e+05	519.82	-4.340e+04

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01



*Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)*

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<b>M_G</b>	<b>N max</b>	<b>N min</b>	<b>N 1</b>	<b>N 2</b>	<b>N 1-2</b>	<b>M max</b>	<b>M min</b>	<b>M 1</b>	<b>M 2</b>	<b>M 1-2</b>
	2284.91	-2322.02	-2305.62 2271.91	-2322.02 2284.90	-1429.00 1427.15	9.540e+04	-9.809e+05	-9.809e+05 8.445e+04	-9.809e+05 9.540e+04	-2.302e+05 2.400e+05

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## 20 VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

### 20.1 LEGENDA TABELLA VERIFICHE ELEMENTI TRAVE E/O PILASTRO IN C.A.

In tabella vengono riportati per ogni elemento il numero identificativo ed il codice di verifica con le sigle **Ok** o **NV**.

Nel caso in cui si sia proceduto alla progettazione con il metodo degli stati limite (**S.L.**) vengono riportati: il rapporto  $x/d$ , le verifiche per sollecitazioni proporzionali e la verifica per compressione media con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

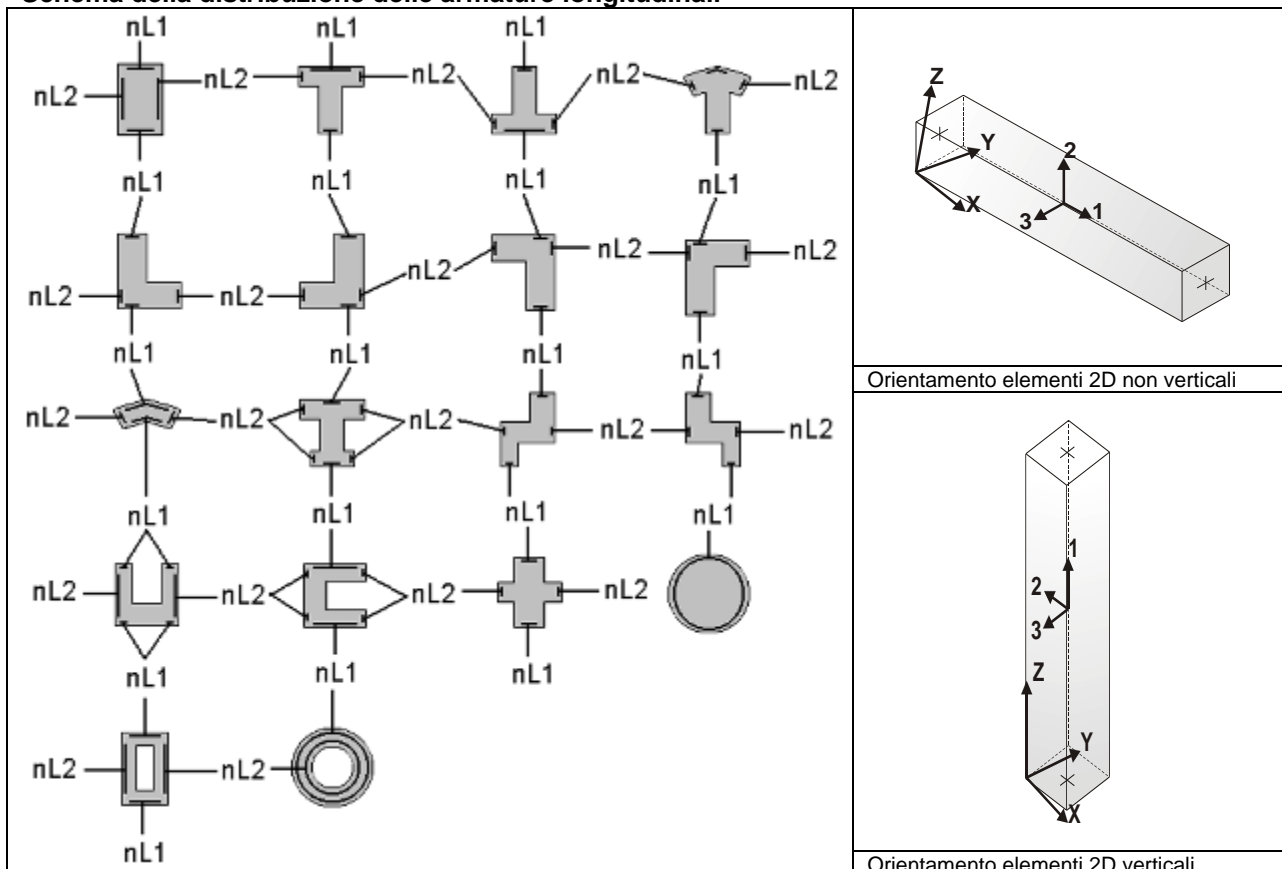
Nel caso in cui si sia proceduto alla progettazione con le tensioni ammissibili (**T.A.**) vengono riportate le massime tensioni nell'elemento (massima compressione nel calcestruzzo, massima compressione media nel calcestruzzo, massima tensione nell'acciaio, massima tensione tangenziale) con l'indicazione delle combinazioni in cui si sono attinti i rispettivi valori.

Nel caso in cui la struttura abbia comportamento dissipativo e sia prevista la progettazione con il criterio della gerarchia delle resistenze (**G.R.**) vengono riportate le verifiche di sovraresistenza e del nodo.

Per gli elementi tipo pilastro sono riportati numero e diametro dei ferri di vertice, numero e diametro di ferri disposti lungo i lati L1 (paralleli alla base della sezione) e lungo i lati L2 (paralleli all'altezza della sezione).

Per gli elementi tipo trave sono riportati infine le quantità di armatura inferiore e superiore.

#### Schema della distribuzione delle armature longitudinali



## 20.2 PROGETTAZIONE DELLE FONDAZIONI

Il D.M.17/01/2018 - par: 7.2.5 prevede:

"Sia per CD"A" sia per CD"B" il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;
- [...];
- quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD"A" e 1,10 in CD"B";

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO\_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO\_SAP (per travi e platee) o da PRO\_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA. N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

### Simbologia adottata nelle tabelle di verifica

**Per le verifiche agli S.L. dei pilastri è presente una tabella con i simboli di seguito descritti:**

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
Pilas.	numero identificativo dell'elemento D2
Note	Codici identificativi delle sezione (s) e materiale (m) pilastro
Stato	Codici relativi all'esito delle verifiche effettuate appresso descritte
Quota	Quota sezione di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
r. snell.	Rapporto di snellezza $\lambda$ su $\lambda^*$ : valore superiore a 1 per elementi snelli nel caso in cui viene effettuata la verifica con il metodo diretto dello stato di equilibrio
Armat. long.	Numero e diametro (d) dei ferri di armatura longitudinale distinti in ferri di vertice + ferri di lato nelle posizioni nL1 e nL2, come da schemi in figura precedente
V N/M	Verifica a pressoflessione con rapporto Ed/Rd: valore minore o uguale a 1 per verifica positiva
V N sis	Verifica a compressione solo calcestruzzo con rapporto Nsd/Nrd ed Nrd calcolato come al punto 7.4.4.2.1: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto
V V/T cls	Verifica a taglio/torsione con rapporto Ved/Vrd: valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il pilastro

**Per le verifiche alla G.R. dei pilastri è presente una tabella con i simboli di seguito descritti:**

Pilas.	numero identificativo dell'elemento D2 pilastro
sovr. Xi (Xf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione X, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del $\gamma_{Rd}$ adottato
sovr. Yi (Yf)	Verifica sovrarresistenza come da formula 7.4.4 in direzione Y, alla base (i) ed alla sommità (f): rapporto tra i momenti resistenti dei pilastri e delle travi. La verifica è positiva se maggiore del $\gamma_{Rd}$ adottato
M 2-2 i (f)	Valore del momento resistente 2-2 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
M 3-3 i (f)	Valore del momento resistente 3-3 alla base (i) ed alla sommità (f) con massimo momento in presenza dello sforzo normale di calcolo
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M2-2 (M3-3)	Valore del taglio generato dai momenti resistenti 2-2 (3-3)

**Per le verifiche dei dettagli costruttivi per la duttilità è presente una tabella con i simboli di seguito descritti: (Non presente nel caso di comportamento strutturale non dissipativo)**

Pilas	Numero identificativo D2 pilastro
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ni	Sforzo assiale adimensionalizzato di progetto relativo alla combinazione sismica SLV
alfaomega	Prodotto tra il coefficiente di efficacia del confinamento e il rapporto meccanico dell'armatura trasversale di confinamento all'interno del nodo
V.7.4.29 2-2 (3-3)	Rapporto tra la domanda di staffe minima nel nodo e il rapporto meccanico dell'armatura trasversale di confinamento inserito all'interno del nodo in direzione 2 (3)
V. 7.4.29 Stato	Codici relativi all'esito della verifica 7.4.29
dmu_fi 2-2 (3-3)	Domanda in duttilità di curvatura in direzione 2 (3)
cmu_fi 2-2 (3-3)	Capacità in duttilità di curvatura in direzione 2 (3)
V. dutt. 2-2 (3-3)	Rapporto tra la domanda in duttilità di curvatura e la capacità in duttilità di curvatura in direzione 2 (3)

**Per le verifiche nodi trave-pilastro di elementi nuovi è presente una tabella con i simboli di seguito descritti:**

Nodo	Numero identificativo del nodo trave-pilastro
Stato	Esito delle verifiche
Pilastro	Numero identificativo D2 pilastro
Diam st	Diametro staffe nodo
Passo	Passo staffe nodo
n. br. 2 (3)	Numero braccia staffe per il taglio in direzione 2 (3)
Bj2 (3)	Larghezza effettiva del nodo per il taglio in direzione 2 (3)
Hjc2 (3)	Distanza tra le giaciture più esterne delle armature del pilastro per il taglio in direzione 2 (3)
V. 7.4.8	Rapporto tra il taglio $V_{jbd}$ e il taglio resistente come da formula 7.4.8
V. Ash	Rapporto tra il passo staffe calcolato secondo il capitolo 7.4.4.3.1. e il passo staffe effettivamente inserita nel nodo. Nel caso di valore indica passo staffe utilizzato deriva dalle formule presenti nel paragrafo 7.4.4.3.1. Nel caso di valore minore di 1 il passo staffe utilizzato deriva del pilastro superiore o inferiore al nodo
7.4.10	Check passo staffe valutato in funzione della formula 7.4.10: <ul style="list-style-type: none"> <li>• Si il passo staffe è calcolato utilizzando la formula 7.4.10;</li> <li>• NO il passo staffe è calcolato utilizzando le formule 7.4.11 e/o 7.4.12;</li> <li>• NR calcolo passo staffe non richiesto;</li> </ul>
Rif. comb.	Riferimento combinazioni da cui si generano le verifiche più gravose per il nodo

**Per le verifiche nodi trave-pilastro di elementi esistenti è presente una tabella con i simboli di seguito descritti:**

Pilastro I	Numero identificativo D2 del pilastro inferiore.
Pilastro S	Numero identificativo D2 del pilastro superiore.
Nodo	Numero identificativo del nodo trave-pilastro.
SL cod	Stato limite di riferimento e relativo esito delle verifiche.
ver. (+)	Fattore di sicurezza nei riguardi della verifica di resistenza a compressione (verificato se < 1.00).
V +	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a compressione.
V + af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a compressione.
N +	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a compressione.
ver. (-)	Fattore di sicurezza nei riguardi della verifica di resistenza a trazione (verificato se < 1.00).
V -	Azione di Taglio presente al di sopra del nodo nella verifica di resistenza a trazione.
V - af s	Sollecitazione di trazione presente nell' armatura longitudinale superiore della trave nella verifica di resistenza a trazione.
N -	Azione Assiale presente al di sopra del nodo nella verifica di resistenza a trazione.
AreaV2	Area resistente del nodo in direzione 2 ( $A_{r2}=b_{r2}*h_{rc2}$ ).
AreaV3	Area resistente del nodo in direzione 3 ( $A_{r3}=b_{r3}*h_{rc3}$ ).
Rif. comb.	Combinazione (direzione) di riferimento nella verifica di trazione.

**Per le verifiche agli S.L. delle travi è presente una tabella con i simboli di seguito descritti:**

M_T Z P P	Numero della travata (T), quota media (Z), n° pilastrata iniziale (P) e finale (P) (nodo in assenza di pilastrata)
Trave	numero identificativo dell'elemento D2
Note	Codici identificativi sezione (s) e materiale (m) trave; sono inoltre presenti le sigle relative all'esito delle verifiche effettuate appresso descritte
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Af inf.	Area di armatura longitudinale posta all'intradosso
Af sup	Area di armatura longitudinale posta all'estradosso
Af long.	Area complessiva armatura longitudinale
x/d	rapporto tra posizione dell'asse neutro e altezza utile
V N/M	Verifica a pressoflessione rapporto Ed/Rd: valore minore o uguale a 1 per verifica positiva
Staffe	Dati tratto di staffatura oggetto di verifica, nello specifico: numero delle braccia, diametro, passo, lunghezza L tratto

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V V/T cls	Verifica a taglio/torsione con rapporto Ved/Vrd: valore minore o uguale a 1 per verifica positiva
Rif. cmb.	Riferimento combinazioni da cui si generano le verifiche più gravose per la trave

**Per le verifiche alla G.R. delle travi è presente una tabella con i simboli di seguito descritti:**

Trave	numero identificativo dell'elemento D2 trave
M negativo i (f)	Valore del momento resistente negativo all' estremità iniziale i (finale f) della trave
M positivo i (f)	Valore del momento resistente positivo all' estremità iniziale i (finale f) della trave
Luce per V	Luce di calcolo per la definizione del taglio (generato dai momenti resistenti)
V M-i M+f	Taglio generato dai momenti resistenti negativo i e positivo f
V M+i M-f	Taglio generato dai momenti resistenti positivo i e negativo f
VEd, min	Valore di taglio minimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
VEd, max	Valore di taglio massimo per verifica condizioni p.to 7.4.4.1.1 armatura diagonale (solo per CD "A")
Vr1	Valore di taglio come da formula 7.4.1 per armatura diagonale (solo per CD "A")
As	Area singolo ordine armature diagonali come da formula 7.4.2 (solo per CD "A")

**Per le verifiche a taglio ciclico di travi e pilastri esistenti è presente una tabella con i simboli di seguito descritti:**

Trave/Pilastro	Numero identificativo dell'elemento D2 trave/pilastro
V. SLV	Codice relativo all'esito delle verifiche
Nodo	Numero identificativo del nodo di verifica
Ver. VC	Fattore di sicurezza nei confronti della verifica a taglio ciclico (verificato se < 1.00)
Direz.	Direzione di verifica
N fr	Valore di sforzo normale calcolato con fattore di comportamento fragile
V fr	Valore di taglio calcolato con fattore di comportamento fragile
M fr	Valore di momento calcolato con fattore di comportamento fragile
N dutt	Valore di sforzo normale calcolato con fattore di comportamento duttile
LV	Lunghezza di taglio
Mud,pl	Parte plastica della domanda di duttilità
V cic	Resistenza a taglio in condizioni cicliche (C8.7.2.8)
Cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

**Per le verifiche alle T.A. di pilastri e travi è presente una tabella con i simboli di seguito descritti:**

M_P X Y	Numero della pilastrata (P) e posizione in pianta (X,Y)
M_T Z P P	Numero della travata, quota media pilastrata iniziale e finale (nodo in assenza di pilastrata)
Pilas. o Trave	numero identificativo dell'elemento D2
Note	Viene riportato il codice relativo alla sezione(s) e relativo al materiale(m); nella terza riga viene riportato il valore delle snellezze in direzione 2-2 e 3-3
Stato	Codici di verifica relativi alle tensioni normali e alle tensioni tangenziali
Quota	Ascissa del punto di verifica
%Af	Percentuale di area di armatura rispetto a quella di calcestruzzo
Armat. long.	Numero e diametro dei ferri di armatura longitudinale: ferri di vertice + ferri di lato (come da fig. precedente)
Af inf.	Area di armatura longitudinale posta all'intradosso della trave
Af sup	Area di armatura longitudinale posta all'estradosso della trave
Sc max	Massima tensione di compressione del calcestruzzo
Sc med	Massima tensione media di compressione del calcestruzzo
Sf max	Tensione massima nell'acciaio
staffe	Vengono riportati i dati del tratto di staffatura in cui cade la sezione di verifica; in particolare: numero dei bracci, diametro, passo, lunghezza tratto
Tau max	Tensione massima tangenziale nel cls
Rif. comb	Combinazioni in cui si generano i seguenti valori di tensione: Sc max, Sc med, Sf max, Tau max
AfV	area dell'armatura atta ad assorbire le azioni di taglio
AfT	area dell'armatura atta ad assorbire le azioni di torsione
Scorr. P	Scorrimento dei piegati
Af long.	Area del ferro longitudinale aggiuntivo per assorbire la torsione

Con riferimento al **Documento di Affidabilità** "Test di validazione del software di calcolo PRO\_SAP e dei moduli aggiuntivi PRO\_SAP Modulo Geotecnico, PRO\_CAD nodi acciaio e PRO\_MST" - versione Maggio 2011, disponibile per il download sul sito [www.2si.it](http://www.2si.it), si segnalano i seguenti esempi applicativi:

Test N°	Titolo
24	TENSIONI E ROTAZIONI RISPETTO ALLA CORDA DI ELEMENTI TRAVE

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27	FRECCIA DI ELEMENTI TRAVE
41	GERARCHIA DELLE RESISTENZE PER TRAVI IN C.A.
42	GERARCHIA DELLE RESISTENZE PER PILASTRI IN C.A.
43	VERIFICA ALLE TA DI STRUTTURE IN C.A.
44	VERIFICA AGLI SLU DI STRUTTURE IN C.A.
46	VERIFICA A PUNZONAMENTO ALLO SLU DI TRAVI IN C.A.
47	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 9/1/96
48	PROGETTAZIONE A TAGLIO DI STRUTTURE IN C.A. SECONDO IL D.M. 14/1/2008
49	VERIFICA ALLO SLE (TENSIONI E FESSURAZIONE) DI STRUTTURE IN C.A.
50	VERIFICA ALLO SLE (DEFORMAZIONE) DI STRUTTURE IN C.A.
52	SOVRARESISTENZE
53	DETTAGLI COSTRUTTIVI C.A.: LIMITI D'ARMATURA PILASTRI E NODI TRAVE-PILASTRO
68	VALUTAZIONE EFFETTO P- $\delta$ SU PILASTRATA
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120	PROGETTO E VERIFICA DI TRAVI PREM

## 21 VERIFICHE ELEMENTI PARETE E/O GUSCIO IN C.A.

### 21.1 LEGENDA TABELLA VERIFICHE ELEMENTI PARETE E GUSCIO IN C.A.

Per le pareti in c.a., in ottemperanza al cap. 7 del DM 17-01-18, viene effettuata una doppia progettazione: sia come *Singolo Elemento* sia come *Parete Sismica* o *Parete Debolmente Armata*.

Per la progettazione come *Singolo Elemento* di ogni elemento vengono riportati il codice dello stato di verifica con le sigle **Ok** e **NV**, il rapporto  $x/d$ , la verifica per sollecitazioni ultime (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti), gli sforzi membranali e flessionali, il quantitativo di armatura nella direzione principale e secondaria sia inferiore che superiore e il quantitativo di armatura a taglio.

Per la progettazione come *Parete Sismica* o *Parete Debolmente Armata* vengono riportate invece le caratteristiche geometriche della parete e delle zone dissipative (quest'ultime solo nel caso di parete sismica), i coefficienti di verifica a compressione assiale, pressoflessione e sollecitazioni taglianti.

Inoltre vengono riportate per ogni quota significativa l'armatura principale e secondaria, l'armatura in zona confinata (solo per parete sismica) e non confinata, l'armatura concentrata all'estremità (per pareti debolmente armate), lo sforzo assiale aggiuntivo per  $q$  superiore a 2 e i valori di iniluppo di taglio e momento. Per le pareti debolmente armate viene riportato anche lo stato di verifica relativo alla snellezza.

Le azioni derivate dall'analisi, in ogni combinazione di calcolo, sono elaborate come previsto al punto 7.4.4.5.1: traslazione del momento, incremento e variazione diagramma taglio, incremento e decremento sforzo assiale

La progettazione nel caso dei gusci viene effettuata una progettazione come *Singolo Elemento*, riportando in tabella il rapporto  $x/d$ , la verifica per sollecitazioni ultime, (verifica a compressione media gli sforzi membranali, verifica a presso-flessionale e verifica a sollecitazioni taglianti) di ogni elemento.

Per ogni elemento, viene riportata inoltre la maglia di armatura necessaria in relazione alle risultanze della progettazione dei nodi dell'elemento stesso. Le quantità di armature necessarie sono armature (disposte rispettivamente in direzione principale e secondaria, inferiore e superiore) distribuite nell'elemento ed espresse in centimetri quadri per sviluppo lineare pari ad un metro.

Nel caso dei gusci viene effettuata, inoltre, la verifica a punzonamento, riportando in tabella il codice dello stato di verifica, il coefficiente di verifica per piastre prive di armature a taglio lungo il perimetro resistente e lungo il perimetro del pilastro, coefficiente di incremento dovuto ai momenti flettenti, fattore di amplificazione per le fondazioni, il fattore di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta, il quantitativo di armatura a punzonamento, il numero di serie di armature, il numero di braccia di armatura ed il riferimento alla combinazione più gravosa.

#### Simbologia adottata nelle tabelle di verifica

Per gli elementi con progettazione "*Singolo Elemento ...*" è presente una tabella con i simboli di seguito descritti:

Macro Guscio	Numero del macroelemento di tipo guscio (elementi non verticali contigui ed analoghi per proprietà)
Macro Setto	Numero del macroelemento di tipo setto (elementi verticali contigui ed analoghi per proprietà)
Spessore	Spessore della parete
Id Materiale	Codice del materiale assegnato all'elemento
Id Criterio	Codice del criterio di progetto assegnato all'elemento
Progettazione	Sigla tipo di Elemento: - Singolo Elemento; - Singolo Elemento FONDAZIONE; - Singolo Elemento NON DISSIPATIVO

Per gli elementi con progettazione "*Parete Sismica* o *Parete Debolmente Armata*" è presente una tabella con i simboli di seguito descritti:

Parete	Numero della PARETE SISMICA
Parete PDA	Numero della PARETE DEBOLMENTE ARMATA
H totale	Altezza complessiva della parete
Spessore	Spessore della parete
H critica	Altezza come da punto 7.4.4.5.1 per traslazione momento (solo in Parete Sismica)
H critica V	Altezza della zona dissipativa (solo in Parete Sismica)

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L totale	Larghezza di base della parete
L confinata	Lunghezza della zona dissipativa (solo in Parete Sismica)
Verif. N	Verifica di cui al punto 7.4.4.5.1 compressione semplice
Verif. N-M	Verifica di cui al punto 7.4.4.5.1 pressoflessione
Fattore V	Fattore di amplificazione del taglio di cui al punto 7.4.4.5.1
Diagramma V	Diagramma elaborato per effetto modi superiori come da fig. 7.4.4
Verif. V	Verifica di cui al punto 7.4.4.5.1 taglio (compressione cls, trazione acciaio, scorrimento in zona critica) (solo in Parete Sismica)
Verifica Snellezza	Verifica di cui al punto 7.4.4.5.1 limitazione compressione per prevenire l'instabilità (solo in Parete Debolmente Armata)
Prog. composta	Sigla per la progettazione composta

Per le verifiche degli elementi con progettazione "Singolo Elemento ..." e Progettazione Composta è presente una tabella con i simboli di seguito descritti:

Nodo	numero del nodo
Stato	codice di verifica dell'elemento <b>ok</b> o <b>NV</b>
x/d	rapporto tra posizione dell'asse neutro e altezza utile alla rottura della sezione (per sola flessione)
V N/M	Verifica delle sollecitazioni Normali (momento e sforzo normale)
Ver. rid	Rapporto Nd/Nu (Nu ottenuto con riduzione del 25% di fcd)
Af pr+	quantità di armatura richiesta in direzione principale relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af pr-	quantità di armatura richiesta in direzione principale relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec+	quantità di armatura richiesta in direzione secondaria relativa alla faccia positiva (estradosso piastre) (valore derivante da calcolo o minimo normativo)
Af sec-	quantità di armatura richiesta in direzione secondaria relativa alla faccia negativa (intradosso piastre) (valore derivante da calcolo o minimo normativo)
Nz No Nzo	Sforzi membranali per pareti e/o setti verticali
Mz Mo Mzo	Sforzi flessionali per pareti e/o setti verticali
Nx Ny Nxy	Sforzi membranali per gusci orizzontali
Mx My Mxy	Sforzi flessionali per gusci orizzontali

Nodo	numero del nodo
Stato	codice di verifica dell'elemento <b>ok</b> o <b>NV</b>
Max tau	Tensione tangenziale Massima
Ver V pr	Verifica a taglio nella direzione principale lato calcestruzzo
Ver V sec	Verifica a taglio nella direzione secondaria lato calcestruzzo
Af V pr	Armatura nella direzione principale
V pr-	Verifica dell'armatura nella direzione principale
Af V sec	Armatura nella direzione secondaria
V sec-	Verifica dell'armatura nella direzione secondaria

Per le verifiche degli elementi con progettazione "Parete Sismica o Parete Debolmente Armata", oltre alla tabella con le verifiche per gli elementi con progettazione "Singolo Elemento ...", è presente una tabella con i simboli di seguito descritti:

Quota	Ascissa verticale di riferimento
Af conf.	Numero e diametro armatura presente in una zona confinata
Af std	Diametro e passo armatura in zona non confinata (doppia maglia)
Af estremi	Diametro dei ferri di estremità del pannello; se posto uguale 0, viene utilizzato il diametro standard
Af V (ori)	Diametro e passo armatura orizzontale (doppia maglia)
Ver. N	Rapporto tra azione di calcolo e resistenza a compressione (normalizzato a 1 in quanto da confrontare con 40% in CDB e 35 % in CDA)
Ver. N/M	Rapporto tra azione di calcolo e resistenza a pressoflessione
Ver. V acc(7)	Rapporto tra azione di calcolo e resistenza a taglio-trazione per alfaS minore di 2 secondo paragrafo 7.4.4.5.1
Ver. V cls	Rapporto tra azione di calcolo e resistenza a taglio-compressione
Ver. V acc	Rapporto tra azione di calcolo e resistenza a taglio-trazione
Ver. V scorr.	Rapporto tra azione di calcolo e resistenza a taglio scorrimento
N add	Sforzo assiale di cui al punto 7.4.4.5.1 da sommare e sottrarre nelle verifiche quando q supera 2
N invil M invil	Inviluppo del Momento e Sforzo Normale come al punto 7.4.4.5.1 (informativo) (solo in Parete Sismica)

Quota	Ascissa verticale di riferimento
N v.N	Valore dello sforzo assiale per cui Ver. N attinge il massimo valore
N v.M/N, M v.M/N	Valore dello sforzo assiale e momento per cui Ver. N/M attinge il massimo valore
N v.M/N, M v.M/N Mo v.M/N	Valore dello sforzo assiale e dei momenti per cui Ver. N/M attinge il massimo valore (per le pareti estese debolmente armate)
N v.Vcls, V v.Vcls,	Valore dello sforzo assiale e taglio per cui Ver. V. cls attinge il massimo valore

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N v.Vacc, M v.Vacc, V v.Vacc,	Valore dello sforzo assiale, momento e taglio per cui Ver. V. acc attinge il massimo valore
N v.Vscorr, M v.Vscorr, V v.Vscorr,	Valore dello sforzo assiale, momento e taglio per cui Ver. V. scorr.e
N v.N	Valore dello sforzo assiale per cui Ver. N attinge il massimo valore
N v.M/N, M v.M/N	Valore dello sforzo assiale e momento per cui Ver. N/M attinge il massimo valore
N v.M/N, M v.M/N Mo v.M/N	Valore dello sforzo assiale e dei momenti per cui Ver. N/M attinge il massimo valore (per le pareti estese debolmente armate)
N v.Vcls, V v.Vcls,	Valore dello sforzo assiale e taglio per cui Ver. V. cls attinge il massimo valore

Quota	Ascissa verticale di riferimento
CtgT Vcls	Valore di ctg(teta) adottato nella verifica V compressione cls
Vrsd Vcls	Valore della resistenza a taglio trazione (armatura di calcolo)
Vrcd Vcls	Valore della resistenza a taglio compressione
CtgT Vacc	Valore di ctg(teta) adottato nella verifica V trazione armatura
Vrsd Vacc	Valore della resistenza a taglio trazione (armatura presente)
Vrcd Vacc	Valore della resistenza a taglio compressione
Vdd	Valore del contributo alla resistenza allo scorrimento come da [7.4.20]
Vid	Valore del contributo alla resistenza allo scorrimento come da [7.4.21]
A s.i.	Somma delle aree di armature
Incli.	Angolo di inclinazione delle armature
Dist.	Distanza alla base tra le armature inclinate

Quota	Ascissa verticale di riferimento
V[7.4.16]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.16)
N M V	Sollecitazioni di calcolo della condizione più gravosa
Alfas	Rapporto di Taglio
Vrd,c	Resistenza a taglio degli elementi non armati
VRd,s	Resistenza a taglio nei confronti dello scorrimento
V[7.4.17]	Verifica a taglio-trazione dell'armatura dell'anima (7.4.17)
roH	Rapporto tra l'armatura orizzontale e l'area della sezione relativa di calcestruzzo
roV	Rapporto tra l'armatura verticale e l'area della sezione relativa di calcestruzzo
roN	Sforzo normale adimensionalizzato Ned/(bw fyd)

**Per la verifica a Punzonamento è presente una tabella con i simboli di seguito descritti:**

Nodo	numero del nodo
Stato	codice di verifica dell'elemento <b>ok</b> o <b>NV</b>
V. 6.47	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro resistente U1
V. 6.53	Fattore di sicurezza per la verifica per piastre prive di armature a taglio lungo il perimetro del pilastro U0
Beta	Fattore di incremento dovuto ai momenti flettenti
f. a fon	fattore di amplificazione per le fondazioni (solo per gusci di fondazione)
f. Uout	fattore di amplificazione dell'altezza utile per individuare il perimetro di verifica lungo il quale l'armatura a taglio non è richiesta
Aw tot	Quantitativo di armatura per la verifica di piastre munite di armatura (formula 6.52 dell'EC2)
Asw,min	Quantitativo minimo di armatura previsto dai dettagli costruttivi (formula 9.11 dell'EC2)
n. x serie	Numero di serie di armature
n.ser 0(R)	Numero di braccia delle armature in direzione 0 (o numero di braccia radiale)
n.ser 90	Numero di braccia delle armature in direzione 90 (solo se armatura cruciforme)
Rif. cmb	Riferimento combinazioni da cui si generano le verifiche più gravose

● **PROGETTAZIONE DELLE FONDAZIONI**

Il D.M.17/01/2018 - par: 7.2.5 prevede:

"Sia per CD"A" sia per CD"B" il dimensionamento delle strutture di fondazione e la verifica di sicurezza del complesso fondazione-terreno devono essere eseguiti assumendo come azione in fondazione, trasmessa dagli elementi soprastanti, una tra le seguenti:

- quella derivante dall'analisi strutturale eseguita ipotizzando comportamento strutturale non dissipativo;
- [...];
- quella trasferita dagli elementi soprastanti nell'ipotesi di comportamento strutturale dissipativo, amplificata di un coefficiente pari a 1,30 in CD"A" e 1,10 in CD"B";

Nel contesto visualizzazione risultati e nella stampa della relazione sulle fondazioni PRO\_SAP mostra le sollecitazioni che derivano dall'analisi non incrementate sia in termini di pressioni sul terreno che in termini di sollecitazioni.

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La progettazione degli elementi strutturali con proprietà fondazione è effettuata da PRO\_SAP (per travi e platee) o da PRO\_CAD Plinti (per plinti e pali di fondazione) incrementando le sollecitazioni delle combinazioni con sisma di un coefficiente pari 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

Per i bicchieri dei plinti di fondazione prefabbricati l'incremento delle sollecitazioni ha un fattore pari a 1.2 in CDB e 1.35 in CDA.  
N.B.: nel caso di comportamento strutturale non dissipativo la progettazione viene effettuata senza nessun incremento.

Le verifiche geotecniche vengono effettuate dal modulo geotecnico incrementando automaticamente le sollecitazioni del fattore 1.1 in CDB e 1.3 in CDA per pali, plinti, travi e platee.

N.B.: nel caso di comportamento strutturale non dissipativo le verifiche geotecniche vengono effettuate senza nessun incremento.

Macro Guscio	Spessore	Id Materiale	Id Criterio	Progettazione
	cm			
1	350.00	3	1	Singolo elemento

Nodo	Stato	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N		N xy	M		M xy
									daN/cm	daN/cm		daN	daN	
1	ok	0.24	0.9	0.3	148.8	434.4	194.3	461.0	-1018.0	-1.431e+04	-7647.8	-1.171e+06	-2.272e+06	-1.047e+06
7	ok	0.02	0.3	1.73e-03	108.9	108.9	108.9	108.9	-9.1	-9.1	0.3	-3.585e+05	-3.585e+05	6.548e+04
8	ok	0.02	0.3	2.12e-03	108.9	108.9	108.9	108.9	-8.5	-9.3	0.3	-4.193e+05	-3.686e+05	5.851e+04
9	ok	0.02	0.3	7.20e-03	108.9	108.9	108.9	108.9	-7.7	-7.7	0.8	-4.433e+05	-4.433e+05	6.345e+04
10	ok	0.02	0.3	2.50e-03	108.9	108.9	108.9	108.9	-9.3	-8.5	0.3	-3.686e+05	-4.193e+05	5.851e+04
11	ok	0.02	0.5	3.14e-02	108.9	108.9	108.9	108.9	382.6	249.2	-537.7	-5.529e+05	-4.350e+05	6.587e+04
12	ok	0.02	0.3	7.23e-03	108.9	108.9	108.9	108.9	-9.1	-8.9	8.65e-02	-3.689e+05	-4.709e+05	3.636e+04
13	ok	0.02	0.8	3.54e-02	108.9	108.9	108.9	108.9	549.8	1605.2	-372.7	-4.872e+05	-9.048e+05	7.395e+04
14	ok	0.02	0.4	7.09e-03	108.9	108.9	108.9	108.9	36.6	291.1	-112.7	-3.644e+05	-5.224e+05	4.644e+04
15	ok	0.02	0.7	1.48e-02	108.9	108.9	108.9	108.9	39.7	1667.0	-87.4	-5.336e+05	-8.605e+05	5.761e+04
16	ok	0.02	0.4	3.17e-03	108.9	108.9	108.9	108.9	-96.8	337.8	-95.3	-3.882e+05	-5.364e+05	1.252e+04
17	ok	0.02	0.4	7.34e-03	108.9	108.9	108.9	108.9	-292.1	212.6	228.0	-4.955e+05	-5.761e+05	-5133.3
18	ok	0.02	0.3	2.80e-03	108.9	108.9	108.9	108.9	-99.7	111.8	15.0	-3.990e+05	-4.911e+05	-1.995e+04
19	ok	0.02	0.3	2.78e-03	108.9	108.9	108.9	108.9	-41.3	-17.3	113.6	-4.598e+05	-4.836e+05	-3.189e+04
20	ok	0.02	0.3	1.73e-03	108.9	108.9	108.9	108.9	-35.2	-2.2	61.6	-3.892e+05	-4.320e+05	-4.385e+04
21	ok	0.02	0.3	4.16e-03	108.9	108.9	108.9	108.9	-8.9	-9.1	8.20e-02	-4.709e+05	-3.689e+05	3.636e+04
22	ok	0.02	0.5	1.71e-02	108.9	108.9	108.9	108.9	249.2	382.6	-537.7	-4.350e+05	-5.529e+05	6.587e+04
23	ok	0.02	1.0	8.88e-02	118.0	111.4	118.0	111.4	2509.6	1170.6	-688.1	-7.894e+05	-6.518e+05	3.799e+05
24	ok	0.14	1.0	0.2	189.0	110.8	278.2	110.8	1406.6	2429.1	-812.8	-7.893e+05	-1.331e+06	3.924e+05
25	ok	0.04	1.1	9.04e-02	156.1	108.9	156.1	108.9	1821.6	1480.9	3074.4	-8.852e+05	-1.108e+06	-2.615e+05
26	ok	0.02	0.5	2.06e-02	108.9	108.9	108.9	108.9	790.0	-339.3	327.3	-6.474e+05	-6.760e+05	6563.7
27	ok	0.02	0.4	3.49e-03	108.9	108.9	108.9	108.9	162.2	-145.3	110.0	-5.239e+05	-5.295e+05	-1.396e+04
28	ok	0.02	0.3	4.78e-03	108.9	108.9	108.9	108.9	-10.4	-9.5	-0.2	-4.909e+05	-3.674e+05	831.0
29	ok	0.02	0.4	2.78e-02	108.9	108.9	108.9	108.9	-19.3	-1052.5	349.9	-4.712e+05	-5.272e+05	4.612e+04
30	ok	0.02	0.6	7.44e-02	108.9	108.9	108.9	108.9	405.7	-3474.5	1667.1	-6.640e+05	-8.350e+05	4.136e+04
31	ok	0.03	0.7	7.24e-02	145.3	108.9	127.0	108.9	3613.1	-964.3	938.9	-6.224e+05	-9.625e+05	3.015e+05
32	ok	0.02	0.6	1.98e-02	108.9	108.9	108.9	108.9	1203.7	-297.4	599.0	-6.965e+05	-7.625e+05	-8.056e+04
33	ok	0.02	0.4	3.91e-03	108.9	108.9	108.9	108.9	211.9	-179.7	78.0	-5.438e+05	-5.558e+05	-5529.1
34	ok	0.02	0.3	4.22e-03	108.9	108.9	108.9	108.9	-8.9	-9.1	-8.65e-02	-4.709e+05	-3.689e+05	-3.636e+04
35	ok	0.02	0.5	1.74e-02	108.9	108.9	108.9	108.9	249.2	382.6	537.7	-4.350e+05	-5.529e+05	-6.587e+04
36	ok	0.02	1.0	9.19e-02	124.4	108.9	124.4	108.9	2596.1	1277.6	868.1	-8.219e+05	-6.703e+05	-3.909e+05
37	ok	0.14	1.0	0.2	191.7	114.8	282.8	114.8	1191.5	2501.2	822.6	-8.083e+05	-1.337e+06	-3.989e+05
38	ok	0.04	1.0	9.41e-02	151.8	108.9	151.8	108.9	1748.0	1328.3	-3026.8	-8.798e+05	-1.093e+06	2.426e+05
39	ok	0.02	0.5	1.88e-02	108.9	108.9	108.9	108.9	779.6	-360.6	-321.5	-6.480e+05	-6.771e+05	-1.149e+04
40	ok	0.02	0.4	3.63e-03	108.9	108.9	108.9	108.9	160.7	-154.3	-108.4	-5.256e+05	-5.305e+05	1.156e+04
41	ok	0.02	0.3	2.12e-03	108.9	108.9	108.9	108.9	-8.5	-9.3	-0.3	-4.193e+05	-3.686e+05	-5.851e+04
42	ok	0.02	0.3	7.20e-03	108.9	108.9	108.9	108.9	-10.0	-10.3	0.7	-4.410e+05	-4.417e+05	-6.219e+04
43	ok	0.02	0.5	3.25e-02	108.9	108.9	108.9	108.9	339.6	186.9	94.5	-4.331e+05	-5.146e+05	-1.312e+05
44	ok	0.02	0.8	3.38e-02	108.9	108.9	108.9	108.9	534.4	1673.9	407.8	-5.063e+05	-9.123e+05	-7.845e+04
45	ok	0.02	0.7	1.48e-02	108.9	108.9	108.9	108.9	25.0	1607.0	93.7	-5.488e+05	-8.552e+05	-6.502e+04
46	ok	0.02	0.4	7.33e-03	108.9	108.9	108.9	108.9	-278.5	196.4	-240.9	-5.036e+05	-5.795e+05	1574.0
47	ok	0.02	0.3	2.75e-03	108.9	108.9	108.9	108.9	-33.7	-22.5	-114.1	-4.642e+05	-4.857e+05	2.955e+04
48	ok	0.02	0.3	1.73e-03	108.9	108.9	108.9	108.9	-9.1	-9.2	-0.3	-3.585e+05	-3.585e+05	-6.548e+04
49	ok	0.02	0.3	2.51e-03	108.9	108.9	108.9	108.9	-9.3	-8.5	-0.3	-3.686e+05	-4.193e+05	-5.851e+04
50	ok	0.02	0.3	7.26e-03	108.9	108.9	108.9	108.9	-10.0	-10.7	0.5	-3.696e+05	-4.691e+05	-3.745e+04
51	ok	0.02	0.4	6.85e-03	108.9	108.9	108.9	108.9	28.3	303.2	117.0	-3.756e+05	-5.255e+05	-4.664e+04
52	ok	0.02	0.4	3.27e-03	108.9	108.9	108.9	108.9	-101.9	337.3	92.9	-3.980e+05	-5.389e+05	-1.414e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

53	ok	0.02	0.3	2.86e-03	108.9	108.9	108.9	108.9	-99.3	109.9	-21.2	-4.059e+05	-4.936e+05	1.832e+04
54	ok	0.02	0.3	1.75e-03	108.9	108.9	108.9	108.9	-33.9	-3.5	-65.0	-3.936e+05	-4.340e+05	4.257e+04
55	ok	0.02	0.3	1.29e-03	108.9	108.9	108.9	108.9	-14.3	4.4	41.4	-2.812e+05	-4.155e+05	-3.069e+04
56	ok	0.02	0.3	1.17e-03	108.9	108.9	108.9	108.9	-49.0	46.1	15.1	-2.934e+05	-4.271e+05	1.071e+04
57	ok	0.02	0.2	6.61e-04	108.9	108.9	108.9	108.9	-10.9	-6.7	13.3	-2.018e+05	-3.525e+05	-2.399e+04
58	ok	0.02	0.2	6.88e-04	108.9	108.9	108.9	108.9	-30.9	7.0	0.6	-2.094e+05	-3.585e+05	1.966e+04
59	ok	0.02	0.2	4.63e-04	108.9	108.9	108.9	108.9	-9.7	-6.6	5.5	-1.280e+05	-2.929e+05	-2.039e+04
60	ok	0.02	0.2	4.65e-04	108.9	108.9	108.9	108.9	-17.4	-5.1	-3.1	-1.287e+05	-3.009e+05	3.077e+04
61	ok	0.02	0.2	4.24e-04	108.9	108.9	108.9	108.9	3.4	12.3	4.1	-6.451e+04	-2.228e+05	-2.809e+04
62	ok	0.02	0.2	4.26e-04	108.9	108.9	108.9	108.9	-6.0	-13.8	-4.0	-5.021e+04	-2.583e+05	4.824e+04
63	ok	0.02	8.93e-02	9.17e-04	108.9	108.9	108.9	108.9	10.1	22.7	30.8	7.387e+04	-1.280e+05	-2.372e+04
64	ok	0.02	0.2	7.04e-04	108.9	108.9	108.9	108.9	24.0	-0.8	-6.2	-2.971e+04	-2.407e+05	6.536e+04
65	ok	0.02	8.35e-02	4.72e-04	108.9	108.9	108.9	108.9	-3.6	-1.3	-4.6	-1.097e+04	-1.203e+05	1.646e+04
66	ok	0.02	0.1	4.18e-04	108.9	108.9	108.9	108.9	-18.6	-1.2	-7.9	318.8	-2.017e+05	6.004e+04
67	ok	0.02	0.3	1.20e-03	108.9	108.9	108.9	108.9	-50.9	10.0	-28.2	-3.080e+05	-4.010e+05	4.324e+04
68	ok	0.02	0.2	7.12e-04	108.9	108.9	108.9	108.9	-28.8	0.7	-17.3	-2.284e+05	-3.303e+05	5.578e+04
69	ok	0.02	0.2	5.27e-04	108.9	108.9	108.9	108.9	-17.4	-1.3	-14.8	-1.584e+05	-2.610e+05	6.459e+04
70	ok	0.02	0.2	5.71e-04	108.9	108.9	108.9	108.9	-3.5	5.3	-4.2	-1.033e+05	-1.726e+05	6.907e+04
71	ok	0.02	8.41e-02	1.12e-03	108.9	108.9	108.9	108.9	-15.6	60.9	8.6	4.649e+04	-9.341e+04	7.084e+04
72	ok	0.02	8.20e-02	4.74e-04	108.9	108.9	108.9	108.9	7.3	-0.4	-6.1	-5.274e+04	-7.523e+04	5.526e+04
73	ok	0.02	0.3	1.04e-03	108.9	108.9	108.9	108.9	-20.5	-11.8	-37.5	-3.165e+05	-3.505e+05	6.147e+04
74	ok	0.02	0.2	7.17e-04	108.9	108.9	108.9	108.9	-11.7	-12.9	-23.9	-2.497e+05	-2.777e+05	7.707e+04
75	ok	0.02	0.2	5.12e-04	108.9	108.9	108.9	108.9	-6.8	-12.8	-15.9	-1.902e+05	-2.096e+05	9.443e+04
76	ok	0.02	0.2	3.99e-04	108.9	108.9	108.9	108.9	-0.3	-11.2	-6.3	-1.427e+05	-1.502e+05	1.187e+05
77	ok	0.02	0.2	8.31e-04	108.9	108.9	108.9	108.9	9.7	49.6	-5.0	-1.280e+05	-1.577e+05	1.277e+05
78	ok	0.02	0.2	3.07e-04	108.9	108.9	108.9	108.9	-1.2	26.6	-13.5	-1.000e+05	-1.101e+05	1.189e+05
79	ok	0.02	0.3	1.29e-03	108.9	108.9	108.9	108.9	-0.8	-31.8	-47.0	-3.843e+05	-3.622e+05	5.360e+04
80	ok	0.02	0.2	8.62e-04	108.9	108.9	108.9	108.9	1.6	-27.0	-27.9	-3.161e+05	-2.685e+05	6.799e+04
81	ok	0.02	0.2	6.77e-04	108.9	108.9	108.9	108.9	3.7	-22.4	-20.8	-2.523e+05	-1.848e+05	7.521e+04
82	ok	0.02	0.2	7.29e-04	108.9	108.9	108.9	108.9	24.4	-3.3	-19.9	-1.631e+05	-1.233e+05	8.025e+04
83	ok	0.02	8.39e-02	9.13e-04	108.9	108.9	108.9	108.9	-7.6	-15.8	-35.3	-6.313e+04	5.674e+04	9.335e+04
84	ok	0.02	8.14e-02	4.63e-04	108.9	108.9	108.9	108.9	-10.2	-0.1	-4.3	-7.410e+04	-5.283e+04	5.509e+04
85	ok	0.02	0.3	1.55e-03	108.9	108.9	108.9	108.9	35.8	-66.2	-40.5	-4.390e+05	-3.718e+05	3.100e+04
86	ok	0.02	0.3	9.53e-04	108.9	108.9	108.9	108.9	20.0	-43.3	-20.5	-3.689e+05	-2.575e+05	4.091e+04
87	ok	0.02	0.2	6.66e-04	108.9	108.9	108.9	108.9	10.6	-31.3	-11.6	-3.088e+05	-1.576e+05	5.077e+04
88	ok	0.02	0.2	4.27e-04	108.9	108.9	108.9	108.9	4.5	-15.9	-6.5	-2.650e+05	-6.505e+04	6.563e+04
89	ok	0.02	0.2	7.68e-04	108.9	108.9	108.9	108.9	22.5	31.9	-16.7	-2.599e+05	-3.691e+04	7.350e+04
90	ok	0.02	0.2	3.04e-04	108.9	108.9	108.9	108.9	24.9	-0.6	-19.9	-2.137e+05	-2601.9	6.583e+04
91	ok	0.02	0.3	1.62e-03	108.9	108.9	108.9	108.9	53.1	-83.4	1.4	-4.594e+05	-3.752e+05	-988.7
92	ok	0.02	0.3	9.81e-04	108.9	108.9	108.9	108.9	26.9	-50.5	1.1	-3.887e+05	-2.534e+05	-957.4
93	ok	0.02	0.2	7.35e-04	108.9	108.9	108.9	108.9	20.7	-36.7	0.9	-3.206e+05	-1.545e+05	-2057.7
94	ok	0.02	0.2	7.47e-04	108.9	108.9	108.9	108.9	31.6	-15.1	-0.7	-2.390e+05	-7.452e+04	-1.564e+04
95	ok	0.02	8.62e-02	8.30e-04	108.9	108.9	108.9	108.9	12.4	-34.7	-21.4	-1.198e+05	-1.113e+05	-4956.0
96	ok	0.02	8.54e-02	4.16e-04	108.9	108.9	108.9	108.9	1.8	-7.9	-5.4	-1.226e+05	-1.180e+04	1.802e+04
97	ok	0.02	0.3	1.52e-03	108.9	108.9	108.9	108.9	34.3	-63.5	41.6	-4.372e+05	-3.713e+05	-3.264e+04
98	ok	0.02	0.3	9.39e-04	108.9	108.9	108.9	108.9	19.2	-42.1	20.9	-3.676e+05	-2.575e+05	-4.214e+04
99	ok	0.02	0.2	6.57e-04	108.9	108.9	108.9	108.9	10.1	-30.8	11.7	-3.078e+05	-1.578e+05	-5.172e+04
100	ok	0.02	0.2	4.26e-04	108.9	108.9	108.9	108.9	4.3	-15.7	6.4	-2.642e+05	-6.531e+04	-6.631e+04
101	ok	0.02	0.2	7.69e-04	108.9	108.9	108.9	108.9	22.4	32.0	16.8	-2.594e+05	-3.718e+04	-7.393e+04
102	ok	0.02	0.2	3.04e-04	108.9	108.9	108.9	108.9	24.6	-0.3	19.8	-2.135e+05	-2668.5	-6.578e+04
103	ok	0.02	0.3	1.27e-03	108.9	108.9	108.9	108.9	-2.1	-29.4	45.9	-3.814e+05	-3.614e+05	-5.472e+04
104	ok	0.02	0.2	8.42e-04	108.9	108.9	108.9	108.9	0.9	-25.9	27.3	-3.139e+05	-2.682e+05	-6.868e+04
105	ok	0.02	0.2	6.64e-04	108.9	108.9	108.9	108.9	3.2	-21.9	20.3	-2.507e+05	-1.849e+05	-7.565e+04
106	ok	0.02	0.2	7.20e-04	108.9	108.9	108.9	108.9	24.1	-3.0	19.6	-1.621e+05	-1.235e+05	-8.050e+04
107	ok	0.02	8.40e-02	9.02e-04	108.9	108.9	108.9	108.9	-7.1	-16.0	34.9	-6.295e+04	5.614e+04	-9.338e+04
108	ok	0.02	8.13e-02	4.63e-04	108.9	108.9	108.9	108.9	-10.7	-0.4	4.0	-7.399e+04	-5.271e+04	-5.502e+04
109	ok	0.02	0.3	1.01e-03	108.9	108.9	108.9	108.9	-20.9	-11.0	35.9	-3.134e+05	-3.495e+05	-6.201e+04
110	ok	0.02	0.2	6.96e-04	108.9	108.9	108.9	108.9	-11.9	-12.7	22.8	-2.473e+05	-2.771e+05	-7.720e+04
111	ok	0.02	0.2	4.99e-04	108.9	108.9	108.9	108.9	-6.9	-12.9	15.1	-1.885e+05	-2.094e+05	-9.432e+04
112	ok	0.02	0.2	3.98e-04	108.9	108.9	108.9	108.9	-0.5	-11.5	5.8	-1.416e+05	-1.502e+05	-1.184e+05
113	ok	0.02	0.2	8.26e-04	108.9	108.9	108.9	108.9	9.4	49.2	4.8	-1.272e+05	-1.576e+05	-1.274e+05
114	ok	0.02	0.2	3.10e-04	108.9	108.9	108.9	108.9	-1.5	26.2	13.0	-9.969e+04	-1.097e+05	-1.185e+05
115	ok	0.02	0.3	1.16e-03	108.9	108.9	108.9	108.9	-50.4	9.9	25.9	-3.038e+05	-3.991e+05	-4.371e+04
116	ok	0.02	0.2	6.87e-04	108.9	108.9	108.9	108.9	-28.3	0.3	16.0	-2.256e+05	-3.289e+05	-5.573e+04
117	ok	0.02	0.2	5.11e-04	108.9	108.9	108.9	108.9	-17.1	-1.9	13.9	-1.567e+05	-2.602e+05	-6.431e+04
118	ok	0.02	0.2	5.58e-04	108.9	108.9	108.9	108.9	-3.3	4.5	3.4	-1.023e+05	-1.722e+05	-6.869e+04
119	ok	0.02	8.41e-02	1.12e-03	108.9	108.9	108.9	108.9	-15.4	60.3	-8.7	4.641e+04	-9.355e+04	-7.057e+04
120	ok	0.02	8.18e-02	4.81e-04	108.9	108.9	108.9	108.9	7.2	-0.8	5.8	-5.255e+04	-7.511e+04	-5.513e+04
121	ok	0.02	0.3	1.17e-03	108.9	108.9	108.9	108.9	-46.7	44.5	-16.4	-2.882e+05	-4.246e+05	-1.104e+04
122	ok	0.02	0.2	6.88e-04	108.9	108.9	108.9	108.9	-29.7	5.7	-1.5	-2.063e+05	-3.565e+05	-1.956e+04
123	ok	0.02	0.2	4.65e-04	108.9	108.9	108.9	108.9	-16.6	-6.1	2.6	-1.271e+05	-2.994e+05	-3.048e+04

**PROJETTO engineering s.r.l.**  
società d'ingegneria

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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
Certificate No. Q204 Certificate No. E81 Certificate No. E01

Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

124	ok	0.02	0.2	4.26e-04	108.9	108.9	108.9	108.9	-5.6	-14.6	3.7-4.951e+04-2.572e+05-4.784e+04
125	ok	0.02	0.2	6.94e-04	108.9	108.9	108.9	108.9	24.0	-0.8	6.2-2.971e+04-2.407e+05-6.536e+04
126	ok	0.02	0.1	4.18e-04	108.9	108.9	108.9	108.9	-18.8	-2.3	7.4 361.2-2.007e+05-5.969e+04
127	ok	0.02	0.3	1.32e-03	108.9	108.9	108.9	108.9	-11.1	1.2	-41.3-2.754e+05-4.128e+05 3.067e+04
128	ok	0.02	0.2	6.61e-04	108.9	108.9	108.9	108.9	-9.3	-8.4	-13.3-1.986e+05-3.502e+05 2.400e+04
129	ok	0.02	0.2	4.63e-04	108.9	108.9	108.9	108.9	-8.7	-7.9	-5.5-1.263e+05-2.912e+05 2.037e+04
130	ok	0.02	0.2	4.24e-04	108.9	108.9	108.9	108.9	4.1	11.1	-4.2-6.377e+04-2.217e+05 2.799e+04
131	ok	0.02	8.90e-02	9.21e-04	108.9	108.9	108.9	108.9	10.0	21.6	-30.3 7.348e+04-1.277e+05 2.358e+04
132	ok	0.02	8.32e-02	4.83e-04	108.9	108.9	108.9	108.9	-3.5	-1.9	4.6-1.088e+04-1.199e+05-1.637e+04
133	ok	0.02	0.3	1.39e-03	108.9	108.9	108.9	108.9	-9.6	-8.6	-0.1-2.826e+05-3.961e+05 3.740e+04
134	ok	0.02	0.2	6.88e-04	108.9	108.9	108.9	108.9	-9.5	-10.8	-0.1-2.061e+05-3.356e+05 4.006e+04
135	ok	0.02	0.2	4.65e-04	108.9	108.9	108.9	108.9	0.1	-19.4	3.6-1.322e+05-2.660e+05 6.173e+04
136	ok	0.02	0.2	5.76e-04	108.9	108.9	108.9	108.9	-1.2	-17.6	5.4-5.825e+04-2.328e+05 7.011e+04
137	ok	0.02	0.2	4.85e-04	108.9	108.9	108.9	108.9	26.7	0.4	-9.1-3.462e+04-2.324e+05 7.290e+04
138	ok	0.02	0.1	4.09e-04	108.9	108.9	108.9	108.9	-10.1	-7.2	-6.9 -1348.9-1.970e+05 5.924e+04
139	ok	0.02	0.3	1.02e-03	108.9	108.9	108.9	108.9	-9.5	-9.2	0.4-2.913e+05-3.513e+05 6.211e+04
140	ok	0.02	0.2	6.38e-04	108.9	108.9	108.9	108.9	-9.9	-9.7	0.7-2.224e+05-2.935e+05 6.728e+04
141	ok	0.02	0.2	4.99e-04	108.9	108.9	108.9	108.9	-8.6	-8.1	-1.7-1.587e+05-2.347e+05 7.142e+04
142	ok	0.02	0.1	4.77e-04	108.9	108.9	108.9	108.9	4.0	1.5	1.5-1.073e+05-1.571e+05 7.324e+04
143	ok	0.02	8.16e-02	1.06e-03	108.9	108.9	108.9	108.9	-5.1	-23.2	-8.7 4.951e+04-6.584e+04 8.301e+04
144	ok	0.02	7.95e-02	6.31e-04	108.9	108.9	108.9	108.9	-2.3	-14.9	1.0-5.016e+04-7.374e+04 5.362e+04
145	ok	0.02	0.2	9.43e-04	108.9	108.9	108.9	108.9	-8.7	-8.8	7.09e-02-2.967e+05-2.958e+05 7.049e+04
146	ok	0.02	0.2	6.40e-04	108.9	108.9	108.9	108.9	-10.1	-9.4	0.6-2.383e+05-2.390e+05 7.906e+04
147	ok	0.02	0.2	6.01e-04	108.9	108.9	108.9	108.9	-10.2	-9.7	2.0-1.822e+05-1.859e+05 9.237e+04
148	ok	0.02	0.2	6.60e-04	108.9	108.9	108.9	108.9	-10.3	-6.8	5.3-1.322e+05-1.418e+05 1.136e+05
149	ok	0.02	0.2	6.48e-04	108.9	108.9	108.9	108.9	28.0	-0.1	8.1-1.389e+05-1.257e+05 1.208e+05
150	ok	0.02	0.1	7.15e-04	108.9	108.9	108.9	108.9	-15.3	0.5	-2.1-9.508e+04-1.010e+05 1.120e+05
151	ok	0.02	0.3	1.13e-03	108.9	108.9	108.9	108.9	-9.2	-9.6	0.4-3.513e+05-2.913e+05 6.211e+04
152	ok	0.02	0.2	7.61e-04	108.9	108.9	108.9	108.9	-9.7	-9.9	0.7-2.935e+05-2.224e+05 6.728e+04
153	ok	0.02	0.2	6.47e-04	108.9	108.9	108.9	108.9	-8.1	-8.6	-1.7-2.347e+05-1.587e+05 7.142e+04
154	ok	0.02	0.1	6.43e-04	108.9	108.9	108.9	108.9	1.5	4.1	1.5-1.571e+05-1.073e+05 7.324e+04
155	ok	0.02	7.69e-02	1.03e-03	108.9	108.9	108.9	108.9	-23.2	-5.1	-8.7-6.584e+04 4.951e+04 8.301e+04
156	ok	0.02	7.95e-02	7.04e-04	108.9	108.9	108.9	108.9	-14.9	-2.3	1.0-7.374e+04-5.016e+04 5.362e+04
157	ok	0.02	0.3	1.30e-03	108.9	108.9	108.9	108.9	-8.6	-9.6	-0.1-3.961e+05-2.826e+05 3.740e+04
158	ok	0.02	0.2	8.58e-04	108.9	108.9	108.9	108.9	-10.8	-9.5	-0.1-3.356e+05-2.061e+05 4.006e+04
159	ok	0.02	0.2	7.39e-04	108.9	108.9	108.9	108.9	-12.2	-8.6	0.2-2.836e+05-1.305e+05 4.629e+04
160	ok	0.02	0.2	7.63e-04	108.9	108.9	108.9	108.9	-15.7	-3.6	0.7-2.457e+05-5.425e+04 5.921e+04
161	ok	0.02	0.2	5.97e-04	108.9	108.9	108.9	108.9	-0.8	24.0	-6.2-2.407e+05-2.971e+04 6.536e+04
162	ok	0.02	0.1	7.93e-04	108.9	108.9	108.9	108.9	-7.2	-10.1	-6.9-1.970e+05 -1349.1 5.924e+04
163	ok	0.02	0.3	1.38e-03	108.9	108.9	108.9	108.9	-8.8	-9.7	0.1-4.137e+05-2.783e+05 -351.8
164	ok	0.02	0.2	8.91e-04	108.9	108.9	108.9	108.9	-9.5	-9.2	0.4-3.513e+05-2.003e+05 -214.8
165	ok	0.02	0.2	7.22e-04	108.9	108.9	108.9	108.9	-8.3	-9.3	-1.0-2.924e+05-1.271e+05 1255.0
166	ok	0.02	0.2	5.94e-04	108.9	108.9	108.9	108.9	0.5	4.4	-0.7-2.208e+05-6.418e+04 1.345e+04
167	ok	0.02	8.16e-02	7.57e-04	108.9	108.9	108.9	108.9	-10.4	-8.3	-9.8-1.161e+05 9.408e+04 -6889.1
168	ok	0.02	8.20e-02	5.30e-04	108.9	108.9	108.9	108.9	-12.7	-8.3	4.0-1.182e+05-1.057e+04-1.618e+04
169	ok	0.02	0.3	1.30e-03	108.9	108.9	108.9	108.9	-8.6	-9.6	0.1-3.961e+05-2.826e+05-3.740e+04
170	ok	0.02	0.2	8.51e-04	108.9	108.9	108.9	108.9	-10.8	-9.5	0.1-3.356e+05-2.061e+05-4.006e+04
171	ok	0.02	0.2	7.32e-04	108.9	108.9	108.9	108.9	-12.2	-8.6	-0.2-2.836e+05-1.305e+05-4.629e+04
172	ok	0.02	0.2	7.63e-04	108.9	108.9	108.9	108.9	-15.7	-3.6	-0.7-2.457e+05-5.425e+04-5.921e+04
173	ok	0.02	0.2	5.95e-04	108.9	108.9	108.9	108.9	-0.8	24.0	6.2-2.407e+05-2.971e+04-6.536e+04
174	ok	0.02	0.1	7.87e-04	108.9	108.9	108.9	108.9	-7.2	-10.1	6.9-1.970e+05 -1348.8-5.924e+04
175	ok	0.02	0.3	1.13e-03	108.9	108.9	108.9	108.9	-9.2	-9.5	-0.4-3.513e+05-2.913e+05-6.211e+04
176	ok	0.02	0.2	7.45e-04	108.9	108.9	108.9	108.9	-9.7	-9.9	-0.7-2.935e+05-2.224e+05-6.728e+04
177	ok	0.02	0.2	6.34e-04	108.9	108.9	108.9	108.9	-8.1	-8.6	1.7-2.347e+05-1.587e+05-7.142e+04
178	ok	0.02	0.1	6.36e-04	108.9	108.9	108.9	108.9	1.5	4.0	-1.5-1.571e+05-1.073e+05-7.324e+04
179	ok	0.02	7.69e-02	1.04e-03	108.9	108.9	108.9	108.9	-23.2	-5.1	8.7-6.584e+04 4.951e+04-8.301e+04
180	ok	0.02	7.95e-02	7.00e-04	108.9	108.9	108.9	108.9	-14.9	-2.3	-1.0-7.374e+04-5.016e+04-5.362e+04
181	ok	0.02	0.2	9.41e-04	108.9	108.9	108.9	108.9	-8.8	-8.7	-7.08e-02-2.958e+05-2.967e+05-7.049e+04
182	ok	0.02	0.2	6.22e-04	108.9	108.9	108.9	108.9	-9.4	-10.1	-0.6-2.390e+05-2.383e+05-7.906e+04
183	ok	0.02	0.2	5.86e-04	108.9	108.9	108.9	108.9	-9.7	-10.2	-2.0-1.859e+05-1.822e+05-9.237e+04
184	ok	0.02	0.2	6.49e-04	108.9	108.9	108.9	108.9	-6.8	-10.3	-5.3-1.418e+05-1.322e+05-1.136e+05
185	ok	0.02	0.2	6.37e-04	108.9	108.9	108.9	108.9	-0.1	28.0	-8.1-1.257e+05-1.389e+05-1.208e+05
186	ok	0.02	0.1	6.97e-04	108.9	108.9	108.9	108.9	-15.3	0.5	2.1-9.508e+04-1.010e+05-1.120e+05
187	ok	0.02	0.3	1.02e-03	108.9	108.9	108.9	108.9	-9.6	-9.2	-0.4-2.913e+05-3.513e+05-6.211e+04
188	ok	0.02	0.2	6.37e-04	108.9	108.9	108.9	108.9	-9.9	-9.7	-0.7-2.224e+05-2.935e+05-6.728e+04
189	ok	0.02	0.2	4.79e-04	108.9	108.9	108.9	108.9	-8.6	-8.1	1.7-1.587e+05-2.347e+05-7.142e+04
190	ok	0.02	0.1	4.59e-04	108.9	108.9	108.9	108.9	4.1	1.5	-1.5-1.073e+05-1.571e+05-7.324e+04
191	ok	0.02	8.19e-02	1.05e-03	108.9	108.9	108.9	108.9	-5.1	-23.2	8.7 4.951e+04-6.584e+04-8.301e+04
192	ok	0.02	7.95e-02	6.21e-04	108.9	108.9	108.9	108.9	-11.7	-29.1	-7.9-4.772e+04-7.226e+04-5.205e+04
193	ok	0.02	0.3	1.37e-03	108.9	108.9	108.9	108.9	-9.6	-8.6	0.1-2.826e+05-3.961e+05-3.740e+04
194	ok	0.02	0.2	6.88e-04	108.9	108.9	108.9	108.9	-9.5	-10.8	0.1-2.061e+05-3.356e+05-4.006e+04



Progetto dell'impianto eolico con storage denominato "Contrada Sparpagliata, Donne Masi e Tostini" della potenza complessiva di 154 MW da realizzare nei Comuni di Erchie (BR), Torre Santa Susanna (BR), Manduria (TA) e Avetrana (TA)

195	ok	0.02	0.2	4.65e-04	108.9	108.9	108.9	108.9	-0.6	-18.4	-3.0-1.339e+05-2.675e+05-6.203e+04
196	ok	0.02	0.2	5.59e-04	108.9	108.9	108.9	108.9	-1.6	-16.8	-5.1-5.895e+04-2.339e+05-7.052e+04
197	ok	0.02	0.2	4.96e-04	108.9	108.9	108.9	108.9	27.0	1.4	9.5-3.498e+04-2.336e+05-7.335e+04
198	ok	0.02	0.1	3.92e-04	108.9	108.9	108.9	108.9	-10.1	-7.2	6.9 -1349.1-1.970e+05-5.924e+04

Nodo	x/d	V N/M	ver. rid	Af pr-	Af pr+	Af sec-	Af sec+	N x	N y	N xy	M x	M y	M xy
	0.24	1.05	0.34	191.72	434.42	282.78	461.00	-1018.04	-1.431e+04	-7647.82	-1.171e+06	-2.272e+06	-1.047e+06
								3613.09	2501.17	3074.41	7.387e+04	1.113e+05	3.924e+05

Nodo	Stato	Max tau daN/cm2	Ver V pr	Ver V sec	Af V pr	Af V sec	V pr daN/cm	V sec daN/cm
1	ok	61.61	1.09	1.25	114.8	132.0	1.403e+04	1.612e+04
7	ok	2.61						
8	ok	2.95						
9	ok Av	3.70	0.11	0.11	3.1	3.1	934.2	934.2
10	ok	2.95						
11	ok Av	5.02	0.18	0.09	5.3	2.7	1607.7	818.2
12	ok Av	3.51	0.13	0.05	3.8	1.6	1151.1	475.5
13	ok Av	4.93	0.19	0.05	5.6	1.4	1707.8	428.0
14	ok Av	3.61	0.14	0.03	4.1	0.8	1245.4	231.6
15	ok Av	5.44	0.19	0.09	5.6	2.7	1703.4	818.2
16	ok Av	3.70	0.14	0.05	4.2	1.6	1271.7	475.5
17	ok Av	4.89	0.15	0.12	4.3	3.6	1299.6	1096.2
18	ok Av	3.68	0.13	0.07	3.8	1.9	1170.0	583.0
19	ok Av	4.11	0.11	0.13	3.1	3.7	933.7	1124.3
20	ok Av	3.41	0.11	0.08	3.1	2.4	937.7	725.4
21	ok Av	3.51	0.05	0.13	1.6	3.8	475.5	1151.1
22	ok Av	5.02	0.09	0.18	2.7	5.3	818.2	1607.7
23	ok Av	16.10	0.45	0.45	12.9	12.9	3948.1	3948.1
24	ok Av	16.72	0.37	0.65	10.8	19.0	3292.7	5790.9
25	ok Av	19.23	0.48	0.58	13.8	16.9	4211.8	5174.6
26	ok Av	6.93	0.13	0.24	3.8	6.9	1147.3	2112.8
27	ok Av	4.86	0.07	0.18	2.1	5.2	653.3	1588.3
28	ok Av	3.61	0.02	0.14	0.5	4.1	141.8	1245.4
29	ok Av	4.93	0.03	0.19	0.9	5.6	288.5	1707.8
30	ok Av	16.03	0.62	0.35	18.1	10.2	5521.3	3104.5
31	ok Av	15.41	0.60	0.49	17.3	14.3	5283.7	4369.8
32	ok Av	7.54	0.03	0.29	1.0	8.6	307.0	2612.3
33	ok Av	5.20	0.02	0.20	0.5	5.9	141.8	1802.9
34	ok Av	3.51	0.05	0.13	1.6	3.8	475.5	1151.1
35	ok Av	5.02	0.09	0.18	2.7	5.3	818.2	1607.7
36	ok Av	16.10	0.45	0.45	12.9	12.9	3948.1	3948.1
37	ok Av	16.69	0.38	0.65	11.0	18.9	3367.0	5777.5
38	ok Av	19.41	0.48	0.59	14.0	17.0	4285.2	5192.2
39	ok Av	7.00	0.13	0.24	3.8	7.0	1153.6	2135.6
40	ok Av	4.89	0.07	0.18	2.1	5.2	644.0	1601.2
41	ok	2.95						
42	ok Av	3.70	0.11	0.11	3.1	3.1	934.2	934.2
43	ok Av	5.02	0.18	0.09	5.3	2.7	1607.7	818.2
44	ok Av	4.93	0.19	0.05	5.6	1.4	1707.8	428.0
45	ok Av	5.60	0.20	0.09	5.7	2.8	1749.8	840.9
46	ok Av	4.97	0.15	0.13	4.3	3.7	1313.2	1122.5
47	ok Av	4.15	0.11	0.13	3.1	3.7	932.8	1143.0
48	ok	2.61						
49	ok	2.95						
50	ok Av	3.51	0.13	0.05	3.8	1.6	1151.1	475.5
51	ok Av	3.61	0.14	0.03	4.1	0.9	1245.4	275.1
52	ok Av	3.79	0.15	0.05	4.3	1.6	1302.7	475.5
53	ok Av	3.75	0.13	0.07	3.9	2.0	1185.9	598.2
54	ok Av	3.45	0.11	0.08	3.1	2.4	942.6	742.7
55	ok	2.77						
56	ok	2.97						
57	ok	2.49						
58	ok	2.64						
59	ok	2.44						
60	ok	2.53						
61	ok	3.02						
62	ok	2.77						
63	ok Av	8.06	0.25	0.23	7.2	6.6	2203.6	2013.8

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64	ok Av	3.92	0.15	0.06	4.4	1.9	1356.3	575.7
65	ok	1.30						
66	ok	2.37						
67	ok	3.01						
68	ok	2.71						
69	ok	2.64						
70	ok Av	3.31	0.13	0.10	3.6	3.0	1114.3	918.3
71	ok Av	8.82	0.34	0.32	9.8	9.2	2987.2	2804.8
72	ok	1.21						
73	ok	2.97						
74	ok	2.74						
75	ok	2.60						
76	ok	2.75						
77	ok Av	3.99	0.13	0.13	3.7	3.7	1141.3	1115.3
78	ok	2.41						
79	ok Av	3.29	0.08	0.11	2.3	3.1	713.7	939.1
80	ok	2.93						
81	ok	2.83						
82	ok Av	3.49	0.11	0.13	3.2	3.8	982.2	1153.5
83	ok Av	9.21	0.33	0.36	9.5	10.3	2901.6	3153.2
84	ok	1.03						
85	ok Av	3.62	0.05	0.13	1.5	3.9	468.5	1193.7
86	ok	3.09						
87	ok	2.87						
88	ok	2.98						
89	ok Av	4.09	0.07	0.16	2.1	4.6	635.3	1418.3
90	ok	2.17						
91	ok Av	3.73	0.01	0.15	0.3	4.2	96.6	1291.2
92	ok Av	3.12	0.01	0.12	0.3	3.5	93.1	1077.7
93	ok	2.89						
94	ok Av	3.42	0.06	0.12	1.8	3.4	545.4	1053.1
95	ok Av	9.10	0.25	0.28	7.4	8.2	2254.8	2500.7
96	ok	1.24						
97	ok Av	3.60	0.05	0.13	1.6	3.9	476.7	1185.6
98	ok	3.08						
99	ok	2.86						
100	ok	2.98						
101	ok Av	4.08	0.07	0.16	2.1	4.6	634.3	1413.6
102	ok	2.18						
103	ok Av	3.27	0.08	0.10	2.3	3.0	715.1	927.0
104	ok	2.91						
105	ok	2.81						
106	ok Av	3.48	0.11	0.13	3.2	3.8	979.9	1148.7
107	ok Av	9.18	0.33	0.35	9.5	10.3	2890.7	3142.5
108	ok	1.02						
109	ok	2.95						
110	ok	2.71						
111	ok	2.58						
112	ok	2.73						
113	ok Av	3.98	0.13	0.13	3.7	3.6	1136.4	1108.6
114	ok	2.41						
115	ok	2.97						
116	ok	2.68						
117	ok	2.62						
118	ok Av	3.28	0.12	0.10	3.6	3.0	1107.2	912.2
119	ok Av	8.76	0.33	0.31	9.7	9.1	2967.5	2787.3
120	ok	1.21						
121	ok	2.92						
122	ok	2.60						
123	ok	2.50						
124	ok	2.75						
125	ok Av	3.89	0.15	0.06	4.4	1.9	1347.8	570.8
126	ok	2.36						
127	ok	2.71						
128	ok	2.46						
129	ok	2.41						
130	ok	3.00						
131	ok Av	7.99	0.25	0.23	7.2	6.5	2186.6	1998.5
132	ok	1.30						
133	ok	2.64						
134	ok	2.44						

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135	ok	2.39							
136	ok	2.64							
137	ok Av	3.68	0.14	0.06	4.2	1.8	1274.9	553.0	
138	ok	2.18							
139	ok	2.53							
140	ok	2.39							
141	ok	2.40							
142	ok	3.08							
143	ok Av	8.17	0.32	0.29	9.2	8.5	2795.8	2594.3	
144	ok	1.02							
145	ok	2.40							
146	ok	2.31							
147	ok	2.27							
148	ok	2.49							
149	ok Av	3.59	0.12	0.12	3.4	3.4	1029.0	1029.0	
150	ok	2.16							
151	ok	2.53							
152	ok	2.39							
153	ok	2.40							
154	ok	3.08							
155	ok Av	8.17	0.29	0.32	8.5	9.2	2594.3	2795.8	
156	ok	1.02							
157	ok	2.64							
158	ok	2.44							
159	ok	2.39							
160	ok	2.64							
161	ok Av	3.68	0.06	0.14	1.8	4.2	553.0	1274.9	
162	ok	2.06							
163	ok	2.67							
164	ok	2.43							
165	ok	2.39							
166	ok	2.98							
167	ok Av	7.97	0.22	0.25	6.5	7.2	1988.2	2186.5	
168	ok	1.13							
169	ok	2.64							
170	ok	2.44							
171	ok	2.39							
172	ok	2.64							
173	ok Av	3.68	0.06	0.14	1.8	4.2	553.0	1274.9	
174	ok	2.06							
175	ok	2.53							
176	ok	2.39							
177	ok	2.40							
178	ok	3.08							
179	ok Av	8.17	0.29	0.32	8.5	9.2	2594.3	2795.8	
180	ok	1.03							
181	ok	2.40							
182	ok	2.31							
183	ok	2.27							
184	ok	2.49							
185	ok Av	3.59	0.12	0.12	3.4	3.4	1029.0	1029.0	
186	ok	2.18							
187	ok	2.53							
188	ok	2.39							
189	ok	2.40							
190	ok	3.08							
191	ok Av	8.17	0.32	0.29	9.2	8.5	2795.8	2594.3	
192	ok	1.02							
193	ok	2.64							
194	ok	2.44							
195	ok	2.39							
196	ok	2.64							
197	ok Av	3.68	0.14	0.06	4.2	1.8	1274.9	553.0	
198	ok	2.19							
<b>Nodo</b>		<b>Max tau</b>	<b>Ver V pr</b>	<b>Ver V sec</b>	<b>Af V pr</b>	<b>Af V sec</b>	<b>V pr</b>	<b>V sec</b>	
		61.61	1.09	1.25	114.83	131.97	1.403e+04	1.612e+04	

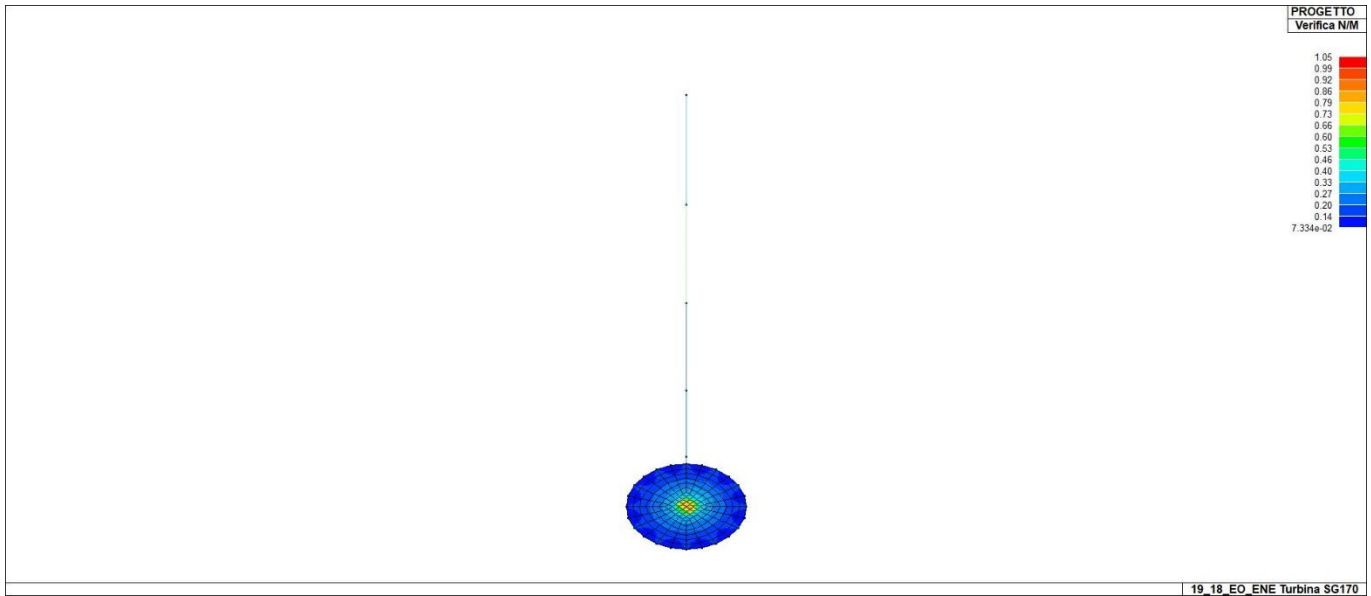
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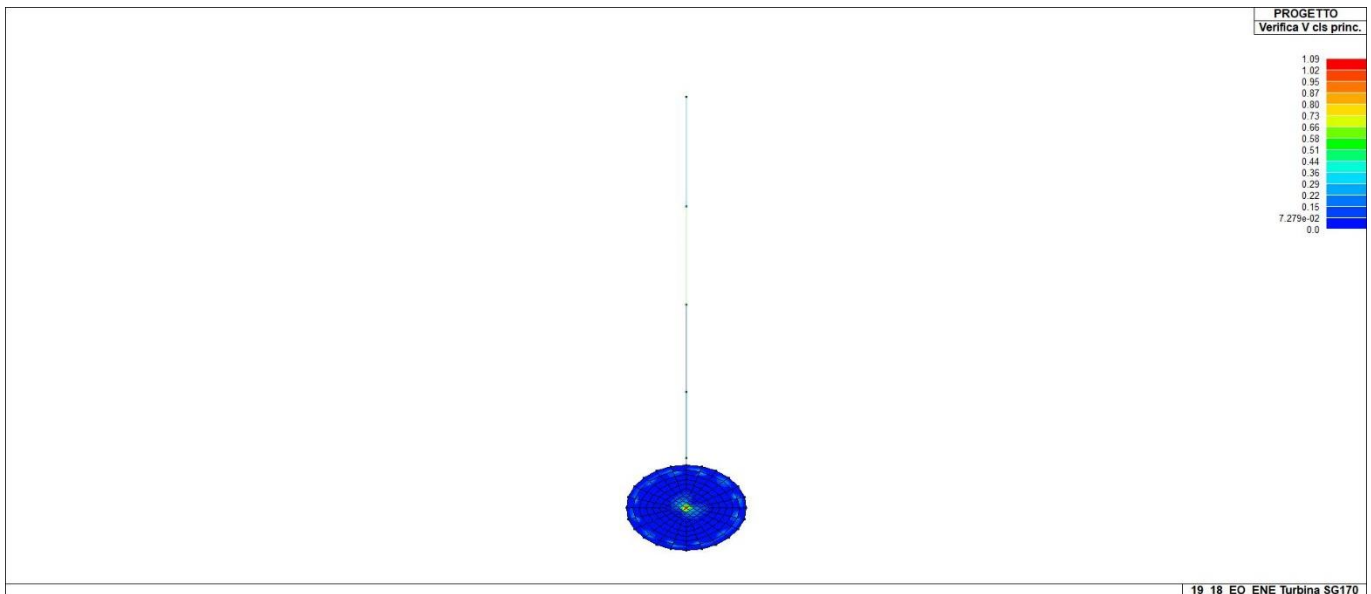


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72\_PRO\_CA\_D3\_VER\_NM



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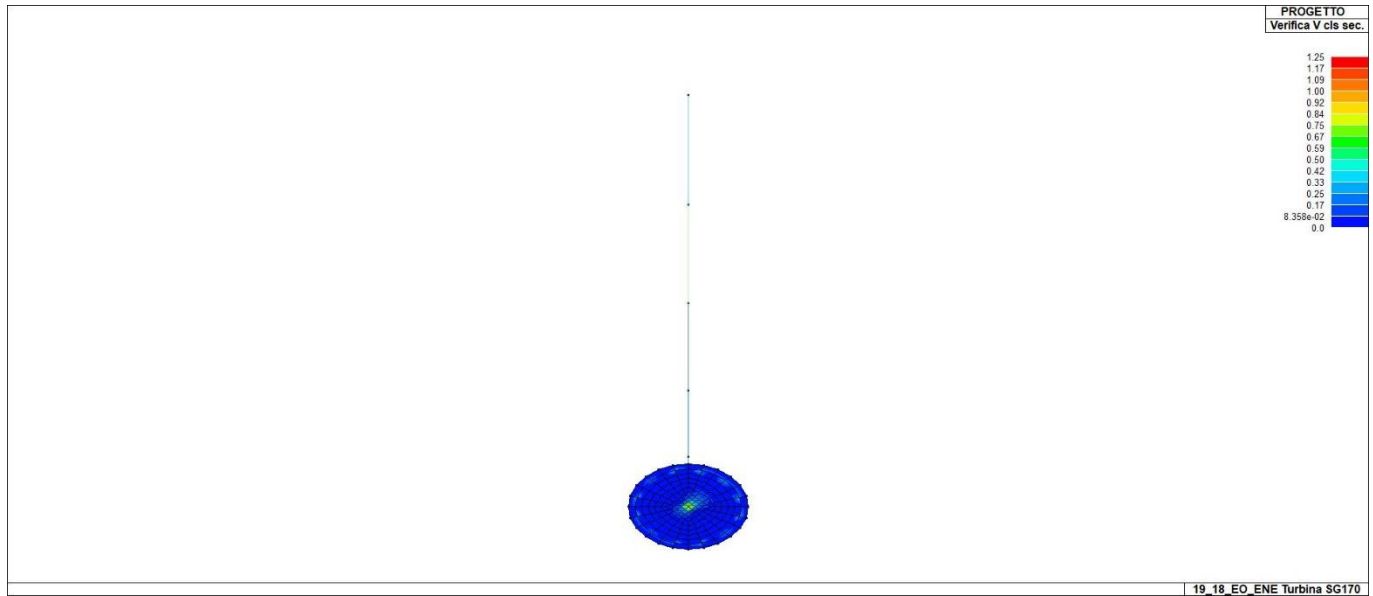
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## 22 STATI LIMITE D' ESERCIZIO

### 22.1 LEGENDA TABELLA STATI LIMITE D' ESERCIZIO

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, in relazione al tipo di elemento strutturale, i risultati relativi alle tre categorie di combinazione considerate:

- Combinazioni rare
- Combinazioni frequenti
- Combinazioni quasi permanenti.

I valori di interesse sono i seguenti:

<b>rRfck</b>	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni rare [normalizzato a 1]
<b>rRfyk</b>	rapporto tra la massima tensione nell'acciaio e la tensione fyk in combinazioni rare [normalizzato a 1]
<b>rPfck</b>	rapporto tra la massima compressione nel calcestruzzo e la tensione fck in combinazioni quasi permanenti [normalizzato a 1]
<b>wR</b>	apertura caratteristica delle fessure in combinazioni rare [mm]
<b>wF</b>	apertura caratteristica delle fessure in combinazioni frequenti [mm]
<b>wP</b>	apertura caratteristica delle fessure in combinazioni quasi permanenti [mm]
<b>dR</b>	massima deformazione in combinazioni rare
<b>dF</b>	massima deformazione in combinazioni frequenti
<b>dP</b>	massima deformazione in combinazioni quasi permanenti

Per ognuno dei nove valori soprariportati viene indicata (Rif.cmb) la combinazione in cui si è verificato.

In relazione al tipo di elemento strutturale i valori sono selezionati nel modo seguente:

pilastr	<b>rRfck</b>	<b>rRfyk</b>	<b>rPfck</b>	per sezioni significative
travi	<b>rRfck</b> <b>wR</b> <b>dR</b>	<b>rRfyk</b> <b>wF</b> <b>dF</b>	<b>rPfck</b> <b>wP</b> <b>dP</b>	per sezioni significative per sezioni significative massimi in campata
setti e gusci	<b>rRfck</b> <b>wR</b>	<b>rRfyk</b> <b>wF</b>	<b>rPfck</b> <b>wP</b>	massimi nei nodi dell'elemento massimi nei nodi dell'elemento

Si precisa che i valori di massima deformazione per travi sono riferiti al piano verticale (piano locale 1-2 con momenti flettenti 3-3).

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Guscio	rRfck	rRfyk	rPfck	Rif. cmb	wR mm	wF mm	wP mm	Rif. cmb
1	0.12	0.30	0.16	17,17,90	0.0	0.0	0.0	0,0,0
2	0.13	0.34	0.18	21,21,90	0.0	0.0	0.0	0,0,0
3	0.14	0.37	0.18	21,21,90	0.0	0.0	0.0	0,0,0
4	0.15	0.46	0.18	21,21,90	0.06	0.0	0.0	21,0,0
5	0.15	0.41	0.18	21,21,90	0.0	0.0	0.0	0,0,0
6	0.13	0.34	0.16	21,21,90	0.0	0.0	0.0	0,0,0
7	0.13	0.32	0.18	17,17,90	0.0	0.0	0.0	0,0,0
8	0.16	0.53	0.20	21,21,90	0.07	0.0	0.0	21,0,0
9	0.20	0.76	0.22	21,21,90	0.10	0.06	0.0	21,88,0
10	0.26	0.76	0.21	21,21,90	0.10	0.05	0.0	21,88,0
11	0.23	0.71	0.20	21,21,90	0.09	0.0	0.0	21,0,0
12	0.16	0.41	0.18	21,21,90	0.0	0.0	0.0	0,0,0
13	0.14	0.34	0.18	17,17,90	0.0	0.0	0.0	0,0,0
14	0.17	0.49	0.22	17,21,90	0.06	0.0	0.0	21,0,0
15	0.31	0.65	0.22	21,21,90	0.09	0.05	0.05	21,87,90
16	0.72	0.63	0.33	21,21,90	0.08	0.08	0.08	21,87,90
17	0.24	0.75	0.22	21,21,90	0.10	0.06	0.0	21,88,0
18	0.18	0.44	0.18	21,21,90	0.0	0.0	0.0	0,0,0
19	0.14	0.34	0.18	17,17,90	0.0	0.0	0.0	0,0,0
20	0.17	0.50	0.22	17,21,90	0.06	0.0	0.0	21,0,0
21	0.31	0.65	0.22	21,21,90	0.09	0.05	0.05	21,87,90
22	0.74	0.62	0.33	21,17,90	0.08	0.08	0.08	17,87,90
23	0.25	0.75	0.22	21,21,90	0.10	0.06	0.0	21,88,0
24	0.18	0.43	0.18	21,21,90	0.0	0.0	0.0	0,0,0
25	0.13	0.32	0.18	17,17,90	0.0	0.0	0.0	0,0,0
26	0.17	0.55	0.20	21,21,90	0.07	0.0	0.0	21,0,0
27	0.20	0.76	0.22	21,21,90	0.10	0.05	0.0	21,88,0
28	0.26	0.76	0.21	21,21,90	0.10	0.05	0.0	21,88,0
29	0.23	0.70	0.20	21,21,90	0.09	0.0	0.0	21,0,0
30	0.16	0.41	0.18	21,21,90	0.0	0.0	0.0	0,0,0
31	0.12	0.30	0.16	17,17,90	0.0	0.0	0.0	0,0,0
32	0.13	0.34	0.18	21,21,90	0.0	0.0	0.0	0,0,0
33	0.14	0.38	0.18	21,21,90	0.0	0.0	0.0	0,0,0
34	0.15	0.46	0.18	21,21,90	0.06	0.0	0.0	21,0,0
35	0.15	0.41	0.18	21,21,90	0.01	0.0	0.0	0,0,0
36	0.13	0.34	0.16	21,21,90	0.0	0.0	0.0	0,0,0
37	0.12	0.32	0.16	21,21,90	0.0	0.0	0.0	0,0,0
38	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
39	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
40	0.07	0.18	0.10	21,21,90	0.0	0.0	0.0	0,0,0
41	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
42	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
43	0.12	0.31	0.16	21,21,90	0.0	0.0	0.0	0,0,0
44	0.10	0.26	0.13	21,21,90	0.0	0.0	0.0	0,0,0
45	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
46	0.07	0.18	0.10	21,21,90	0.0	0.0	0.0	0,0,0
47	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
48	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
49	0.12	0.30	0.15	21,21,90	0.0	0.0	0.0	0,0,0
50	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
51	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
52	0.07	0.17	0.09	21,21,90	0.0	0.0	0.0	0,0,0
53	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
54	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
55	0.12	0.30	0.15	21,21,90	0.0	0.0	0.0	0,0,0
56	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
57	0.09	0.22	0.11	21,21,90	0.0	0.0	0.0	0,0,0
58	0.07	0.18	0.09	21,21,90	0.0	0.0	0.0	0,0,0
59	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
60	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
61	0.13	0.32	0.16	21,21,90	0.0	0.0	0.0	0,0,0
62	0.11	0.27	0.13	21,21,90	0.0	0.0	0.0	0,0,0
63	0.09	0.23	0.11	21,21,90	0.0	0.0	0.0	0,0,0
64	0.08	0.19	0.10	21,21,90	0.0	0.0	0.0	0,0,0
65	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0

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66	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
67	0.13	0.33	0.16	21,21,90	0.0	0.0	0.0	0,0,0
68	0.11	0.28	0.13	21,21,90	0.0	0.0	0.0	0,0,0
69	0.09	0.23	0.11	21,21,90	0.0	0.0	0.0	0,0,0
70	0.08	0.19	0.10	21,21,90	0.0	0.0	0.0	0,0,0
71	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
72	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
73	0.13	0.33	0.16	21,21,90	0.0	0.0	0.0	0,0,0
74	0.11	0.28	0.13	21,21,90	0.0	0.0	0.0	0,0,0
75	0.09	0.23	0.11	21,21,90	0.0	0.0	0.0	0,0,0
76	0.08	0.19	0.10	21,21,90	0.0	0.0	0.0	0,0,0
77	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
78	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
79	0.13	0.32	0.16	21,21,90	0.0	0.0	0.0	0,0,0
80	0.11	0.27	0.13	21,21,90	0.0	0.0	0.0	0,0,0
81	0.09	0.23	0.11	21,21,90	0.0	0.0	0.0	0,0,0
82	0.08	0.19	0.10	21,21,90	0.0	0.0	0.0	0,0,0
83	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
84	0.07	0.17	0.08	21,21,90	0.0	0.0	0.0	0,0,0
85	0.12	0.30	0.15	21,21,90	0.0	0.0	0.0	0,0,0
86	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
87	0.09	0.22	0.11	21,21,90	0.0	0.0	0.0	0,0,0
88	0.07	0.18	0.09	21,21,90	0.0	0.0	0.0	0,0,0
89	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
90	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
91	0.12	0.30	0.15	21,21,90	0.0	0.0	0.0	0,0,0
92	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
93	0.08	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
94	0.07	0.17	0.09	21,21,90	0.0	0.0	0.0	0,0,0
95	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
96	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
97	0.12	0.31	0.16	21,21,90	0.0	0.0	0.0	0,0,0
98	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
99	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
100	0.07	0.18	0.10	21,21,90	0.0	0.0	0.0	0,0,0
101	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
102	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
103	0.12	0.31	0.16	21,21,90	0.0	0.0	0.0	0,0,0
104	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
105	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
106	0.07	0.18	0.10	21,21,90	0.0	0.0	0.0	0,0,0
107	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
108	0.06	0.16	0.08	21,21,90	0.0	0.0	0.0	0,0,0
109	0.12	0.30	0.16	21,21,90	0.0	0.0	0.0	0,0,0
110	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
111	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
112	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
113	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
114	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
115	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
116	0.10	0.24	0.13	17,17,90	0.0	0.0	0.0	0,0,0
117	0.08	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
118	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
119	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
120	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
121	0.11	0.27	0.15	17,17,90	0.0	0.0	0.0	0,0,0
122	0.09	0.23	0.13	17,17,90	0.0	0.0	0.0	0,0,0
123	0.08	0.20	0.11	17,17,90	0.0	0.0	0.0	0,0,0
124	0.07	0.17	0.09	17,17,90	0.0	0.0	0.0	0,0,0
125	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
126	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
127	0.11	0.27	0.15	17,17,90	0.0	0.0	0.0	0,0,0
128	0.09	0.23	0.13	17,17,90	0.0	0.0	0.0	0,0,0
129	0.08	0.20	0.11	17,17,90	0.0	0.0	0.0	0,0,0
130	0.07	0.17	0.09	17,17,90	0.0	0.0	0.0	0,0,0
131	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
132	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
133	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
134	0.10	0.24	0.13	17,17,90	0.0	0.0	0.0	0,0,0
135	0.08	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
136	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0

**PROJETTO engineering s.r.l.**  
società d'ingegneria

Direttore Tecnico: ING. LEONARDO FILOTICO  
Cap. Soc. 119.000,00 € Codice Fiscale: 02658050733  
Partita Iva : 02658050733  
Sede Legale: Via dei Mille 5, 74024 Manduria - Taranto  
Sede Operativa: Z.I. Lotto 31, 74020 San Marzano di San Giuseppe - Taranto  
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SR EN ISO 9001:2015 SR EN ISO 14001:2015 SR EN ISO/IEC 27001:2017  
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137	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
138	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
139	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
140	0.10	0.25	0.13	17,17,90	0.0	0.0	0.0	0,0,0
141	0.09	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
142	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
143	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
144	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
145	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
146	0.10	0.25	0.13	17,17,90	0.0	0.0	0.0	0,0,0
147	0.09	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
148	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
149	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
150	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
151	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
152	0.10	0.24	0.13	17,17,90	0.0	0.0	0.0	0,0,0
153	0.08	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
154	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
155	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
156	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
157	0.11	0.27	0.15	17,17,90	0.0	0.0	0.0	0,0,0
158	0.09	0.23	0.13	17,17,90	0.0	0.0	0.0	0,0,0
159	0.08	0.20	0.11	17,17,90	0.0	0.0	0.0	0,0,0
160	0.07	0.17	0.09	17,17,90	0.0	0.0	0.0	0,0,0
161	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
162	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
163	0.11	0.27	0.15	17,17,90	0.0	0.0	0.0	0,0,0
164	0.09	0.23	0.13	17,17,90	0.0	0.0	0.0	0,0,0
165	0.08	0.20	0.11	17,17,90	0.0	0.0	0.0	0,0,0
166	0.07	0.17	0.09	17,17,90	0.0	0.0	0.0	0,0,0
167	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
168	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
169	0.12	0.29	0.16	17,17,90	0.0	0.0	0.0	0,0,0
170	0.10	0.24	0.13	17,17,90	0.0	0.0	0.0	0,0,0
171	0.08	0.21	0.11	17,17,90	0.0	0.0	0.0	0,0,0
172	0.07	0.18	0.10	17,17,90	0.0	0.0	0.0	0,0,0
173	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
174	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
175	0.12	0.30	0.16	21,21,90	0.0	0.0	0.0	0,0,0
176	0.10	0.25	0.13	21,21,90	0.0	0.0	0.0	0,0,0
177	0.09	0.21	0.11	21,21,90	0.0	0.0	0.0	0,0,0
178	0.07	0.18	0.10	17,21,90	0.0	0.0	0.0	0,0,0
179	0.06	0.16	0.08	17,17,90	0.0	0.0	0.0	0,0,0
180	0.06	0.15	0.08	17,17,90	0.0	0.0	0.0	0,0,0
<b>Guscio</b>	<b>rRfck</b>	<b>rRfyk</b>	<b>rPfck</b>		<b>wR</b>	<b>wF</b>	<b>wP</b>	
	0.74	0.76	0.33		0.10	0.08	0.08	

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