

**Opinion on the “Piemonte Savoia 2”
(Pi.Sa.2) Exemption Application**

January 2020

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Preface

On 26 July 2019, the company Pi.Sa.2 S.r.l. (with registered office in Rome - Italy) submitted to the Italian Ministry of Economic Development (reception date: 29 July 2019) the Exemption application for a portion of the “Piossasco (IT) – Grand’Ile (FR)” interconnection project (hereinafter “**Piossasco - Grand’Ile interconnection**”).

The request is submitted by Pi.Sa.2 S.r.l. (hereinafter: the Applicant or Pi.Sa.2) according to article 17 of Regulation (EC) No. 714/2009¹ which is now formally replaced by Article 63 of Regulation (EU) 943/2019.

The whole Piossasco - Grand’Ile interconnection project has a rated capacity of 1,200 MW and involves the construction of two sections consisting of two poles each.

The request under assessment follows a similar one – for an amount of 350 MW and a period of 10 years – on the first section of the same project which was granted in 2016 under article 17 of Regulation (EC) No. 714/2009.

The current exemption is requested for an additional capacity of 250 MW (only on the Italian side) and for a period of 10 years.

The Applicant asked for the exemption from the provisions of:

- Article 16, paragraph 6, of Regulation (EC) No. 714/2009 of the European Parliament and of the Council of 13 July 2009;
- Article 9 of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009, if deemed necessary by the competent Authority.

In particular, the exemption is requested with reference to a portion (250 MW) of the second section of the Italian part of the Piossasco - Grand’Ile interconnection and for a period of 10 years starting from the date of its commercial operation.

The current Exemption application would therefore apply to a share (corresponding to five twelfths, 250 MW) of the congestion rents attributable to the Italian side² only.

The second section of the project was originally planned to be financed and owned by Terna in Italy and by RTE in France. In 2019, the Italian Ministry of Economic Development requested Terna to finance additional 250 MW by

¹ In particular, Article 63 of Regulation (EU) 943/2019 on new interconnectors shall apply from 1 January 2020.

² The congestion rents attributed to the Italian side will represent half of the total congestion rents of the interconnection, the other half being attributed to the French side. With reference to the Italian share, seven twelfths (350 MW) were already subject to exemption granted in 2016.

private investors rather than by national transmission tariffs, in line with the approach followed for the first section.

As a consequence, if the Exemption application is granted, the Italian share of the investment (corresponding to 600 MW, half of the whole project) will be financed by private investors, being 350 MW on the first section already appointed with the exemption in 2016 plus 250 MW under the current request.

Accordingly, a specific contractual framework was set up by the Applicant (Pi.Sa.2) and the private investors (the Assignees) selected by Terna to finance the interconnector.

In particular, Pi.Sa.2 – a company whose mandate is to apply for the exemption request – covers the same role as the company Pi.Sa under the exemption application granted on the first section in 2016.

Pi.Sa.2 is currently owned by Terna and will be sold to the Assignees before the exemption enters into force.

A timely and successful finalization of the exemption request process is paramount for the private investors to finance the interconnector. Only in case the exemption is granted, the private investors will be able to finance additional 250 MW on the Italian side, whose costs would therefore not be included into the national transmission tariff.

In what follows, the term “Interconnector” or “new Interconnector” will be used to identify this portion of the project, which is the object of the exemption request.

Considering that:

- the Italian legislation assigns to the Ministry of Economic Development the responsibility of granting exemptions under a non-binding opinion of the Italian Regulatory Authority for Energy, Networks and Environment (ARERA);
- the Ministry transmitted the Exemption Request to ARERA on 29 August 2019 (reception date: 2 September 2019);
- the whole project Piossasco – Grand’Île interconnection lies across Italy and France;
- article 17(4) of Regulation 714/2009 (formally replaced by Article 63 of Regulation (EU) 943/2019 from 1 January 2020) requires that the decision granting an exemption shall be taken by the regulatory authorities of the Member States concerned (Italy and France in the case at hand).

ARERA informed the Ministry and the company Pi.Sa.2 on the necessity to submit the Exemption Request also to the French Energy Regulatory Commission (CRE) which is the competent Authority responsible for granting exemption decisions on the French territory. The company Pi.Sa.2 sent the

above request to CRE on 6 November 2019 (reception date: 8 November 2019).

In accordance with Article 17(4) of Regulation 714/2009 (Article 63(4) of Regulation 943/2019), the concerned NRAs must reach an agreement on the exemption within 6 months from the date of receipt of the Exemption request by the last of the two concerned NRAs. Accordingly, ARERA and CRE are required to reach an agreement on the exemption decision by 8 May 2020.

Article 17, paragraph 7 of Regulation 714/2009 (Article 63(7) of Regulation 943/2019) also requires the concerned NRAs to transmit a copy of any exemption request to the Agency for the Cooperation of Energy Regulators (ACER) and the European Commission (EC). ARERA sent a copy of Pi.Sa.2 Exemption request to both ACER and the EC on 26 November 2019. CRE informed ACER and the EC as well by mail dated 17 December 2019.

Then, considering that the Pi.Sa.2 Exemption application concerns the portion of the project located on the Italian territory, CRE informed ARERA that it will not adopt its own decision but will refer back to, if agreed upon, the ARERA opinion. Therefore, the information presented by the Applicant on the basis of the provisions of Regulation 714/2009 (Regulation 943/2019) and Directive 2009/72/EC was primarily reviewed and analysed by ARERA.

This document represents the Opinion of ARERA on the Pi.Sa.2 Exemption application, based on the criteria of Article 17(1) of the Regulation 714/2009 (Article 63(1) of Regulation 943/2019), and will be presented to CRE for its agreement.

The document is divided in three Parts:

- Part 1 provides a description of the project, according to the Exemption application submitted by the company Pi.Sa.2 and the information collected in the course of the assessment of this application until the date of the issuance of the present Opinion.
- Part 2 contains the assessment on the fulfillment of the criteria of Article 17(1) of Regulation 714/2009 (Article 63 of Regulation (EU) 943/2019), supported by data and considerations.
- Part 3 contains the Opinion of ARERA on the Exemption application and the terms and conditions under which the exemption should be granted.

Part 1

The Project, facts and figures

In the following paragraphs, an overview of the Piossasco - Grand'Ile interconnection project is provided, based on the information received from the company Pi.Sa.2 in its Exemption application, with a special focus on those aspects which are relevant for the Exemption opinion.

1.1 The Project

1.1.1 Main technical features

The section for which Pi.Sa.2 submitted an Exemption application is part of a direct current (DC) interconnection that will connect the electrical substations of Piossasco, in the province of Turin, and of Grande-Ile, in French territory, crossing the border along the Fréjus motorway tunnel.

Piossasco - Grand'Ile interconnection is included in both TERNA and RTE National Development Plans and into the TYNDP 2018. It is also listed as a Project of Common Interest (PCI).

The works consist of creating a high voltage direct current (HVDC) underground cable connection, with a total nominal capacity of 1,200 MW divided into two bipolar sections of 600 MW nominal power.

In France both bipolar sections will be owned and managed by RTE (the French Transmission System Operator).

In Italy:

- the first section is currently owned by the company Pi.Sa within Terna Group (whose exemption was granted in 2016 for an amount 350 MW and 10 years); Pi.Sa will be sold to the Assignees before its commercial operation;
- the second section is currently owned by the company Pi.Sa.2 (the Applicant) within Terna Group.

As in the case of the first section, according to the contractual framework between Terna and the Assignees, the company Pi.Sa.2 will be sold to the Assignees before the entry into commercial operation of the second section if the exemption is granted.

In Italy, both sections will be operated by Terna Rete Italia³.

The allocation of the total corresponding cross border capacity will be managed according to the existing regulatory framework based on Regulation

³ Terna Rete Italia (TRI) is responsible within the Terna Group (the Italian Transmission System Operator), for the operation, maintenance and development of the national electricity grid.

(EU) 1222/2015 (CACM GL), Regulation (EU) 2016/1719 (FCA GL) and Regulation (EU) 2017/2195 (EB GL).

The main electrical characteristics of the Piosasco-Grand’Ile interconnection are summarized in the following table (Table 1):

Table 1: Electrical characteristics of the project

| | |
|---|--|
| HVDC Configuration | 2 independent bipolar circuits with VSC technology |
| Nominal capacity of the entire connection | 1,200 MW |
| Nominal capacity of each single hub | 600 MW |
| Transport capacity for each single hub | Bi-directional: from 0 to 600 MW for each individual hub |
| Nominal voltage for each individual hub (between hub and earth) for each branch | ±320 kV (without polarity reversal) |
| Maximum operating voltage | ±340 kV |
| Nominal DC current | 950 A |
| Cable technology | Cross Linked Polyethylene (XLPE) |
| Length (KM/Cable) | About 190 km (13 km within the Fréjus service and safety tunnel) |
| Life expectancy of the infrastructure | 40 years |

Table 1 - Electrical characteristics of the project

The cables between Grand’Ile (France) and Piosasco (Italy) will follow the motorway route (A32 in Italy and A43 in France) for about 140 km (about 45 Km on the Italian side) and ordinary roads (provincial and municipal roads) for about 50 km and will pass through the service tunnel alongside the Fréjus motorway tunnel.

1.1.2 Capacity

As determined by the TSOs (TERNA and RTE) and specified in the technical and economic Report annexed to the Exemption Application, with reference to the entire Piosasco - Grand’Ile interconnection project, the maximum increase of the total transfer capacity (TTC) is estimated equal to 1,200 MW in the direction France to Italy and to 1,000 MW in the opposite (Italy to France)⁴.

Historical data on capacity allocation show congestions usually occur when Italy imports, which is the most likely situation over time, while exports to France, less a frequent case, do not generally present congestions (i.e. the commercial flows are below the transmission capacity).

⁴ TYNDP 2018 <https://tyndp.entsoe.eu/tyndp2018/projects/projects/21>

1.1.3 Timing

The construction of the second section of the Interconnector, whose Exemption application is under investigation in this Opinion, includes various activities to be completed by mid 2020. Those activities are strongly linked with the works for the construction of the whole Piosasco - Grand'Ile interconnection project.

Indeed, although the two sections of the project will be subject to two distinct exemption regimes (the first section under the exemption granted to Pi.Sa in 2016 and second section to Pi.Sa.2 if granted), they ought to be functionally considered as a single project. Therefore, the assignment of the works and the subsequent construction phases of the project are carried out jointly.

The new Interconnector is expected to begin commercial operations before the end of 2020.

According to the information provided by the Applicant, the works on the Italian side can be catalogued in the following three macro-areas:

- civil and underground work, which regards the creation of conduits to house the cable along the motorway route of the interconnection and the civil work out of the motorway route of the interconnection;
- supply of the HVDC cable, consisting of the purchase of the HVDC cable from a supplier capable of guaranteeing an adequate product for this type of technology, and its installation, consisting of laying it along the route of the interconnection;
- HVDC station, which consist of building the HVDC station in Piosasco which will represent the connection between the Italian transmission grid and the new HVDC interconnection.

1.2 The shareholders of the project

In order to better understand who the shareholders of the Interconnector are, it is important to describe the legal Italian framework under which the construction of the Interconnector has been promoted.

One of the main objectives of the EU countries is the creation of a single electricity market. To contribute toward the above objective, article 32 of Law 99/09 includes provisions on the planning, construction and operation by Terna of one or more upgrades to the international interconnection infrastructures in the form of "interconnectors" as referred to in the Regulation (EC) No. 1228/2003 of the European Parliament and of the Council of 26 June 2003 (replaced by Regulation 714/2009), in the presence of specific financing from third party investors.

Under this provision, Terna gave MSE and ARERA notification of a list of possible infrastructures to be built and arranged a tender procedure for the

selection of entities which intended to provide support in the funding of these infrastructures. According to article 32 of Law 99/09, the participation to tendering procedures is limited to end customers (also grouped together in the form of consortia) which are:

- holders of consumption units each with an available withdrawal capacity of not less than 10 MW, characterized by a utilization factor - on average in the previous three years - of not less than 40% (excluding the fifteen days with the lowest electricity withdrawal on an annual basis);
- committed to make their withdrawals interruptible upon the direct control of Terna in case of critical network conditions.

In order to promote the participation of private investors in the tendering procedure, and consequently in the financing of the infrastructures needed to achieve better integration of the Italian electricity market, paragraph 3 of the aforementioned article 32 of Law 99/09 foresees that the commitment of the Assignees to provide support in the financing of the interconnectors is subject to the obtainment of a specific Exemption under the Italian Ministerial Decree of 21 October 2005.

Finally, Law 99/09 stipulates that the Assignees shall enter into a mandate contract with Terna for the planning, construction and operation of the selected interconnector. This contract goes into effect once the Exemption is granted.

Therefore, under the legal framework described above, Terna identified a share of the Piosasco-Grand'Île interconnection capacity as a possible project to be financed according to the provisions of article 32 of Law 99/09.

The shareholders of the new interconnector (the Assignees) were selected during a tender procedure launched by Terna in 2009 as for the first section of the Piosasco - Grand'Île interconnection.

The selected Assignees are 71⁵ industrial customers operating in the field of production and processing of steel, chemicals and paper. The Applicant states that most of them are not active in any branch of the electricity supply chain, while those few that perform some activity within the industry, mainly for self-consumption or optimization of supplies, have absolute negligible market shares both in the Italian and French electricity markets as illustrated in the Technical and Economic Report attached to the Exemption application.

In December 2013, a Memorandum of Understanding was signed by Terna and the trade associations of the end customers (Federacciai, Assocarta, Federchimica, Aitec/Cemento and Assovetro) which defined the major mutual commitments. Under this agreement, the Assignees were given the right to

⁵ The original list of selected Assignees mentioned in the Exemption application (68 industrial customers) was updated and sent by Terna to ARERA in January 2020

form an ad hoc company in order to finance the project. To this end and with a view to making the transfer of the interconnector projects to the Assignees more efficient, Terna incorporated the company Pi.Sa which was granted an exemption on one section of the interconnection in 2016. The same approach is currently followed with the company Pi.Sa.2.

Indeed, three vehicle companies were set up:

- *Terna Interconnector*, jointly owned by Terna S.p.A. (65%), Terna Rete Italia (5%) and Transenergia⁶(30%), is responsible for the tender procedure regarding the civil construction works and the related tender contract⁷ on the basis of a specific mandate from the Assignees, in accordance with Article 32, paragraphs 1 and 3 of Law 99/09;
- *Pi.Sa*, whose purpose was to manage the Exemption request on the first section;
- *Pi.Sa.2*, set up to manage the Exemption application on behalf of the Assignees on the second section. If the exemption is granted, Pi.Sa. 2 will be transferred to the Assignees.

Therefore, the company Pi.Sa.2 acts in its own name and on behalf of the Assignees, given that the Exemption decision will only become effective on the condition that, prior to the entry into service of the Interconnector, the entire share capital of Pi.Sa.2 will be passed to the Assignees and Terna will no longer have any direct or indirect stake in the company receiving the Exemption.

The following Table 2 shows the names and the capacities (for a total of 250 MW) of the company Pi.Sa.2 which will be allocated to each Assignee:

| # | Assignees | Capacity [MW] |
|----|-----------------------------------|---------------|
| 1 | A.C.P. SPA | 1.318 |
| 2 | ACCIAI SPECIALI TERNI SPA | 10.751 |
| 3 | Acciaieria Arvedi SPA | 23.530 |
| 4 | Acciaierie Bertoli Safau SPA | 6.398 |
| 5 | Acciaierie di Calvisano SPA | 3.550 |
| 6 | ACCIAIERIE DI VERONA SPA | 3.043 |
| 7 | ACCIAIERIE VALBRUNA SPA | 2.150 |
| 8 | ACCIAIERIE VENETE S.P.A. | 9.635 |
| 9 | AFV Acciaierie Beltrame SPA | 8.621 |
| 10 | Air Liquide Italia Produzione SRL | 11.765 |

⁶ Transenergia is a 50/50 Joint Venture of *Compagnia Italiana Energia Spa* (CIE Spa) and *Società Italiana Traforo Autostradale del Fréjus Spa* (SITAF Spa).

⁷ Terna Interconnector will assign to Terna Rete Italia by mean of a contract the following activities: 1) the organization and management of the tenders (and the related contracts) for the construction of the conversion station and for the supply and installation of the cable; 2) the operation of the Interconnector.

| | | |
|----|---|--------|
| 11 | ALFA ACCIAI SPA | 12.779 |
| 12 | ALTAIR CHIMICA SPA | 0.304 |
| 13 | ARCELORMITTAL ITALIA SPA | 19.879 |
| 14 | ASO SIDERURGICA SPA | 1.217 |
| 15 | Bipan SPA | 1.116 |
| 16 | BORMIOLI LUIGI SPA | 0.710 |
| 17 | BURGO GROUP SPA | 14.909 |
| 18 | BUZZI UNICEM SPA | 6.389 |
| 19 | CEMENTERIE ALDO BARBETTI SPA | 0.507 |
| 20 | Cogne Acciai Speciali SPA | 2.738 |
| 21 | COLACEM SPA | 4.665 |
| 22 | Consorzio Toscana Energia SPA | 4.562 |
| 23 | Dalmine SPA | 5.172 |
| 24 | FANTONI SPA | 3.148 |
| 25 | FERALPI SIDERURGICA SPA | 5.984 |
| 26 | Ferriera Valsabbia SPA | 4.361 |
| 27 | Ferriere Nord SPA | 8.520 |
| 28 | FONDERIE OFFICINE PIETRO PILENGA SPA | 0.710 |
| 29 | FOS Fibre Ottiche Sud SRL | 0.811 |
| 30 | FRATI LUIGI SPA | 0.203 |
| 31 | GRUPPO MAURO SAVIOLA SRL | 3.549 |
| 32 | HME Brass Italy SPA | 0.406 |
| 33 | Holcim (Italia) SPA | 1.318 |
| 34 | INDUSTRIA CEMENTI GIOVANNI ROSSI SPA | 1.724 |
| 35 | Industrie Riunite Odolesi IRO SPA | 3.144 |
| 36 | INFUN FOR SPA | 0.203 |
| 37 | INNSE CILINDRI SRL in amministrazione straordinaria | 0.304 |
| 38 | Inovyn Produzione italia SRL | 3.955 |
| 39 | ITALCEMENTI SPA | 6.897 |
| 40 | ITALSACCI SPA | 0.710 |
| 41 | JSW STEEL ITALY PIOMBINO SPA | 1.623 |
| 42 | KME Italy SPA | 0.609 |
| 43 | Linde Gas Italia SRL | 0.811 |
| 44 | Lucchini Industries SRL | 2.028 |
| 45 | MARCEGAGLIA RAVENNA SPA | 2.130 |
| 46 | MEMC SPA | 0.913 |
| 47 | NLMK Verona SPA | 1.826 |
| 48 | OLON SPA | 0.609 |
| 49 | Omya SPA | 0.507 |
| 50 | Ori Martin Acciaieria e Ferriera di Brescia SPA | 4.158 |
| 51 | POMETON SPA | 0.203 |
| 52 | RENO DE MEDICI SPA | 2.738 |
| 53 | RIVA ACCIAIO SPA | 6.085 |
| 54 | RUBIERA SPECIAL STEEL SPA | 0.787 |

| | | |
|----|---|---------------|
| 55 | Saint-Gobain Glass Italia SPA | 0.304 |
| 56 | SAINT-GOBAIN PPC ITALIA SPA | 0.203 |
| 57 | SAPIO PRODUZIONE IDROGENO OSSIGENO SRL | 0.913 |
| 58 | SIAD SPA | 3.347 |
| 59 | Sicem Saga SPA | 1.318 |
| 60 | SICO - Società Italiana Carbuoro Ossigeno SPA | 1.521 |
| 61 | SIDERPOTENZA SPA | 2.941 |
| 62 | Società Chimica Bussi SPA | 0.203 |
| 63 | SOL GAS PRIMARI SRL | 2.535 |
| 64 | Solvay SA | 1.116 |
| 65 | Taghleef Industries SPA | 0.304 |
| 66 | TESTI CEMENTI SRL | 0.304 |
| 67 | Trafilerie Carlo Gnutti SRL | 1.014 |
| 68 | TRAVI E PROFILATI DI PALLANZENO SRL | 5.578 |
| 69 | VERALLIA ITALIA SPA | 1.116 |
| 70 | VETRERIA COOPERATIVA PIEGARESE SCRL | 0.305 |
| 71 | ZML INDUSTRIES SPA | 0.305 |
| | TOTAL | 250 MW |

Table 2 PISA2 Shareholders (once the exemption is granted)

1.3 The financial model

The Applicant provided in the Exemption application a description of the business model and identified several risk factors associated to the Interconnector and related to the conditions of the electricity market and to the technical characteristics of the infrastructure itself. With reference to market conditions, one of the main risks identified is the uncertainty linked to the real value of the future Italy-France price spread that will represent a proxy of the one and only source of income for the company Pi.Sa.2 (share of the congestion revenues on the French-Italian border).

In the following paragraphs the key variables used by the applicant within its business plan will be analysed.

1.3.1 Hypotheses and results according to the Applicant

ARERA believes that the key variables (in terms of their impact on the project's performances) concerning the Interconnector at issue are the following:

- 1) **PRICE DIFFERENTIALS:** Assuming the Interconnector will be in operation from 2020, the Applicant adopts a price differential of 11.6 - 12 €/MWh on average over a period from 2020 to 2030 according to different Scenarios.
- 2) **INVESTMENT COSTS:** In its Exemption request, the Applicant estimated the costs and made a financial analysis. The construction of the

Interconnector entails an investment cost to Pi.Sa.2 estimated at Euro 300 million. This investment will be partly funded through recourse to borrowing (50%) and partly through own equity capital (50%). The technical solution selected (HVDC with underground cable) and the chosen route (through the service tunnel being built for the Fréjus road tunnel) have the advantage of reducing the environmental impact, both from the electromagnetic and visual point of view, but imply that the costs of the investment are particularly high. Investments costs can substantially affect the expected net return of an investment. The following table (Table 3) provides an overview of the cost components of the Interconnector, as well as their relative weight with respect to the total capital expenditures.

| CAPEX | €MLN | %OVER TOTAL CAPEX |
|---|-------|-------------------|
| Civil and underground work | 18,8 | 6.3% |
| Supply and installation of the HVDC cable | 196,6 | 65.5% |
| AC/DC stations | 84,6 | 28.2% |
| TOTAL | 300 | 100% |

Table 3 - Share of investment costs with respect to total capital expenditures

1.3.2 Hypotheses and results according to ARERA

- 1) **PRICE DIFFERENTIALS:** Table 4 shows the historical values of the price differentials Italy-France as recorded in the last six years.

| Year | Bidding Zone Italy North [€/MWh] | Bidding Zone France [€/MWh] | Price spread [€/MWh] |
|------|----------------------------------|-----------------------------|----------------------|
| 2013 | 61,6 | 43,2 | 18,4 |
| 2014 | 50,4 | 34,6 | 15,8 |
| 2015 | 52,7 | 38,5 | 14,2 |
| 2016 | 42,7 | 36,7 | 6 |
| 2017 | 54,4 | 45 | 9,4 |
| 2018 | 61,3 | 50,2 | 11,1 |

Table 4 -Price differential North Italy-France (€/MWh)

ARERA believes that the value adopted by the Applicant (11.6-12 €/MWh) could be considered a little overestimated under the condition of having the Interconnector in full operation from 2020.

As already underlined, the value of the differentials and volatility of the price spread between Italy and France for the coming years are very difficult to evaluate in advance because many variables could have a positive or negative impact on them. For example, there are risks linked to the long-time horizon considered in the business plan of the Interconnector, to the evolution of the generation mix and demand patterns, to the implementation of rules springing from the European network codes and guidelines, to the role of Switzerland in the IEM, to the role of renewables, to the economic trends, etc. Furthermore, it should be noted that the congestion revenues originating from the capacity allocation procedures (which represent the one and only income for the Applicant) could be significantly lower than the actual price differential, as they are affected by the hedging strategies adopted by the auction participants and by the reimbursements that the TSO shall give to the capacity holders for the possible restrictions in their nomination rights due to curtailments (firmness).

Therefore, taking into account the above historical values and the risks associated to the evaluation of the future values, ARERA thinks that 11.6-12 €/MWh is a little overestimated, still reasonable proxy to be used as a reference in the business plan.

- 2) **INVESTMENT COSTS-** According to ARERA, the share and the amount of costs presented in the business plan are in line with the expected costs of projects with similar characteristics in terms of size, technology and route. According to the Exemption application, the morphology of the pertinent Italian territory entails higher costs in Italy than in France for the same length of cables.

Part 2

Exemption application analysis

The Applicant requested, on the Italian side, an Exemption from the provisions of Article 16, paragraph 6 of Regulation (EC) No. 714/2009 of the European Parliament and of the Council of 13 July 2009 and where deemed necessary of Article 9 of Directive 2009/72/EC for a capacity of 250 MW and a period of 10 years starting from the date of commercial operation of the new Interconnector. Terna would purchase the Interconnector at the end of the Exemption period.

In the following paragraphs, an analysis of the Project is provided, based on the information enclosed to the Exemption application and with a special focus on the aspects which are relevant for the Exemption opinion. In particular, this part is aimed at analysing if the criteria of Art. 17 of Regulation 714/2009⁸ (formally replaced by Article 63 of Regulation (EU) 943/2019 which shall apply from 1 January 2020) are satisfied.

2 Criteria assessment

2.1 Eligibility of the requests

Article 17.1 of Regulation 714/2009 (article 63(1) of regulation 2019/943) states: " *New direct current interconnectors may, upon request, be exempted, for a limited period of time, from the provisions of Article 16(6) of this Regulation and Articles 9, 32 and Article 37(6) and (10) of Directive 2009/72/EC under the following specific conditions:*

- (a) The investment must enhance competition in electricity supply;*
- (b) the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted;*
- (c) the interconnector must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that interconnector will be built;*
- (d) charges are levied on users of that interconnector;*

⁸ Regulation (EC) N. 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003 [O.J. L. 211, 14.8.2009, p. 15].

- (e) *since the partial market opening referred to in Article 19 of Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector; and*
- (f) *the exemption must not be to the detriment of competition or the effective functioning of the internal market in electricity, or the efficient functioning of the regulated system to which the interconnector is linked”.*

As described in the previous chapter, the Applicant submitted an Exemption for a new direct current interconnection. ARERA considers that, according to art. 17, paragraph 1, the request is eligible for an Exemption under the conditions listed above. It is important to remind that the compliance with the conditions shall be cumulative.

2.2 Competition

- (a) *The investment must enhance competition in electricity supply;*

As a general reference, the new Interconnector is likely to increase competition in the internal market by increasing cross-border capacity and widening the potential supply sources of the connected markets.

As already underlined in the TYNDP 2014⁹, the interconnection between France and Italy will promote the market integration between the two countries *“as well as the use of the most efficient generation capacity; it also increases possible mutual support of both countries. In addition, the project can contribute to RES integration in the European interconnected system by improving cross border exchanges. Such benefits are ensured within different future scenarios”*. Last, the project and its justifications are also included in the TYNDP 2018¹⁰.

In particular, the Interconnector will contribute to reduce risks of energy not supplied mainly in Northern Italy as well as to lowering the price differentials between France and Italy.

In particular the creation of this new Interconnector enhances competition for the following reasons:

⁹ https://www.entsoe.eu/major-projects/ten-year-network-development-plan/tyndp-2014/Documents/TYNDP%202014_FINAL.pdf

¹⁰ <https://tyndp.entsoe.eu/tyndp2018/projects/projects/21>

- the new capacity will be available to all market participants, increasing the liquidity of the wholesale (forward, day ahead, intraday) electricity markets on both sides of the border;
- the transmission capacity will be allocated according to the rules in place for cross border capacity allocation set by CACM and FCA guidelines;
- the new capacity will also be available to TSOs and balancing service providers, increasing liquidity, efficiency and integration on balancing markets. As a side-benefit, the Interconnector will improve operational reliability of both systems as well.

Furthermore, the enhancement of competition is also due to the fact that the Applicant states that none of the shareholders¹¹ of the Interconnector (mainly industrial productive companies) has had so far a significant presence in the electricity markets of both Italy and France.

It should be noted that the positive effects of this project led to its identification as a Project of Common Interest (PCI) according to the provisions of Regulation No. 347/2013¹².

With reference to the impact that the new infrastructure will have on the Italian market, ARERA assumes that the most impacted zone will be Italy North bidding zone (the Italian market solves structural congestions by identifying several bidding zones, the North one being the relevant one for this Exemption procedure).

In the analysis provided by the Applicant, it is proved that the new interconnector will also increase the reserve margins of both countries. With reference to a given market (Italy North and France) and at a given time h , the reserve margin can be expressed as a percentage by using the following formula:

$$MR_h = \left[\frac{\text{Residual capacity}}{\text{Demand}} \right]_h$$

The Applicant used the results of the default scenario simulation for the peak winter and summer hours of market demand for North Italy and France and in the hypothesis “with the line” he obtained the following results:

¹¹ For a detailed description of shareholders activities in the Italian and French markets, please refer to paragraph 6.6 of the Technical and Economic Report (Annex 2) annexed to the Exemption application.

¹² Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009.

| | ΔMR North IT | ΔMR France |
|-------------|--------------|------------|
| Winter peak | +1,9-2,0% | +0,1% |
| Summer peak | +1,7-1,8% | +0,1% |

ARERA believes that the realization of a new cross-border infrastructure would increase the diversification of electricity sources that is one of the most effective strategies for ensuring both affordable prices in the long run and security of supply under emergency conditions.

Condition (a) is thus considered fulfilled.

2.3 Level of risk

(b) the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted;

The assessment of condition b) is linked to the exemption from the use of revenues. Pi.Sa.2 requests an exemption from article 16(6) of the Regulation in order to keep five twelfths of the Italian part of the revenues resulting from interconnection capacity allocation. Pi.Sa.2 considers that this will allow it to recover construction, operation and maintenance costs, and provide a return that it considers adequate.

Only in case the exemption is granted, the private investors (the Assignees) will be able to finance additional 250 MW on the Italian side, whose costs will therefore not be included into the national transmission tariff.

From a technological perspective, the applicant underlined that HVDC cables have higher unit costs than HVAC ones. This is mainly due to the fact that direct current lines need AC/DC convertor stations which represent substantial additional fixed costs.

Given the cost of the project on the Italian side and the analysis regarding price differentials, ARERA considers that granting exemption from article 16(6) of the Regulation 714/2009 (article 19(2) and (3) of regulation 2019/943) would not lead to a disproportionate return.

Furthermore, Pi.Sa.2 will face significant financial uncertainties originating mainly from the following aspects:

- from an economic perspective, the risk concerns mainly the volume of revenues, which will depend only on the future value of cross border capacity which in turn will be linked to the actual prices in the two countries/zones involved;
- there are also uncertainties associated with the amount of the investment until the end of the construction works. In particular, due

to the morphology of the pertinent Italian territory, the cable must be laid under a mountain motorway made up for more than a third of viaducts and tunnels, this implies several construction difficulties that cannot be estimated with certainty in advance. Furthermore, changes in the market conditions may affect the amounts of Operation&Maintenance contracts, insurance, personnel costs, etc.;

- other risks are associated with the performance, reliability, operation and maintenance of the line which comes from the solution adopted, (HVDC with VSC technology) characterized by a high level of innovation and technological complexity;

The Applicant declared that if the Exemption is not granted, the Interconnector would not be financed by the Assignees. This possibility would negatively affect the whole “Piosasco-Grand’Ile interconnection”, since (as already underlined) the Interconnector is presented as part of a single connection project whose costs not burdened by private investors (on the Italian side) will increase the national transmission tariffs.

ARERA thinks that granting the Exemption to Pi.Sa.2 could not only mitigate the above listed risks for the private investors, but it could also prevent the regulated system (and consequently final customers) to bear all the costs for a project of such size and complexity.

Therefore, granting the exemption for a reasonable number of years – and at the same time safeguarding the third-party access regime foreseen by European regulations- seems to be the most efficient way to implement the project.

Condition (b) is thus considered fulfilled.

2.4 Separation from existing System Operators

- (c) *the interconnector must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that interconnector will be built;*

As explained in Part 1, paragraph 1.2, the Assignees will be the only shareholders of the company Pi.Sa.2 (which owns the Interconnector), under the condition that the Exemption is granted.

Information provided by the Applicant prove that the above Assignees are independent (as regard to both their legal form and ownership structure) from the Italian Transmission System Operator Terna.

Condition (c) is thus considered fulfilled.

2.5 Charges

(d) charges must be levied on users of that interconnector;

As already described, the Interconnector capacity will be allocated according to the ordinary rules applicable at European level on cross-border capacity allocation. Therefore, users will pay the value of the capacity determined in accordance with the implicit and explicit auctions used to allocate the capacity.

Condition (d) is thus considered fulfilled.

(e) since the partial market opening referred to in Article 19 of Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity, no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector;

The applicant declared that:

- no part of Interconnector's costs will be recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector;
- costs incurred by Pi.Sa.2 before its transfer to the Assignees will be refunded to Terna Interconnector by the Assignees.

ARERA is going to check and assure the compliance with the above commitments and therefore Condition (e) may be considered fulfilled.

2.6 The exemption must not be detrimental to competition or the effective functioning of the internal market

(f) the exemption must not be to the detriment of competition or the effective functioning of the internal market in electricity, or the efficient functioning of the regulated system to which the interconnector is linked.

The realization of the Interconnector does not seem detrimental to the proper market functioning mainly because (as explained above – point a) the new capacity will be available to all market participants as from the beginning of operation according to European regulations (in particular FCA, CACM and EB guidelines). Indeed, as underlined above, the exemption application concerns only Article 16, paragraph 6 of Regulation (EC) No. 714/2009 (article 19(2) and (3) of regulation 2019/943) and, where deemed necessary, Article 9 of Directive 2009/72/EC. Therefore, granting the exemption will not hinder the overall optimization of the energy network and will not affect the availability of the new capacity. Furthermore, the great involvement of both TSOs in the

project assures the full compatibility of the project with the two interconnected systems.

Finally, the new Interconnector will be operated under the direct responsibility of the Italian TSO, therefore the Assignees (which are the ultimate beneficiaries of the Exemption) will not have any role in the management and allocation of the interconnection capacity. As a consequence, ARERA considers that there will not be any material risk of access by the Assignees to any commercially sensitive information on capacity allocation and capacity usage by market players. In any case, ARERA will check that the Commercial and Technical Operation contracts, mentioned in the following paragraph 3.2.3, contain adequate measures ensuring that the above risk of access to commercially sensitive information is avoided.

Condition *(f)* is thus considered fulfilled.

Part 3

Opinion of ARERA

Having regard to the assessment of the Exemption request submitted by the company Pi.Sa.2 as presented in the previous parts of this document, ARERA's opinion is detailed in the following paragraphs.

3.1 As regards the French part of the Interconnector

As underlined above, the Applicant has not asked for an exemption for the French part of the interconnector.

As a matter of consequence, CRE informed ARERA that it will not adopt its own opinion but will refer back to the ARERA opinion.

3.2 As regards the Italian part of the Interconnector

3.2.1 Exemption request from the provisions of Article 16(6) of the Regulation 714/2009/EC (Article 19(2) and (3) of Regulation 943/2019)

In order to enable the Applicant to realize the proposed investment by offsetting the level of risk associated to the project, ARERA is of the opinion that an Exemption from the provisions of Article 16(6) of the Regulation 714/2009 (article 19(2) and (3) of regulation 2019/943) should be granted to the company Pi.Sa.2.

3.2.2 Exemption request from the provisions of Article 9 (unbundling) of the Directive 2009/72/EC

Article 9 of the Directive 2009/72/EC determines the requirements regarding TSO unbundling. The Directive allows derogations from the application of this article only for transmission systems which belonged to a vertically integrated undertaking on 3 September 2009. Thus, any new interconnector has to apply the rules on ownership unbundling unless an exemption from Article 9 of the Electricity Directive is granted in compliance with the Article 17 of the Regulation 714/2009 article 63 of regulation 2019/943).

According to Article 9(1)(a) of the Directive 2009/72/EC *“each undertaking which owns a transmission system acts as a transmission system operator”*. This means that undertakings owning transmission systems shall directly carry out all the functions and obligations of transmission system operators.

The Applicant declared that the Assignees will be the owners of the Interconnector, while Terna Rete Italia – TRI (on behalf of Terna Interconnector¹³) will be responsible for its management and operation. As a consequence, Pi.Sa.2 will not act as a transmission system operator and has to be granted an exemption from the Article 9 (1) (a) allowing it to own the Interconnector while not acting as a TSO.

Considering Article 9(1)(b), the aim is to avoid any possibility for the owners of an interconnector to influence the decisions of the development and management of the interconnector in favour of the interests they may have on the electricity supply or production. In the present case, the applicant declared that the Assignees will have no decision-making rights with respect to the full scope of the Interconnector's operation, development and maintenance.

Moreover, as already underlined in paragraph 1.2 and as declared by the Applicant in its Exemption request, the selected Assignees are industrial customers which do not hold any direct or indirect control over generation and/or supply of electricity activities in any of the two countries concerned or, in any case, have a negligible market presence in any relevant energy market of both countries.

It could be assumed from the foregoing that even if, the Assignees were in a position to influence the scope of commercial operations carried out by TRI, *quod non*, the formers would have no ability (for the reason explained above) and no incentives to foreclose competitors in the energy markets due to their insignificant interests in any of the French and Italian electricity market. As a consequence, any such risk can be ruled out under the current conditions.

Notwithstanding the above, in order to prevent any potential risk of undue influence by the Assignees over the Interconnector's operation, the Technical Operation contract mentioned in paragraph 3.2.3, point ii, shall contain adequate measures ensuring compliance with article 16 of Directive 72/2009 by the TRI. In addition, the aforementioned contract shall contain a clause that forbids the disclosure of any technical/commercially sensitive information related to the operation of the Interconnector to the Assignees, unless this is necessary for carrying out a specific task assigned to the former (e.g. financing extraordinary maintenance of the infrastructure, etc.).

During the exemption period, ARERA may take all the necessary measures to ensure that:

- the exemption from Article 9 is not detrimental to competition or the effective functioning of the internal electricity market, or the efficient functioning of the regulated system to which the interconnector is connected;

¹³ Please see paragraph 1.2 for further details.

- the operator of the interconnector complies with the tasks defined under Article 12 of Directive n°2009/72/EC.

The Applicant shall comply with the measures decided by ARERA.

In light of the foregoing, the exemption from the provisions of Article 9 of the Directive is considered to be necessary and therefore is to be granted.

3.2.3 Conditions associated to the exemption from the provisions of Article 9 (unbundling) of the Directive 2009/72/EC and Article 16.6 of the Regulation (EC) 714/2009 (Article 19(2) and (3) of Regulation 943/2019)

The exemption from Article 9 (unbundling) of the Directive 2009/72/EC and Article 16.6 of the Regulation (EC) 714/2009 should be granted for a period of 10 years and a capacity of 250 MW, starting from the beginning of the commercial operations of the new Interconnector, under the following conditions:

- i. the exemption shall expire when, according to article 17, paragraph 8, of Regulation (EC) n 714/2009 (Article 63(8) of Regulation 943/2019), the European Commission's approval of an exemption decision will expire, that is:
 - a. two years after the date the EC adopted its decision in the event that construction of the Interconnector has not yet started by that date;
 - b. five years after the date the EC adopted its decision in the event that the Interconnector has not become operational by that date.

Nevertheless, the exemption shall continue to be in force where the European Commission decides, pursuant to subparagraph 5 of paragraph 8 of Article 17, that any delay is due to major obstacles beyond the control of Pi.Sa.2.

- ii. In Italy the new Interconnector shall be operated under the responsibility of the TSO. To this purpose, a specific Technical Operation contract shall be entered between the Applicant and the TSO to enable the latter to effectively operate and maintain the new Interconnector under the same conditions as if it were the owner. The aforementioned Technical Operation contract will be drafted in accordance with the provisions of article 36(9) of Legislative Decree n. 93 of June 1st, 2011 as applied by the Italian Authority. A copy of the

Technical Operation Contract shall be sent to the Italian Authority for its approval and to the French regulator for information.

- iii. The commercial arrangements governing the transfer of the revenues representing five twelfths of the congestion rents attributable to the Italian side by the Italian TSO to the Applicant shall be defined in a Commercial contract to be signed by the Applicant and the TSO. A copy of the Commercial Contract shall be sent to the Italian Authority for its approval and to the French regulator for information.
- iv. Prior to the entry into service of the new Interconnector, the entire share capital of Pi.Sa.2 shall be transferred to the Assignees identified in the table 2 of the present document and since then Terna shall not have any direct or indirect stake in the company. Any subsequent change in the composition of Pi.Sa.2's share capital (including any change in share of the original Assignees) shall be promptly communicated to the Regulators for their evaluation.
- v. If, directly or indirectly, an undertaking acquires joint or sole control over or merges with Pi.Sa.2, Pi.Sa.2 must notify this change to each of the relevant national authorities concerned which must then assess (if deemed necessary in cooperation with a national competition authority) whether the conditions under which the exemption was granted are still met. The provision will be applied in accordance with Article 3 of Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) and the Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings (2008/C 95/01).
- vi. In accordance with article 36(10) of the Legislative Decree n. 93 of June 1st, 2011, which calls on the Italian Authority to establish appropriate measures aimed at favoring the unification of the national grid, following the expiry date of the Exemption the ownership of the new Interconnector built on the Italian soil will be transferred to Terna S.p.A. The value of the asset shall not exceed the residual book value with revaluation and be determined on the basis of efficient costs. Terna's regulatory asset base (RAB) will be amended accordingly.

3.3 Violation of the provisions of the present decision

Any infringement by Pi.Sa.2 of the conditions set in the present exemption opinion may result in a penalty imposed on Pi.Sa.2 to be determined in accordance to national law and procedures.

Serious violation by Pi.Sa.2 of the conditions set in the present Opinion may result in withdrawal by the relevant body in the Member State (the Ministry of Economic Development in Italy) of the exemptions provided by this Opinion.