



Casalduni 34.7 MW Wind Farm, Campania, Italy

Parco Eolico Casalduni House S.r.l.

Contact



Fichtner Italia S.r.l.
Via XII Ottobre 2/41
16121 Genova

Foro Bonaparte 55
20121 Milano

www.fichtner.de/en/



Francesco Gennaro
+39 010 5956 902 ext 209
francesco.gennaro@fichtner.it

Fichtner Italia Srl



Matteo Canevello
+39 010 5956902
+39 347 7796328
matteo.canevello@fichtner.it

Fichtner Italia S.r.l.

Document approval

| | Name | Signature | Position | Date |
|--------------|--------------|-----------|---------------------|------------|
| Prepared by: | M. Canevello | | Consultant Engineer | 10.03.2023 |
| Checked by: | F. Gennaro | | Project Manager | 13.03.2023 |

Document revision record

| Rev. | Date | Details of revision | Fichtner Doc Ref. | Prepared by | Checked by |
|------|------------|---------------------|-------------------|-----------------|-----------------|
| 0 | 13.03.2023 | Rev. 0 | RP 23 059_F454 | Fichtner Italia | Fichtner Italia |

Disclaimer

This document has been prepared by Fichtner within the framework of a Contract which defines the scope and use of such document as well as the responsibilities borne by Fichtner with respect to the information contained therein. The distribution of this document to different parties and/or the application of the document or of the information contained therein to a different scope or use as provided for in the Contract is forbidden and Fichtner shall not be responsible for such other scope or use. Should the documents be even partially modified, the use of the Fichtner logo, formats and letterheads is prohibited.

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 February 28, 2023.

Table of Contents

- 1 Executive Summary.....5
- 2 Background.....6
- 3 Introduction.....8
- 4 Contractual structure.....9
 - 4.1 Project Organizational Chart..... 10
- 5 Overall Project schedule 11
- 6 Project Progress 14
- 7 Budget..... 16
- 8 Permitting and Lands rights..... 17
 - 8.1 Permitting..... 17
 - 8.2 Lands rights..... 17
- 9 HSE 18
- 10 Site Visit..... 19
- 11 Pictures 19
 - Key References..... 22
 - Abbreviations 23

1 Executive Summary

This construction report covers the period of February 2023 (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 March 07, 2023, the Site Visit performed on March 09, 2023 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 transportation and installation kick-off are planned to be occurred at the beginning of March 2023, with 2 months of delay compared to the previous schedule.
- During the Reference Period the pouring of the WTG G14 was done, preliminary activities for the pouring of the WTG G05, G04 and G03 are ongoing at the date of the issuance of this report. The activities are expected to be complete by the end of March.
- MV cables installation is ongoing, during the Reference Period work was concentrated in the first section (1.7 km out of 8.1 km).
- HV equipment installation has been completed while the installation of the MV switchgears is planned in the second half of March. Minor civil works in the SSE are ongoing at the date of the issuance of this report.

The schedule would allow the Project to be guaranteed the awarded Tariff without any penalties: the deadline to avoid a 1% reduction on the awarded Tariff for the projects awarded in third auction (in accordance with the DM July 4, 2019), whose ranking results were published in September 2020, was extended by a total of 553 days, equal to the period included between the date of publication of the rankings (24/09/2020) and the expiration of the state of emergency declared by Resolution of the Council of Ministers. The new deadline is June 30, 2023. Moreover, according to the D.L. n.21/2022 (Decreto Ucraina), the GSE has implemented the possibility of extending the end of work by 12 months, shifting the deadline for the tariff by the same period. The TA has been informed that PECH requested and obtained the extension, hence the new deadline is June 30, 2024.

The conditions for eligibility to the FiT are: (i) energization of the first WTG and (ii) Erection of all WTGs., whose combined achievement is currently foreseen for the end of May 2023 as per latest available Schedule, which is going to be subject to variations as described above in this Section.

Budget

The TA confirms that the "Transformer delivery on site" milestone has technically occurred, and the relevant milestone payment from Renexia Services as EPC contractor has been made on January 27, 2023 (see also LT 23 042_F454 - Casalduni WF_n.12 Draw Down Certificate-signed. dated February 24, 2023).

Permitting and Land acquisition/concession

No updates in the Reference Period.

HSE

Nothing to report in the Reference Period.

Site Visit

The TA performed by the TA on March 09, 2023, no relevant risks have been noted during the inspection. The main outcomes are reported in the Annex1_Site Visit Casalduni_09.03.23.

2 Background

The Casalduni WF (the "Project" or the "Wind Farm"), with a total capacity of 34.7 MW consisting of 10 Siemens-Gamesa¹ 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

¹ 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 RTN².

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

² “Rete elettrica di Trasmissione Nazionale”, High Voltage National Transmission Network

4 Contractual structure

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

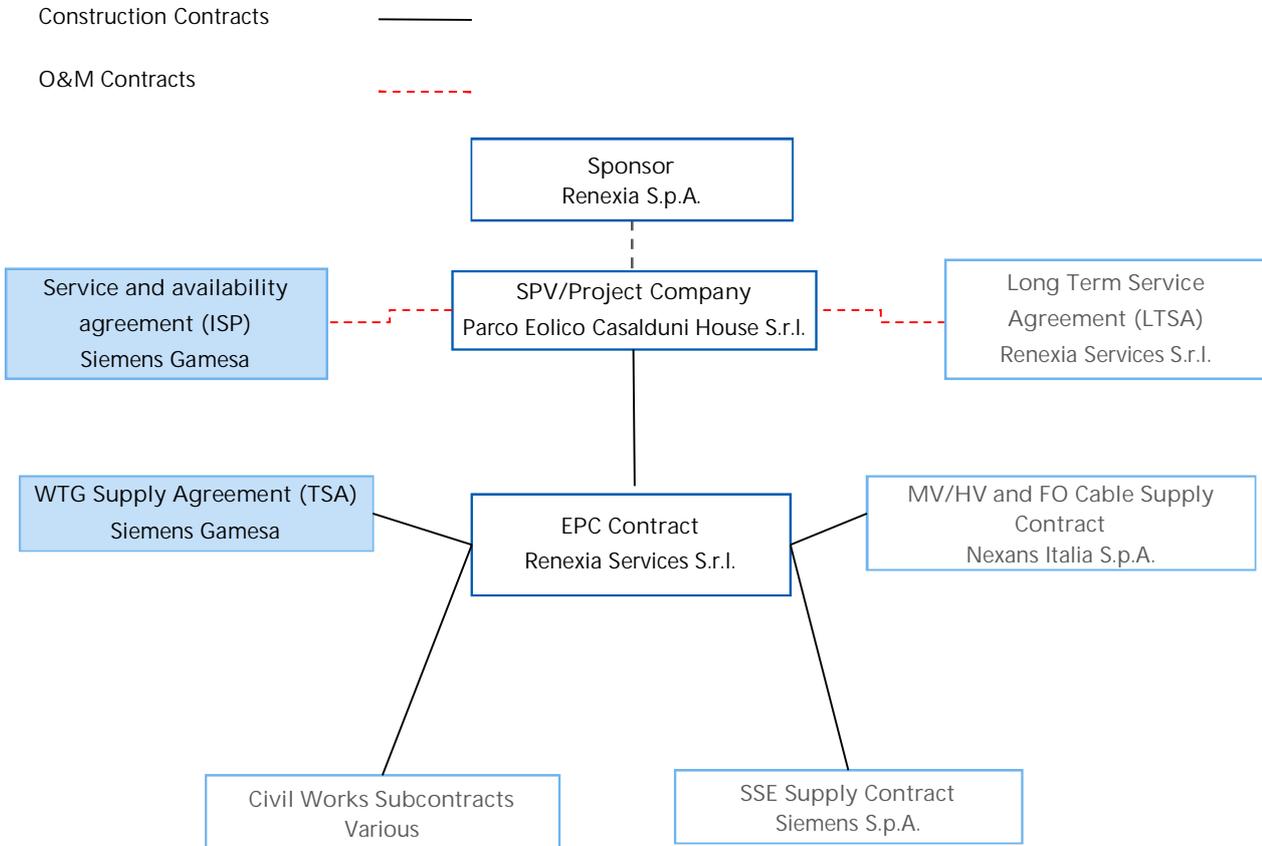


Table 4-1: Casalduni WTG Project Contracts

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:

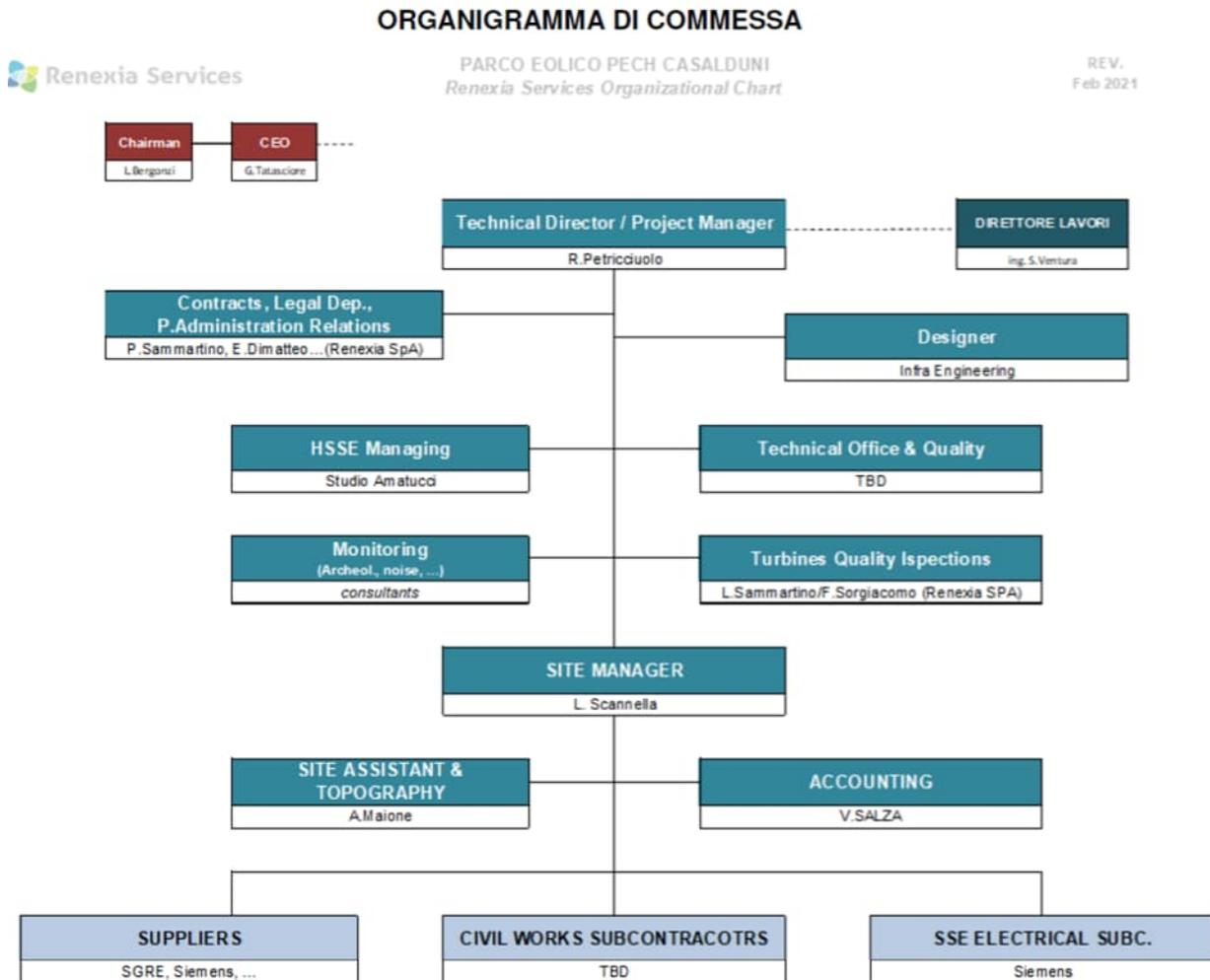


Table 4-2: Project Organizational Chart of EPC Contractor

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.

| Event | Planned Schedule [1] | Updated Schedule Oct 22 [2] | Updated Schedule Feb 23 [3] | TA's comments [4] |
|----------------------------|-------------------------------|--|---|---|
| Construction Contracts | Done | Done | Done | The Notice to Proceed (NTP) signed in the mid of January 2021 between the EPC contract and the TSA (Siemens Gamesa). |
| UXO Survey | Partially Done | Done | Done | |
| Start of Site Works | In the mid of May 2021 | May, 2022 [Delay: 12 months] | May, 2022 [Delay: 12 months] | According to the information provided to the TA, Renexia started the Site Works on April 27, 2022. |
| WTGs delivery on site | From 09/09/2021 to 15/12/2021 | December 2022 to February 2023 [Delay: 15 months] | February 2022 to May 2023 [Delay: 17 months] | <p>The WTG blades are stocked in the Naples port. Since the installation envisages a "Just-in-time" approach, the transportation is planned at the delivery on site of the whole set of the main components at the end of the WTG's foundations.</p> <p>The Nacelles, Hubs and Towers transportation has been completed during January 2023 and the component are now stocked in the port of Barletta</p> <p>The installation kick-off are planned to be occurred at the beginning of March 2023, with 2 months of delay compared to the previous schedule.</p> |
| MV Cables delivery on site | 31/03/2021 | January 2023 | February 2023 | <p>All MV and Fiber Optic cables were delivered at the Casalduni site at the end of March 2022.</p> <p>Renexia reordered about 40km of stored cable, burned due to vandalism. The delivery started during February 2023, with 1 month of delay compared to the previous schedule.</p> |
| WTGs foundation completion | 6/10/2021 | November 2022 [Delay: 13 months] | March 2023 [Delay: 17 months] | The WTGs foundation completion is envisaged within March 2023, with 3 months of delay compared to the previously estimation. |

| Event | Planned Schedule [1] | Updated Schedule Oct 22 [2] | Updated Schedule Feb 23 [3] | TA's comments [4] |
|---------------------------------|-------------------------------|--|---|--|
| 20/150kV SSE Energization | 10/11/2021 | February 2023 [Delay: 15 months] | May 2023 [Delay: 18 months] | The 20/150kV SSE Energization is scheduled for the end of May 2023, with 2 months of delay compared to the previously estimation. |
| MV Cables and F.O: installation | From 13/05/2021 to 27/10/2021 | August 2022 to February 2023 [Delay: 16 months] | August 2022 to May 2023 [Delay: 16 months] | Carried out by Nexans Italia S.r.l. The activities started in August and due to the vandalism are currently on hold. The activities will restart after the new delivery, expected for February 2023 and will be completed by the beginning of May, with 3 months of delay compared to the previously estimation. The works on site are correctly proceeding |
| WTGs Erection | 15/12/2021 | December 2022 to February 2023 [Delay: 11 months] | March to May 2023 [Delay: 14 months] | The erection of all WTGs will start at the beginning of March 2023, with 3 months of delay compared to the previously estimation. |
| Mechanical Completion WTGs | From 14/10/2021 to 19/01/2022 | January to April 2023 [Delay: 16 months] | April to July 2023 [Delay: 19 months] | The WTGs Mechanical Completion is expected by July 2023, with 3 months of delay compared to the previously estimation. |
| WTGs Energization | From 16/12/2021 to 26/01/2022 | March to May 2023 [Delay: 15 months] | May to July 2023 [Delay: 17 months] | The first WTG Energization will start by the end of May 2023, with 2 months of delay compared to the previously estimation. |
| WTGs reliability tests | From 27/01/2022 to 23/03/2022 | April to June 2023 [Delay: 15 months] | June to August 2023 [Delay: 17 months] | The reliability tests of the WTGs will start in June and completed by August 2023, with 2 months of delay compared to the previously estimation. |
| WTGs Take Over | From 17/03/2022 to 20/04/2022 | June to July 2023 [Delay: 14 months] | July to September 2023 [Delay: 16 months] | The WTGs Take Over is foreseen to be finalized by September 2023, with 2 months of delay compared to the previously estimation. |

| Event | Planned Schedule [1] | Updated Schedule Oct 22 [2] | Updated Schedule Feb 23 [3] | TA's comments [4] |
|---------------------|----------------------|---|--|--|
| Wind Farm Take Over | 27/04/2022 | End of July 2023. [Delay: 12 months] | End of September 2023. [Delay: 14 months] | The Take Over is foreseen by the end of September 2023, with 1 month of delay compared to the previously estimation. |

It is noted that the Updated Interconnection Date Deadline (April 20, 2022) and the Long Stop Date (July 31, 2022), as per definition in the Waiver of Terms and Conditions of the Notes dated October 4, 2021, were not met.

As per the Waiver request under evaluation by the Lenders, the Interconnection Date Deadline and the Long Stop Date must be extended to, respectively, May 31, 2023 and October 31, 2023, which are in line with the updated Project Schedule above reported.

The above schedule, however, would allow the Project to be guaranteed the awarded Tariff without any penalties: the deadline to avoid a 1% reduction on the awarded Tariff for the projects awarded in third auction (in accordance with the DM July 4, 2019), whose ranking results were published in September 2020, was extended by a total of 553 days, equal to the period included between the date of publication of the rankings (24/09/2020) and the expiration of the state of emergency declared by Resolution of the Council of Ministers of 31/01/2020, 29/07/2020, 07/10/2020, 13/01/2021, 21/04/2021, Decree Law No. 105/2021 and Decree Law No.221/2021 (31/03/2022). Considering the above the new deadline is June 30, 2023. Moreover, according to the D.L. n.21/2022 (Decreto Ucraina), the GSE has implemented the possibility of extending the end of work by 12 months, shifting the deadline for the tariff by the same period. The TA has been informed that PECH requested and obtained the extension, hence the new deadline is June 30, 2024³.

The conditions for eligibility to the FiT are: (i) energization of the first WTG and (ii) Erection of all WTGs., whose combined achievement is currently foreseen for the end of May 2023 as per latest available Schedule, which is going to be subject to variations as described above in this Section.

³ email communication on February 24, 2023.

6 Project Progress

In the Reference Period, February 2023 [4]:

- The transportation and installation kick-off are planned to be occurred at the beginning of March 2023, with 2 months of delay compared to the previous schedule.
- During the Reference Period the pouring of the WTG G14 was done, preliminary activities for the pouring of the WTG G05, G04 end G03 are ongoing at the date of the issuance of this report. The activities are expected to be complete by the end of the month.
- MV cables installation is ongoing, during the Reference Period work was concentrated in the first section (1.7 km out of 8.1 km).
- HV equipment installation has been completed while the installation of the MV switchgears is planned in the second half of March. Minor civil works in the SSE are ongoing at the date of the issuance of this report.

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.

| Cod. | Description | Weight | PROGRESS Monthly Act. | PROGRESS Cumulat. Act. | Overall Progress |
|------|-------------------------------------|--------|-----------------------|------------------------|------------------|
| | | [%] | [%] | [%] | [%] |
| A | Civil Works | 10.9 | 6.1 | 85.3 | 9.3 |
| B | SSE & Electrical Cables Procurement | 7.1 | 5.0 | 87.0 | 6.2 |
| C | WTGs Procurement & Installation | 78.5 | 0.0 | 90.0 | 70.7 |
| D | Design & Management | 3.5 | 0.0 | 87.0 | 3.0 |
| | TOTAL | 100.0 | 1.1 | 89.2 | 89.2 |

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

The overall weighted progress until today has been of 89.2%, with a monthly progress of 1.1%, related to progress of Civil works and SSE & Electrical Cables Procurement.

| Cod. | Description | Weight | PROGRESS | PROGRESS | Overall Progress |
|------|---|--------|----------|----------|------------------|
| | | [%] | Monthly | Cumulat. | |
| | | | Act. | Act | |
| | | [%] | [%] | | |
| A1 | Concrete Supply - Foundation Plinths and Piles | 18.0 | 0.0 | 83.2 | 15.0 |
| A2 | Inert Materials Supply | 12.0 | 5.0 | 75.0 | 9.0 |
| A3 | Steel Supply - Foundation Plinths and Piles | 20.0 | 15.0 | 94.6 | 18.9 |
| A4 | Earthmoving | 18.0 | 3.0 | 95.6 | 17.2 |
| A5 | Foundation Piles Construction | 3.0 | 0.0 | 100.0 | 3.0 |
| A6 | WTG Foundations | 6.0 | 10.0 | 72.0 | 4.3 |
| A7 | Laying Fiber Optic Cables - including civil works | 15.0 | 8.0 | 66.8 | 10.0 |
| A8 | Electrical Substation Civil Works | 8.9 | 2.0 | 98.0 | 7.8 |

| Cod. | Description | Weight | PROGRESS | PROGRESS | Overall Progress |
|-------|-------------|--------|----------|----------|------------------|
| | | [%] | Monthly | Cumulat. | |
| | | | Act. | Act | |
| | | | [%] | [%] | |
| Total | | 100.0 | 6.1 | 85.3 | 85.3 |

Table 6-2: Civil works progress detail

| Cod. | Description | Weight | PROGRESS | PROGRESS | Overall Progress |
|-------|--|--------|----------|----------|------------------|
| | | [%] | Monthly | Cumulat. | |
| | | | Act. | Act | |
| | | | [%] | [%] | |
| B1 | Electrical Substation equipment Supply | 70.0 | 5.0 | 90.0 | 63.0 |
| B2 | MV, FO and HV Cables Supply | 30.0 | 50 | 80.0 | 24.0 |
| Total | | 100.0 | 12.5 | 87.0 | 87.0 |

Table 6-3: SSE & Electrical Cables Procurement progress detail

| Cod. | Description | Weight | PROGRESS | PROGRESS | Overall Progress |
|-------|-------------------------------|--------|----------|----------|------------------|
| | | [%] | Monthly | Cumulat. | |
| | | | Act. | Act | |
| | | | [%] | [%] | |
| C1 | Notice to proceed | 20.0 | 0.0 | 100.0 | 20.0 |
| C2 | Delivery on site Anchor Bolts | 10.0 | 0.0 | 100.0 | 10.0 |
| C3 | Ex-Works Delivery | 60.0 | 0.0 | 100.0 | 60.0 |
| C4 | Installation & Take Over | 10.0 | 0.0 | 0.0 | 0.0 |
| Total | | 100.0 | 0.0 | 90.0 | 90.0 |

Table 6-4: WTGs Procurement & Installation progress detail

| Cod. | Description | Weight | PROGRESS | PROGRESS | Overall Progress |
|-------|-------------------------------|--------|----------|----------|------------------|
| | | [%] | Monthly | Cumulat. | |
| | | | Act. | Act | |
| | | | [%] | [%] | |
| D1 | Design & technical consulting | 40.0 | 0.0 | 80.0 | 32.0 |
| D2 | Operations Management | 60.0 | 16.7 | 91.7 | 55.0 |
| Total | | 100.0 | 10.0 | 87.0 | 87.0 |

Table 6-5: Design & Management detail

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 at the beginning of February 2023 [3].

| 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 |
| Milestones not yet achieved | | | |
| Mar-23 | 842.6 | 2.0% | WTG Foundation 100% completed |
| May-23 | 842.6 | 2.0% | SSE Energization/Mechanical completion |
| Sep-23 | 4,213.2 | 10.0% | Provisional Acceptance Certificate |
| FY23 | 6741.0 | 16.0% | |

Tabella 7-1: EPC Contract Milestones status

The TA has been informed that the "Transformer delivery on site" milestone has technically occurred, and the relevant milestone payment from Renexia Services as EPC contractor has been made on January 27, 2023 (see also LT 23 042_F454 - Casalduni WF_n.12 Draw Down Certificate-signed. dated February 24, 2023).

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.

10 Site Visit

The TA performed by the TA on March 09, 2023, no relevant risks have been noted during the inspection. The main outcomes are reported in the Annex1_Site Visit Casalduni_09.03.23.

11 Pictures

Some selected pictures of the site works and materials delivery, as shared by the Sponsor [4], are provided in this section.



Figure 11-1 - WTG G14 ready to be poured



Figure 11-2 - WTG G14 foundation works ongoing



Figure 11-3 - MV cables works

Key References

| Doc. Ref. | Title | File Name | Version / Date |
|-----------|---|--|--|
| 1 | Time schedule | Renexia Services P.E.C.H. – Programme nov2020.pdf | February 23, 2021 |
| 2 | Project Schedule updated, October 2022 | Renexia Services P.E.C.H.- Programme ott2022.pdf | October 07, 2022 |
| 3 | Project Schedule updated, February 2023 | Revised Draft Timetable.xlsm Casalduni - Energization Programme.pdf | February 06, 2023 February 10, 2023 |
| 4 | Construction Report February 2023 | 20230228_report costruzione Casalduni clean.pdf | March 7, 2023 |

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 |