SIEMENS Gamesa
RENEWABLE ENERGY

Schedule A
Scope and Exclusions

SIEMENS Gamesa
RENEWABLE ENERGY

Index

1.1. Wind Turbine Generator	SGRE	Customer
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1.1.2. Rotor with three blades	x	
1.1.3. Tubular Steel Tower	x	

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1.2.2. Installation of communication cables (optic-optic cable in MV trenches)		X
1.2.3. Provision and installation of splice boxes and of optical fibers termination inside the wind turbines.	X	
1.2.4. Supply and installation of the communication cables between the splice boxes and the wind turbine electronics.	X	
1.2.5. Supply and installation of the SCADA system	X	
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1.3. Meteorological Masts	SGRE	Customer
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1.3.3. Supply of optic-optic cable for connection of meteorological mast to SCADA system and remote connection between met mast and closest WTG. Quality of signals is responsibility of the Customer.		X
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1.4. Miscellaneous	SGRE	Customer
1.4.1. Special Beacons	X	
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2.1.2. Transportation to wind farm site DDP (Incoterms 2010)	X	
2.1.3. Unloading of tower anchor cages for foundations (Cranes, auxiliary equipment and operation)		X
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2.2. Installation and Commissioning	SGRE	Customer
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2.2.2. Working team	X	
2.2.3. Supervision of erection	X	
2.2.4. Wind turbine commissioning	X	

2.3. Civil Works	SGRE	Customer
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2.3.3. Access from road to the wind farm according to the Road Survey provided by SGRE		X
2.3.4. Internal wind farm access roads		X
2.3.5. Hardstands for assembly of the WTG, storage areas		X
2.3.6. Crane Matts if bearing capacity of the hardstands is below limits stated in SGRE Civil Works Specifications	OPT	
2.3.7. Trenches for MV cables and communications (optic-optic cable).		X
2.3.8. Tailored functional design of foundations according to specific conditions of the site		X
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2.3.10. Foundation quality control (test probes on 7, 21 and 28 days)		X
2.3.11. Grouting of WTG foundation and bottom tower flange		X
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2.3.13. Maintenance of access roads to the wind farm in case of heavy weather conditions (hard rain, snow, fog...)		X
2.3.14. Reforestation and restoration of the area		X
2.3.15. Measurement of underground grid and isolation levels		X

2.4. Electrical Installations	**SGRE**	**Customer**
2.4.1. MV design		X
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2.4.3. Supply and installation of MV switchgear	X	
2.4.4. Supply of MV cables for the connection of the internal transformer to the switchgear	X	
2.4.5. Inner-earthing connection within tower	X	
2.4.6. Inner-earthing connection in the foundation		X
2.4.7. Supply of MV cables for connection between wind turbine and substation		X
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2.5. Substation / Energy Sharing Center	**SGRE**	**Customer**
2.5.1. Substation		
2.5.2. Substation design		X
2.5.3. Supply, construction and erection		X
2.5.4. Supply, construction and connection of protection cabinets, measuring and remote control		X
2.5.5. Remote switch of substation		X
2.5.6. Test and voltage commissioning of substation		X
2.5.7. Measuring of earthing and voltage grid and contact of the substation		X
2.5.8. Administrative licences		X
2.5.9. Energy Sharing Center		
2.5.10. Energy sharing center design		X
2.5.11. Supply, installation and connection of the protection, measuring boards and auxiliary system		X
2.5.12. Remote switch of substation		X
2.5.13. Test and voltage commissioning of the energy sharing center		X
2.5.14. Measuring or earthing and voltage commissioning of energy sharing center		X
2.5.15. Administrative licence		X
2.5.16. Connection to Substation and Energy Sharing Center		
2.5.17. Supply of connection cabinets		X
2.5.18. Installation, connection, commissioning and tests of connection cabinets		X
2.5.19. Administrative licence		X

2.6. High Voltage Line		SGRE	Customer
2.6.1.	HV Line design		X
2.6.2.	Procurement of administrative permits, authorizations, etc…		X
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2.6.4.	Supply and erection of masts		X
2.6.5.	Supply and installation of HV cable		X
2.6.6.	Connection to the substation		X
2.6.7.	Connection to national electrical grid		X
2.6.8.	Tests and commissioning		X
2.6.9.	Administrative licence		X

2.7. Miscellaneous		SGRE	Customer
2.7.1.	Project management of wind turbine erection	X	
2.7.2.	Granting of permits, licences, authorizations and other administrative documents (except for Contractor Permits as defined in the contract)		X
2.7.3.	Site supervision and management		X
2.7.4.	Quality Control for the scope of works of SIEMENS GAMESA	X	
2.7.5.	Study of work safety procedures for the scope of works of SIEMENS GAMESA	X	
2.7.6.	Health and safety coordinator		X
2.7.7.	Provision of office facilities for the SGRE's Site personnel and maintenance of such facilities	X	
2.7.8.	SGRE resources and equipment surveillance in the WF during erection period	X	
2.7.9.	Training of customer personnel	OPT	
2.7.10.			

1. Exclusions

The following scopes **are excluded** from the Works to be performed by the Contractor:

1.1. Necessary actions to get the authorization for the Project.
1.2. Studies and reports required to authorize the Project such as, but not limited to, the environmental impact report.
1.3. Authorizations and agreements necessary with the given landowner(s) in order to convert the land involved in this Project to Wind Farm(s).
1.4. Geophysical, geo-technical and other studies necessary to establish the physical features of the terrain.
1.5. Modification and construction of accesses to Wind Farm (main roads or accesses within the wind farm).
1.6. Civil works including accesses, foundations, and erection platforms.
1.7. Electrical works including medium voltage grid, transformation centers, substation, and connection in medium/high voltage to the distribution grid.
1.8. Works for the adaptation of the public and private roads, pads and accesses to the park. Before the execution of the, upon request of the Employer, the Contractor and the Employer shall evaluate the works and the necessary adaptations of such roads.
1.9. Optic fiber from WTG to the substation.
1.10. All the other works which are not specified in this Schedule shall be for the Employer's account.

2. Boundary Points

The following items are boundary points of the supply of the Contractor:

2.1. On the side of the Wind Turbine Generator:
  2.1.1. Mechanical boundary: tower interface supplied by the Contractor
  2.1.2. Electrical boundary: connections of the WTG MV cables to the WTG switchgear (terminals supplied and connection to be done by the Contractor). For the avoidance of doubt, connections of external MV cables to the WTG switchgear (including terminals supply) is part of the scope of the Employer.
  2.1.3. Signal boundary: Terminals for Fiber Optic connection in the Ground controller (the connection will be made by the Contractor).
2.2. On the side of the Remote Control System:
  Signal boundary: Connection terminals of the computer supplied by the Contractor

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI___ Wind Energy Project

ExW Delivery Certificate of the WTGs

This certificate is issued pursuant to the Purchase Contract dated ____, __th _____ (the"Contract") entered into by:

RENEXIA SERVICES S.R.L, an Italian limited liability company, with registered number 02533210692 having its registered office at Viale Abruzzo 410, 66100 Chieti, ("**Renexia**" or the "**BUYER**")

And

SIEMENS GAMESA RENEWABLE ENERGY EOLICA S.L. UNIPERSONAL, a Spanish corporation having its registered office in Sarriguren (Navarra), Avda. Ciudad de la Innovacion, 9-11, with registered office number B-31907330 ("**SGRE ES**")

And

SIEMENS GAMESA RENEWABLE ENERGY WIND S.r.l., an Italian limited liability company, with registered number 08087711001 having its Registered Office at Rome, Via Ostiense 131/L, 00154 Roma Italy, a company fully owned and controlled by Siemens Gamesa Eolica S.L Unipersonal, ("**SGRE Italia**"),

SGRE ES and SGRE Italia are jointly referred to as the "SELLER".

We, _____ identity card n. _____ and _____ identity card _____ , the undersigned, duly appointed representative of the Buyer and the Seller respectively

DO HEREBY CERTIFY

the following:

On _____, __th _____, the SELLER has delivered Ex-Works to the Buyer the WTGs, model SG132 3.465 MW, with the serial numbers listed in the table below, and the WTGs are ready for the transportation.

WIND FARM NAME - Casalduni		Tower				Nacelle	Rotor			
		1st Section	2nd Section	3rd Section	4th Section		Hub	Blade 1	Blade 2	Blade 3
No	WTG	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.
1	SG132									
2										
3										
4										
5										
6										
7										
8										
9										

Dated __/__/____

BUYER

By: _____
Name: _____ .....
Title: _____

SELLER
By: _____
Name: _____ .....
Title: _____

PARENT COMPANY GUARANTEE

THIS GUARANTEE is made this • day of • [date]

BETWEEN:

1. [*Issuer of the Parent Company Guarantee shall be defined according to the MergeCo Treasury general guidelines (Circular No. [•])*] with registered office at [•] and [•],[•] (the "**Guarantor**"); and

2. [Parco Eolico Casalduni House S.r.l.], with registered office at [address], (the "**Beneficiary**").

WHEREAS:

(A) Renexia Services S.r.l. and [name of MergeCo Subsidiary] (the "**SiemensGamesa Subsidiary**") entered into agreement dated [date] (the "**Contract**") for the sale, transportation, installation, start up and testing of wind turbine generators referred to therein. The Guarantor has received copy of the Contract and acknowledges its terms and conditions.

(B) Pursuant to the terms provided for under Article [•] of the Contract, the SiemensGamesa Subsidiary agreed to procure for the benefit of the Beneficiary or Renexia Services S.r.l. a parent company guarantee (the **"Guarantee"**) as security for all the SiemensGamesa Subsidiary's obligations under the Contract. The parties under the Contract have agreed to have the Guarantee issued in favor of the Beneficiary. For the sake of clarity, the Guarantor acknowledges and accepts that the Beneficiary is entitled to enforce this Guarantee according to the terms provided below.

(C) The Guarantor has agreed to guarantee all the SiemensGamesa Subsidiary's obligations under the Contract.

THE PARTIES AGREE as follows:

1. INTERPRETATION

In this Guarantee and the recitals hereto, unless the context otherwise requires or unless otherwise defined or provided for in this Guarantee, words

and expressions used herein shall have the same meaning attributed to them under the Contract.

2. UNDERTAKING

Subject to Clause 3 of this Guarantee, the Guarantor irrevocably guarantees to the Beneficiary the due and punctual performance of the SiemensGamesa Subsidiary's, and its successors' and permitted assigns', obligations under the Contract when and as such obligations become due and performable in accordance with the Contract, including, for the sake of clarity, all the payment obligations for liquidated damages under the Contract (the **"Guaranteed Obligations"**). To the extent the SiemensGamesa Subsidiary does not fulfil the Guaranteed Obligations, either the Guarantor or such other entity (within the Guarantor's group) nominated by the Guarantor shall perform any such Guaranteed Obligations, being understood that the Guarantor shall be liable for the performance of the Guaranteed Obligations carried out by the above entity nominated by the Guarantor.

The obligations of the Guarantor set out herein shall constitute and be continuing obligations.

3. LIMITATIONS OF LIABILITY

3.1 The Guarantor may raise all objections and defences the SiemensGamesa Subsidiary may have under the Contract and may assume all such rights of set off, defence, counterclaim, limitation and/or exclusion of liability as the SiemensGamesa Subsidiary may have against the Beneficiary pursuant to the Contract.

3.2 The liability of the Guarantor pursuant to this Guarantee shall not exceed the 70% of the Contract Price (the "**Maximum Amount**").

3.3 The Guarantor's liability under clause 2 shall be conditional on the Beneficiary first having made demand in writing for due performance of the respective Guaranteed Obligations on the SiemensGamesa Subsidiary and the expiry of the relevant grace period provided under the Contract (if any).

3.4 Any payment by Guarantor under this Guarantee shall be made within [10] Business Days from receipt by Guarantor of the Beneficiary's request, on the bank account indicated by Beneficiary therein. If Guarantor fails to timely pay any amount under this Guarantee, it shall, forthwith, pay interest on the over-

due amount from the due date up to the date of actual payment, as well after as before judgement, at a rate equal to Euribor + 6%.

3.5 All payments made hereunder shall be made free, without set-off, and clear of, and without deduction for or on account of any present or future stamp or other taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature now or hereafter applicable.

4. EXPIRY

4.1 The obligations of the Guarantor set out herein shall expire on [•][1] (the "**Date of Expiry**"). The Guarantor (i) acknowledges that according to the Contract this Guarantee shall remain in full force and effect until 60 days after the issuance of the Certificate of Take Over of the Wind Farm (the "**Term**"), and (ii) if the Date of Expiry falls before the Term, undertakes to deliver – 30 days before the Date of Expiry - a new Guarantee or to extend the Date of Expiry of this Guarantee in favour of the Beneficiary which shall remain in full force and effect until the Term but, in any case, before [•][2] (the "**Final Expiry Date**"). It is understood that, the breach by the Guarantor to deliver a new Guarantee or to extend this Guarantee according this Clause 4.1 (ii) is considered as a Contractor Event of Default under the Contract.

4.2 Any claim by the Beneficiary under this Guarantee after the Final Expiry Date shall be barred and be unenforceable, without prejudice to any liability of the Guarantor accrued prior to such Final Expiry Date, provided that written notice of the same specifying in reasonable detail the nature and amount of the claim has been received by the Guarantor within one (1) month after the Final Expiry Date and any proceedings pursuant to Clause 10 in respect of such claim are commenced within six (6) months of such Final Expiry Date.

4.3 The Beneficiary undertakes to return this Guarantee to the Guarantor immediately upon its expiry. However, for the avoidance of doubt, this Guarantee expires independently of its return.

4.4 In the event that the Guarantor ceases to hold, directly or indirectly, the majority of the voting rights of the SiemensGamesa Subsidiary or the majority of

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[1] Insert a date which falls 60 days after the issuance of the Certificate of Take Over of the Wind Farm according to the *cronoprogramma*.
[2] 3 years after the Date of Expiry.

shares of the SiemensGamesa Subsidiary, the Guarantor may offer a replacement guarantee for this guarantee, substantially in the form hereof, to be issued by another guarantor. If the Beneficiary, in its sole discretion and acting reasonably having due regard to the remaining performance risk of the Guaranteed Obligations to be fulfilled by the SiemensGamesa Subsidiary and the credit risk of the replacement guarantor determines such replacement guarantee is issued by an acceptable guarantor, the Beneficiary shall accept such replacement guarantee as security for the Guaranteed Obligations, and upon the execution of such replacement guarantee this Guarantee shall automatically expire. The Beneficiary undertakes to return the Guarantee to the Guarantor immediately following such expiry but for the avoidance of doubt, this Guarantee shall expire independently of its return.

5. PRESERVATION OF RIGHTS

Subject to clause 3, the obligations of the Guarantor under this Guarantee shall not be discharged by any of the following:

5.1 Any amendment to, or any variation, waiver or release of any obligation of the SiemensGamesa Subsidiary under the Contract;

5.2 Any time or indulgence being granted or agreed to be granted to the SiemensGamesa Subsidiary in respect of its obligations under or pursuant to the Contract;

5.3 The taking, variation, renewal or release of, or enforcement or neglect to perfect or enforce any right, guarantee, remedy or security from or against the SiemensGamesa Subsidiary;

5.4 Any legal limitation, or incapacity relating to the SiemensGamesa Subsidiary; and/or

5.5 The winding-up, dissolution, administration or reorganisation of the SiemensGamesa Subsidiary or any change in its status, function, control or ownership.

6. ASSIGNMENT

Neither party shall assign or transfer any of its rights hereunder without the prior consent of the other party, which shall not be unreasonably withheld or delayed, being understood that the Beneficiary shall be entitled to assign, assign by way of security, and transfer, also for the purpose of Article 1263 of

Italian civil code, the rights and benefits of this Guarantee to any lender providing any financing to the Beneficiary, without any Guarantor's consent, such consent being irrevocably granted by the Guarantor, also for the purpose of Article 1248 and 1264, paragraph 1 of the Italian civil code, by releasing this Guarantee.

7. NOTICES

7.1 Any notice to or demand on the Guarantor to be served under this Guarantee must be in writing and be delivered in person or sent by recorded delivery post to the Guarantor at its address appearing in this Guarantee or at such other address as it may have notified to the Beneficiary in accordance with this Clause 7.

7.2 Any such notice or demand shall be deemed to have been served:

(i) if delivered in person, at the time of delivery; or

(ii) if posted, upon receipt by the Guarantor.

8. WAIVER

8.1 No delay or omission of the Beneficiary in exercising any right, power or privilege under this Guarantee shall impair or be construed as a waiver of such right, power or privilege nor shall any single or partial exercise of any such right, power or privilege preclude any further exercise of such right, power or privilege or the exercise of any other right, power or privilege.

9. PARTIAL INVALIDITY, AMENDMENTS

9.1 The invalidity, illegality or unenforceability in whole or in part of any of the provisions of this Guarantee shall not affect the validity, legality and enforceability of the remaining part or provisions of this Guarantee.

9.2 Any term or provision of this Guarantee may only be amended, modified, altered, waived, supplemented or terminated in writing signed by the Beneficiary and the Guarantor. Such writing requirement may only be waived in writing and may not be substituted by electronic form.

10. DISPUTE RESOLUTION AND GOVERNING LAW

This Guarantee and any dispute arising in connection with it (including but not limited to any non-contractual obligations) are governed by Italian law.

The Guarantor hereby waives any rights under the provisions of Article 1247, 1944, 1947, where applicable, 1952 paragraph 3, 1955, 1956 and 1957 paragraph 2 and 3 of the Italian Civil Code.

All disputes arising out of or in connection with the present Guarantee, including any question regarding its existence, validity or termination, shall be submitted to the exclusive competence of the Court of Milan.

Signed by duly authorised for and on behalf of *Issuer of the Parent Company Guarantee shall be defined according to the MergeCo Treasury general guidelines (Circular No. [●])*]

Place, Date:

_____

Signature(s) of signatories of the Guarantor

Accepted:

Place, Date:

_____

Signature(s) of signatories of the Beneficiary

PARENT COMPANY GUARANTEE

THIS GUARANTEE is made this • day of • [date]

BETWEEN:

1. Renexia S.p.A., with registered office at [•] and [•],[•] (the "**Guarantor**"); and

2. [*SiemensGamesa Subsidiary*], with registered office at [address], (the "**Beneficiary**").

WHEREAS:

(A) Renexia Services S.r.l. (the "**Buyer**") and the Beneficiary entered into agreement dated [date] (the "**Contract**") for the sale, transportation, installation, start up and testing of wind turbine generators referred to therein. The Guarantor has received copy of the Contract and acknowledges its terms and conditions.

(B) Pursuant to the terms provided for under Article [•] of the Contract, the Buyer agreed to procure for the benefit of the Beneficiary a parent company guarantee (the **"Guarantee"**) as security for the payment of 80% of the Contract Price under the Contract. For the sake of clarity, the Guarantor acknowledges and accepts that the Beneficiary is entitled to enforce this Guarantee according to the terms provided below.

(C) The Guarantor has agreed to guarantee the Buyer's payment obligations of 80% of the Contract Price under the Contract.

THE PARTIES AGREE as follows:

1. INTERPRETATION

In this Guarantee and the recitals hereto, unless the context otherwise requires or unless otherwise defined or provided for in this Guarantee, words and expressions used herein shall have the same meaning attributed to them under the Contract.

2. UNDERTAKING

Subject to Clause 3 of this Guarantee, the Guarantor irrevocably guarantees to the Beneficiary the due and punctual performance of the Buyer's obligation to

pay 80% of the Contract Price under the Contract when and as such obligation become due and performable in accordance with the Contract (the **"Guaranteed Obligations"**).

The obligations of the Guarantor set out herein shall constitute and be continuing obligations.

3. LIMITATIONS OF LIABILITY

3.1 The Guarantor may raise all objections and defences the Buyer may have under the Contract and may assume all such rights of set off, defence, counterclaim, limitation and/or exclusion of liability as the Buyer may have against the Beneficiary pursuant to the Contract.

3.2 The liability of the Guarantor pursuant to this Guarantee shall not exceed the 80% of the Contract Price as reduced from time to time on a Reduction Event (the "**Maximum Amount**").

The Maximum Amount as reduced automatically on the following events (each, a "**Reduction Event**") shall be:

(i) on [*occurrence of milestone*], an amount of [*insert reduced maximum amount*],

(ii) on [*occurrence of milestone*], an amount of [*insert reduced maximum amount*],

(iii) on [*occurrence of milestone*], an amount of [*insert reduced maximum amount*], and

(iv) on [*occurrence of milestone*], an amount of [*insert reduced maximum amount*].

The Guarantor shall not be obliged to notify the Beneficiary of a Reduction Event or the Maximum Amount as so reduced on such date. The Guarantor shall further not be obliged to issue an amendment or a replacement guarantee when a Reduction Event occurs.

3.3 The Guarantor's liability under clause 2 shall be conditional on the Beneficiary first having made demand in writing for due performance of the respective Guaranteed Obligations on the Buyer and the expiry of the relevant grace period provided under the Contract (if any).

3.4 Any payment by Guarantor under this Guarantee shall be made within [10] Business Days from receipt by Guarantor of the Beneficiary's request, on the bank account indicated by Beneficiary therein. If Guarantor fails to timely pay any amount under this Guarantee, it shall, forthwith, pay interest on the overdue amount from the due date up to the date of actual payment, as well after as before judgement, at a rate equal to Euribor + 6%.

3.5 All payments made hereunder shall be made free, without set-off, and clear of, and without deduction for or on account of any present or future stamp or other taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature now or hereafter applicable.

4. EXPIRY

4.1 The obligations of the Guarantor set out herein shall expire on [•] (the "**Date of Expiry**") but, in any case, before [•][1] (the "**Final Expiry Date**").

4.2 Any claim by the Beneficiary under this Guarantee after the Final Expiry Date shall be barred and be unenforceable, without prejudice to any liability of the Guarantor accrued prior to such Final Expiry Date, provided that written notice of the same specifying in reasonable detail the nature and amount of the claim has been received by the Guarantor within one (1) month after the Final Expiry Date and any proceedings pursuant to Clause 10 in respect of such claim are commenced within six (6) months of such Final Expiry Date.

4.3 The Beneficiary undertakes to return this Guarantee to the Guarantor immediately upon its expiry. However, for the avoidance of doubt, this Guarantee expires independently of its return.

4.4 In the event that the Guarantor ceases to hold, directly or indirectly, the majority of the voting rights of the Buyer or the majority of shares of the Buyer, the Guarantor may offer a replacement guarantee for this guarantee, substantially in the form hereof, to be issued by another guarantor. If the Beneficiary, in its sole discretion and acting reasonably having due regard to the remaining performance risk of the Guaranteed Obligations to be fulfilled by the Buyer and the credit risk of the replacement guarantor determines such replacement guarantee is issued by an acceptable guarantor, the Beneficiary shall accept such replacement guarantee as security for the Guaranteed Obligations, and upon the

[1] 3 years after the Date of Expiry.

execution of such replacement guarantee this Guarantee shall automatically expire. The Beneficiary undertakes to return the Guarantee to the Guarantor immediately following such expiry but for the avoidance of doubt, this Guarantee shall expire independently of its return.

5. PRESERVATION OF RIGHTS

Subject to clause 3, the obligations of the Guarantor under this Guarantee shall not be discharged by any of the following:

5.1 Any amendment to, or any variation, waiver or release of any obligation of the Buyer under the Contract;

5.2 Any time or indulgence being granted or agreed to be granted to the Buyer in respect of its obligations under or pursuant to the Contract;

5.3 The taking, variation, renewal or release of, or enforcement or neglect to perfect or enforce any right, guarantee, remedy or security from or against the Buyer;

5.4 Any legal limitation, or incapacity relating to the Buyer; and/or

5.5 The winding-up, dissolution, administration or reorganisation of the Buyer or any change in its status, function, control or ownership.

6. ASSIGNMENT

Neither party shall assign or transfer any of its rights hereunder without the prior consent of the other party, which shall not be unreasonably withheld or delayed.

7. NOTICES

7.1 Any notice to or demand on the Guarantor to be served under this Guarantee must be in writing and be delivered in person or sent by recorded delivery post to the Guarantor at its address appearing in this Guarantee or at such other address as it may have notified to the Beneficiary in accordance with this Clause 7.

7.2 Any such notice or demand shall be deemed to have been served:

(v) if delivered in person, at the time of delivery; or

(vi) if posted, upon receipt by the Guarantor.

8. WAIVER

8.1 No delay or omission of the Beneficiary in exercising any right, power or privilege under this Guarantee shall impair or be construed as a waiver of such right, power or privilege nor shall any single or partial exercise of any such right, power or privilege preclude any further exercise of such right, power or privilege or the exercise of any other right, power or privilege.

9. PARTIAL INVALIDITY, AMENDMENTS

9.1 The invalidity, illegality or unenforceability in whole or in part of any of the provisions of this Guarantee shall not affect the validity, legality and enforceability of the remaining part or provisions of this Guarantee.

9.2 Any term or provision of this Guarantee may only be amended, modified, altered, waived, supplemented or terminated in writing signed by the Beneficiary and the Guarantor. Such writing requirement may only be waived in writing and may not be substituted by electronic form.

10. DISPUTE RESOLUTION AND GOVERNING LAW

This Guarantee and any dispute arising in connection with it (including but not limited to any non-contractual obligations) are governed by Italian law.

The Guarantor hereby waives any rights under the provisions of Article 1247, 1944, 1947, where applicable, 1952 paragraph 3, 1955, 1956 and 1957 paragraph 2 and 3 of the Italian Civil Code.

All disputes arising out of or in connection with the present Guarantee, including any question regarding its existence, validity or termination, shall be submitted to the exclusive competence of the Court of Milan.

Signed by duly authorised for and on behalf of Renexia S.p.A.

Place, Date:

_____

Signature(s) of signatories of the Guarantor

Accepted:

Place, Date:

_____

Signature(s) of signatories of the Beneficiary

SIEMENS Gamesa RENEWABLE ENERGY	**GENERAL CHARACTERISTICS MANUAL**	*Code:* **GD287600-en** *Rev:* **3**
		Date: **27/07/2018** *Pdg.* **1** *of* **11**
Title: **SG3.4-132 3.465MW POWER CURVE AND NOISE**		*Approval process:* **Electronic: PDM Flow + Translation**
		Prepared: **JCASO**
		Verified: **JMLOPEZ**
		Approved: **IGB**

SCOPE

The SG3.4-132 3.465MW wind turbine power curve and aerodynamic rotor noise are presented. The calculation scope only applies for standard operation, in the terms described in Table 1 unless otherwise specified.

RECORD OF CHANGES

Rev.	Date	Author	Description
0	26/02/2016	VOSSORIO	Initial Version
1	15/06/2017	VOSSORIO	Table 1 updated
2	08/06/2018	JCASO	Tables 1, 3-6 updated
3	27/07/2018	JCASO	Dataset updated

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1 AIM

This document presents the SG3.4-132 3.465MW wind turbine power curve and STD full power noise level.

2 DEFINITIONS AND ACRONYMS

WT: Wind Turbine.

Power (P): Electric power output of the generator expressed in [kW], averaged in 10 minutes and excluding the transformer losses and the losses in the WT high voltage cables.

Wind Speed (WS): Expressed in [m/s] is the value of the horizontal wind Speed at hub height, averaged in 10 minutes.

Power Curve (PC): Represents the variation of P as a function of WS.

Wind Speed Distribution: The Weibull wind speed distribution is considered. Several values are considered for the Shape Parameter (K) and Annual Mean Wind Speed at hub height (Wave).

Annual Energy Production (AEP): Expressed in [MWh], is the total electric energy produced by the WT during a 1 year period, considering a given PC and a given Wind Speed Distribution.

Power coefficient (C_P): is the electric power coefficient, based on P.

Thrust coefficient (C_T).

Noise Level (LW): Values reported correspond to the average estimated Sound Power Level emitted by the WT at hub height, called LW in TS IEC-61400-14. LW values are expressed in dB(A). To obtain LWd value, as defined in IEC-61400-14, it must be applied a 2 dB increase to LW.

dB(A): LW is expressed in decibels applying the "A" filter as required by IEC standard regulation [Ref 1].

3 DESCRIPTION

The power curve and rotor aerodynamic noise of the SG3.4-132 3.465MW WT has been calculated on the basis of Gamesa Infusion (MAKE) blade.

Unless specified otherwise, the parameters used in the calculation are those in table 1.

Rated Power	3.465 MW
Rotor Diameter	132 m
Frequency	50-60 Hz
Rotor Speed	Variable speed
Blade tip angle	Pitch control regulation
Turbulence intensity	10 %

Table 1: Parameter values for the power curve calculation of the SG3.4-132 3.465MW wind turbine.

All power curve and annual energy production values in this document are subject to the validity ranges presented in Table 2.

Wind Shear (10min average)	≤ 0.3
Turbulence intensity TI [%] for bin i	$5\%\frac{(0.75v_i + 5.6)}{v_i} < TI_i < 12\%\frac{(0.75v_i + 5.6)}{v_i}$
Terrain	Not complex according to IEC 61400-12-1
Upflow β [°]	$-2^o \leq \beta \leq +2^o$
Grid frequency [Hz]	± 0.5 Hz

Table 2: Validity ranges of Power Curves for the SG3.4-132 3.465MW wind turbine.

All wind speeds in this document are referred to hub height, thus power curve values are not dependent on specific tower height. According to noise standard regulation [Ref 1], noise values are also referred to hub height wind speed. Therefore values shown are valid for any tower height suitable for SG3.4-132 platform.

4 RESULTS

4.1 STANDARD OPERATION

Standard operation has an aerodynamic rotor noise level of 106.3 dB(A).

4.2 POWER CURVE

Table 3 shows the electrical power [kW] as a function of the wind speed [m/s] horizontal referred to the hub height, averaged in ten minutes, for different air densities [kg/m^3]. The power curve does not include losses in the transformer and high voltage cables. The power curve is for the standard version of the turbine with a noise level of 106.3 dB(A).

Air density [kg/m^3]	SG 3.4-132 - 3.465MW + DinoTail® Power curves [kW]								
Ws hub [m/s]	1.225	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27
3	37	29	30	32	33	35	36	38	39
4	169	139	144	150	155	161	167	172	178
5	434	363	376	389	402	415	428	441	454
6	816	697	719	740	762	784	805	826	848
7	1327	1142	1176	1209	1243	1277	1311	1344	1378
8	1994	1724	1774	1823	1873	1922	1970	2019	2067
9	2718	2410	2471	2530	2586	2641	2693	2742	2789
10	3208	3004	3050	3092	3129	3164	3194	3222	3247
11	3402	3321	3341	3359	3373	3386	3397	3406	3414
12	3452	3430	3436	3441	3445	3448	3451	3453	3455
13	3463	3458	3459	3460	3461	3462	3462	3463	3463
14	3465	3464	3464	3464	3464	3464	3465	3465	3465
15	3465	3465	3465	3465	3465	3465	3465	3465	3465
16	3465	3465	3465	3465	3465	3465	3465	3465	3465
17	3463	3463	3463	3463	3463	3463	3463	3463	3463
18	3454	3454	3454	3454	3454	3454	3454	3454	3454
19	3424	3424	3424	3424	3424	3424	3424	3424	3424
20	3353	3353	3353	3353	3353	3353	3353	3353	3353
21	3236	3236	3236	3236	3236	3236	3236	3236	3236
22	3081	3081	3081	3081	3081	3081	3081	3081	3081
23	2915	2915	2915	2915	2915	2915	2915	2915	2915
24	2761	2761	2761	2761	2761	2761	2761	2761	2761
25	2636	2636	2636	2636	2636	2636	2636	2636	2636

Table 3: Power curve for SG3.4-132 3.465MW wind turbine as a function of wind speed for STD FULL POWER operation at different air densities [kg/m^3].

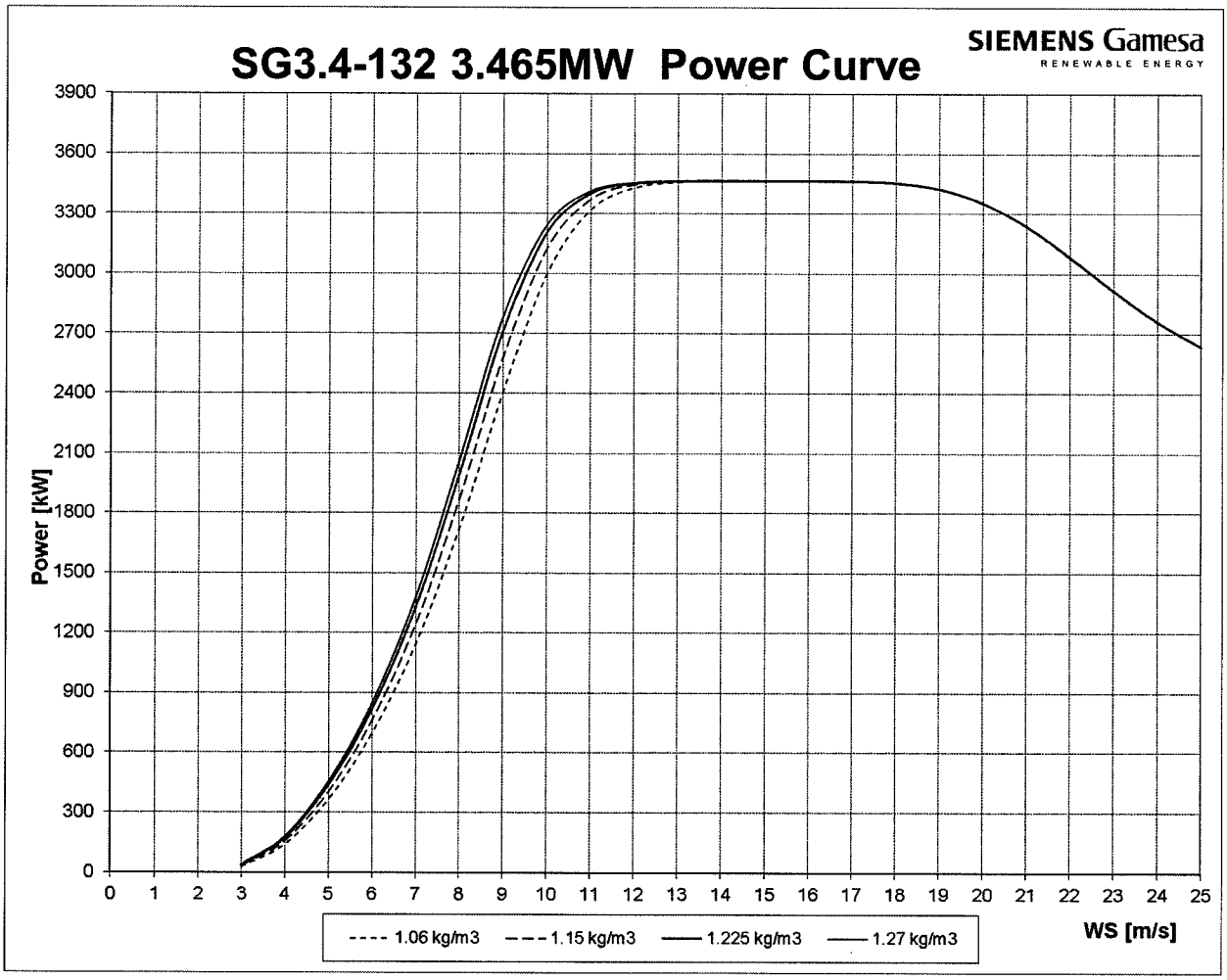

Figure 1: Power curve of SG3.4-132 3.465MW wind turbine for STD FULL POWER operation different air densities.

4.3 ANNUAL ENERGY PRODUCTION

In table 4 the annual energy production of the SG3.4-132 3.465MW wind turbine for STD FULL POWER is shown for different annual average wind speed velocities at hub height.

AEP [MWh]	*Annual Average Wind Speed [m/s] at Hub Height*										
Weibull K	***5***	***5.5***	***6***	***6.5***	***7***	***7.5***	***8***	***8.5***	***9***	***9.5***	***10***
1.5	*7279*	*8630*	*9912*	*11103*	*12189*	*13165*	*14028*	*14779*	*15422*	*15962*	*16406*
2	*6692*	*8331*	*9949*	*11501*	*12959*	*14306*	*15535*	*16639*	*17618*	*18470*	*19199*
2.5	*6054*	*7843*	*9682*	*11494*	*13224*	*14838*	*16318*	*17657*	*18857*	*19920*	*20852*

Table 4: Annual Energy Production [MWh] of the SG3.4-132 3.465MW wind turbine for STD FULL POWER operation as a function of the annual mean wind speed at hub height, and for different Weibull parameters. Air density: 1.225 kg/m^3.

4.4 C_P CURVE

WS, hub [m/s]	Cp [-]
3	0.164
4	0.316
5	0.415
6	0.451
7	0.462
8	0.465
9	0.445
10	0.383
11	0.305
12	0.238
13	0.188
14	0.151
15	0.122
16	0.101
17	0.084
18	0.071
19	0.060
20	0.050
21	0.042
22	0.035
23	0.029
24	0.024
25	0.020

Table 5: C_P values for the SG3.4-132 3.465MW wind turbine for STD FULL POWER operation. Air density=1.225kg/m^3.

4.5 C_T CURVES

Ct [-] Ws,hub [m/s]	Air Density [kg/m³]								
	1.225	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.27
3	0.883	0.883	0.883	0.883	0.883	0.883	0.883	0.883	0.883
4	0.837	0.837	0.837	0.837	0.837	0.837	0.837	0.837	0.837
5	0.811	0.811	0.811	0.811	0.811	0.811	0.811	0.811	0.811
6	0.801	0.801	0.801	0.801	0.801	0.801	0.801	0.801	0.801
7	0.799	0.799	0.799	0.799	0.799	0.799	0.799	0.799	0.799
8	0.792	0.794	0.794	0.794	0.794	0.793	0.792	0.792	0.791
9	0.728	0.757	0.752	0.748	0.743	0.737	0.731	0.724	0.717
10	0.58	0.647	0.635	0.623	0.61	0.598	0.586	0.573	0.562
11	0.427	0.498	0.483	0.47	0.457	0.445	0.433	0.421	0.411
12	0.317	0.372	0.36	0.35	0.339	0.33	0.321	0.312	0.304
13	0.243	0.283	0.275	0.267	0.259	0.252	0.246	0.24	0.234
14	0.192	0.222	0.216	0.21	0.204	0.199	0.194	0.189	0.185
15	0.155	0.179	0.174	0.169	0.165	0.161	0.157	0.153	0.149
16	0.127	0.147	0.143	0.139	0.135	0.132	0.129	0.126	0.123
17	0.106	0.122	0.119	0.116	0.113	0.11	0.108	0.105	0.103
18	0.09	0.103	0.1	0.098	0.095	0.093	0.091	0.089	0.087
19	0.076	0.087	0.085	0.083	0.081	0.079	0.077	0.076	0.074
20	0.065	0.074	0.072	0.07	0.069	0.067	0.066	0.064	0.063
21	0.055	0.062	0.061	0.059	0.058	0.057	0.056	0.054	0.053
22	0.046	0.052	0.051	0.05	0.049	0.048	0.047	0.046	0.045
23	0.039	0.044	0.043	0.042	0.041	0.04	0.04	0.039	0.038
24	0.033	0.038	0.037	0.036	0.035	0.034	0.034	0.033	0.032
25	0.029	0.033	0.032	0.031	0.031	0.03	0.029	0.029	0.028

Table 6: C_T values for the SG3.4-132 3.465MW wind turbine for STD FULL POWER operation at different air densities.

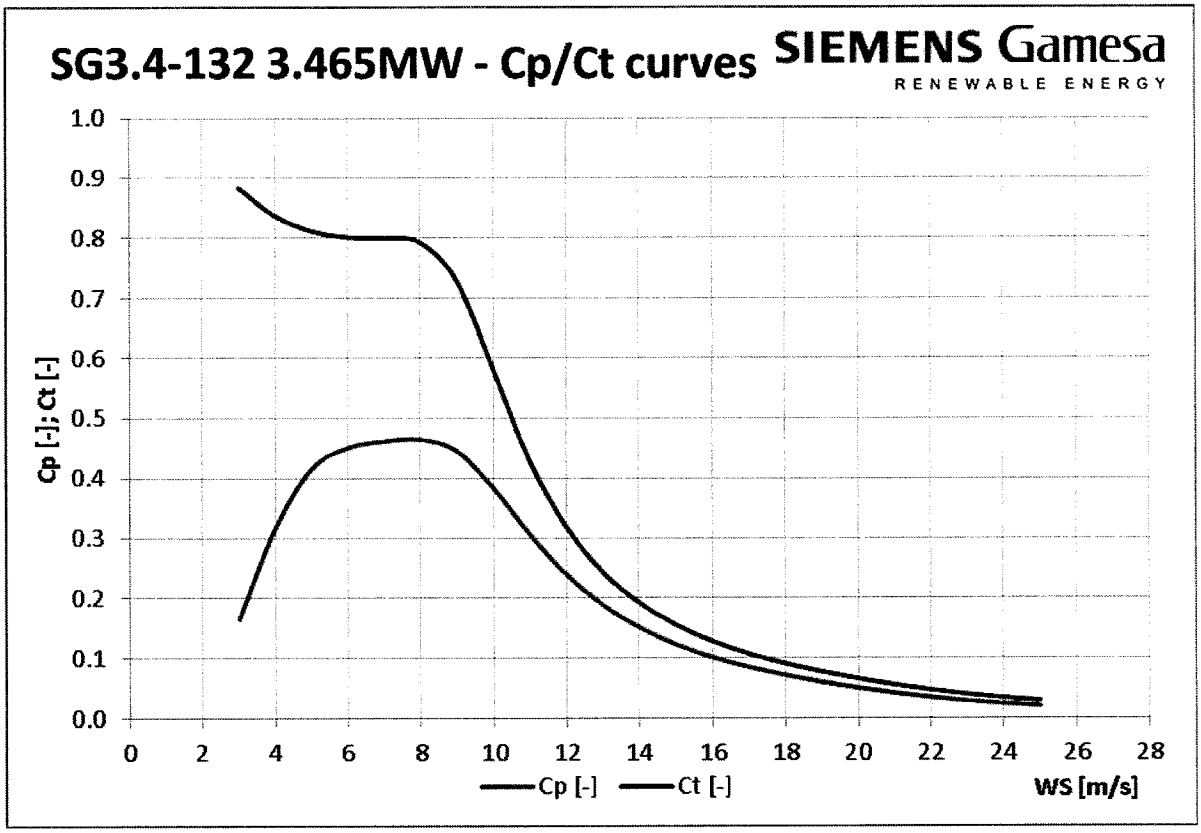

Figure 2: C_P and C_T curves of the SG3.4-132 3.465MW wind turbine for STD FULL POWER operation. Air density=1.225kg/m^3.

4.6 NOISE LEVELS

Rotor aerodynamic noise levels produced by the SG3.4-132 3.465MW WT in standard operation (STD FULL POWER) and corresponding values of WS are shown below in table 6.

WS,hub [m/s]	STD FULL POWER
	LW [dB(A)]
6.0	98.2
6.5	100.0
7.0	101.7
7.5	103.4
8.0	105.0
8.5	105.7
9.0	106.1
9.5	106.2
10.0	106.3
10.5	106.2
11.0	106.1
11.5	106.1
12.0	106.1
12.5	106.1
13.0	106.1

Table 7: Rotor aerodynamic noise levels in standard operation (STD FULL POWER) for the SG3.4-132 3.465MW WT, and the corresponding values of Wind Speed at hub height.

Noise values are given at hub height wind speeds, and covering specified measurement range according to standard noise measurement regulation [Ref 1]

5 REFERENCES

[Ref 1] IEC 61400-11 Ed.3 International standard. Wind turbines – Part 11: Acoustic noise measurement techniques

6 ANNEXES

N/A

SIEMENS Gamesa RENEWABLE ENERGY	TECHNICAL REPORT	*Code:* **GD366003-en** *Rev:* **1**
		Date: **20/12/19** *Pg.* **1** *of* **18**
Documentation Type: **Design**	*Title:*	*Approval process:* **Electronic: PDM Flow**
		Prepared: **ASY**
Deliverable: **SC001**	**AE_RENEXIA_ITALY_CASALDUNI**	*Verified:* **ECA/JSS**
		Approved: **JVI**

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RECORD OF CHANGES

Current Report

Code	Rev.	Date	Author	Description
GD366003	1	20/12/19	ASY	Revision due to updated layout (10 G132-3.465MW IIA at 114m)
GD366003	0	13/02/18	PMR	Updated wind data, new layout and air density. 10 G132-3.465MW IIA at 114m.

Related Report

Code	Rev.	Date	Author	Description
GD169075	0	30/10/12	SYO	Initial Version, 18 G90-2.0MW IIA at 100m hub height.

1 SCOPE

This report analyses the wind conditions and design at CASALDUNI W.F. located in ITALY according to the design specifications of the wind turbine generators which are going to be installed.

The site assessment has been performed in accordance to the wind conditions and terrain topography of the site.

CASALDUNI W.F. design, 10 G132-3.465MW IIA at 114m hub height, has been provided by the customer RENEXIA (Appl./Ref. Doc. 10).

This analysis has been prepared by SGRE on the basis of the information supplied by the customer Appl./Ref. Doc. 10 to 12 (hereinafter, the Information). Customer represents and warrants that the Information is accurate, truthful and complete, and that it matches the real conditions of the site, being therefore the customer the sole and exclusive responsible of such accuracy, truthfulness and completeness.

Moreover, this analysis has been made using the current industry knowledge and generally accepted standards of professional care, skill, diligence and competence, based on the operational and design assumptions set out in the design verification certificate for the WTG model specified herein. No representation or warranty is given as to the achievement or reasonableness of any projections, estimates or statements about the future or prospects of the Information.

Therefore, if the actual operating conditions at the Site adversely deviate from the assumptions made in this analysis, other operational requirements for the WTGs different from the ones specified herein may be required. SGRE shall not be held liable for damages, loss or liability of whatsoever nature (both direct or indirect) in connection with or arising from the use of any information contained in this document; except to the extent such damage is attributable to the gross negligence or willful misconduct of SGRE.

2 DEFINITIONS AND ACRONYMS

G132-3.465MW IIA: Wind turbine made by SGRE, with 132m rotor diameter and 3.465MW rated power.
".": Decimal separator.
Alpha, wind shear factor: Wind shear power law exponent.
C_{CT}: Turbulence structure correction parameter.
H_{hub}: Hub height.
IEC: International Electrotechnical Commission.
IEC Standard: Standard IEC-61400-1 wind turbine classification.
Met.mast: Meteorological mast.
MIS: Method of Independent Storms.
Reference wind speed: The extreme 10-minute average wind speed with a recurrence period of 50 years.
TAB: Extension for a file in the WAsP programme with distribution of frequencies and directional rose.
TI: Wind speed turbulence intensity.
TI_{15}: Weighted average value considered for the TI from 10 m/s up to cut-out wind speed.
Turbulence Intensity: Rate of the wind speed standard deviation to the mean wind speed over a specified period of time.
V_{avg}: Average wind speed.
V_{max}: Maximum wind speed.
Vref std dens: Reference wind speed at standard density (1.225 kg/m^3).
V_{ref}: Reference wind speed.
W.F.: Wind farm.
WAsP: Wind Atlas Analysis and Application Programme.
Weibull probability distribution: Probability function used to describe the wind speed distribution within a specified time period (normally 1 year).
Wind shear: Wind speed variation with height above ground.
WTG: Wind turbine generator.
X_{UTM}: X coordinate (east-west) in UTM WTGS84 format (zone 33).
Y_{UTM}: Y coordinate (north-south) in UTM WTGS84 format (zone 33).

3 DATA ANALYSIS. IEC STANDARD CLASIFICATION

This analysis is carried out using the data and map provided by the customer (RENEXIA), through SGRE (Appl./Ref. Doc. 10 to 12).

The customer has provided information about a neighbouring wind farm of two Leitwind LTW77 1000KW at 65m hub height, but not about any other obstacles. Therefore, this report has been performed only taking into consideration the wind turbine generators located in CASALDUNI W.F. and its two neighbouring turbines.

This analysis has been done with the data indicated in this report. Any change to these data, may lead to a modification of the conclusions.

3.1 CLIMATIC CONDITIONS

3.1.1 Wind measurement period

The coordinates and the measurement period of the meteorological masts are shown in the following table (Appl./Ref. Doc. 10 and 12).

Meteorological mast	UTM WGS84, zone 33 Coordinates		Heights (m)	Measurement Period
	X_{UTM} (m)	Y_{UTM} (m)		
A17	477186	4567529	50 / 40 / 30	18/07/15 - 22/12/17 05/04/19 – 04/12/19
A08	471434	4569794	50 / 40 / 30	22/07/15 - 22/12/17 16/09/19 – 04/12/19
A18	472494	4569317	110 / 106 / 90 / 80 / 70 / 50	02/09/19 – 04/12/19

***Table 1**: Met masts coordinates, measurement heights and period at CASALDUNI W.F.*

Available measurements at both masts consist of ten-minute average records of wind speed and direction.

The reference period for the A17 met mast has been set to 22/12/15 - 21/12/17 and the data availability for this period is 96.5%. Data obtained during the reference period have been used to perform the calculations shown in this report.

The reference period for the A08 met mast has been set to 22/12/15 - 21/12/17 and the data availability for this period is 93.8% Data obtained during the reference period have been used to perform the calculations shown in this report.

Registered values of both masts at 50m measurement height have been used to model the wind conditions of CASALDUNI W.F.

Met mast A18 has been used to verify the wind shear on site and to check the vertical extrapolation.

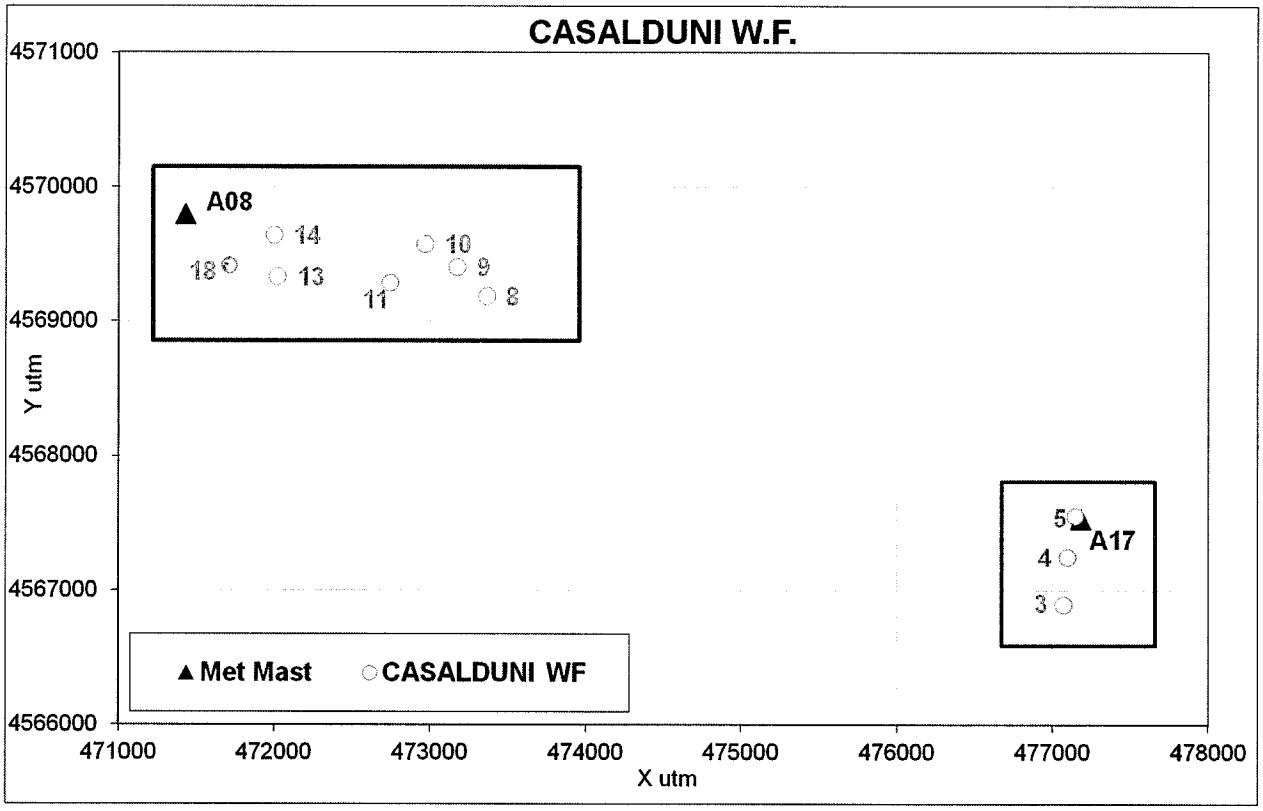
The tab files have been calculated by SGRE with the raw data provided by the customer (Appl./Ref. Doc. 11).

Data recorded at four AWI stations at 50m height were correlated on a monthly basis to the measured data recorded at masts A08 and A17 at 50m height. According with the results the wind speed measured at both met masts is considered representative of the long-term wind speed of the site (Appl./Ref. Doc. 11).

The Wind Farm turbine positions have been grouped according to their most representative met mast, considering topographic conditions and distances criteria (see Graphic 1:).

- Met mast A17 has been chosen as representative of the wind farm turbine positions 3, 4 and 5 considering topographic conditions and distances criteria.

- Met mast A08 has been chosen as representative of the wind farm turbine positions 8, 9, 10, 11, 13, 14 and 18 considering topographic conditions and distances criteria.



Graphic 1: *WTG positions and the met masts in CASALDUNI W.F.*

3.1.2 Average wind shear

The wind shear power law exponent has been calculated at each met mast by SGRE with the wind data provided by the customer for its reference period and their values are shown in the following table (Appl./Ref. Doc. 11):

Met Mast	Heights (m)	Shear factor
A17	50 / 30	0.17
A08	50 / 30	0.11
A18	106 / 50	0.28*

Table 1: *Wind shear factor at each met mast in CASALDUNI W.F.*

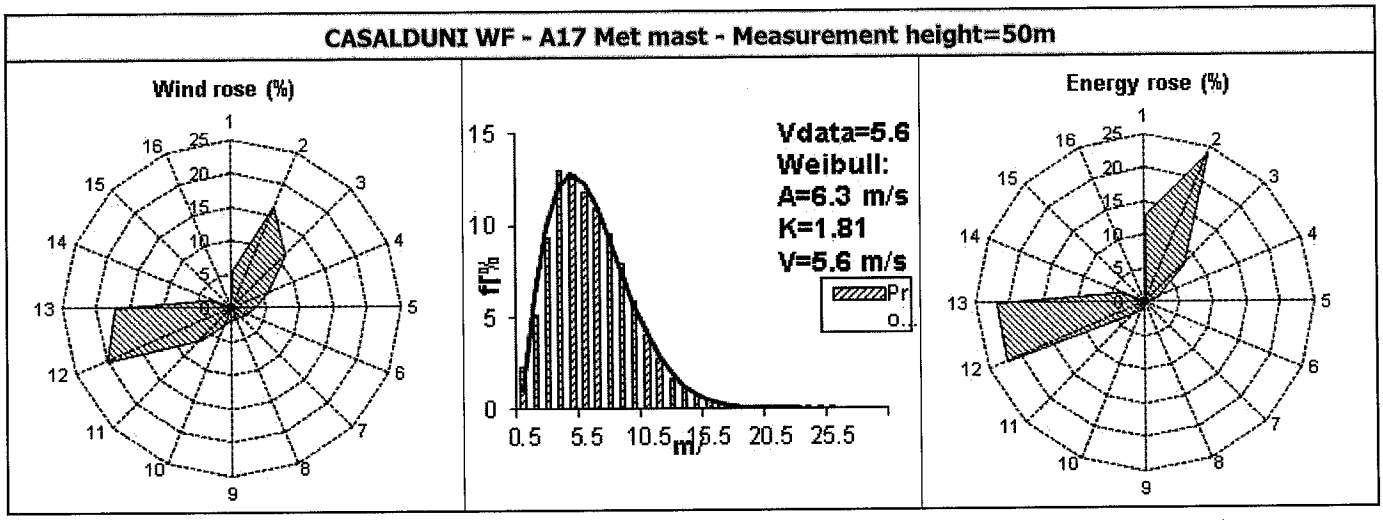
The wind shear at met mast A18 has only been calculated with the available data during the period 02/09/19 – 04/12/19.

These wind shear values have been used to extrapolate wind data series from 50m measurement height to 114m hub height, in order to carry out the study of wind conditions in the site.

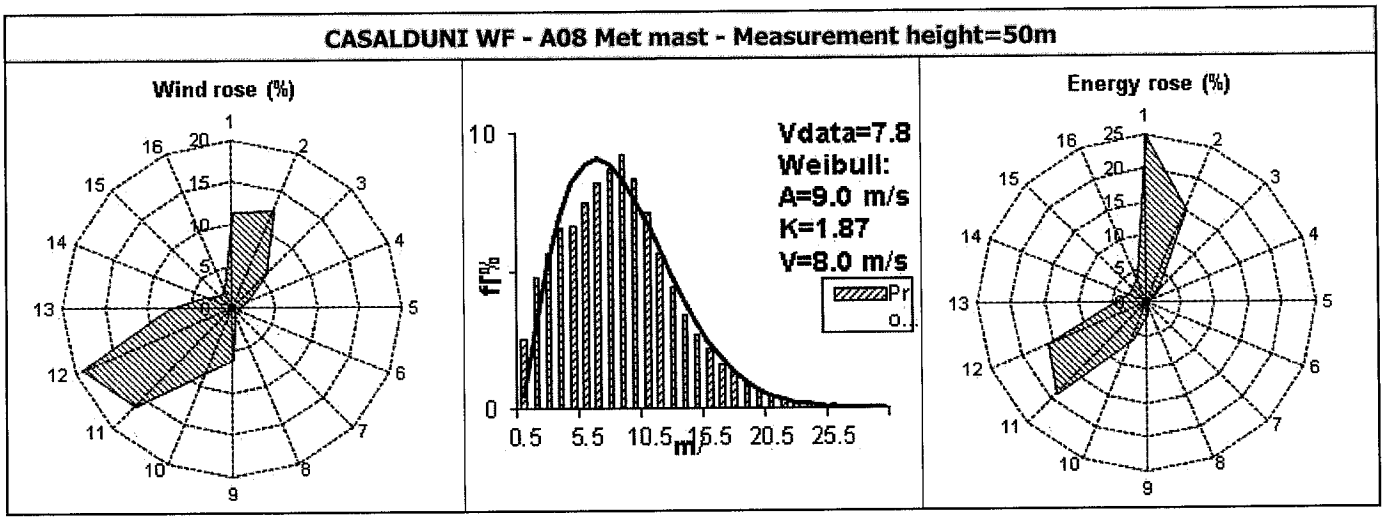
Met mast A18 has been used to verify the wind shear and for the vertical extrapolation to hub height of the wind conditions.

3.1.3 Wind and energy rose

The following graphics show the wind and energy roses as well as the fitted Weibull distribution for each met mast at 50m measurement height. The TAB files which have been used to perform this calculation were calculated by SGRE with the raw data provided by the customer (Appl./Ref. Doc. 11).



Graphic 2: *Wind Rose, fitted distribution and Energy rose at A17 met mast at 50m during the reference period.*



Graphic 3: *Wind Rose, fitted distribution and Energy rose at A08 met mast at 50m during the reference period.*

In the previous graphics, the WAsP Fitted Weibull distribution is shown. This fit method is based on WAsP criteria.

3.1.4 Air density

The average air density specified for the site has been provided by the customer and its value is ρ = 1.150 kg/m^3 (Appl./Ref. Doc. 16).

3.1.5 Mean wind speed. Weibull distribution parameters

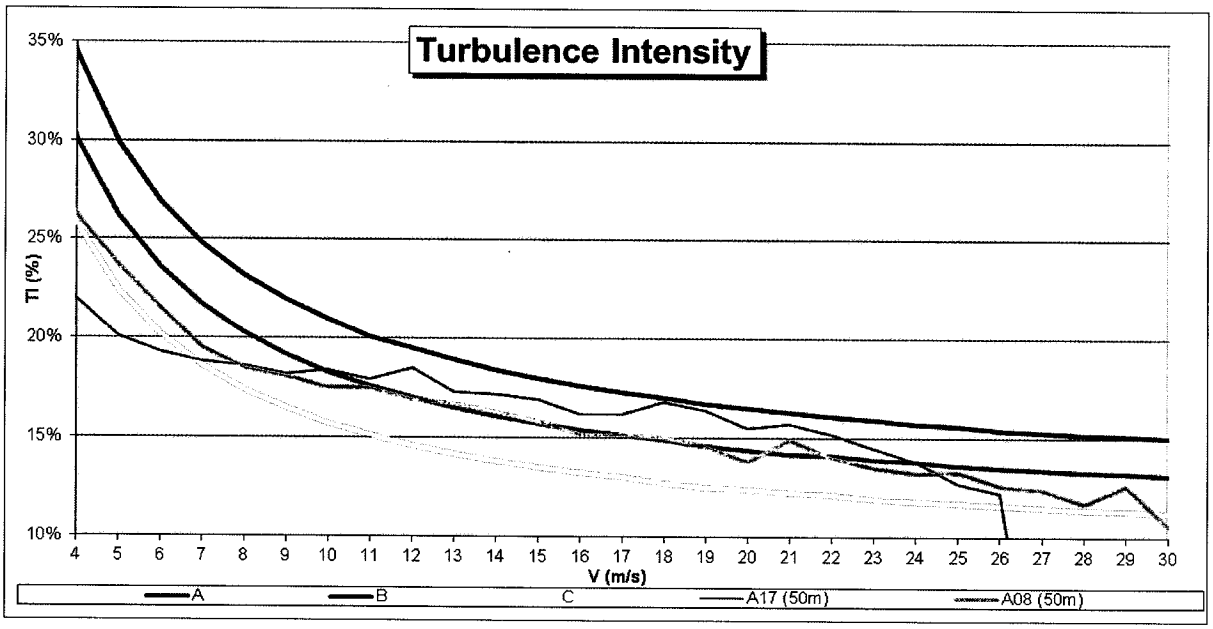
The next table details the A and k Weibull distribution parameters and the mean wind speed at met masts and each wind turbine position at 114m hub height. These values have calculated by SGRE with WAsP software from the raw data provided by the customer (Appl./Ref. Doc. 11).

CASALDUNI W.F. - Hub height: 114m					
Site ID	**Coordinate X (m)**	**Coordinate Y (m)**	**A Weibull (m/s)**	**K Weibull**	**Vavg (m/s)**
A17	***477186***	***4567529***	***7.2***	***1.71***	***6.4***
A08	***471434***	***4569794***	***9.6***	***1.64***	***8.6***
3	477075	4566896	7.3	1.71	6.5
4	477100	4567249	7.2	1.71	6.4
5	477149	4567554	7.1	1.72	6.4
8	473366	4569187	9.6	1.64	8.5
9	473178	4569405	9.5	1.63	8.5
10	472970	4569579	9.4	1.61	8.5
11	472747	4569286	9.1	1.61	8.1
13	472024	4569333	9.0	1.59	8.1
14	472000	4569640	9.2	1.58	8.3
18	471709	4569417	9.3	1.63	8.3

Table 2: *Mean speed, A and k Weibull parameters for each WTG position and met masts at 114m.*

3.1.6 Turbulence Intensity

The next graphic shows the characteristic ambient turbulence intensity (90% quantile) at A17 and A08 met masts used for the wind farm study. This graphic has been calculated with the wind data provided by the customer at measurement height during its corresponding reference period mentioned in section 3.1.1 (Appl./Ref. Doc 14):



Graphic 4: *Turbulence Intensity at 50m measurement height of both masts in CASALDUNI W.F. during their reference periods.*

As it can be observed in the previous graphic, the characteristic ambient turbulence intensity measured at A17 and A08 met masts at 50m measurement height is under the limits specified by the IEC-A Subclass, according to the IEC 61400-1.Ed3 Standard.

TI_{15} value of mast A17 at 50m is **17.9%.**
TI_{15} value of mast A08 at 50m is **16.5%.**

As the data coverage of ten-minute data at 26m/s and onwards for mast A08 is low and at 20m/s and onwards for mast A17, TI at these bins has not been considered as representative and it has not been taken into account in the next calculations. Therefore, the Turbulence Intensity of both masts at 50m height is under the limit specified by IEC-A subclass according to IEC 61400-1 Ed.3 Amendment Standard.

3.1.7 Wind speed extreme values

Method of Independent Storms (MIS)

The method used to determine the value of V_{ref} is based on the A and k Weibull distribution parameters. Therefore, due to the low k Weibull parameter and high ten-minute averaged V_{max} for A17 met mast, the Method of Independent Storms has been applied to obtain the estimated V_{ref} for the wind turbine positions (Appl./Ref. Doc. 6).

The Method of Independent Storms is applied to the 10-minutes averaged wind data series over the whole available period of both met masts.

The V_{ref} values applying the Method of Independent Storms have been extrapolated from the met mast to each wind turbine position of the wind farm, according to the relation between the V_{ref} and the calculated average wind speed at the met mast at 114m hub height.

In the following table, the results obtained at 114m hub height at met masts and each wind turbine position are shown:

CASALDUNI W.F. - Hub height: 114m				
Site ID	**Coordinate X (m)**	**Coordinate Y (m)**	**Vref (m/s)**	**Vref std. Dens. (m/s)**
A17	***477186***	***4567529***	***37.4***	***36.3***
A08	***471434***	***4569794***	***39.1***	***37.9***
3	477075	4566896	38.2	37.0
4	477100	4567249	37.4	36.2
5	477149	4567554	37.1	36.0
8	473366	4569187	39.0	37.8
9	473178	4569405	38.7	37.5
10	472970	4569579	38.6	37.4
11	472747	4569286	37.2	36.1
13	472024	4569333	37.0	35.8
14	472000	4569640	37.9	36.7
18	471709	4569417	38.1	36.9

Table 3: *Extreme wind speed at each WTG position and met masts at 114m.*

Ten-minute averaged V_{max}:

The maximum wind speed value obtained at A17 met mast at 50m during the measurement period is 25.5 m/s.

The maximum wind speed value obtained at A08 met mast at 50m during the measurement period is 32.5 m/s.

3.1.8 IEC Assessment

The following table shows the IEC classification according to the IEC 61400-1.Ed3 for met masts and each wind turbine position at 114m hub height in CASALDUNI W.F.

CASALDUNI W.F. - Hub height: 114m					
Site ID	**Coordinate X (m)**	**Coordinate Y (m)**	**Vavg (m/s)**	**Vref std. Dens. (m/s)**	**IEC Class**
A17	***477186***	***4567529***	***6.4***	***36.3***	***III***
A08	***471434***	***4569794***	***8.6***	***37.9***	***I***
3	477075	4566896	6.5	37.0	**III**
4	477100	4567249	6.4	36.2	**III**
5	477149	4567554	6.4	36.0	**III**
8	473366	4569187	8.5	37.8	**I**
9	473178	4569405	8.5	37.5	**II**
10	472970	4569579	8.5	37.4	**II**
11	472747	4569286	8.1	36.0	**II**
13	472024	4569333	8.1	35.8	**II**
14	472000	4569640	8.3	36.7	**II**
18	471709	4569417	8.3	36.9	**II**

Table 4: *IEC classification at each WTG position and met masts at 114m.*

As shown in the previous table, according to IEC 61400-1.Ed3 Amendment standard, all positions of the wind farm are considered as IEC-I, II or III Class. Although some positions are not valid in terms of class, for the installation of the G132-3.465MW IIA wind turbine model, a detailed loads study is going to be performed in order to check its suitability.

3.1.9 Atmospheric Temperature

The annual ambient average temperature has been provided by the customer (Appl./Ref. Doc. 11):

CASALDUNI W.F.		
Mast	**A17**	**A08**
Average temperature	13.7ºC	13.0ºC
Minimum temperature	-5.2ºC	-7.5ºC
Maximum temperature	37.4ºC	36.4ºC

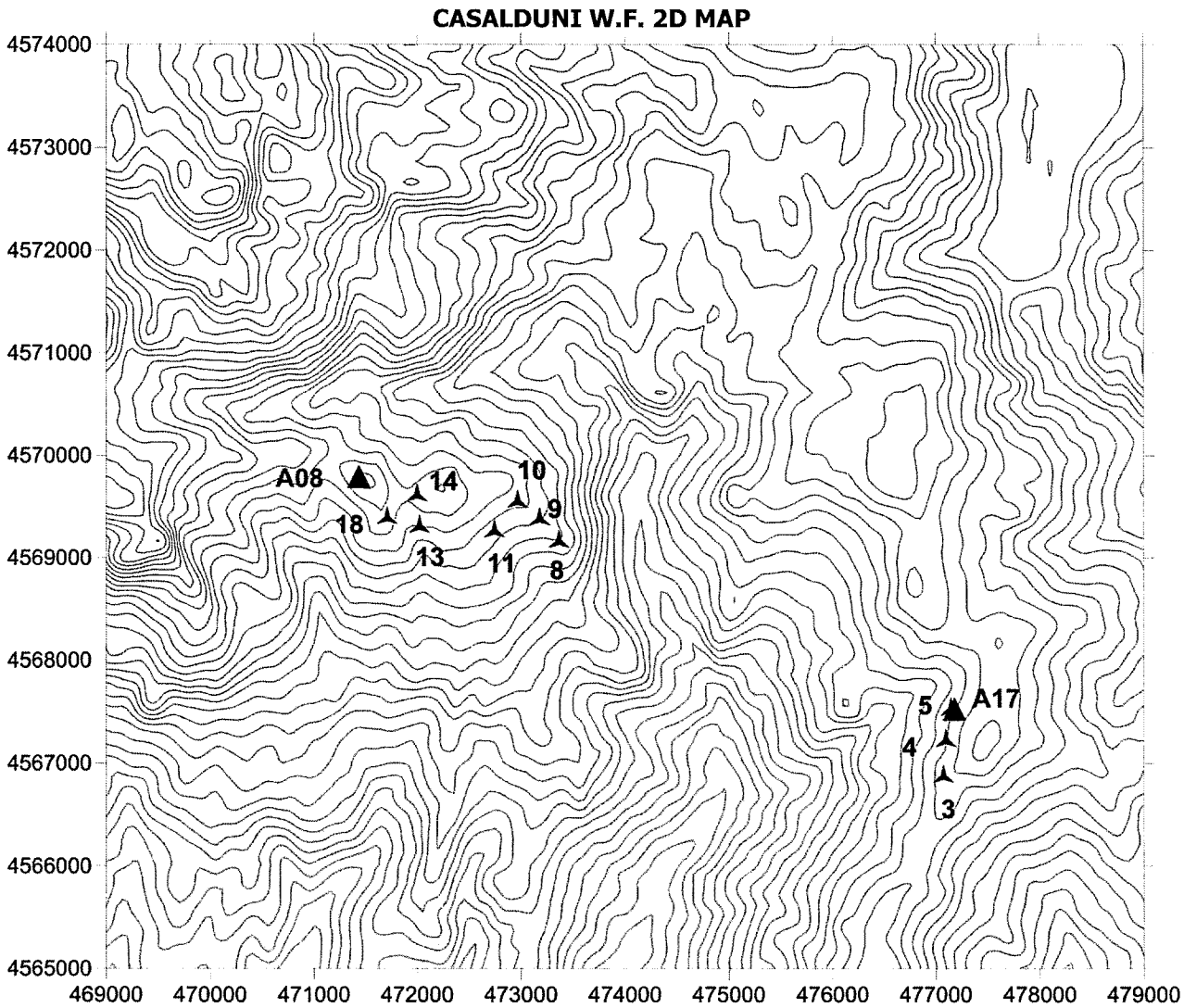
Table 6: *Temperature values in CASALDUNI W.F.*

Note that during the combination of some conditions like high wind, high temperatures, low wind temperature, low air-density, voltage, frequency or high harmonic values..., a decrease in rated power could be observed, maintaining the thermal conditions of the main components of the wind turbine (gearbox, generator...) within the security limits.

In places where fog banks are frequent, the risk of freezing increases with temperatures around 0ºC. Therefore, if ice deposits on the blades, it would decrease their aerodynamic profile and power output.

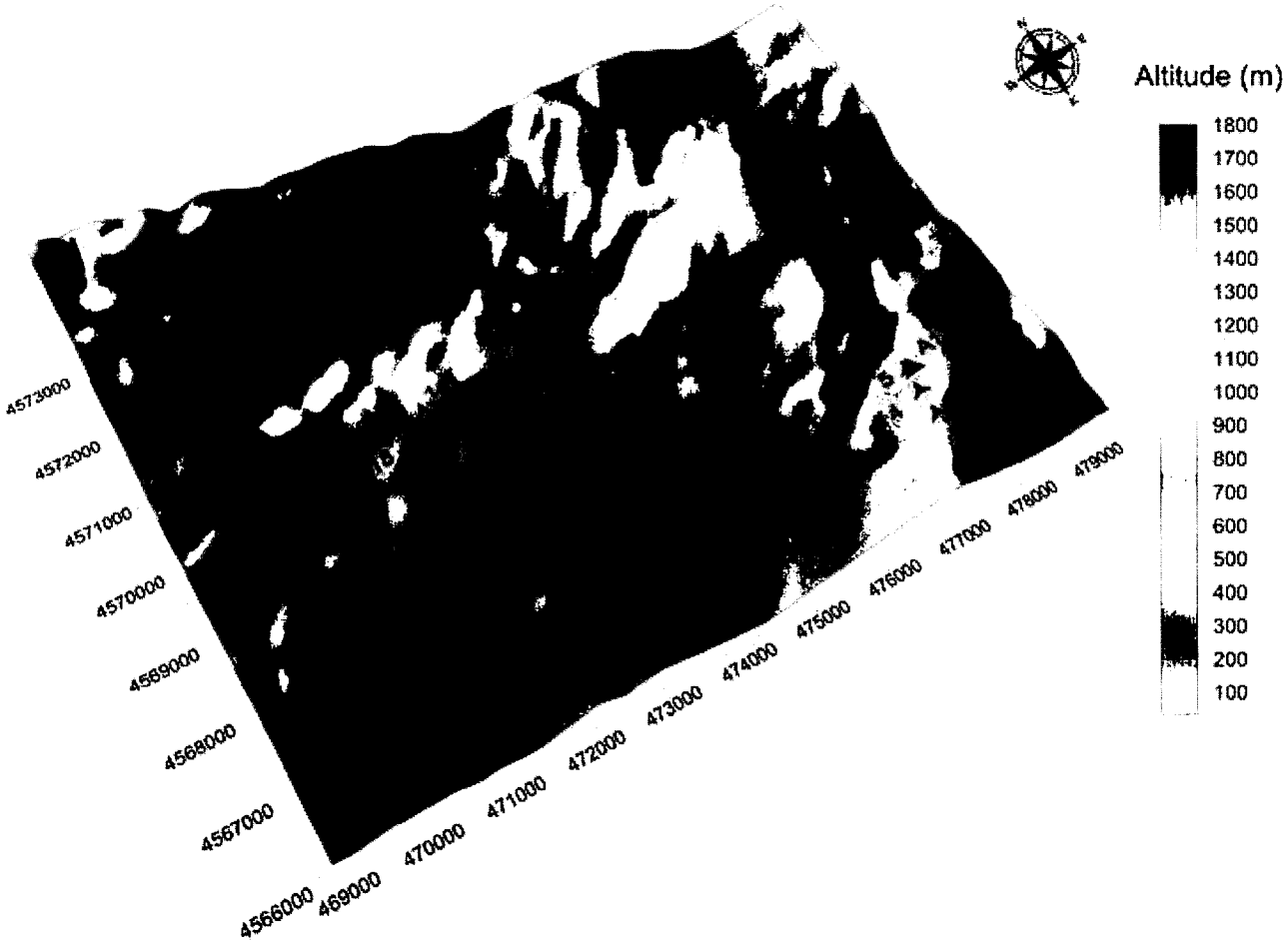
3.2 TOPOGRAPHIC CONDITIONS

The following graphics show the 2D and 3D digital maps and the layout of the wind turbines and the met masts locations, drawn up from digital map and coordinates provided by the customer. (Appl./Ref. Doc. 12):



Graphic 5: *2D Map of the CASALDUNI W.F. with met masts and WTG positions (height contour lines every 20m).*

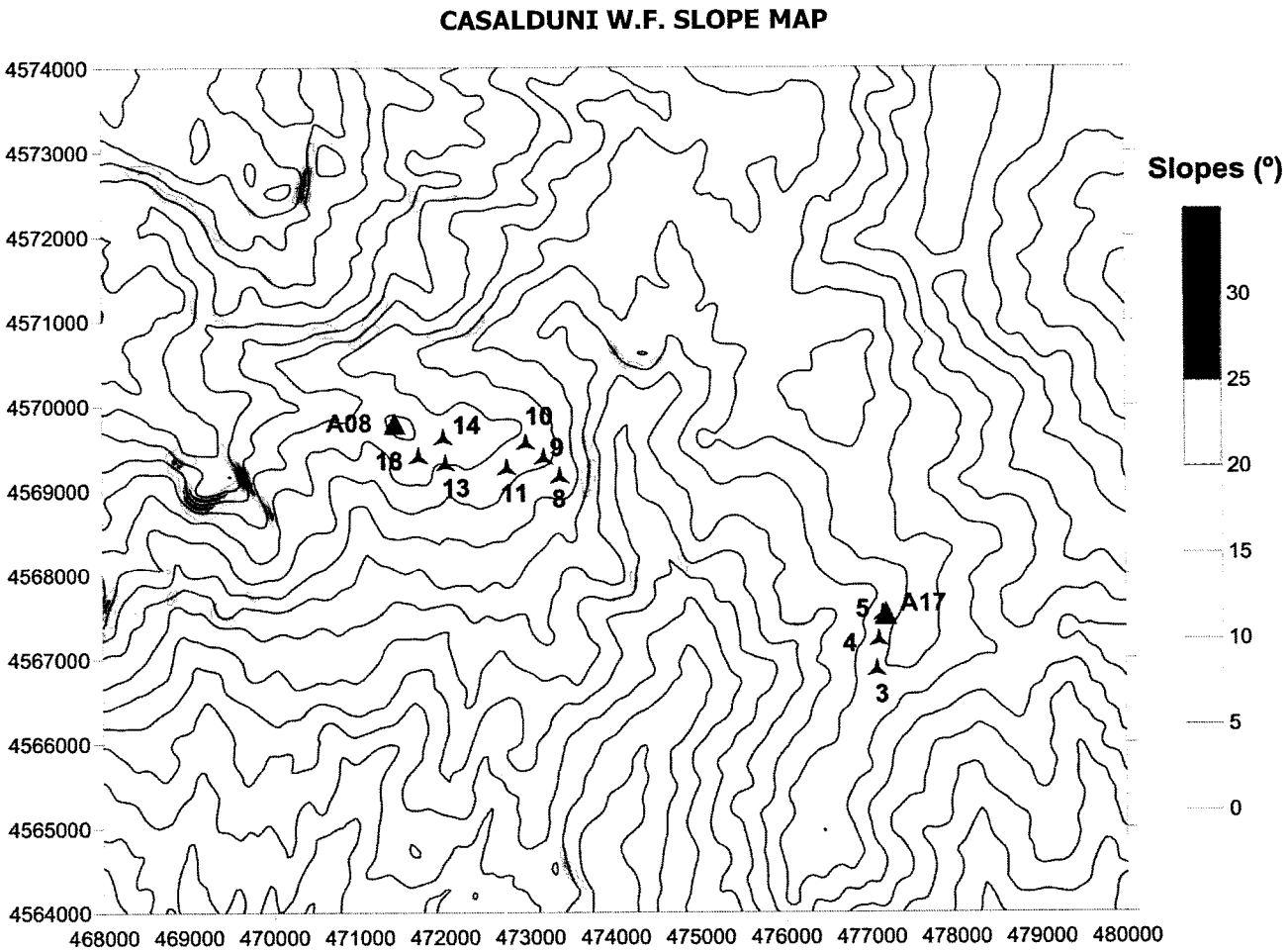
CASALDUNI W.F. 3D MAP



Graphic 6: *3D map of CASALDUNI W.F. with met masts and WTG positions (legend in m).*

3.2.1 Slope map

The slopes of the terrain surrounding the WTG locations are shown in the following graph. The legend shows the slopes in degrees (º).



Graphic 7: *Slope map (º) of CASALDUNI W.F. with met masts and WTG positions (height contour lines every 50m).*

3.2.2 Maximum slopes in direction of prevailing winds

Maximum slopes (>10º) have been calculated in a radius of 5 times the hub height (570m) around each position for the prevailing wind directions. The prevailing wind directions are: W and NNE to NE for mast A17 and N to NNE and SW to WSW for mast A08 according to the energy roses (Graphics 2 and 3).

Wind turbine positions 8 and 18 are located on a terrain surrounded by slopes steeper than 15º in prevailing wind directions.

Wind turbine positions 3, 4, 5, 9, 10, 13 and 14 are located on a terrain surrounded by slopes steeper than 10º in prevailing wind directions.

Position 11 is located on a terrain surrounded by slopes gentler than 10º in prevailing wind directions.

The presence of severe ground slopes near the suggested locations involves vertical winds, turbulence and negative shear exponent of absolute values difficult to quantify.

Positions 5 and 13 are placed in the wake of terrain elevations and the wind can reach these WTG positions with presence of vertical wind, turbulence and high values of wind shear exponent that are difficult to quantify.

3.2.3 Maximum slopes in direction of non-prevailing winds

Maximum slopes (>10º) have been calculated in a radius of 5 times the hub height (570m) around each position in non-prevailing wind directions.

Wind turbine position WTG08 is located on a terrain surrounded by slopes steeper than 25º in non-prevailing wind directions.

Wind turbine positions 9, 10, 13, 14 and 18 are located on a terrain surrounded by slopes steeper than 15º in non-prevailing wind directions.

Wind turbine positions 3, 4, 5 and 11 are located on a terrain surrounded by slopes steeper than 10º in non-prevailing wind directions.

The presence of severe ground slopes near the suggested locations involves vertical winds, turbulence and negative shear exponent of absolute values difficult to quantify.

3.2.4 Complex Terrain Index

All positions provided by the customer in CASALDUNI W.F. are classified as Complex Terrain (CT) according to Standard IEC-61400-1 Ed. 3.

3.2.5 Altitude above sea level

Altitude over sea level of the mast A17 is 480m.

Altitude over sea level of the mast A08 is 663m.

Altitude over sea level of the proposed wind turbine positions ranges between 473m at 5, and 630m at 18. The average altitude of the wind farm is 557m.

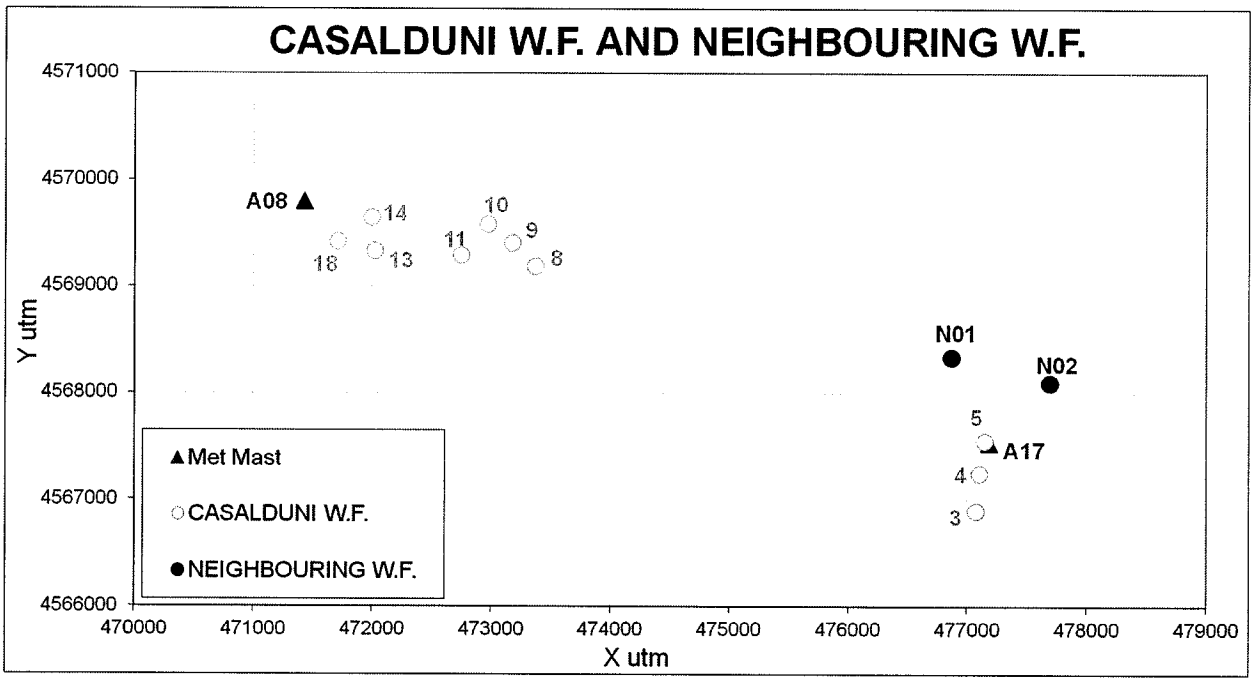
3.2.6 Obstacles and surface roughness

The customer has provided a digital site map with height contours and roughness lines for simulating wind conditions of CASALDUNI W.F. (Appl./Ref. Doc. 12). No information about obstacles was provided.

3.3 WIND FARM DESIGN

3.3.1 WIND FARM CONFIGURATION

The customer has provided information about a neighbouring wind farm of two Leitwind LTW77 1000KW at 65m hub height. The following graphic shows the wind turbine generators located in CASALDUNI W.F. and its two neighbouring turbines (N01 and N02):



Graphic 8: *CASALDUNI W.F. with met masts and 2 neighbouring wind farm positions.*

3.3.1 Distance between wind turbines

As a general procedure, SGRE does not install wind turbines at a shorter distance than two times the rotor diameter between them. All wind turbine positions at CASALDUNI W.F. are located more than two times the rotor diameter away from each other and the minimum distance between them is 2.1 times the rotor diameter between positions 9 and 10, considering the G132-3.465MW IIA wind turbine model.

The customer has provided information on neighbouring wind farm: 2 Leitwind LTW77 1000KW at 65m hub height or but not about other nearby obstacles. Therefore, this assessment has been performed considering only the wind turbine generators located in CASALDUNI W.F. and these two neighbouring positions.

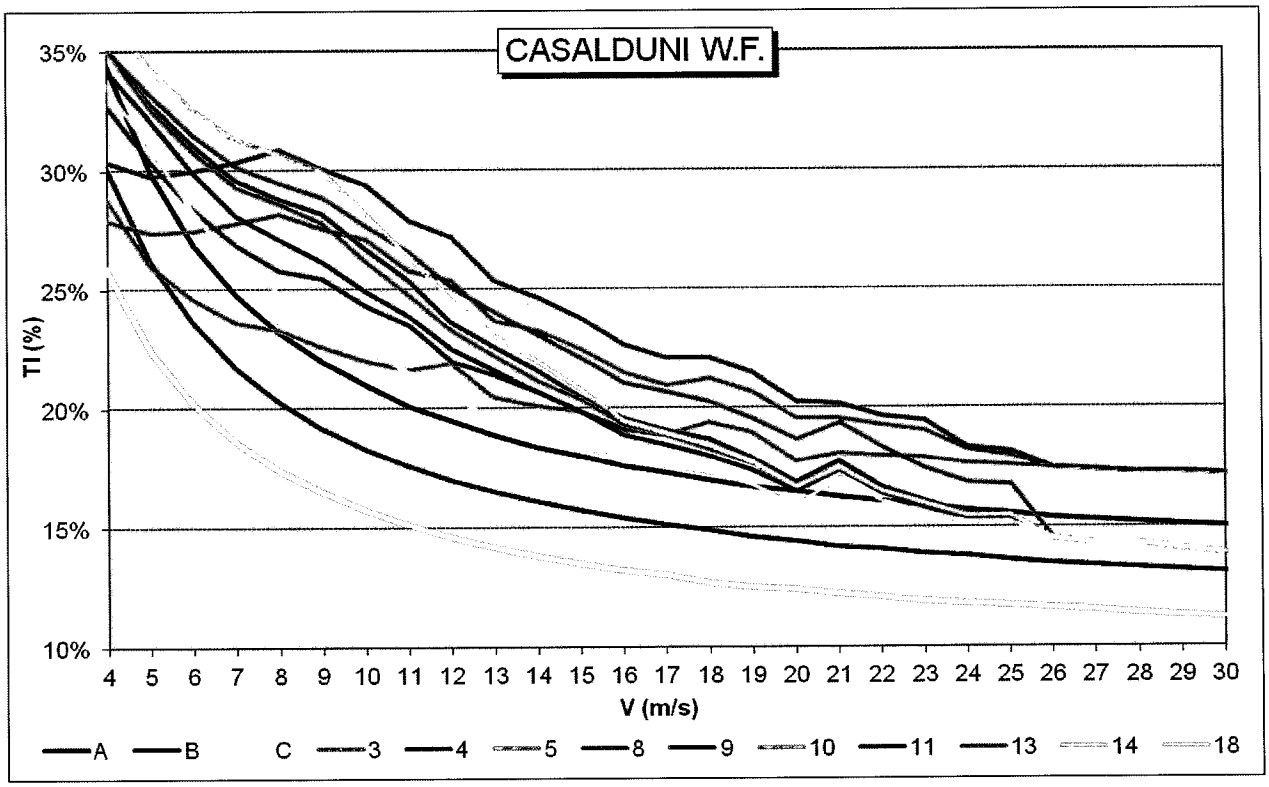
3.3.3 Effective Turbulence Intensity

In order to consider wake generated turbulence intensity, a study according to the IEC-61400-1 Ed.3 Amendment 1 standard (Appl./Ref. Doc. 2)) has been performed. The scope is to check that the additional TI caused by the neighbouring wind turbines, located at a shorter distance than 10 times the rotor diameter, is acceptable for the wind turbine model intended to be installed, G132-3.465MW IIA (IEC-A subclass).

Effective Turbulence Intensity includes the ambient turbulence intensity (measured at met mast) and the turbulence intensity due to wakes between wind turbines.

Effective Turbulence Intensity of positions considered as Complex terrain (see section 3.2.4) has been increased taking into account the wind flow distortion, as it is stated in the IEC-61400-1 Ed.3 Amendment 1. The characteristic turbulence intensity of the met mast is increased 15% (C_{CT}=1.15) for the effective turbulence intensity calculation at the positions classified as complex terrain.

In the following graphic, the Effective Turbulence Intensity at each wind turbine location is shown:



Graphic 9: *Effective Turbulence Intensity at all positions in CASALDUNI W.F. with 10 G132-3.465MW IIA at 114m hub height.*

As shown in the previous graphics, Effective turbulence intensity at CASALDUNI W.F. is over the limits defined by the A subclass for all positions, 10 G132-3.465MW IIA at 114m hub height, according to IEC 61400-1.Ed3 (Appl./Ref. Doc. 2).

3.3.4 Met station position

In the next table the minimum and maximum distances between the met masts and the wind turbine locations are shown:

Met Mast	Coord X (m)	Coord Y (m)	Nearest WTG	Distance (m)	Furthest WTG	Distance (m)
A17	477186	4567529	5	45	3	643
A08	471434	4569794	18	467	8	2025

Table 5: *Relative met masts positions in CASALDUNI W.F.*

Some wind turbine positions are far away from met masts (over 2km away), this fact could introduce uncertainties in the wind resource modeling that might impact the conclusions of this report. Therefore, SGRE recommends to install another met mast close to A08 WTG position to better determine the wind conditions of the CASALDUNI wind farm.

3.3.5 LOAD STUDY

A load study has been carried out (Appl./Ref. Doc.13) and it has been concluded that the site is acceptable to install 10 G132-3.465MW IIA wind turbine model at 114m hub height at all the proposed wind turbine positions in CASALDUNI W.F.

4 RESULTS

SGRE has concluded based on a feasibility study of 10 G132-3.465MW IIA wind turbines at 114m hub height and, in accordance with the CASALDUNI W.F. conditions, that the site is suitable to install these wind turbines models in the proposed WTG positions.

5 REFERENCES

1) IEC 61400-1: Wind turbine generator systems – part 1: Safety requirements. Second edition 1999-02
2) IEC 61400-1: Wind turbine – part 1: Design requirements. Ed.3 2005-08.
   IEC 61400-1: Wind turbine – part 1: Design requirements. Ed.3 Amendment 1. 2010-10.
3) Frandsen, S., "Turbulence and turbulence-generated fatigue loading in wind turbine clusters". Riso-R-1188(EN), July 2003.
4) Adams, B.M., et al., "Dynamic loads in wind farms II", Final report of CEC Joule project JOU2-CT92-0094, GH report 286/R/1, March 1996.
5) Frandsen, St.; Thogersen, L.; Integrated fatigue loading for wind turbines in wind farms by combining ambient turbulence and wakes; Windengineering, Vol. 23 No. 6, 1999.
6) Gumbel re-visited – a new look at extreme value statistics applied to wind speeds. R.I. Harris. Journal of Wind Engineering and Industrial Aerodynamics 59 (1996) 1-22.
7) Towards better estimation of extreme wind. N.J. Cook. Journal of Wind Engineering and Industrial Aerodynamics 9 (1982) 295-323.
8) GD289851 R6: Characteristics and general operation of G132-3.465MW IIA.
9) GD287600 R1: Power curve (Cp y Ct) of G132-3.465MW IIA.
10) Mast information and Wind turbines coordinates: "*coordinates casaludini final.xlsx*".
11) Wind data: "*Casalduni_Renexia.7z*". Casalduni.zip. raw data Casalduni.zip. Casalduni H110 29.08.2019pdf
12) Digital map: "*Mappa Casalduni.map*", "*Roughness and contourn lines Casalduni.map*", "*Roughness Casalduni.map*".
13) Load results:
    a. "*SAR-0760-18_G132 IIA 3.465MW_GAM(GF)_h114_TOWER(114.30)_Results CLOE.xlsx*".
    b. "*CONCLUSIONS_SAR-0760-18CASALDUNI_WF_(ITALY).xlsx*".
14) PTD-TEC-016-R01 Site Analysis Appliance: SAR-0760-18.

SIEMENS Gamesa RENEWABLE ENERGY	GENERAL CHARACTERISTICS MANUAL	*Code:* **GD393905-en**	*Rev:* **1**
		Date: **20/12/19**	*Pg.* **1** *of* **3**
Documentation Type: **STD - Support**	*Title:*	*Approval process:*	**Electronic: PDM Flow**
		Prepared:	**FFARINA**
Deliverable: **S12**	**25Y_RENEXIA_CASALDUNI**	*Verified:*	**GKUHLKAMP/COSES**
		Approved:	**IIRIBARREN**

INDEX

RECORD OF CHANGES

Rev.	Date	Author	Description
0.0	22/10/18	ANORO	Initial version
1.0	20/12/19	FFARINA	General update

1 SCOPE

The aim of this report is to provide a description of the results of the 25-years fatigue analysis carried out by Gamesa for the 10 SG132 T114 wind turbines at the CASALDUNI wind farm. The site conditions provided by the customer have been used as inputs.

This study consists on a fatigue structural verification of the wind turbine main mechanical components such as blades, gearbox, tower or drive train. No other considerations in terms of extreme loads, material properties, electrical components, etc. have been taken into account. The complete Site Suitability Analysis is reflected in the document [Ref 1].

The statements contained in this document regarding the potential useful life of the turbines do, in no event, imply that certain components of the turbines are not affected by wear and tear, and that consequently, replacements of such components would be necessary, nor that, should the site conditions differ from those identified in the Site Suitability Analysis resulting in the turbines being subject to more onerous conditions, the turbines could suffer certain damage.

Furthermore, while the information contained herein regarding the potential useful life of the turbines has been prepared in good faith, no representation or warranty, express or implied, is or will be made and no responsibility or liability is or will be accepted by Gamesa or by any of their respective officers, employees or agents in relation to the accuracy or completeness of the information contained herein concerning this subject matter and consequently any such liability is expressly disclaimed.

2 RESULTS

Based on this analysis and on the Site Suitability Analysis [Ref 1] for the 10 SG132 T114 wind turbines at the CASALDUNI wind farm, Gamesa states that this configuration is designed to achieve a minimum turbine useful life of 20 years and that, provided (i) that a proper and correct maintenance of the turbines is performed in accordance with Gamesa's maintenance manuals and good wind industry practice and (ii) that the turbines operate within the adequate ranges of the site conditions in accordance with the Site Suitability Analysis, such turbines may reach 25 years of operation.

3 REFERENCES

[Ref 1] GD366003 R1_AE_RENEXIA_ITALY_CASALDUNI WF

4 ANNEXES

N/A

Certificate No.

IECRE.WE.TC.18.0024-R0

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

TYPE CERTIFICATE

Wind Turbine

This certificate is issued to	Siemens Gamesa Renewable Energy Innovation & Technology Avda. Ciudad de la Innovación 2 31621 Sarriguren (Navarra) Spain
for the wind turbine	SG 3.4-132 3.3 / 3.465 MW IEC-IIA HH84 m, 97 m, 101.5 m, 114 m, 50/60Hz
wind turbine class (class, standard, year)	WT class IIA, IEC 61400-1/A1, 2010

This certificate is transferred from IEC 61400-22 to IECRE and attests compliance with IEC 61400 Series as specified in subsequent pages. It is based on the following reference documents:

Design basis evaluation conformity statement Dated (*covered in the design evaluation conformity statement)	STC – 170608 Rev. 4 20.12.2018
Design evaluation conformity statement Dated	STC – 170608 Rev. 4 20.12.2018
Type test conformity statement Dated	STC – 170905 Rev. 2 20.12.2018
Manufacturing conformity statement Dated	STC – 170904 Rev. 2 20.12.2018
Final evaluation report Dated	R12647885-12 Rev. 0 20.12.2018

The conformity evaluation was carried out in accordance with the rules and procedures of the IECRE System www.iecre.org

The wind turbine type specification begins on page 2 of this certificate.

Changes in the system design or the manufacturer's quality system are to be approved by the Certification Body. Without approval, the certificate loses its validity.

This certificate is valid until:
2022-10-05

Approved for issue on behalf of the IECRE Certification Body:

Jörn Gerlach
Vice Head of Certification Body
Cuxhaven 2018-12-20

UL Renewables

DEWI-OCC GmbH
Am Seedeich 9
27472 Cuxhaven, Germany

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Machine parameters:

Power regulation:	Variable speed and pitch regulation
Rotor orientation:	Upwind
Number of rotor blades:	3
Rotor tilt:	6°
Cone angle:	-4°
Rated power:	3300 / 3465 kW
Rated wind speed V_r:	9.6 m/s (3300 kW) 10.3 m/s (3465 kW)
Rotor diameter:	132
Hub height(s):	84 / 97 / 101.5 / 114 m
Hub height operating wind speed range $V_{in} - V_{out}$:	3 – 25 m/s
Design life time:	20 years
Software version:	Control Arquitecture Version V1 or superior

Wind conditions:

Characteristic turbulence intensity I_{ref} at V_{hub} = 15 m/s:	0.16
Annual average wind speed at hub height V_{ave} :	8.5 m/s
Reference wind speed V_{ref} :	42.5 m/s
Mean flow inclination:	8°
Hub height 50-year extreme wind speed V_{e50}:	59.5 m/s

Electrical network conditions:

Normal supply voltage and range:	690V +/- 10%
Normal supply frequency and range:	50/60Hz +/- 6%
Voltage imbalance:	2%
Maximum duration of electrical power network outages:	not dimensioning
Number of electrical network outages	52/yr.

IECRE™

Certificate. No.

IECRE.WE.TC.18.0024-R0

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

TYPE CERTIFICATE

Wind Turbine

Other environmental conditions (where taken into account):

Design conditions in case of offshore WT :	NA
Normal and extreme temperature ranges:	Normal: -10°C to +40°C Extreme: -20°C to +50°C
Relative humidity of the air:	Up to 95%
Air density:	1.225 kg/m^3
Solar radiation:	1000 W/m^2
Lightning protection system (standard and protection class):	IEC 61400-24:2010, LPL I
Earthquake model and parameters (standard and key parameters e.g. spectrum, model, seismic zone, soil class, etc.):	NA
Other design conditions :	NA

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Major components:

**If not otherwise stated, the certificate holder is the manufacturer.

Blade:

Type:	B132 Infused blade, structural shells and adhesive joints
Material:	Glass fiber reinforced epoxy resin
Blade length:	64.5 m
Number of blades:	3
Manufacturer:	Siemens Gamesa
Drawing / Data sheet / Part No.:	G132i 3.3MW

Blade:

Type:	B132 Infused blades, structural shells and adhesive joints
Material:	Glass fiber reinforced epoxy resin
Blade length:	64.5 m
Number of blades:	3
Manufacturer:	Siemens Gamesa / TPI Mexico / TPI Turkey
Drawing / Data sheet / Part No.:	G132 3.3MW T-Bolts

Blade:

Type:	B132 Infused blades, structural shells and adhesive joints
Material:	Glass fiber reinforced epoxy resin
Blade length:	64.5 m
Number of blades:	3
Manufacturer:	Siemens Gamesa
Drawing / Data sheet / Part No.:	G132FL 3.3MW TB

Blade bearing:

Type:	Four point contact double row
Manufacturer:	Laulagun
Drawing / Data sheet / Part No.:	M00DST0125XZ M00DST0125PN

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IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Blade bearing:

Type:	Four point contact double row
Manufacturer:	Rollix
Drawing / Data sheet / Part No.:	13-2892-AB 13-2892-01 13-2892-03

Blade bearing:

Type:	Four point contact double row
Manufacturer:	SKF
Drawing / Data sheet / Part No.:	18536001 18536A01

Blade bearing:

Type:	Four point contact double row
Manufacturer:	Renogear SL
Drawing / Data sheet / Part No.:	200.0/60.2890.000 (98-106) 200.0/60.2890.000 (76-106) 200.0/60.2890.000 (94-106)

Pitch System:

Motor / Actuator Type:	Double acting hydraulic cylinder
Pitch Controller Type:	Hydraulic
Manufacturer:	Glual / Hydratech

Main shaft:

Type:	Steel shaft
Manufacturer:	Siemens Gamesa
Material:	42CrMo4+QT / Forged 34CrNiMo6 + QT
Drawing / Data sheet / Part No.:	GP360398 & GP404059 / GP334823

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Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Main bearing:

Type:	Spherical Roller Bearing
Manufacturer:	Timken
Drawing / Data sheet / Part No.:	YMDWEW886F / WE-1478-A

Main bearing:

Type:	Spherical Roller Bearing
Manufacturer:	Koyo
Drawing / Data sheet / Part No.:	RHAW33TS1CS

Main bearing:

Type:	Spherical Roller Bearing
Manufacturer:	Schaeffler
Drawing / Data sheet / Part No.:	623409.PRL 623394.PRL

Main bearing:

Type:	Spherical Roller Bearing
Manufacturer:	ZKL
Drawing / Data sheet / Part No.:	EW33MH TPF 11519-15 EW33MH TPF 11519-15

Gearbox:

Type:	Three stages gearbox (one planetary stage and two helical gear stages)
Gear Ratio:	i=1:106.404 (50Hz) i=1:127.286 (60Hz)
Manufacturer:	Gamesa Energy Transmission, SAU
Drawing / Data sheet / Part No.:	gBOX 3.3

Yaw System:

Drive Type:	Activated by Yaw drives
Manufacturer:	Bonfiglioli
Drawing / Data sheet / Part No.:	GD268640

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Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Drive Type:	Activated by Yaw drives
Manufacturer:	Comer
Drawing / Data sheet / Part No.:	PG 2504DSP
Drive Type:	Activated by Yaw drives
Manufacturer:	NGC
Drawing / Data sheet / Part No.:	FDX204S
Bearing Type:	Friction Bearing
Manufacturer:	Siemens Gamesa
Drawing / Data sheet / Part No.:	GD268640
Gear Type:	Yaw Ring G132 3.3MW
Manufacturer:	Siemens Gamesa
Drawing / Data sheet / Part No.:	GP300882
Brake Type:	Integrated in yaw bearing claws with active and passive brakes
Manufacturer:	Siemens Gamesa
Drawing / Data sheet / Part No.:	GD268640

Generator:

Type	Asynchronous doubly-fed machine
Manufacturer:	Gamesa Electric
Drawing / Data sheet / Part No.:	CR33-6P
Rated Power:	3615 kW
Rated Frequency:	50/60Hz
Rated Speed:	1120/1344 rpm
Max. speed:	1713/2055.6 rpm
Rated Voltage:	690 V
Rated Current:	3000 / 1198A (Stator/Rotor)
Insulation Class:	F
Degree of Protection:	IP54

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Generator:

Type	Asynchronous doubly-fed machine
Manufacturer:	Siemens
Drawing / Data sheet / Part No.:	JFWA-630MR
Rated Power:	3585 kW
Rated Frequency:	50/60Hz
Rated Speed:	1120/1344 rpm
Max. speed:	1332 / 1599 rpm
Rated Voltage:	690 V
Rated Current:	2829 / 1125 A (Stator/Rotor)
Insulation Class:	F
Degree of Protection:	IP54 / IP23

Converter:

Type:	4 Quadrant DFIG Converter
Manufacturer:	Gamesa Electric
Drawing / Data sheet / Part No:	DAC 3.3 MW
Rated Voltage (grid side):	690V
Rated Current (grid side):	1250/660 A (MSC/LSC)
Degree of Protection:	IP54

Transformer:

Type:	Three Phase Dry Type
Manufacturer:	ABB
Drawing / Data sheet / Part No.:	DTE 3900/36
Rated Voltage:	0,69 / 33.6 kV & 0,69 / 34.5 kV
Rated Power:	3900 KVA
Degree of Protection:	IP00
Location (e.g. tower bottom):	Nacelle

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Transformer:

Type:	Three Phase Dry Type
Manufacturer:	ABB
Drawing / Data sheet / Part No.:	DTE 3900/24
Rated Voltage:	0,69 / 20 kV
Rated Power:	3900 KVA
Degree of Protection:	IP00
Location (e.g. tower bottom):	Nacelle

Transformer (only for 3.3MW):

Type:	Three Phase Dry Type
Manufacturer:	Schneider Electric
Drawing / Data sheet / Part No.:	GP321808
Rated Voltage:	0,69 / 20 kV
Rated Power:	3668 KVA
Degree of Protection:	IP00
Location (e.g. tower bottom):	Nacelle

Tower:

Type:	Tubular Steel
Manufacturer:	Siemens Gamesa
Sections:	4
Length:	84 m HH
Drawing / Data sheet / Part No.:	GD289760

Tower:

Type:	Tubular Steel
Manufacturer:	Siemens Gamesa
Sections:	4
Length:	97 m HH
Drawing / Data sheet / Part No.:	GD339547

IECRE - IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications

Certificate. No.

IECRE.WE.TC.18.0024-R0

TYPE CERTIFICATE

Wind Turbine

Tower:

Type:	Tubular Steel
Manufacturer:	Siemens Gamesa
Sections:	4
Length:	101.5 m HH
Drawing / Data sheet / Part No.:	GD340275

Tower:

Type:	Tubular Steel
Manufacturer:	Siemens Gamesa
Sections:	5
Length:	114 m HH
Drawing / Data sheet / Part No.:	GD275737

Foundation:

Type:	NA
Manufacturer:	NA
Drawing / Data sheet / Part No.:	NA

Foundation Adaptor:

Type:	NA
Manufacturer:	NA
Drawing / Data sheet / Part No.:	NA

Manuals:

Operation & maintenance manual:	See R11268035-2-R6
Transport manual:	See R11268035-2-R6
Installation & commissioning. manual:	See R11268035-2-R6

Annex O – Internal Layout Review Indications

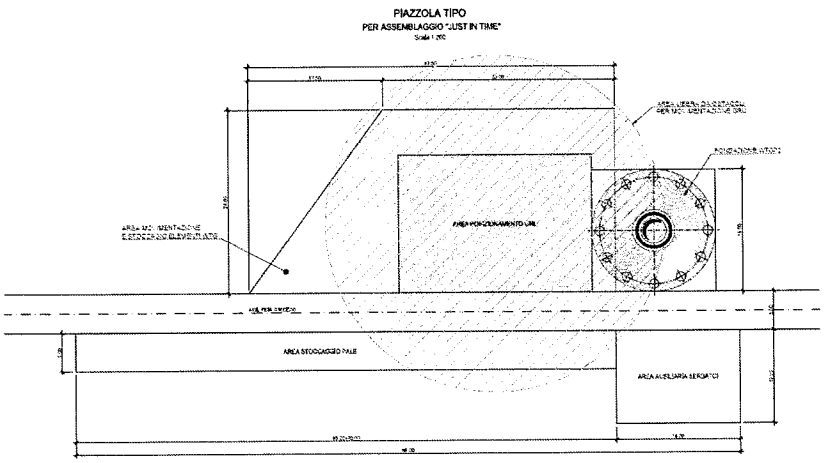
Due to the fact that the detailed design is ongoing the Parties agree to refer to general specifications in Annex B.

Moreover, the Parties agree to consider:

- for all the WTG positions dimensions of platforms for a just in time assembly for all WTG components except hub, DT and nacelle - without additional costs: according to Annex B – general specifications included in GD262375-EN R8 Roads and Platforms G132 – pag.40 and 43 and as customized and fixed for Casalduni project in the following drawing:

Deleted: (according to Annex B)

Deleted: ;



- the use of pulling trucks in case the road slopes exceed the specifications in Annex B and considering the unit prices indicated in below table.

	mob-demob	daily rate
per pulling truck	4 750 €	1 250 €

- the daily rate is based on 8 working hours/day.
- fractions of standby hours rate will be considered at the 100% of the daily rate.

Deleted: or full standby day

- as per Siemens Gamesa indications LTM 1500 instead of 1750 shall be used for unloading the nacelle

Deleted: - Provisional internal roads review available in attachment EN17012020¶

- It is necessary the areas for assembly the main crane´s boom, the supports and the auxiliary platforms during the assembly in all the platforms. In the cases that the auxiliary platforms can´t be reached from the road or platform, it will be necessary a 3m width area next to the boom for the trucks and the cranes. The crane company that is going to make the assembly, will check the area for the main boom assembly and the necessary actions for making it possible in the platforms where the slope isn´t positive or horizontal.

The Buyer shall try with his best effort to submit within the Effective Date the final wind farm layout and hardstands design. After receiving the data, the Contractor shall prepare the final Internal Layout Review to be included to the contract as amendment to this annex within 30 days from the final wind farm layout and hardstands design reception, as long as the reception has taken place no later than three months before the transportation/construction activities' dates as reported in the planning.

Deleted: Attached a layout with a proposal for where to position the auxiliary cranes, etc. "X_PLA_JIT_Actions_R0.DWG".

Deleted: (platforms 5 and 14)

Deleted: The Buyer shall try with his best effort to submit within the Effective Date the final wind farm layout and hardstands design. After receiving the data, the Contractor shall prepare the final Internal Layout Review to be included to the contract as amendment to this annex within 30 days after the Effective Date.¶

Deleted: In case the final annex affects the abovementioned assumptions, the Contractor shall be entitled to extension of time and additional cost, in case applicable.

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI___ Wind Energy Project

Delivery on Site Certificate of the Anchor Bolts

This certificate is issued pursuant to the Purchase Contract dated ____, __th _____ (the"Contract") entered into by:

RENEXIA SERVICES S.R.L, an Italian limited liability company, with registered number 02533210692 having its registered office at Viale Abruzzo 410, 66100 Chieti, ("**Renexia**" or the "**BUYER**")

And

SIEMENS GAMESA RENEWABLE ENERGY EOLICA S.L. UNIPERSONAL, a Spanish corporation having its registered office in Sarriguren (Navarra), Avda. Ciudad de la Innovacion, 9-11, with registered office number B-31907330 ("**SGRE ES**")

And

SIEMENS GAMESA RENEWABLE ENERGY WIND S.r.l., an Italian limited liability company, with registered number 08087711001 having its Registered Office at Rome, Via Ostiense 131/L, 00154 Roma Italy, a company fully owned and controlled by Siemens Gamesa Eolica S.L Unipersonal, ("**SGRE Italia**"),

SGRE ES and SGRE Italia are jointly referred to as the "SELLER".

We, _____ identity card n. _____ and _____ identity card _____ , the undersigned, duly appointed representative of the Buyer and the Seller respectively

DO HEREBY CERTIFY

the following:

On _____, __th____, the SELLER has delivered on site to the Buyer the Anchor Bolts for the WTGs, model SG132 3.465 MW, with the serial numbers listed in the table below.

Wind Farm Name: Casalduni		Anchor Bolts Serial N.
	WTG model	
1		
2		
3...		

Dated __/__/____

BUYER
By: _____
Name: _____ .....
Title: _____

SELLER
By: _____
Name: _____ .....
Title: _____

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI Wind Energy Project

Mechanical Completion Certificate

This certificate is issued pursuant to the Purchase Contract dated ____, __th _____ (the"Contract") entered into by:

RENEXIA SERVICES S.R.L, an Italian limited liability company, with registered number 02533210692 having its registered office at Viale Abruzzo 410, 66100 Chieti, ("**Renexia**" or the "**BUYER**")

And

SIEMENS GAMESA RENEWABLE ENERGY EOLICA S.L. UNIPERSONAL, a Spanish corporation having its registered office in Sarriguren (Navarra), Avda. Ciudad de la Innovacion, 9-11, with registered office number B-31907330 ("**SGRE ES**")

And

SIEMENS GAMESA RENEWABLE ENERGY WIND S.r.l., an Italian limited liability company, with registered number 08087711001 having its Registered Office at Rome, Via Ostiense 131/L, 00154 Roma Italy, a company fully owned and controlled by Siemens Gamesa Eolica S.L Unipersonal, ("**SGRE Italia**"),

SGRE ES and SGRE Italia are jointly referred to as the "SELLER".

I, [name of officer], the undersigned, acting for and on behalf of Servicer DO HEREBY CERTIFY the following, as of the date hereof xx/xx/xx:

1. I am authorized to execute this certificate on behalf of the SELLER;

2. SGRE WTGs, model SG132 3.465 MW, with Serial numbers as listed in the table below, have been assembled, erected and installed in accordance with the Contract and are ready to commence Start-Up as defined in the Contract.

WIND FARM NAME - Casalduni		Tower				Nacelle	Rotor			
		1st Section	2nd Section	3rd Section	4th Section		Hub	Blade 1	Blade 2	Blade 3
No	WTG	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.
1	SG132									
2										
3										
4										
5										
6										

Dated __/__/____

By: _____
Name: _____ .....
Title: Project manager

Acknowledge and Agreed as duly authorized representative of Buyer acting for and on its behalf:

By: _____
Name: _____ .....
Title: _____

as duly authorized representative of the Buyer acting for and on its behalf.

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI Wind Energy Project

PLANT TAKE OVER CERTIFICATE

This certificate is issued pursuant to the Purchase Contract dated ____, __th _____ (the"Contract") entered into by:

RENEXIA SERVICES S.R.L, an Italian limited liability company, with registered number 02533210692 having its registered office at Viale Abruzzo 410, 66100 Chieti, ("**Renexia**" or the "**BUYER**")

And

SIEMENS GAMESA RENEWABLE ENERGY EOLICA S.L. UNIPERSONAL, a Spanish corporation having its registered office in Sarriguren (Navarra), Avda. Ciudad de la Innovacion, 9-11, with registered office number B-31907330 ("**SGRE ES**")

And

SIEMENS GAMESA RENEWABLE ENERGY WIND S.r.l., an Italian corporation having its registered office in Rome, Via Pio Emanuelli 1, 00143 Roma, Italy, number of registration at the Chamber of Commerce of Rome and Fiscal Code 08087711001, a company fully owned and controlled by Siemens Gamesa Eolica S.L Unipersonal, ("SGRE Italia"),

SGRE ES and SGRE Italia are jointly referred to as the "SELLER".

I, [name of officer], the undersigned, acting for and on behalf of Servicer DO HEREBY CERTIFY the following, as of the date hereof xx/xx/xx:

1. I am authorized to execute this certificate on behalf of the SELLER;
2. Gamesa WTGs, model SG132 3.465 MW, with serial numbers listed in the table below, have reached Take Over in accordance with the Contract;
3. all services have been completed in accordance with the Contract and the conditions associated with Plant Take Over were satisfied as of: xx/xx/xx;

WIND FARM NAME - CASALDUNI		Tower				Nacelle	Rotor				Take Over Date
		1st Section	2nd Section	3rd Section	4th Section		Hub	Blade 1	Blade 2	Blade 3	
No	WTG	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	
1	SG132										
2											
3											
4											
5											
6											

4. The punch list attached hereto has been agreed upon with Buyer. The items in such punch list will be corrected, completed or resolved by the SELLER within the time period established in such punch list;

Dated __/__/____

By: _____
Name: _____ .....
Title: Project manager

Acknowledge and Agreed as duly authorized representative of Buyer acting for and on its behalf:

By: _____
Name: _____ .....
Title: _____

as duly authorized representative of the Buyer acting for and on its behalf.

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI Wind Energy Project

WTG n.XX TAKE OVER CERTIFICATE

This certificate is issued pursuant to the Purchase Contract dated ____, __th _____ (the"Contract") entered into by:

RENEXIA SERVICES S.R.L, an Italian limited liability company, with registered number 02533210692 having its registered office at Viale Abruzzo 410, 66100 Chieti, ("**Renexia**" or the "**BUYER**")

And

SIEMENS GAMESA RENEWABLE ENERGY EOLICA S.L. UNIPERSONAL, a Spanish corporation having its registered office in Sarriguren (Navarra), Avda. Ciudad de la Innovacion, 9-11, with registered office number B-31907330 ("**SGRE ES**")

And

SIEMENS GAMESA RENEWABLE ENERGY WIND S.r.l., an Italian corporation having its registered office in Rome, Via Pio Emanuelli 1, 00143 Roma, Italy, number of registration at the Chamber of Commerce of Rome and Fiscal Code 08087711001, a company fully owned and controlled by Siemens Gamesa Eolica S.L Unipersonal, ("SGRE Italia"),

SGRE ES and SGRE Italia are jointly referred to as the "SELLER".

I, [name of officer], the undersigned, acting for and on behalf of Servicer DO HEREBY CERTIFY the following, as of the date hereof xx/xx/xx:

1. I am authorized to execute this certificate on behalf of the SELLER;
2. Gamesa WTG n.XX, model G132 3.645 MW, with serial numbers listed in the table below, have reached Take Over in accordance with the Contract;
3. all services have been completed in accordance with the Contract and the conditions associated with WTG Take Over were satisfied as of: xx/xx/xx

WIND FARM NAME - CASALDUNI		Tower				Nacelle	Rotor				WTG Take Over Date
		1st Section	2nd Section	3rd Section	4th Section		Hub	Blade 1	Blade 2	Blade 3	
No	WTG	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	Serial N.	
1	SG132										

SIEMENS Gamesa
RENEWABLE ENERGY

4. The punch list attached hereto has been agreed upon with Buyer. The items in such punch list will be corrected, completed or resolved by the SELLER within the time period established in such punch list ;

Dated __/__/____

By: _____
Name: _____ .....
Title: Project manager

Acknowledge and Agreed as duly authorized representative of Buyer acting for and on its behalf:

By: _____
Name: _____ .....
Title: _____

as duly authorized representative of the Buyer acting for and on its behalf.

SIEMENS Gamesa
RENEWABLE ENERGY

CASALDUNI Wind Energy Project

SUBCONTRACTOR LIST

Logistic of transportation:
- RUNCO.
- GEO.
- SAE.
- MARRAFFA.

Cranes:
- Runco
- Paradiso

Labour:
- Fairwind
- Windhoist
- Leadpro
- Anywind
- Acawind
- Resgreen
- Huso29
- Lowind
- Ges
- Wind1000
- Tecnorenova

[*Letterhead of the Account Bank*]

To:
[SGRE]

with copy to:

PARCO EOLICO CASALDUNI HOUSE S.r.l.
[•]
[•]

[Date]

Subject: [XXX] [loan] for Casalduni project / funds receipt letter (the "Funds Receipt Letter")

Dear Sir or Madame,

1. **Confirmations**: We hereby confirm to you that:

   a) on [Date] [•] (the "**Lender**") and **PARCO EOLICO CASALDUNI HOUSE Srl**, a company incorporated under the laws of Italy, having its registered office at Chieti (Italy), in Via Abruzzo, 410, fiscal code and number of registration to the Chamber of Commerce of Chieti-Pescara 01527100620 (the "**Borrower**") have entered into a [loan/bond] agreement pursuant to which the Lender has undertaken a valid and binding commitment towards the Borrower to disburse a loan in the amount of EUR [•] during an availability period of xxx [period] (the "**Facility**");

   b) the Facility has been disbursed and the relevant proceeds are credited into the bank account [•] opened by the Borrower with our bank;

   c) funding is specifically to meet, among others, the obligations that the client has contracted with Renexia Services S.r.l. under the EPC contract dated [•] for project Casalduni.

2. **Acknowledgement**: We hereby acknowledge and are aware that the delivery by us of this Funds Receipt Letter is a condition under Clause [•] of the contract entered into by Renexia Service S.r.l. and Siemens Gamesa Renewable Energy Eolica S.L. Unipersonal and Siemens Gamesa Renewable Energy Wind S.R.L. in relation to the agreement for the sale, transportation, installation, start up and testing of wind turbine generators for project Casalduni.

3. **Governing Law and Venue**: We agree that this Funds Receipt Letter is governed by and construed in accordance with Italian law. Venue is Milan.

Sincerely yours,

[Bank]

Agreed:
[SGRE]

Irrevocable Mandate of Payment

[On the Renexia Services' letterhead]

To:

[•]

[*address*]

[*address*]

Fax No. [*number*]

(in its quality of "**Account Bank**")

For the attention of: Mr. [*name*]

With a copy to:

[*Siemens Gamesa entity*]

[*address*]

[*address*]

For the attention of: Mr. [*name*]

Chieti, [•]

Dear Sirs,

WHEREAS:

(A) on [•], the Renexia Services S.r.l. (the "**Buyer**") and [•] (the "**Contractor**") has entered into an agreement for the sale, transportation, installation, start up and testing of wind turbine generators for the wind farm to be realized in the Municipality of Casalduni, Italy (the "**TSA Contract**");

(B) under the TSA Contract, the Buyer is required to issue an irrevocable mandate of payment (the "**Mandate**").

1 Recitals

1.1 Recitals hereto form a substantial and integral part of this Mandate.

2 Irrevocable Mandate

2.1 The Buyer hereby irrevocably instructs and grants an irrevocable mandate to the Account Bank to operate the account IBAN [•] (the "**Buyer Account**") so to timely make at the due date the payment of the undisputed amounts due by the Buyer to the Contractor in accordance with the TSA Contract, pursuant to the terms and conditions set forth therein.

2.2 Any payments by the Account Bank under this Mandate shall be made in accordance to the terms and conditions set on the TSA Contract on the following accounts of the Contractor:

Bank: [*name*]

Account Holder: [•]

IBAN: [*number*]

Swift-Code (BIC): [*number*]

2.3 It also remains understood that payment under this Mandate shall be effected directly to the Contractor upon satisfaction of the terms and conditions required for the payment of the Contract Price (as defined in the TSA Contract) in accordance with the TSA Contract.

3 Miscellanea

3.1 This Mandate is not a guarantee or a letter of credit by the Account Bank in favour of the Contractor.

3.2 This Mandate, once accepted, shall terminate once all amounts due under the TSA Contract by the Buyer are fully paid.

3.3 Any notice to be given in accordance with this Mandate shall be transmitted by fax to the following numbers:

- if to the Buyer, to the attention of Mr. Lino Bergonzi, at n. +39 0871 5874254;
- if to the Account Bank, to the attention of Mr. [*name*], at n. [*number*];
- if to the Contractor, to the attention of Mr. [*name*], project manager at n. [*number*].

4 Governing Law and Jurisdiction

This Mandate is governed by Italian law. The Courts of [•] shall have exclusive jurisdiction for any dispute related to this Mandate.

***

If you agree on the above, please copy it entirely on your letterhead and return it to us duly signed in sign of acceptance by your authorised representative.

Yours faithfully,

Renexia Services S.r.l.

[Account Bank]

Guarantee

[•] ("**Guarantor**") hereby issues the following guarantee ("**Guarantee**") for the benefit of Parco Eolico Casalduni House S.r.l. ("**Beneficiary**"). The Guarantor and the Beneficiary are collectively referred to as the "**Parties**".

On [*insert date*], Siemens Gamesa Renewable Energy Eólica S.L.U. and Siemens Gamesa Renewable Energy Wind S.r.l. (jointly, the "**Contractor**") and Renexia Services S.r.l. entered into a contract no. [*insert contract number*] regarding [•] related to [•] ("**Contract**"). Pursuant to the terms provided for under Article 3.2.2(A)(ii) of the Contract, the Contractor agreed to procure for the benefit of the Beneficiary an autonomous first demand bank guarantee (*garanzia bancaria autonoma a prima richiesta)* as security for all the Contractor's obligations under the Contract. This is the "*Advance Payment Bond*" as defined under Article 3.2.2(A)(ii) of the Contract. For the sake of clarity, the Guarantor acknowledges and accepts that the Beneficiary is entitled to enforce this Guarantee according to the terms provided below.

Accordingly, the Parties agree to the following:

The Guarantor, as primary obligor, and not merely as surety, hereby unconditionally and irrevocably undertakes and guarantees for the benefit of the Beneficiary the payment of an amount up to the maximum total amount of € [*insert amount*] (in words Euro [*insert amount*]) ("**Maximum Liability Amount**").

In accordance with the terms of this Guarantee, the Guarantor shall, upon receipt of one or more demands in writing from the Beneficiary (each a "**Demand**") pay the amount demanded to the Beneficiary.

The Guarantor hereby irrevocably and unconditionally undertakes to pay the Beneficiary, upon receipt of one or more Beneficiary's Demands, but in any case within the Maximum Liability Amount, without any possibility to raise objections as regards the validity, ground and/or the truth of the Beneficiary's Demand (including any claim or dispute between the Contractor and the Beneficiary and/or Renexia Services S.r.l.), it being understood that the Guarantor shall not benefit of the previous enforcement (*preventiva escussione*) of the Contractor by way of derogation of Article 1944 of Italian civil code.

The Demand must be signed by a legal representative of the Beneficiary and shall be sent by [•]. This effectiveness of this Guarantee will be subject to fulfillment of the two following conditions:

(i) a payment of [***] (currency EURO etc) has been unconditionally credited to Contractor bank account number [***] held by bank [***] with reference to the Contract; and

(ii) a confirmation by authenticated swift is received by the Guarantor that the above-mentioned payment has been unconditionally credited to the account as defined in (i) above.

The Guarantor shall promptly confirm the fulfilment of the above conditions.

Any payment due pursuant to this Guarantee shall be performed by the Guarantor via wire transfer on the bank account that the Beneficiary shall indicate in its Demand of payment, within and no later than 10 (ten) days as from receipt of such Demand.

The Guarantor undertakes that any payment under this Guarantee shall be performed free, net of, without any deduction or decrease for, or due to any set-off or counter-request or tax/duty and not exceeding the Maximum Liability Amount. The Guarantor hereby waives any rights under the provisions of Article 1247, 1945, 1947, where applicable, 1953, 1955, 1956 and 1957 of the Italian Civil Code.

This Guarantee shall have full effect and shall be enforceable regardless of any other already existing personal or real guarantee by whoever given or to be given in favor of the Beneficiary.

The Beneficiary's Demand herein specified, shall be accompanied of a copy of the letter to the Contractor before the execution, stating the Beneficiary's intention to execute all or part of this Guarantee, and indicating:

- that Contractor is in breach of his obligations under the Contract; and
- the respect in which Contractor is in breach.

The above does not constitute in any possible way neither an obligation for the Guarantor to enter into the reasons and details of the Contractor's breach of his obligations under the Contract, nor a reason to prevent the Guarantor from stopping the execution of this Guarantee requested by the Beneficiary.

The obligations and liabilities of the Guarantor under this Guarantee immediately terminate on the occurrence of the earliest of any of the following events ("**Termination Event**"): (i) payment of the entire Maximum Liability Amount, (ii) return of this original Guarantee document by the Beneficiary, (iii) the end of the day [*insert date*], if and as far as the Guarantor has not received a Demand sent up to this time.

As soon as a Termination Event occurs this Guarantee will immediately cease and the Beneficiary has to immediately return to the Guarantor the original of this Guarantee, if not yet done.

The Guarantor shall not assign or otherwise transfer the rights and benefit of this Guarantee or any of its rights, duties or obligations under this Guarantee without the prior written consent of the Beneficiary. In any case, this Guarantee and the obligations contained herein shall be binding upon any successors or assignees of the Beneficiary.

The Beneficiary may assign the Beneficiary's interest and/or rights under this Guarantee to any entity "the "Transferee", and in the manner, to which the Beneficiary has assigned the Beneficiary's interest, rights and/or obligations under the Contract without the consent but with prior written

notice to the Guarantor, provided always that the Transferee is not subject to any trade, economic or financial sanctions laws, restrictions, regulations, embargoes or other restrictive measures enacted, administered, implemented and/or enforced from time to time by the European Union, United Nations, the United Kingdom and the United States of America, as of the date of assignment and/or pledge.

This Guarantee may only be amended, modified or supplemented by an instrument in writing of the Parties. Such writing requirement may only be waived through an instrument in writing signed for and on behalf of each of the Parties and may not be substituted by electronic form.

This Guarantee is an autonomous first demand guarantee (*garanzia autonoma a prima richiesta)* and shall be valid, and the Guarantor shall be obliged to pay the Beneficiary all the sums claimed by the latter, regardless the validity of the main obligations, by way of derogation to Article 1939 of the Italian civil code. No circumstance or condition, either known or not by the Guarantor may limit or extinguish in any way the obligations arising from the Guarantee. The obligations of the Guarantor under this Guarantee will not be discharged or otherwise prejudiced or adversely affected by: 1) any time, indulgence or forbearance which the Beneficiary and/or Renexia Services S.r.l. may grant to the Contractor; 2) any amendment, modification or extension which may be made to the Contract or the works and services performed under the Contract; 3) any change in the constitution or organization of the Contractor and/or of the Beneficiary and/or of Renexia Services S.r.l.; or 4) any other matter or thing which in the absence of this provision would or might have that effect, except a discharge or amendment expressly made or agreed to by the Beneficiary in writing.

All notices to the Guarantor related to the Guarantee shall only be made to the addresses and departments indicated below:

[•]

[•]

Email: [•]

fax: [•]

This Guarantee shall be governed by and construed in accordance with the laws of Italy without giving effect to any conflict of law rules. The courts of Milan, Italy, shall have exclusive jurisdiction for any and all claims arising out of or related to this Guarantee.

Place, Date:

_____

Signature(s) of signatories of the Guarantor

Guarantee

[•] ("**Guarantor**") hereby issues the following guarantee ("**Guarantee**") for the benefit of Parco Eolico Casalduni House S.r.l. ("**Beneficiary**"). The Guarantor and the Beneficiary are collectively referred to as the "**Parties**".

On [*insert date*], Siemens Gamesa Renewable Energy Eólica S.L.U. and Siemens Gamesa Renewable Energy Wind S.r.l. (jointly, the "**Contractor**") and Renexia Services S.r.l. entered into a contract no. [*insert contract number*] regarding [•] related to [•] ("**Contract**"). Pursuant to the terms provided for under Article 3.2.2(A)(iii) of the Contract, the Contractor agreed to procure for the benefit of the Beneficiary an autonomous first demand bank guarantee (*garanzia bancaria autonoma a prima richiesta)* as security for all the Contractor's obligations under the Contract. This is the "*Performance Bond*" as defined under Article 3.2.2(A)(iii) of the Contract. For the sake of clarity, the Guarantor acknowledges and accepts that the Beneficiary is entitled to enforce this Guarantee according to the terms provided below.

Accordingly, the Parties agree to the following:

The Guarantor, as primary obligor, and not merely as surety, hereby unconditionally and irrevocably undertakes and guarantees for the benefit of the Beneficiary the payment of an amount up to the maximum total amount of € [*insert amount*] (in words Euro [*insert amount*]) ("**Maximum Liability Amount**").

In accordance with the terms of this Guarantee, the Guarantor shall, upon receipt of one or more demands in writing from the Beneficiary (each a "**Demand**") pay the amount demanded to the Beneficiary.

The Guarantor hereby irrevocably and unconditionally undertakes to pay the Beneficiary, upon receipt of one or more Beneficiary's Demands, but in any case within the Maximum Liability Amount, without any possibility to raise objections as regards the validity, ground and/or the truth of the Beneficiary's Demand (including any claim or dispute between the Contractor and the Beneficiary and/or Renexia Services S.r.l.), it being understood that the Guarantor shall not benefit of the previous enforcement (*preventiva escussione*) of the Contractor by way of derogation of Article 1944 of Italian civil code.

The Demand must be signed by a legal representative of the Beneficiary and shall be sent by [•]. This effectiveness of this Guarantee will be subject to fulfillment of the two following conditions:

(i) a payment of [***] (currency EURO etc) has been unconditionally credited to Contractor bank account number [***] held by bank [***] with reference to the Contract; and

(ii) a confirmation by authenticated swift is received by the Guarantor that the above-mentioned payment has been unconditionally credited to the account as defined in (i) above.

The Guarantor shall promptly confirm the fulfilment of the above conditions.

Any payment due pursuant to this Guarantee shall be performed by the Guarantor via wire transfer on the bank account that the Beneficiary shall indicate in its Demand of payment, within and no later than 10 (ten) days as from receipt of such Demand.

The Guarantor undertakes that any payment under this Guarantee shall be performed free, net of, without any deduction or decrease for, or due to any set-off or counter-request or tax/duty and not exceeding the Maximum Liability Amount. The Guarantor hereby waives any rights under the provisions of Article 1247, 1945, 1947, where applicable, 1953, 1955, 1956 and 1957 of the Italian Civil Code.

This Guarantee shall have full effect and shall be enforceable regardless of any other already existing personal or real guarantee by whoever given or to be given in favor of the Beneficiary.

The Beneficiary's Demand herein specified, shall be accompanied of a copy of the letter to the Contractor before the execution, stating the Beneficiary's intention to execute all or part of this Guarantee, and indicating:

- that Contractor is in breach of his obligations under the Contract; and
- the respect in which Contractor is in breach.

The above does not constitute in any possible way neither an obligation for the Guarantor to enter into the reasons and details of the Contractor's breach of his obligations under the Contract, nor a reason to prevent the Guarantor from stopping the execution of this Guarantee requested by the Beneficiary.

The obligations and liabilities of the Guarantor under this Guarantee immediately terminate on the occurrence of the earliest of any of the following events ("**Termination Event**"): (i) payment of the entire Maximum Liability Amount, (ii) return of this original Guarantee document by the Beneficiary, (iii) the end of the day [*insert date*], if and as far as the Guarantor has not received a Demand sent up to this time.

As soon as a Termination Event occurs this Guarantee will immediately cease and the Beneficiary has to immediately return to the Guarantor the original of this Guarantee, if not yet done.

The Guarantor shall not assign or otherwise transfer the rights and benefit of this Guarantee or any of its rights, duties or obligations under this Guarantee without the prior written consent of the Beneficiary. In any case, this Guarantee and the obligations contained herein shall be binding upon any successors or assignees of the Beneficiary.

The Beneficiary may assign the Beneficiary's interest and/or rights under this Guarantee to any entity "the "Transferee", and in the manner, to which the Beneficiary has assigned the Beneficiary's interest, rights and/or obligations under the Contract without the consent but with prior written

notice to the Guarantor, provided always that the Transferee is not subject to any trade, economic or financial sanctions laws, restrictions, regulations, embargoes or other restrictive measures enacted, administered, implemented and/or enforced from time to time by the European Union, United Nations, the United Kingdom and the United States of America, as of the date of assignment and/or pledge.

This Guarantee may only be amended, modified or supplemented by an instrument in writing of the Parties. Such writing requirement may only be waived through an instrument in writing signed for and on behalf of each of the Parties and may not be substituted by electronic form.

This Guarantee is an autonomous first demand guarantee (*garanzia autonoma a prima richiesta)* and shall be valid, and the Guarantor shall be obliged to pay the Beneficiary all the sums claimed by the latter, regardless the validity of the main obligations, by way of derogation to Article 1939 of the Italian civil code. No circumstance or condition, either known or not by the Guarantor may limit or extinguish in any way the obligations arising from the Guarantee. The obligations of the Guarantor under this Guarantee will not be discharged or otherwise prejudiced or adversely affected by: 1) any time, indulgence or forbearance which the Beneficiary and/or Renexia Services S.r.l. may grant to the Contractor; 2) any amendment, modification or extension which may be made to the Contract or the works and services performed under the Contract; 3) any change in the constitution or organization of the Contractor and/or of the Beneficiary and/or of Renexia Services S.r.l.; or 4) any other matter or thing which in the absence of this provision would or might have that effect, except a discharge or amendment expressly made or agreed to by the Beneficiary in writing.

All notices to the Guarantor related to the Guarantee shall only be made to the addresses and departments indicated below:

[•]

[•]

Email: [•]

fax: [•]

This Guarantee shall be governed by and construed in accordance with the laws of Italy without giving effect to any conflict of law rules. The courts of Milan, Italy, shall have exclusive jurisdiction for any and all claims arising out of or related to this Guarantee.

Place, Date:

_____

Signature(s) of signatories of the Guarantor

Guarantee

[•] ("**Guarantor**") hereby issues the following guarantee ("**Guarantee**") for the benefit of Parco Eolico Casalduni House S.r.l. ("**Beneficiary**"). The Guarantor and the Beneficiary are collectively referred to as the "**Parties**".

On [*insert date*], Siemens Gamesa Renewable Energy Eólica S.L.U. and Siemens Gamesa Renewable Energy Wind S.r.l. (jointly, the "**Contractor**") and Renexia Services S.r.l. entered into a contract no. [*insert contract number*] regarding [•] related to [•] ("**Contract**"). Pursuant to the terms provided for under Article 3.2.2(A)(iv) of the Contract, the Contractor agreed to procure for the benefit of the Beneficiary an autonomous first demand bank guarantee (*garanzia bancaria autonoma a prima richiesta)* as security for all the Contractor's obligations under the Contract. This is the "*Warranty Bond*" as defined under Article 3.2.2(A)(iv) of the Contract. For the sake of clarity, the Guarantor acknowledges and accepts that the Beneficiary is entitled to enforce this Guarantee according to the terms provided below.

Accordingly, the Parties agree to the following:

The Guarantor, as primary obligor, and not merely as surety, hereby unconditionally and irrevocably undertakes and guarantees for the benefit of the Beneficiary the payment of an amount up to the maximum total amount of € [*insert amount*] (in words Euro [*insert amount*]) ("**Maximum Liability Amount**").

In accordance with the terms of this Guarantee, the Guarantor shall, upon receipt of one or more demands in writing from the Beneficiary (each a "**Demand**") pay the amount demanded to the Beneficiary.

The Guarantor hereby irrevocably and unconditionally undertakes to pay the Beneficiary, upon receipt of one or more Beneficiary's Demands, but in any case within the Maximum Liability Amount, without any possibility to raise objections as regards the validity, ground and/or the truth of the Beneficiary's Demand (including any claim or dispute between the Contractor and the Beneficiary and/or Renexia Services S.r.l.), it being understood that the Guarantor shall not benefit of the previous enforcement (*preventiva escussione*) of the Contractor by way of derogation of Article 1944 of Italian civil code.

The Demand must be signed by a legal representative of the Beneficiary and shall be sent by [•].
This effectiveness of this Guarantee will be subject to fulfillment of the two following conditions:

(i) a payment of [***] (currency EURO etc) has been unconditionally credited to Contractor bank account number [***] held by bank [***] with reference to the Contract; and

(ii) a confirmation by authenticated swift is received by the Guarantor that the above-mentioned payment has been unconditionally credited to the account as defined in (i) above.

The Guarantor shall promptly confirm the fulfilment of the above conditions.

Any payment due pursuant to this Guarantee shall be performed by the Guarantor via wire transfer on the bank account that the Beneficiary shall indicate in its Demand of payment, within and no later than 10 (ten) days as from receipt of such Demand.

The Guarantor undertakes that any payment under this Guarantee shall be performed free, net of, without any deduction or decrease for, or due to any set-off or counter-request or tax/duty and not exceeding the Maximum Liability Amount. The Guarantor hereby waives any rights under the provisions of Article 1247, 1945, 1947, where applicable, 1953, 1955, 1956 and 1957 of the Italian Civil Code.

This Guarantee shall have full effect and shall be enforceable regardless of any other already existing personal or real guarantee by whoever given or to be given in favor of the Beneficiary.

The Beneficiary's Demand herein specified, shall be accompanied of a copy of the letter to the Contractor before the execution, stating the Beneficiary's intention to execute all or part of this Guarantee, and indicating:

- that Contractor is in breach of his obligations under the Contract; and
- the respect in which Contractor is in breach.

The above does not constitute in any possible way neither an obligation for the Guarantor to enter into the reasons and details of the Contractor's breach of his obligations under the Contract, nor a reason to prevent the Guarantor from stopping the execution of this Guarantee requested by the Beneficiary.

The obligations and liabilities of the Guarantor under this Guarantee immediately terminate on the occurrence of the earliest of any of the following events ("**Termination Event**"): (i) payment of the entire Maximum Liability Amount, (ii) return of this original Guarantee document by the Beneficiary, (iii) the end of the day [*insert date*], if and as far as the Guarantor has not received a Demand sent up to this time.

As soon as a Termination Event occurs this Guarantee will immediately cease and the Beneficiary has to immediately return to the Guarantor the original of this Guarantee, if not yet done.

The Guarantor shall not assign or otherwise transfer the rights and benefit of this Guarantee or any of its rights, duties or obligations under this Guarantee without the prior written consent of the Beneficiary. In any case, this Guarantee and the obligations contained herein shall be binding upon any successors or assignees of the Beneficiary.

The Beneficiary may assign the Beneficiary's interest and/or rights under this Guarantee to any entity "the "Transferee", and in the manner, to which the Beneficiary has assigned the Beneficiary's interest, rights and/or obligations under the Contract without the consent but with prior written

notice to the Guarantor, provided always that the Transferee is not subject to any trade, economic or financial sanctions laws, restrictions, regulations, embargoes or other restrictive measures enacted, administered, implemented and/or enforced from time to time by the European Union, United Nations, the United Kingdom and the United States of America, as of the date of assignment and/or pledge.

This Guarantee may only be amended, modified or supplemented by an instrument in writing of the Parties. Such writing requirement may only be waived through an instrument in writing signed for and on behalf of each of the Parties and may not be substituted by electronic form.

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All notices to the Guarantor related to the Guarantee shall only be made to the addresses and departments indicated below:

[•]

[•]

Email: [•]

fax: [•]

This Guarantee shall be governed by and construed in accordance with the laws of Italy without giving effect to any conflict of law rules. The courts of Milan, Italy, shall have exclusive jurisdiction for any and all claims arising out of or related to this Guarantee.

Place, Date:

_____

Signature(s) of signatories of the Guarantor

Contract Price and Payment Schedule

Phase	Payment Milestone	% of Purchase Price	Accum. % of Purchase Price	Payment Amount	
				Offshore scope	Onshore scope
1	Advance Payment to be paid at the Effective Date	20%	20%	4.376.497,20	777.502,80
2	Delivery on Site of the Anchor Bolts as confirmed under the Delivery Certificate of the Anchor Bolt	10%	30%	2.188.248,60	388.751,40
3	Delivery Certificate issued by the Contractor	60%	90%	13.129.491,60	2.332.508,40
4	Taking-Over Certificate has been issued by the Contractor	10%	100%	2.188.248,60	388.751,40

All prices are exclusive of applicable VAT, sales tax or other taxes which are payable by Employer.

Offshore: invoice issued by Siemens Gamesa Renewable Energy Eolica SL
Onshore: invoice issued by Siemens Gamesa Renewable Energy Wind Srl

[On the Siemens Gamesa Italy and Spain letterhead]

To:

RENEXIA SERVICES S.R.L.

Viale Abruzzo, 410

66100 – Chieti

Italy

For the attention of: Mr. Lino Bergonzi

[*Place and date*]

Dear Sirs,

We make reference to the agreement for the sale, transportation, installation, start up and testing of wind turbine generators for the wind farm to be realized in the Municipality of Casalduni, Italy, entered into on [•] between Renexia Services S.r.l., [•] and [•] (the "**Contract**").

Words and expressions defined in the Contract have the same meaning when used in this letter unless otherwise defined or the context otherwise requires.

In accordance with Article [•] of the Contract, I, the undersigned _____, as duly authorised director of [•] and [•], hereby certify and confirm that the representations under Article [10.1] of the Contract are true, complete, correct and accurate at the date hereof and will be true, complete, correct and accurate at the date of payment by the Buyer of any portion of the Contract Price.

Best regards

[•]

_____