



RP 21 107

Construction report
#4

May 2021

Casalduni 34.7 MW Wind Farm, Campania, Italy

Parco Eolico Casalduni House S.r.l.

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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 May 31, 2021.

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1 Executive Summary

This construction report covers the period of May 2021 (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 May 31, 2021.

Overall Progress

The works are foreseen to be started by the end of June [1], following the obtainment of the EIA Decree of *Proroga* on March 24, 2021. In this regard, the TA understands that it will not affect the delay on the main delivery components from Siemens Gamesa foreseen on September 2021.

As so far, in accordance with the main activities planned at the beginning of the works are related to the following:

- The Executive Project of the Electrical Substation is still pending, as the buildings design is ready but the foundations' design needs to be finalized, although Siemens has already provided technical inputs for the Substation. As confirmed by the Client [3], it is foreseen to deposit the Executive Project to Genio Civile within June 2021.
- UXO test (Unexploded Ordinances): both the first and the second partial explosive ordinance clearance testing were obtained.
- Archaeological surveys: archeological assistance with the University of Salerno and other archaeologists will be started along with the start of activities expected to be in the end of May/early July 2021 [3]; birdlife monitoring activities have been contracted.
- Foundations: Seismic authorization obtained for 8 WTGs. The additional documents required by the Genio Civile for WTG03 and WTG18 have been conducted in April, and the seismic authorisation – according to an update by Renexia - has been obtained on May 4, 2021 [3]. As regards the Substation, the deposit of seismic authorization was carried out.

Moreover, it has been stipulated a contract with Siemens for the electromechanical supply. In relation to contracts, the Client foreseen to sign contracts with the suppliers for the following materials/works:

- Supply MV and F.O. cables (Nexans)
- Supply and laying HV cables
- Supply Concrete – Plinth and Piles
- Supply Additives – Foundations
- Supply Cave dry materials (signed)
- Subcontract earth moving (signed)
- Subcontract Treatment at lime
- Subcontract Piles (signed)
- Subcontract Carpenter (in signature)
- Subcontract prefabricated cabins in SS (signed)

Budget

No EPC contract payment milestones have occurred in the Reference Period.

The costs are related to the advance payment EPC occurred in July 2019 and the WTG Contract/SSE Contract stipulated in December 2020, as well as the Cable Supply Contract in February 2021 for a total amount of 12,639.6 k€.

Permitting and Land acquisition/concession

- The land rights were obtained on August 1, 2020. The payment for the land costs related to the landowners and MEF are in final phase (90% of the payment has been conducted). The remaining part is expected to be finalized before the starting of the works;
- The land rights for provisional areas are foreseen to be completed by the end of June based on the works progress in the construction site;
- First and second UXO (Unexploded Ordinances) with positive result obtained.
- Seismic authorization obtained for 8 WTGs upon to 10 WTGs. The additional documents required by the Genio Civile for the seismic authorization for WTG18 and WTG03 have been obtained on May 4, 2021.
- It has been stipulated the concession with the Province of Benevento for the laying of the cable duct obtained on July 17, 2020 and the authorization for roads adjustment on February 5, 2021.;
- The authorisation for the cable duct line was obtained from the Pontelandolfo Municipality on April 15, 2021. No related concession will be issued, as it is not needed¹.
- The authorization from the Casalduni Municipality for the cable duct is still pending and it is foreseen to be obtained in June;
- The ANAS authorization for roads adjustment was obtained on March 29, 2021, except for a further small intervention to be authorized shortly;
- EIA Decree of Proroga was obtained March 23, 2021 with positive comments from MATTM and MIBACT.

HSE

Safety and Coordination Plan were issued in the Reference Period [1].

Site Visit

To be planned in accordance with new time schedule / progress of site activities.

¹ Confirmed by Renexia with clarification email on 28/05/2021

2 Background

The Casalduni WF (the "Project" or the "Wind Farm"), with a total capacity of 34.7 MW consisting of 10 Siemens-Gamesa 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 Danish WTG manufacturer Siemens Gamesa on 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

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 transfer the load directly on the terrain, for a total installed power of 34.65 MW;
- Execution of the MV cable-ducts;
- Construction of the SSE for the MV/HV transformation of the produced energy;
- Construction of the HV cable duct connected with the RTN² line.

All the WTGs are located in Municipality of Casalduni, grouped into two clusters: WTG03, WTG04 and WTG05 belonging to the first cluster and the WTG08, WTG09, WTG10, WTG11, WTG13, WTG14 and WTG18 are in second cluster, while the SSE is located in the Municipality of Pontelandolfo, nearly the existing substation RTN.



Figure 3-1 – Layout of all WTGs and SSE

² "Rete elettrica di Trasmissione Nazionale"

4 Contractual structure

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

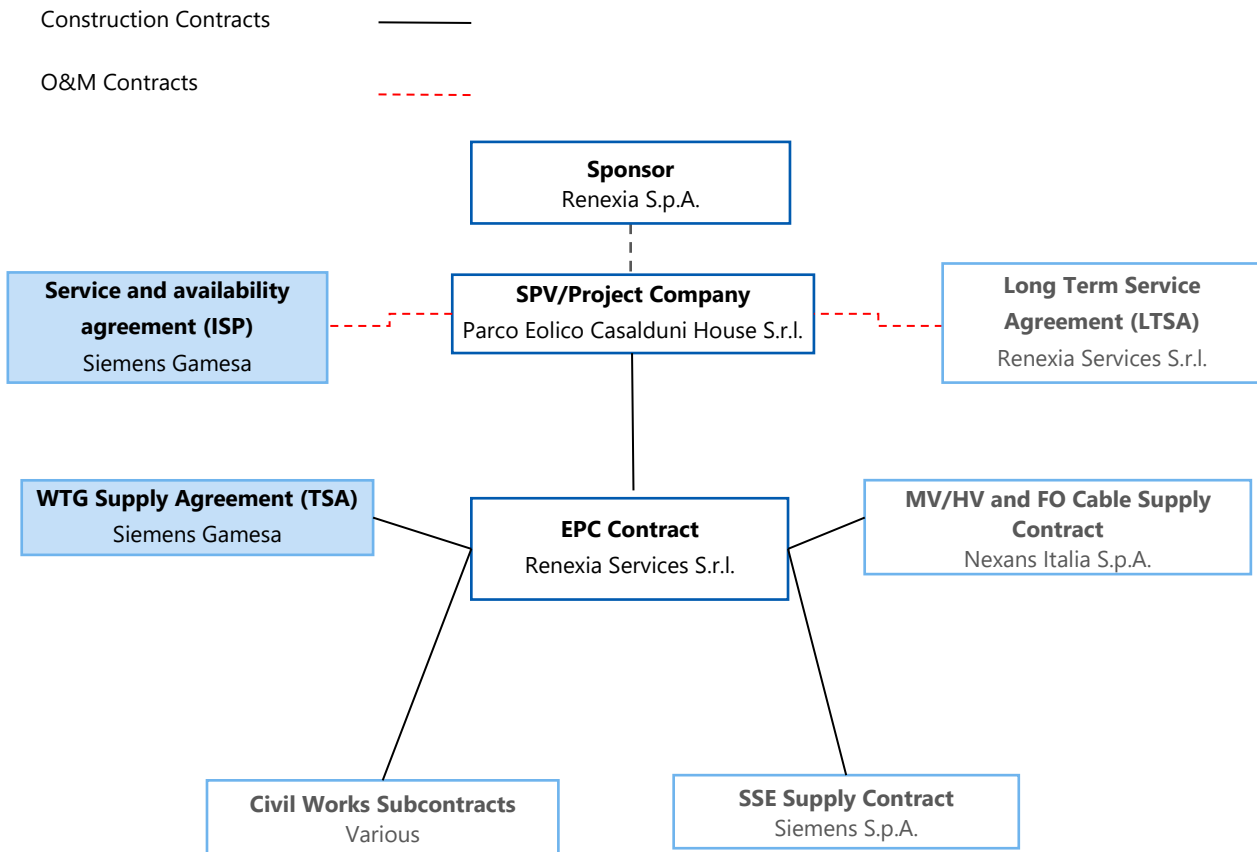


Table 4-1: Casalduni WTG Project Contracts

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:

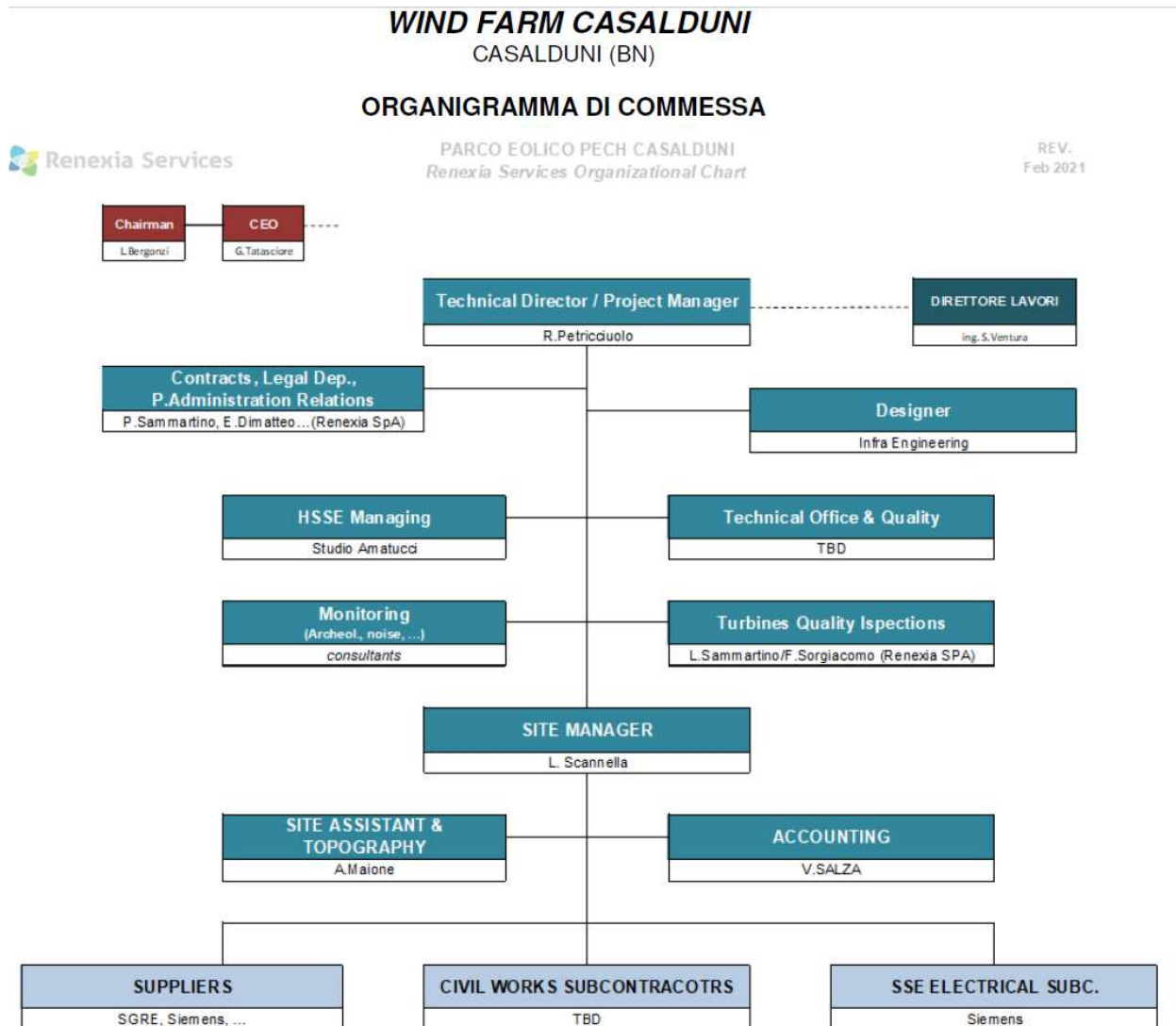


Table 4-2: Project Organizational Chart of EPC Contractor

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

5 Overall Project schedule and Progress

The dates of the construction milestones are reported in the overall project schedule of the Wind Farm provided to the TA at DD phase compared with the new time-table to be attached to the EPC amendment [2]:

Event	Time-schedule [2]	TA's comments
Construction Contracts	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	First Partial UXO authorization obtained. The submission for small remaining areas (SSE, WTG4) is foreseen to be in the end of April and the UXO test is expected to be conducted by May.
Start of Site Works	In the mid of May	<p>After the obtainment of the Decree <i>Proroga</i> VIA on March 23, 2021. Renexia stated that Site Works will actually start at the end of June. The delay is due, according to Renexia, to the organization of the entry into the construction site of the companies for the preparation of the access tracks and the waiting for the decrease in the cost of raw materials, which at the moment does not involve any foreseeable delays on the general timetable, according to Renexia.</p> <p>In TA's opinion, the introduction of this further delay can impact civil works activities (Temporary platform and roads preparation, Pile driving, Turbine foundations). These activities can in turn introduce a delay of around one month in WTG Installation and Energization with respect to the previous schedule.</p> <p>According to the above a follow up will be carried out by the TA in order to evaluate potential impacts and/or improvement on the project timing.</p>
WTGs delivery on site	From 09/09/2021 to 15/12/2021	The delivery of WTGs on site is foreseen starting on September 9, 2021 and to be delivered on site at mid-December 2021. However, as clarified by the Client, albeit the works have not started yet (expected starting works in March 2021), the delivery on site will be not subject to a

		delay. The TA has not identified critical issue.
MV Cables delivery on site	31/03/2021	The MV Cable delivery on site is foreseen in June 2021, a delay of 2 months is observed on this procurement item.
HV Cables delivery on site	1/09/2021	The HV delivery on site is foreseen starting on August 26, 2021.
WTGs foundations completion	6/10/2021	The foundation works are foreseen to be finalized on October 6, 2021.
20/150kV SSE Energization	10/11/2021	The energization of the Electrical Substation is foreseen between in early December 2021, as per Siemens Energy schedule provided [11], [12]. Note by the TA: In the Budget table, the milestone related to this activity is dated January 2022. As per Renexia explanation ³ , the payment milestone is related to two activities: SSE Energization and Mechanical Completion WTGs. The second is foreseen to be finalized in January 2022.
MV Cables and F.O: installation	From to 13/05/2021 to 27/10/2021	Carried out by Nexans Italia S.r.l. The works will be finalized on October 27, 2021.
WTGs installation	From 9/9/2021 to 20/04/2022	The installation of all WTGs is foreseen to be finalized on April 20, 2022.
WTGs Erection	15/12/2021	The erection of the all WTGs will be completed on December 15, 2021.
Mechanical Completion WTGs	From 14/10/2021 to 19/01/2022	The Mechanical Completion is foreseen to be finalized on January 19, 2022.
WTGs Energization	From 16/12/2021 to 26/01/2022	According to the project schedule, the date to energize the Wind Farm will be on January 21, 2022.
WTGs trial tests	From 27/01/2022 to 23/03/2022	The test run of the WTGs will be completed at the end of March 2022.
WTGs Take Over	From 17/03/2022 to 20/04/2022	The WTGs Take Over is foreseen to be finalized on April 20, 2022.

³ Email from Renexia on 28/05/21

Wind Farm Take Over	27/04/2022	The TO is foreseen to be on April 27, 2022 and will be delivered following the final inspection.
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With reference to the time schedule provided and updated in November 2020 as annex of the new amendment of the EPC contract [2], as well as considering the capabilities of the contractors, the TA reasonably expects the works to be completed not later than the 2Q2022, also in case the delay of 1 month on WTG installation and energization, due to the delay in the Start of Site Works, materializes.

This 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 to July 30, 2022 (an additional 218 days compared to the previous deadline, set on December 24, 2021 by DM July 4, 2019) due to the current COVID-19 emergency [9].

The TA understands that, although the obtainment EIA Decree of Proroga on March 23, 2021 and the start of works is foreseen to be in late June [1], this does not have impact regarding the WTGs delivery on site foreseen the first days of September 2021, as reported in the time schedule and clarified by the Client [1], [3], but may have an impact on WTG Civil works, installation and energization.

This point and possible mitigation actions will be further investigated in the next weeks, also through a site visit foreseen at the beginning of the site activities (July 2021).

6 Budget

The incurred construction costs amount, based on the EPC Contract milestones, are reported in the table below.

Month	SAL [k€]	%	Milestone
4 July 2019	10,954.3	26%	Advance payment EPC
Oct-19	-	0.0%	
Nov-19	-	0.0%	
Dec-19	-	0.0%	
FY19	10,954.3	26.0%	
Jul-20	-	0.0%	
Aug-20	-	0.0%	
Sep-20	-	0.0%	
Oct-20	-	0.0%	
Nov-20	-	0.0%	
Dec-20	1,053.3	2.5%	WTG Contract/SSE Contract
FY20	1,053.3	2.5%	
Jan-21	-	0.0%	
Feb-21	632.0	1.5%	Cable Supply Contract
May-21	842.6	2.0%	Cables EXW
May-21	2,527.9	6.0%	Site Delivery Anchor bolts
June-21	842.6	2.0%	Cables delivery on site
Jun-21	1,264.0	3.0%	Transformer EXW
Jul-21	16,431.5	39.0%	No. 10 WTG EXW/SSE EXW
Aug-21	-	0.0%	
Sep-21	-	0.0%	
Oct-21	1,264.0	3.0%	WTG Foundation completed – MW Cable and FO installation completed
Nov-21	-	0.0%	
Dec-21	-	0.0%	
FY21	23,804.6	56.5%	
Jan-22	1,264	3.0%	SSE Energization/Mechanical completion
Feb-22	-	0.0%	
Mar-22	842.6	2.0%	Definitive Platform and Roads completed
Apr-22	4,213.2	10.0%	Provisional acceptance
FY22	6,319.8	15.0%	

Tabella 6-1: EPC Contract Milestones status

As reported in the above Tabella 6-1, the milestones "Cables EXW", "Cables delivery on site" and "Site delivery Anchor Bolts" marked in blue have not been completely achieved in the respective Reference Periods (March, April and May 2021, respectively), due to the production of cables 1x240mm² expected to be ready in the first week of June [1], and due to some delays in the transports as far as the Anchor Bolts are concerned. The Sponsor informed that the Milestones "Cables EXW" and "Site delivery Anchor Bolts"

will be reached in early June [1]. At time of issuance of this report, the TA has verified that "Cables EXW" and "Site delivery Anchor Bolts" milestones were reached and issued the relevant Draw-Down certificate #5. The pictures in section 9 testify the on-site delivery of Anchor Bolts.

7 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, based on the information provided by the PC report [1].

7.1 Permitting

The first partial testing BOB (UXO-unexploded ordinance) was obtained. For the small areas occupied by SSE and WTG04 and the municipality roads, the submission of the request for second partial UXO test was carried out, and the UXO test is foreseen was executed on May 20, 2021 [1], followed by the issuance of the report of partial validation number 226 on May 24, 2021.

The Seismic Authorization for the 8 WTGs were obtained, excepted for the WTG03 and WTG08, whose additional documents required by the Genio Civile have been delivered. The related authorization has been obtained by Genio Civile on May 3, 2021 [10]. Instead, the seismic authorization for the substation were deposited.

The documentation about executive design of SS buildings is ready, that of SS foundations is under finalization. The deposit to Genio Civile is foreseen within June.

The obtainment of the EIA Decree of *Proroga* was on date March 24, 2021 [7], which acquired the positive opinions from the EIA commission of the MATTM and MIBACT.

7.2 Lands rights

The private parcels affected by the project were acquired through notary agreements already in August 2020. The payments related to the lands of the owners and/or deposit to MEF are at the phase of conclusion (90% of the payment done). The remaining part is expected to be finalized before the starting of the works. A detailed and updated report of the payments will be shared later by Renexia [3].

The land rights for provisional areas – mainly relative to the access of exceptional transport carriers - are foreseen to be completed between May-June, based on the works progress in the construction site, in order not to impact major site activities [3].

Province of Benevento: the concessions for cable duct installation were obtained on July 17, 2020 [8] and the related works for external roads adjustment on February 5, 2021 [5]

Pontelandolfo Municipality: the authorization for laying the cable duct was obtained on April 15, 2021 [4].

Casalduni Municipality: the authorization for the cable duct line is expected to be finalized in May [3].

ANAS: the authorization for the adjustment of external roads was obtained on March 29, 2021 [6], except for a minor intervention at Buonalbergo, whose authorisation is awaited shortly according to Renexia [1]. In TA's opinion, this will not interfere with the Project schedule, as the start of WTGs delivery onsite is foreseen in September 2021 [2].

8 HSE

Safety and Coordination Plan were issued in the Reference Period [1].

9 Site Visit

To be planned in accordance with new time schedule / progress of site activities. Considering the start of works at the end of June, the site visit is envisaged to be performed in July 2021.

Here follow some pictures of the on-site delivery of Anchor Bolts, performed on June , 2021.



Figure 9-1 - Anchor bolts delivered on site



Figure 9-2 - Flanges delivered on site



Figure 9-3 - Flanges delivered on site

Key References

Doc. Ref.	Title	File Name	Version / Date
1	Construction Report	210530 – report costruzione Casalduni.pdf	May 30, 2021
2	Time schedule	Renexia Services P.E.C.H. – Programme nov2020.pdf	February 23, 2021
3	Clarifications	Email 22.05.2021	May 22, 2021
4	Pontelandolfo Municipality Concession	Prot_Par 0003131 del 13-04-2021 - Documento CCF_000073.pdf	April 23, 2021
5	Province Benevento for roads adjustment concession	concessione 21 del 05022021 SP95.pdf concessione 22 del 05022021 SP87.pdf	April 23, 2021
6	ANAS authorization for roads adjustment	220882.pdf 220892.pdf	April 23, 2021
7	EIA Decree Proroga	ID_VIP_4993_Parere_SCVIA_n_128 (1).pdf MATTM_2020-0094513 (1).pdf	April 23, 2021
8	Province Benevento for cable duct line concession	UFFICIALE.2020.0017445_disciplinare.pdf p_bn.REGISTRO UFFICIALE.2020.0017474_disciplinare.pdf p_bn.REGISTRO UFFICIALE.2020.0017314_disciplinare.pdf	April 23, 2021
9	Extension of the deadline for the application of the 1% reduction of the tariff referred to in Article 7.3.a for plants registered in a useful position in the rankings formed pursuant to the third auction	Delibera Consiglio dei Ministri 31/01/2020, Delibera Consiglio dei Ministri 29/07/2020, Delibera Consiglio dei Ministri del 07/10/2020, Delibera Consiglio dei Ministri del 13/01/2021	January 13, 2021
10	Seismic authorisation for WTG03 and WTG08, issued by Genio Civile	NOTA PROT. N. 241414 DEL 04-05-2021_AutSism_3-18	May 4, 2021
11	SS works schedule by Siemens Energy	Programma Lavori elettromeccanici	June 15, 2021
12	Client's plan of SS works by Siemens Energy	Piano Della Committenza rev.00	June 15, 2021

Abbreviations

BOP	Balance of Plant
CAPEX	Capital Expenditures
COD	Commercial Operation Date
EXW	EX Works (<i>Franco Fabbrica</i>)
HV	High Voltage
IB	Installation Barge
IEC	International Electrotechnical Commission
JUV	Jacking-Up Vessel
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
SCADA	Supervision Control and Data Acquisition
TA	Technical Advisor
TOC	Take Over Certificate
VAT	Value Added Tax
WF	Wind Farm
WTG	Wind Turbine Generator