



Casalduni 34.7 MW Wind Farm, Campania, Italy

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Note

Unless differently stated, this Report has been prepared on the basis of the information gathered and/or project documents reviewed up to the cut-off date of March 31, 2024.

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1 Executive Summary

This construction report covers the period of March 2024 (the "Reference Period") and provides information on the status of the main construction activities, based on the documents made available by the Project Company on April 10, 2024 and the Q&A sessions.

Overall Progress

In the Reference Period, in accordance with the main planned works, the following activities have been observed:

- The commissioning of the WTGs have been completed; test run have started on the WTGs already energized; As per the latest information made available to the TA nine WTGs have successfully completed the reliability test run. WTG 13 test is ongoing and is expected to be completed by mid-April;
- The WTGs punch list has been finalized. The TA was informed¹ that four out of ten generator have all the points on the list already resolved;
- Final UPDM test to be performed in SSE within April;
- The restoration works as well as the restitution of the areas inside the Wind Farm have been completed, while minor restoration works outside the project areas are proceeding and expected to be finalized within April 2024.

Budget

No milestone payment was met in the reference period.

Permitting and Land acquisition/concession

No updates in the Reference Period.

HSE

Nothing to report in the Reference Period.

Site Visit

The last site visit was performed by the TA on February 15, 2024, the next inspection is scheduled for April 18, 2023 in order to verify the completion activities.

¹ email on April 04, 2024.

2 Background

The Casalduni WF (the “Project” or the “Wind Farm”), with a total capacity of 34.7 MW consisting of 10 Siemens-Gamesa² G132-3.465MW with a hub height of 114 m, received the EIA Decree on November 22, 2014 and has been authorized by the Campania Region according to the D.Lgs. 387/2003 (“Autorizzazione Unica” or “AU”) on March 22, 2016. On November 27, 2019 by the AU Decree n.465, the Campania Region issued the Single Authorization for the Project as “Variante”.

The Wind Farm is owned by Parco Eolico Casalduni House Srl (the “Project Company” or the “PC” or the “Client”), which in turn is owned by Renexia SpA (the “Sponsor”).

In the 2018, Fichtner has been mandated for the lender’s engineering activities for the benefit of each financial institution providing debt service to the Project Company according to their individual needs.

As informed by the Sponsor, the Project applied to the third auction in accordance with the DM July 4, 2019. The auction ranking results were published in September 2020. The Project was awarded a tariff of 66.84 €/MWh, corresponding to a 4.51% discount with respect to the threshold tariff of 70 €/MWh, assigned for 20 years starting from the Project COD.

In this framework new turbine supply and O&M contracts (TSA and ISP) have been signed with the WTG manufacturer Siemens Gamesa in December 2020.

Fichtner Italia (“Fichtner” or the “TA” or “LE”), mandated as lender’s engineer, has been requested to provide a Construction Report related to the update status of the Project.

During this exercise, the TA has liaised with, or received information from, representatives of the following parties:

- Parco Eolico Casalduni House (PECH) as SPV;
- Renexia as Sponsor.

² Siemens Gamesa Renewable Energy, or SGRE

3 Introduction

This report aims to provide the Lenders with the status of the main project construction activities for the Reference Period.

The works mainly consist of:

- Building and installation of 10 WTGs composed by 9 deep foundations (piles) and 1 foundation that transfers the load directly on the terrain, for a total installed power of 34.65 MW;
- Execution of the MV cable ducts;
- Construction of the MV/HV electrical substation (SSE);
- Construction of the HV cable duct connected with the RTN³.

All the WTGs are located in Municipality of Casalduni, grouped into two clusters:

- WTG03, WTG04 and WTG05 belonging to the first cluster (south-east) and;
- WTG08, WTG09, WTG10, WTG11, WTG13, WTG14 and WTG18 in second cluster (north-west).

The SSE is located in the Municipality of Pontelandolfo, nearly the existing RTN grid station.



Figure 3-1 – Layout of all WTGs and SSE

³ "Rete elettrica di Trasmissione Nazionale", High Voltage National Transmission Network

4 Contractual structure

The Project foresees a contractual structure, summarized in the following:

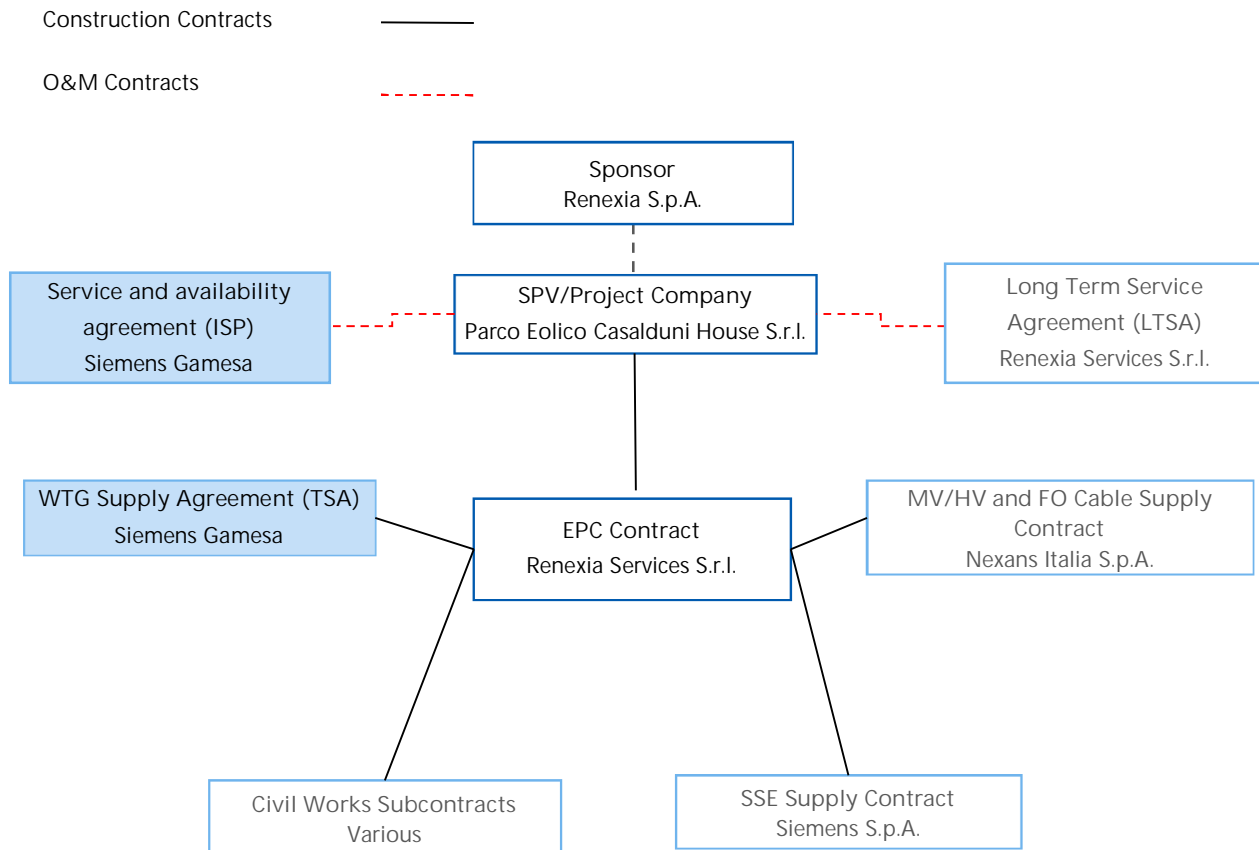


Table 4-1: Casalduni WTG Project Contracts

The new contractual scheme technically covers all the main activities related to the procurement, construction/erection/installation and testing of the Project. This structure will expose the EPC contractor to risks coming from their direct involvement on several responsibilities pertaining to transportation and WTG's towers supply and installation/testing.

4.1 Project Organizational Chart

The EPC Contractor Renexia Services S.r.l. has shared the following Organizational Chart highlighting the main roles and responsibilities of its resources during the Project execution:

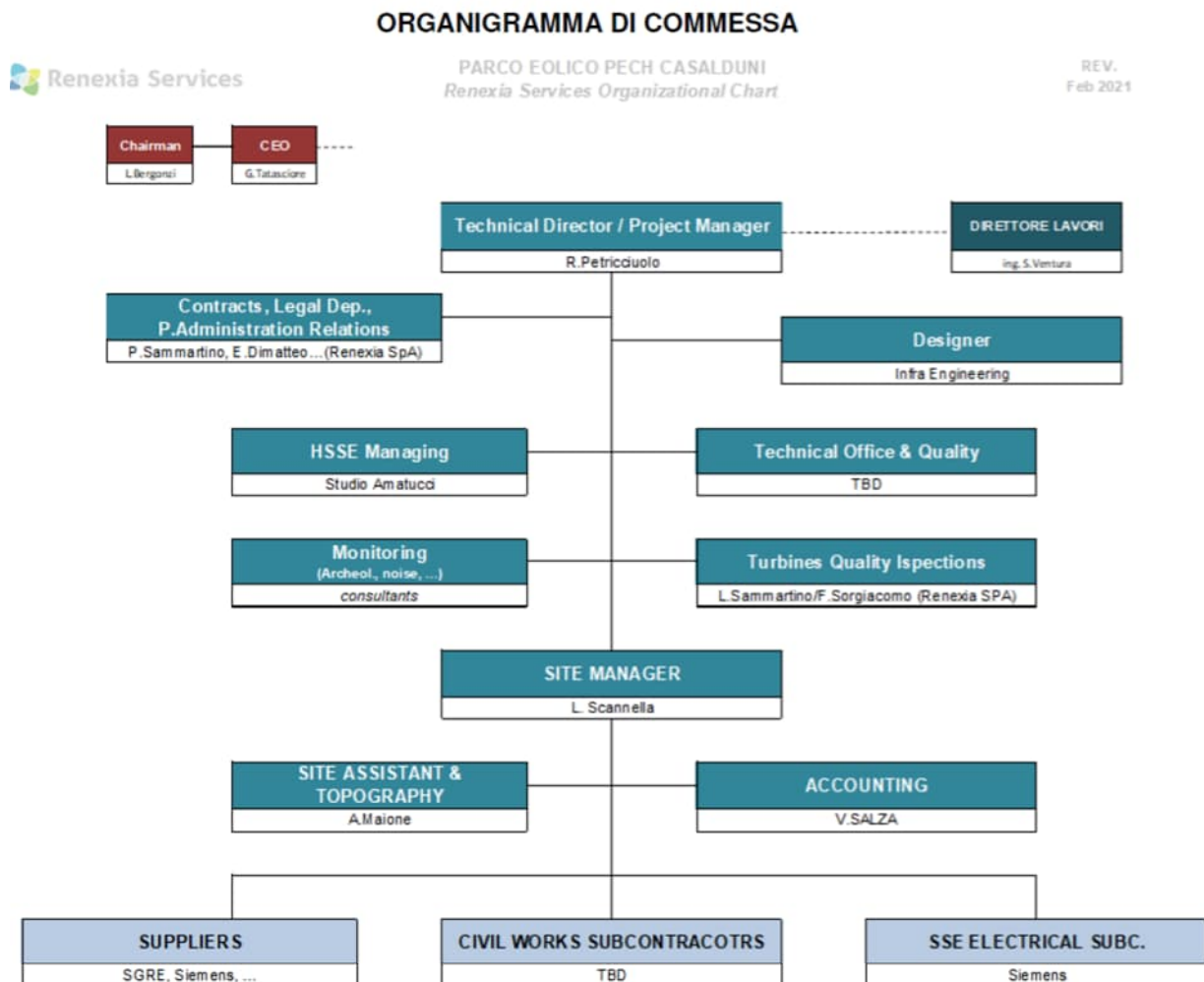


Table 4-2: Project Organizational Chart of EPC Contractor

This organisational structure is, in the TA's opinion, aligned with the industry standard.

5 Overall Project schedule

The dates of the construction milestones, reported in the overall project schedule of the Wind Farm provided to the TA at DD phase, are compared in the below table with the updated schedules. The table below reports the yet to be achieved key milestones.

Event	Planned Schedule [1]	Updated Schedule Apr 23 [2]	Updated Schedule Dec 23 [3]	TA's comments [4][3]
20/150kV SSE Energization	10/11/2021	June 2023 [Delay: 19 months]	June 2023 [Delay: 19 months]	The SSE Energization milestone was met on July 28, 2023.
MV Cables and F.O: installation	From 13/05/2021 to 27/10/2021	August 2022 to June 2023 [Delay: 17 months]	February 2024 [Delay: 25 months]	Completed
Mechanical Completion WTGs	From 14/10/2021 to 19/01/2022	April to July 2023 [Delay: 19 months]	April to July 2023 [Delay: 19 months]	The WTGs mechanical completion milestone was met on July 05, 2023.
WTGs Energization & Commissioning	From 16/12/2021 to 26/01/2022	May to July 2023 [Delay: 17 months]	February 2024 [Delay: 24 months]	Completed. The Wind Farm has entered in operation on February 09, 2024.
WTGs reliability tests	From 27/01/2022 to 23/03/2022	August to October 2023 [Delay: 19 months]	March to April 2024 [Delay: 25 months]	According to the information provided nine WTGs have successfully completed the test run. WTG 13 test is ongoing and is expected to be completed by mid-April.
WTGs Take Over	From 17/03/2022 to 20/04/2022	August to October 2023 [Delay: 17 months]	April 2024 [Delay: 26 months]	The WTGs Take Over is foreseen to be finalized within April 2024.
Wind Farm Take Over	27/04/2022	End of November 2023. [Delay: 16 months]	End of April 2024. [Delay: 21 months]	The Take Over is foreseen by the end of April 2024. In the TA's opinion few weeks of delay are to be taken in consideration.

6 Project Progress

In the Reference Period, March 2024 [4]:

- The commissioning of the WTGs have been completed; test run have started on the WTGs already energized; As per the latest information made available to the TA nine WTGs have successfully completed the reliability test run. WTG 13 test is ongoing and is expected to be completed by mid-April;
- The WTGs punch list has been finalized. The TA was informed⁴ that four out of ten generator have all the points on the list already resolved;
- Final UPDM test to be performed in SSE within April;
- The restoration works as well as the restitution of the areas inside the Wind Farm have been completed, while minor restoration works outside the project areas are proceeding and expected to be finalized within April 2024.

Project Progress

The updated progress for the project activities has been reported by the PC on a monthly basis, with the break-down below illustrated in the below tables.

Description	Weight	PROGRESS Cumulat. Act.	Overall Progress
	[%]	[%]	[%]
Civil Works	10.9	100.0	10.9
SSE & Electrical Cables Procurement	7.1	100.0	7.1
WTGs Procurement & Installation	78.5	100.0	78.5
Design & Management	3.5	99.8	3.5
TOTAL	100.0	99.9	99.9

Table 6-1: Break-down of EPC progress by activities

⁴ email on April 04, 2024.

7 Budget

The incurred construction costs, based on the EPC Contract milestones, are reported in the table below, as per the version of the schedule updated and approved in July 2023. The Wind Farm Take Over milestone has not been met, following the new time schedule the expected date reverts to the Sponsor proposal to the lenders is April 2024 [3][4].

Month	SAL [k€]	%	Milestone
Milestones achieved			
4 July 2019	10,954.3	26.0%	Advance payment EPC
FY19	10,954.3	26.0%	
Dec-20	1,053.3	2.5%	WTG Contract/SSE Contract
FY20	1,053.3	2.5%	
Feb-21	632.0	1.5%	Cable Supply Contract
Jun-21	842.6	2.0%	Cables EXW
Jun-21	2,527.9	6.0%	Site Delivery Anchor bolts
Aug-21	8,426.4	20.0%	No. 5 WTGs EXW batch 1
Nov-21	8,005.1	19.0%	No. 5 WTGs EXW batch 2
Dec-21	1,264.0	3.0%	Transformer EXW
FY21	21,698.0	51.5%	
Aug-22	842.6	2.0%	Cables delivery on site
Dec-22	842.6	2.0%	WTG Foundation 50% completed
FY22	1,685.2.8	4.0%	
Mar-23	842.6	2.0%	Transformer delivery on site
Apr-23	842.6	2.0%	WTG Foundation 100% completed
Jul-23	421.3	1.0%	Mechanical completion
Aug-23	421.3	1.0%	SSE Energization
FY23	2,527.8	6.0%	
Milestones not yet achieved			
Nov-23	4,213.2	10.0%	Wind Farm Take Over
FY23 ⁵	4,213.2	10.0%	

Table 7-1: EPC Contract Milestones status

No milestone payment was met in the reference period.

⁵ refers only to the milestones not met.

8 Permitting and Lands rights

An updated status of the authorization process and events occurred in the Reference Period, related to permits and land rights, is provided in the following.

8.1 Permitting

Nothing to report in the Reference Period.

8.2 Lands rights

Nothing to report in the Reference Period.

9 HSE

The TA is not aware of any HSE issue in the Reference Period.

No HSE reports have been provided to the TA.

10Site Visit

The last site visit was performed by the TA on February 15, 2024, the next inspection is scheduled for April 18, 2023 in order to verify the completion activities.

11 Other Pictures



Figure 11-1 - restoration works completed



Figure 11-2 - MV Cable restoration works ongoing

Key References

Doc. Ref.	Title	File Name	Version / Date
1	Time schedule	Renexia Services P.E.C.H. – Programme nov2020.pdf	February 2021
2	Project Schedule updated, April 2023	Copia di Planning WF_Casalduni 10 x G132 T114 3465MW April Draft.pdf	April 2023
3	Project Schedule updated, December 2023	- Energiz programme rev2.mpp.pdf	December 2023
4	Construction Report March 2024	20240410_report costruzione Casalduni Mar24 clean.pdf	April 10, 2024

Abbreviations

BOP	Balance of Plant
CAPEX	Capital Expenditures
COD	Commercial Operation Date
EPC	Engineering Procurement and Construction
EXW	EX Works (<i>Franco Fabbrica</i>)
HV	High Voltage
IEC	International Electrotechnical Commission
kW	Kilowatt
kWh	Kilowatt-hour
LD	Liquidated Damage
LV	Low Voltage
MCR	Major Components Replacement
MLA	Mandated Lead Arranger
MP	Monopile
MW	Megawatt (1,000 kW)
MWh	Megawatt-hour (1,000 kWh)
MV	Medium Voltage
O&M	Operation and Maintenance
PC	Project Company
RTN	<i>"Rete elettrica di Trasmissione Nazionale"</i> , High Voltage National Transmission Network
SCADA	Supervision Control and Data Acquisition
SSE	<i>"Sotto-stazione Elettrica"</i> , electrical substation
TA	Technical Advisor
TOC	Take Over Certificate
VAT	Value Added Tax
WF	Wind Farm
WTG	Wind Turbine Generator