"Somplago (IT) - Würmlach (AT)" Exemption Application

Joint Opinion of the National Regulatory Authorities

Autorità di Regolazione per Energia Reti e Ambiente (ARERA), Italy

Energie-Control Austria für die Regulierung der Elektrizitäts- und Erdgaswirtschaft (E-Control), Austria

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PREFACE

On 18 December 2019, the company Alpe Adria Energia srl (with registered office in Via Duchi d'Aosta, 2 33100 Udine – Italy, hereinafter: **AAE** or the **Applicant**) submitted to the Italian Ministry of Economic Development (reception date: 24 December 2019) and to E-Control (reception date: 20 December 2019) an exemption application for the interconnection project Somplago (IT) – Würmlach (AT), (hereinafter; **interconnection or Somplago – Würmlach**).

The request was submitted by the Applicant according to Art. 17 of Regulation (EC) 714/2009¹ which was formally repealed by Art. 63 Regulation (EU) 2019/943² as of 1 January 2020. The assessment of the exemption request at hand is therefore conducted on the basis of Art. 63 Regulation (EU) 2019/943.

The Applicant asked for the exemption from the following provisions:

- Art. 16 (6) Regulation (EC) 714/2009, which were repealed by Art. 19
 (2) and 19 (3) Regulation (EU) 2019/943 as of 1 January 2020;
- Art. 9 Directive 2009/72/EC³ replaced by Art. 43 of Directive (EU) 2019/944⁴ as of 1 January 2021.

In particular, the exemption is requested with reference to not less than of the additional Net Transfer Capacity (hereinafter: **NTC**) on the border between Austria and Italy which will be attributable to the interconnector and for a period of not less than

Considering that:

 The project "Somplago – Würmlach" lies across Austria and Italy and qualifies itself as an interconnection;

- according to Art. 63 (4) Regulation (EU) 2019/943, the decision granting an exemption shall be taken on a case-by-case basis by the regulatory authorities of the Member States concerned, which are the Italian Regulatory Authority for Energy, Networks and Environment (hereinafter: ARERA) and Energie-Control Austria for the regulation of the electricity- and natural gas sector (hereinafter: E-Control) (hereinafter both together: concerned NRAs))
- the Italian legislation assigns to the Ministry of Economic Development (hereinafter: MiSE) the responsibility for the exemption decision, while the Italian Regulatory Authority for Energy, Networks and Environment (hereinafter: ARERA) is requested to provide a nonbinding opinion and to coordinate with E-Control, responsible for granting the exemption in Austria;

Regulation (EC) No 714/2009 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].

Regulation (EU) 2019/943 on the internal market for electricity [O.J. L 158, 14.6.2019, p. 541

Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC [O.J. L 211, 14.8.2009, p. 55].

Directive (EU) 2019/944 on common rules for the internal market for electricity and amending Directive 2012/27/EU [O.J. L 158, 14.6.2019, p. 125].

 MiSE transmitted the exemption application to ARERA on 5 February 2020 (reception date: 5 February 2020).

In accordance with Art. 63(4) Regulation (EU) 943/2019, the concerned NRAs must reach an agreement within 6 months from the date of receipt of the exemption request by the last of the two concerned NRAs. Accordingly, ARERA and E-Control were required to reach an agreement on the exemption decision by 5 August 2020.

Art. 63 (7) Regulation (EU) 943/2019 also requires the concerned NRAs to transmit a copy of any exemption request to the Agency for the Cooperation of Energy Regulators (hereinafter: **ACER**) and the European Commission (hereinafter: **EC**). ARERA and E-Control sent a copy of the exemption application of AAE to both ACER and the EC on, respectively, 14 February 2020 and 7 February 2020.

By Decision No. 26/2020 of 23 October 2020, ACER granted an extension of the period within which the concerned NRAs need to reach an agreement pursuant Article 63(4) of Regulation (EU) 2019/943. The period was extended until 5 February 2021 in accordance with the third subparagraph of Art.6 (10) of Regulation (EU) 2019/942.

The concerned NRAs have jointly decided to review the "Somplago – Würmlach" exemption application on the basis of Regulation (EU) 2019/943 and Directive (EU) 2019/944.

This document is the Joint Opinion of the concerned NRAs, based on the criteria of Art. 63(1) Regulation (EU) 2019/943 and supported by both the results of the technical and economic analyses provided by the Applicant, the technical advice of the transmission system operators (hereinafter: **TSO**) Autrian Power Grid AG (hereinafter: **APG**) and TERNA SpA (hereinafter: **TERNA**)) and further considerations shared by ARERA and E-Control.

The document is divided in three Parts:

- <u>Chapter 1</u> provides a description of the project, according to the
 exemption application submitted by the Applicant and the
 information collected in the course of the assessment until the date of
 issuance of the present Joint Opinion;
- <u>Chapter 2</u> contains the assessment of both ARERA and E-Control on the fulfillment of the criteria of Art. 63 (1) Regulation (EU) 943/2019; supported by data and considerations and considering Art. 9(1) Directive 2009/72/EC;
- <u>Chapter 3</u> contains the **Joint Opinion of ARERA and E-Control** on the exemption application and the terms and conditions under which the exemption should be granted.

1. THE PROJECT, FACTS AND FIGURES

In the following paragraphs, an overview of the Somplago – Würmlach interconnection project is provided, based on the information submitted by Applicant in its exemption application, with a special focus on those aspects which are relevant for the present Joint Opinion.

1.1 The Project

1.1.1 Main technical features

The project for which AAE submitted an exemption application consists in a 220 kV (AC) cross border interconnector between Italy and Austria. The project consists of three main parts:

- 1) The 51 km long, underground transmission line itself;
- The connection to the Austrian transmission grid, including a new electrical substation in Würmlach (Carinthia Region) and phase shifter transformer (PST);
- 3) The connection to the Italian transmission grid at the electrical substation in Somplago (Udine province)

The main electrical characteristics of the interconnection are summarized in the following Table 1:

Configuration	Single-circuit, three-phase underground 220 kV (AC) cable		
Nominal frequency	50 Hz		
Nominal voltage	220 kV		
Length	51 km ⁵		
Nominal voltage	220 kV		
Nominal current	800 A		
Nominal power	305 kVA		
Cable technology	XPLE, 2000 mm2, Al		
Transformer	220/220 kV, 300 MVA in Austria		
Length	51 km		

Table 1 – Technical characteristics of the project Somplago - Würmlach

The underground cable between Somplago and Würmlach will mainly follow existing state and regional roads, circumventing residential areas as much as possible and crossing the border at Plöckenpass / Passo di Monte Croce Carnico.

1.1.2 Capacity

The NTC of an AC interconnector is not an intrinsic property of the line, since it depends on the power system to which it is connected. To identify the NTC value(s) to properly assess an exemption, it is necessary to define the future network scenario that would exist once the new interconnector starts its commercial operations.

⁵Around 40 km on Italian territory and around 11 km on Austrian territory.

To date, there exist two interconnections between Austria and Italy:

- 220 kV Soverzene (IT) Lienz (AT)
- 132 kV Tarvisio (IT) Arnoldstein (AT)

Moreover, other cross border interconnections are under development, even if at different stage of maturity as described by European Network of Transmission System Operators for Electricity (hereinafter: **ENTSOE**) in the Ten-Year Network Development Plan (hereinafter: **TYNDP**) and by the TSOs in their national development plans. The most advanced initiative is the 132 kV interconnection between Prati di Vizze (IT) and Steinach (AT), expected to be commissioned in 2021 and the 220-kV interconnection between Nauders (AT) und Glorenza (IT) expected to be commissioned in 2023. Another initiative mentioned in the TYNDP 2018 is the reconstruction and capacity increase of Lienz (AT) – Veneto Region (IT) with a planned commissioning date of 2024.

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

According the AAE own's evaluations, as presented in the technical and economic report annexed to the application, the project will increase the NTC on the border between Austria and Italy as depicted Table 2.

		AT → IT		IT → AT	
	Peak	Off-Peak	Peak	Off-Peak	
Winter					
Summer			_		

Table 2 - additional NTC (source: AAE own's simulations)

1.1.3 Timing

At the time of writing the present Joint Opinion, the project development is completed and permitting procedures are ongoing. AAE submitted the exemption application in order to kick off with the authorization process in Austria while in Italy it is almost at its end. Construction has not started yet.

The

discrepancy of the authorization processes in the two countries is due to the existing legislative gap between the Italian and Austrian legislations. The two local authorization procedures are asymmetrical with respect to the exemption and construction/operation authorization process: in Italy, an exemption can only be granted after that the Applicant has obtained a construction/operation authorization for the entire length of the new interconnector; in Austria, instead, the Applicant has to obtain the exemption before applying for any other authorization.

In order to overcome this difficulty, the Italian and Austrian NRAs have adopted a shared solution, by means of the present Joint Opinion, that would allow, the competent authorities (E-Control and the Italian Ministry of

Economic Development) to grant an exemption (if deemed appropriate) compliant to the European legislation.

1.2 The shareholders of the project

The Somplago – Würmlach interconnection is owned by AAE.

AAE shareholders are:

- Enel Produzione S.p.A. (hereinafter: ENEL P) with a share of 50% and
- Alpen Adria Energy Line S.p.A. (hereinafter: AAEL) with the other 50% share. In particular, the shareholders of AAEL are:
 - Nuove Iniziative Energetiche Srl (hereinafter: NIE);
 - Secab Società Cooperativa (hereinafter: SSC);
 - o ICQ Holding S.p.A (hereinafter: ICQ) and
 - Elektrizitätswerk Plocken GMBH (hereinafter: EP).

1.3 The financial model

The Applicant provided in the exemption application a description of the business model.

The Applicant provided its own economic valuation of the interconnection based on the best estimate of the revenues (as an output of the simulation model), the expected investment and maintenance costs and the analysis of main risks associated to the initiative.

In the following paragraphs the key variables used by the Applicant within its business plan will be presented and discussed.

1.3.1 Hypotheses and results according to the Applicant

ARERA and E-Control believe that the key variables (in terms of their impact on the project's performances) concerning the interconnector are the following:

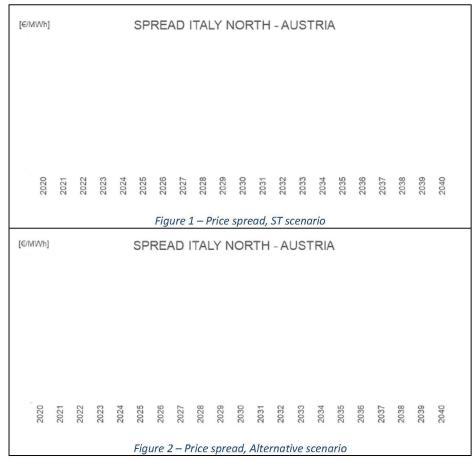
1) SCENARIOS:

The Applicant chose to develop an own scenario based on the TYNDP 2018 sustainable transition scenario in order to estimate the key variables for their business plan. The changes made upon the TYNDP 2018 sustainable transition scenario are described in their technical and economic report and represent what the Applicant expects to be different to European network development planning assumptions. (note: meanwhile the European network development planning is based on the TYNDP 2020 scenarios).

The revenues from the capacity allocation process are calculated by the Applicant according to the Alternative scenario which is considered more likely to happen according to AAE than the ENTSO-E's Sustainable transition scenario. There are various differences between the scenario used by the Applicant to the scenario used for European network development in the Ten-Year Net Development Plan (TYNDP 2018).

2) PRICE DIFFERENTIALS AND REVENUES:

Assuming the interconnector will be commissioned by the end of 2023, the Applicant simulated the price differential between the bidding zone Italy North and the bidding zone Austria according to different scenarios. Their values are reported in Figure 1 and Figure 2. According to the business plan, revenues will be collected from 2024.



In the submitted technical and economic report, the Applicant quantified the expected revenues of the project, reported in terms on its Internal Rate of Return in Table 3 and in terms of Net Present Value in Table 4. Some conservative hypothesis are implemented as to take into consideration speculations on the capacity auctions, reductions of nominal capacity by the TSOs and outages.

Duration	-20%	Base case	+20%
		•	•

Table 3 - IRR (%)

Duration	-20%	Base case	+20%
	•	•	•

Table 4 - NPV [€MLN]

3) NTC:

Applicant assumptions are reported in 1.1.2.

4) INVESTMENT COSTS:

In its exemption request, the Applicant estimated the costs and developed a financial analysis.

The technical solution selected (AC underground cable complemented by a PST) and the chosen route have the advantage of reducing the impacts on local communities and on the environment but implies that the costs of the investment are particularly high (e.g. significant challenges from an engineering perspective due to the Alpine context). Investments costs can substantially affect the expected net return of an investment.

The following Table 5 provides an overview of the expected investment costs of the physical assets plus and other capital expenditures.

	€MLN
Fixed assets	
Capitalised interest	
VAT credit	
Cash	
Total assets	3

Table 5 - Investment costs (source AAE)

1.3.2 Hypotheses and results according to ARERA and E-Control

In order the have a proper assessment of the Applicants business plan the concerned NRAs notice the following regarding the key variables of the Applicant:

1) SCENARIOS:

The concerned NRAs deem the scenario assumptions, especially the changes made with regards to TYNDP scenarios generally possible, but at the risk of the Applicant.

PRICE DIFFERENTIALS AND REVENUES:

Table 1Table 6 shows the historical values of the average price differentials for the day ahead electricity market in Italy and Austria, as recorded in the last nine years.

Year		Price spread [€/MWh] ⁶
	2012	31.5
	2013	23.8
	2014	17.6
	2015	21.1
	2016	13.7
	2017	20.2
	2018	14.4
	2019	11.2
	2020	4 .6 ⁷

Table 6 -Price differential North Italy-Austria [€/MWh]

As already underlined, the expected values of differentials and volatility of the price spread between Italy and Austria for the coming years are very difficult to forecast because of many variables which will have significant impacts on them.

For example, there are uncertainties 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 (e.g. influencing electricity demand), etc.

Furthermore, the congestion revenues originating from the capacity allocation procedures, which represent the one and only income for the Applicant, could be 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 and E-Control think that the price spreads suggested by the Applicant may be used for the economical calculations, at the Applicant own's risk.

2) NTC:

Although a number of fundamental changes can be foreseen in the years to come the relevant system operators (APG and Terna) have been formally asked to provide a reliable estimate of the expected NTC whose results are reported in Table 7.

The TSOs run the assessment on the basis of four snapshots (winter peak, winter off-peak, summer peak and summer off-peak): 2020 scenarios are taken as starting point and complemented by adding the main network reinforcements foreseen for the commissioning year of the new interconnector. Namely the main projects (Piossasco – Grand'lle and

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⁶ ACER Market Monitoring Reports 2013 - 2020

⁷ source: ARERA's own evaluations

Pradella – Sils) for the overall Italian Northern borders are included, plus some local reinforcements on Italian and Austrian side with potential effect on the exchanges between Italy and Austria.

The flows in the direction AT → IT are evaluated by adopting a methodology conceptually similar to the one developed under the Italy North CCR umbrella pursuant to the CACM regulation⁸: the injections are increased in the sending areas and decreased in the receiving areas, by applying specific generation shift keys (GSKs). With respect to the daily computation pursuant to the CACM regulation, nonetheless the scope of the GSKs is widened, encompassing as sending nodes generators located in Czech Republic and Germany (and not only generators located within the countries neighboring to Italy) and as receiving nodes some cheap generators located in South Italy (and not only the most expensive ones according to a merit order criteria). Moreover, only the closest contingencies to the Italy-Austria border are explicitly simulated.

In the opposite direction, since a specific methodology under the Italy North CCR umbrella has not been developed yet, the flows are evaluated by means of local studies aimed at identifying potential congestions in the Somplago area associated to an exchange with Austria on the new interconnector.

The TSOs calculate that the additional capacity assigned to the new investment would be:

	AT → IT		$IT \rightarrow AT$	
2.5	Peak	Off-	Peak	Off-
		Peak		Peak
Winter	135	112	120	120
Summer	95	115	90	155

Table 7 - additional NTC (source: TSOs simulations)

As also noted by AAE, those cross-border capacity results highly differentiate from the assumption from the Applicant.

The NTC values estimated by the TSOs are much lower than those derived by AAE internal assessments, therefore further investigations were carried out by E-Control and ARERA with APG and TERNA.

To this end, in September 2020, E-Control and ARERA requested the TSOs to run the capacity calculations using the same assumptions adopted for the daily capacity calculation methodology pursuant to the CACM regulation and compare the results with the outcomes from the initial calculation in Table 7.

The TSOs carried out some methodological investigations and suggested that using the same assumptions adopted for the daily capacity calculation methodology pursuant to the CACM regulation does not fit for long-term NTC assessments. According to the TSOs, even if it were applied, this methodology would lead to results very dependent by the

⁸ https://www.arera.it/allegati/docs/21/004-21all.pdf

underlying (possibly hourly) assumptions and therefore with the risk of providing biased NTC ranges for the investment under assessment.

Moreover, it needs to be noted that the currently applied capacity calculation methodology is considered to be work in progress and will undergo regular changes in the next years (e.g. implementation of bidirectional detailed calculations). Additionally, it can be noted that the current development towards changed cross-border costs allocation regimes (70% and possible FBMC) will have an unpredictable effect on the available cross border transmission capacity and allocable congestion income.

Thus the procedure applied is acceptable at least for the purposes of setting the Joint Opinion, to rely on the values reported in Table 7, postponing and shifting potential further investigations with APG and TERNA before the entry into operation of the interconnection.

Considering the impacts on the business plan given by the NTC values provided by the TSOs, the Applicant requested E-Control and ARERA to consider complementing the exemption with additional risk-mitigation measures (e.g. cap&floor, ad hoc tariff, ...), with the aim of assuring the economic feasibility of the investment. Such approaches, however, while limiting the risk for the Applicant, would shift those risks on the electricity system (specifically on consumers), disregarding the reasons why interconnection development is open for private investors in specific cases.

Finally, it should be reminded that pursuant to article 4 (10) of Italian Ministerial Decree 21 October 2005, in order to facilitate the construction of new interconnection lines, the transport capacity granted in exemption - on the Italian side - remains unchanged in its absolute values for the first five years of operation, and can be made available by the TSO to the Exemption holder also on interconnection lines other than the one subject to the exemption, provided that the latter is actually available in operation with the characteristics of reliability and continuity of similar lines that are part of the national transmission system. The Austrian legal framework does not foresee such provisions for stable capacities. The above-mentioned provision makes the determination of the future capacity a critical element for the functioning of the electricity system and implies shifting the risk from the Applicant on consumers. Therefore, the most conservative assumption of guaranteeing the capacity value according to article 4 (10) of Italian Ministerial Decree 21 October 2005 should be pursued. It should also be noted that higher capacity values would have a shortening effect on the exemption duration.

2) INVESTMENT COSTS:

The costs presented by the Applicant were compared to the information presented by the *Pan-European cost-efficiency benchmark for electricity TSOs* issued in 2019 by CEER⁹. In particular, the CEER report developed a linear model to estimate the base cost per km of underground cables

⁹ https://www.ceer.eu/1766

(chapter 4.4) — which should be then corrected by a terrain cost multiplier, identified between 1.3 and 2 for mountain areas with significant slopes (according to table in chapter 5.1).

Therefore, applying the methodology proposed by the CEER report, it can be concluded that 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.

3) TIMING:

According to the already planned grid connections listed in the Austrian national network development plan, equal treatment of already signed connection agreements to the APG grid and typical project duration cycles

3) DURATION OF EXEMPTION:

While the capacities should be defined in an appropriate way, to avoid additional congestion management, the duration of the exemption could be variable or extended in order to supporting the project investment to be economically viable.

2. EXEMPTION APPLICATION ANALYSIS

The Applicant requested an exemption from the provisions of Art. 16 (6) Regulation (EC) 714/2009 and, where deemed necessary, from Art. 9 Directive 2009/72/EC for not less than of the additional NTC on the Austria-Italy border which will be attributable to the interconnector and for a period of not less than years.

In the following paragraphs, an analysis of the Project is provided with a special focus on the aspects which are relevant to the Joint Opinion. In particular, the present chapter is aimed at analyzing if the criteria for granting the exemption are satisfied.

At the time of the application, those criteria were listed in Art. 17 Regulation 714/2009, which is replaced by Art. 63 Regulation (EU) 2019/943 as of 1 January 2020. Art. 9 Directive 2009/72/EC is replaced by Art. 43 Directive (EU) 2019/944 as of 1 January 2021. Therefore, the latter will be already considered in the present analysis.

The Joint Opinion is based on the request by the Applicant, including the results of the submitted technical and economic analyses, the technical advice of the TSOs (APG and TERNA) and further considerations shared by ARERA and E-Control.

2.1 Criteria assessment

2.1.1 Eligibility of the request

Article 63(1) of Regulation 2019/943 states: "New direct current interconnectors may, upon request, be exempted, for a limited period, from Article 19(2) and (3) of this Regulation and from Articles 6 and 43, Article 59(7) and Article 60(1) of Directive (EU) 2019/944 (...).

Moreover, Art. 63 (2) states that Art. 63 (1) shall also apply, in exceptional cases, to alternating current interconnectors provided that the costs and risks of the investment in question are particularly high when compared with the costs and risks normally incurred when connecting two neighboring national transmission systems by an alternating current interconnector.

As described in the previous chapter 1, the Applicant submitted an exemption for a new alternating current (AC) underground interconnection. Therefore, ARERA and E-Control consider that, according to Art. 63 (2), the request is eligible for an exemption under the conditions listed above. It is important to clarify that the compliance with those conditions shall be cumulative.

According to Art. 63 (1), the exemption may be granted under the following specific conditions:

- (a) the investment enhances 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 is 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 is to be built;

- (d) charges are levied on users of that interconnector;
- (e) since the partial market opening referred to in Article 19 of Directive 96/92/EC of the European Parliament and of the Council, 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) an exemption would not be to the detriment of competition or the effective functioning of the internal market for electricity, or the efficient functioning of the regulated system to which the interconnector is linked.

Finally, according to Art. 9 (1) (a) and Art. 9 (1) (b) of 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;
- undertakings which are active in generation or supply may not exercise control or exercise any right over a transmission system operator or over a transmission system.

Therefore, the exemption may be granted once verified the separation of ownership of the interconnection from the system operator function as well as the ownership of transmission assets by undertakings active in generation or supply.

2.1.2 Competition

(a) the investment must enhance competition in electricity supply;

According to data published by the TSOs¹⁰, the NTC for 2020 on the bidding zone border Austria – Italy North is reported in Table 8.

			Winter	Summer
$AT \rightarrow IT$	Monday to Saturday	Peak	315	270
		Off-peak	295	255
	Sunday and bank holidays	Peak	295	255
		Off-peak	295	255
$AT \rightarrow IT$	Monday to Saturday	Peak	100	80
		Off-peak	145	100
	Sunday and bank holidays	Peak	145	100
		Off-peak	145	100

Table 8 - 2020 NTC (MW) Austria - Italy North (source: TERNA)

As a matter of facts, the electrical border between Austria and Italy is one of the most congested (AT \rightarrow IT) in the European Union with significant price differentials¹¹ as reported in Table 5.

-1

For TERNA: https://www.terna.it/en/electric-system/electricity-market/capacity-interconnection-abroad

ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and natural Gas Markets in 2018, Electricity Wholesale Markets Volume November 2019

Therefore, a new interconnection is *prima facie* likely to increase competition levels by increasing cross-border capacity thus widening the potential supply and demand sources and trading opportunities.

In particular, as underlined by ENTSOE¹², the Somplago – Würmlach interconnection between Austria and Italy:

- can contribute to the reduction of the price differentials between the Italian northern border and Austria and will allow a progressive alignment of the price differential also in line with the interconnection target recommendations (Nov 2017) by EC Expert Group;
- accordingly with the TYNDP 2016 2018 results, (..) can contribute to the integration of renewables (RES integration positive values);
- (...) contributes to increase the Italian cross-border capacity of ab. 300 MW thermal capacity (150 MW NTC) in the medium-long term objectives (2030).

Moreover, ENTSOE analysis shows that the project would have a positive Socio-Economic Welfare, would improve the adequacy margins, would also reduce number of congested hours and grid losses.

It should be noted that the positive effects of this project led to its identification as a Project of Common Interest¹³ (hereinafter: **PCI**) according to the provisions of Regulation (EC) 347/2013¹⁴.

In general, the above results from ENTSOE's analysis are coherent with the Applicant own's simulations.

In conclusion, ARERA and E-Control conclude that the realisation of the interconnection would improve the diversification of electricity sources, trading opportunities, as well as system- and market integration.

As better identified in chapter 3.3, the allocation of the Somplago – Würmlach interconnection will be managed according to the existing regulatory framework based on Regulation (EU) 1222/2015 (hereinafter: CACM GL), Regulation (EU) 2016/1719 (hereinafter: Regulation (EU) 2017/2195 (hereinafter: EB GL). Therefore, the interconnection capacity will be available to all market participants, increasing the liquidity of the wholesale (forward, day ahead, intraday, balancing) electricity markets on both sides of the border and in central Europe more in general; as a consequence, price convergence will improve.

Condition (a) may be thus considered fulfilled.

2.1.3 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 congestion revenues. The Applicant requests an exemption from Art. 16 (6)

https://ec.europa.eu/energy/sites/ener/files/c 2019 7772 1 annex.pdf

https://tyndp.entsoe.eu/tyndp2018/projects/projects/210

Regulation (EU) No 347/2013 of 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 [O.J. L 115, 25.4.2013, p. 39].

Regulation (EC) 714/2009 — replaced by Art. 19 (2) and Art. 19 (3) of Regulation (EU) 2019/943 — to receive the revenues resulting from the capacity allocation process.

The exemption is requested for not less than of the additional NTC the interconnection will provide for the whole exemption period according to the values presented in 1.1.2.

As a general remark, ARERA notes that, based on similar experiences on other borders with Italy, the development of interconnection projects are usually very demanding especially for what concerns the permitting procedures and interactions with local administrations and communities. That, in turn, impacts in terms of timing and related costs. The risk not to realize the project is concrete up to the very last step before construction permits are granted on both sides of the border. For example, the interconnection Somplago – Würmlach was originally conceived in 2004 and might become operational in

Moreover, the limited additional interconnection capacity provided by this sort of private initiatives (the NTC of the interconnection Somplago – Würmlach is in the range 90 to 155 MW at 220 kV according to the TSOs evaluations) does not look appealing to the TSOs which usually opt for higher scale investments.

Considering the expected IRR and NPV (1.3.1), according to the Applicant the exemption should last not less than—years for the investment to make a reasonable profit. The Applicant considers that this duration will allow the recovery of construction, operation and maintenance costs, and provide a return that it considers adequate. Only in case the exemption is granted, the Applicant will be able to finance and build the interconnection.

The Applicant highlights the risks associated to the initiative because of:

- the complexity encountered during the development phase of the project (originally started in 2004);
- the interactions with local communities as to define a socially acceptable solution;
- the complexity and delays of the permitting procedures.

The Applicant notes that feasibility of the investment is also at risk because of:

- the economic uncertainties of the scenarios, especially covering price spreads between bidding zones;
- the uncertainty of the effective NTC that will finally result as available from the capacity allocation process and;
- possible regulatory constraints.

Additionally, it should be mentioned that the regime of cross-zonal capacity allocation is very likely to change in the projects lifetime as there may be the change towards flow-based market coupling pursuant to the requirements of the CACM Guideline.

Finally, according to most network development planning by the TSOs, the interconnection will be in operation not by the year as assumed by the Applicant .

From a technological perspective, the Applicant underlines the difficulties encountered in the project phase related to the identified AC underground cable solution (+PST) were worsened by the orography of the Alpine location which translate in substantial additional fixed costs. In fact, underground cables generally entail higher costs than overhead lines, having different physical, environmental and site-specific construction needs. The components of underground transmission lines are often not that easily interchangeable and subject to more testing and trial-up activities in order to ensure their correct installation.

Moreover, the project foresees the installation of a Phase Shifter Transformer (hereinafter: **PST**) in Würmlach, increasing the investment costs, to stabilise the load flow along the new line.

The Applicant also argues that the same investment developed by the TSO according to the Regulated Assed Based approach would lead to insufficient levels of IRR and NPV.

Given the expected costs and risks of the project, the analysis of the scenarios and price differentials, submitted by the Applicant, ARERA and E-Control considers that granting an exemption from Art. 19 (2) and Art. 19 (3) Regulation (EU) 2019/943 will not lead to disproportionate returns.

This is also because the Applicant will face uncertainties originating mainly from the following aspects:

- from an economic perspective, the risk concerns mainly the volume of revenues on a long-term scenario, which will depend on the effective additional NTC¹⁵ and 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 commission phase. In particular, due to the morphology of the pertinent Alpine territory, the cable will be laid under several construction difficulties that cannot be estimated with certainty in advance;
- risks can be associated also to the evolution of regulatory context as, for example, the introduction of the flow-based capacity calculation, the bidding zone review, etc;
- other risks are associated with the performance, reliability, operation and maintenance of the line which comes from the solution adopted.

ARERA and E-Control note that granting the exemption to the Applicant could not only help to mitigate the above listed risks for the private investor, but it would also provide additional NTC on a bidding zone border where it is much needed.

Therefore, granting the exemption for a reasonable number of years – and at the same time safeguarding the third-party access regime foreseen by

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Quantification of NTC for an AC interconnector is in fact only partly related to the nominal capacity of the line as it mainly depends on the power systems to which it is connected and by the Coordinated Capacity Methodology in place for the Capacity Calculation Region Italy North which includes the borders between Italy, Austria, France and Slovenia plus Switzerland. Therefore, for the Applicant, the expected NTC and possible methodological changes represents a major technical risk.

European regulations- seems to be the most efficient way to implement the project.

Condition (b) may be thus considered fulfilled.

2.1.4 Separation from existing System Operators

(c) the interconnector is 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 is to be built;

The new interconnector will be built and owned by the Applicant whose shareholders are separated in their legal form from their respective TSOs. As better presented in chapter 3, the interconnector will be managed by the TSOs, on the basis of a Technical Operation contract to be approved by the concerned NRAs as better detailed in Chapter 3JOINT OPINION OF THE CONCERNED NRAs of the present document.

Condition (c) may be thus considered fulfilled.

2.1.5 Charges

(d) charges are levied on users of that interconnector;

The business plan of the Applicant does not take into account the setting of any charge for the usage of the interconnection.

As better clarified in 3.3, the capacity allocation process of the Somplago – Würmlach interconnection will be managed according to the existing regulatory framework based on market based approaches of CACM GL, FCA GL and EB GL, i.e. according to the general rules applicable at European level.

Therefore, market participants will be required to pay the value of the capacity determined in accordance with the rules applicable to the specific market timeframe (long term, day ahead, intraday and balancing).

The Applicant is expected to recover the investment costs by receiving the congestion revenues of the allocation process for the exemption period. As specified in 3.3, the settlement will be regulated by a Commercial contract between the Applicant and the TSOs.

Condition (d) may be thus considered fulfilled.

2.1.6 No cross-financing from network charges

(e) since the partial market opening referred to in Article 19 of Directive 96/92/EC of the European Parliament and of the Council, 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 the costs for the realisation of the interconnector will be recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector.

ARERA and E-Control, in charge of tariffs setting in Italy and Austria, will monitor and assure the compliance of the project with the above provisions and therefore Condition (e) may be thus considered fulfilled.

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

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

In terms of system operation on the Austrian side the connection point is a looping in at a current 220kV two-line system. This line is subject to a 380kV capacity increase currently being planned to be commissioned earliest at 2029, depending also on national permitting processes. The current grid situation and the planned grid connection point may cause additional congestion in future and therefore the capacity allocation could lead to the need of remedial actions issued by the Austrian system operator.

To address the situation that the costs of possible remedial actions caused by a private investment project would be socialized via Austrian electricity tariffs the exemption of the use of congestion income according to the priority objectives on the Austrian side is only granted for of the allocated congestion income. Without such a requirement the exemption would be detrimental to the effective functioning of the internal market.

Indeed, as underlined above, the request for exemption only concerns Art. 19 (2) and (3) of Regulation 2019/943 (former Art. 16 (6) Regulation (EC) 714/2009) and Art. 9 Directive 2009/72/EC.

Therefore, granting the exemption with the above described retention of will not hinder the overall optimisation of the relevant energy networks and will not affect the availability of the new capacity.

In order to assess the effect the Somplago – Würmlach interconnector might have on competition, it is essential to consider how the interconnection (particularly the additional NTC) would affect the dominant player(s) of the relevant market.

As supported by the analysis carried out by the Applicant, the interconnector is expected not to change the current situation, with the exception of a slight benefit in terms of competition in the bidding zone Italy North due to the expected increase of import capacity.

Enel Produzione, one of the project's shareholders, is the largest Italian power company, with a wholesale market share of 19%¹⁶ (2018) in terms of generation capacity. A pivotality analysis has been carried out by the Applicant in order to assess its current market power with respect to the wholesale supply of electricity in the bidding zone Italy North and whether such power would be affected by the new interconnector. The results indicate that no market player is pivotal in either relevant market areas. The producers in Italy result slightly less pivotal as an effect of the interconnection. No significant changes are identified in Austria.

As a consequence, ARERA and E-Control consider that there will not be any material risk of access by the Applicant to any commercially sensitive

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¹⁶ https://www.arera.it/allegati/relaz_ann/19/RA19_volume1.pdf, page 78

information on capacity allocation and capacity usage by market players. In any case, ARERA and E-Control will provide that the Commercial and Technical Operation contracts, mentioned in the following chapter 3, contain adequate measures ensuring that the above risk of access to commercially sensitive information is avoided.

Condition (f) may be thus considered fulfilled.

2.1.8 Unbundling

The Applicant declared that the interconnector will be owned by AAE, while the TSOs (APG and TERNA) will be responsible for its management and operation, fully independently from the Applicant.

In any case, ARERA and E-Control consider that, in order to prevent any potential risk of undue influence by the Applicant over the interconnection's operation, the Technical Operation contract mentioned in paragraph 3.3, shall contain adequate measure for the TSOs to ensure confidentiality of information and to avoid disclosure of any technical/commercially sensitive information related to the operation of the interconnection to the Applicant.

The conditions laid down in Art. 9 (1) (a) and (b) Directive 2009/72/EC may be thus considered as fulfilled.

3. JOINT OPINION OF THE CONCERNED NRAS

On 23 December 2019, the Applicant submitted an exemption application for the interconnection project Somplago – Würmlach under development on the bidding zone border between Austria and Italy North.

The request is submitted by the Applicant according to Art. 17 Regulation (EC) 714/2009 which was replaced by Art. 63 Regulation (EU) 2019/943 as of 1 January 2020.

The Applicant asked for the exemption from the provisions of:

- Art. 16 (6) Regulation (EC) 714/2009, which were repealed by Art. 19
 (2) and 19 (3) Regulation (EU) 2019/943 as of 1 January 2020;
- Art. 9 Directive 2009/72/EC replaced by Art. 43 of Directive (EU) 2019/944 as of 1 January 2021.

The exemption is requested with reference to not less than of the additional NTC on the border between Austria and Italy which will be attributable to the interconnector and for a period of not less than years.

By Decision No. 26/2020 of 23 October 2020, ACER granted an extension of the period within which the concerned NRAs need to reach an agreement pursuant Article 63(4) of Regulation (EU) 2019/943. The period was extended until 5 February 2021 in accordance with the third subparagraph of Art.6 (10) of Regulation (EU) 2019/942.

The Joint Opinion of ARERA and E-Control is detailed in the following paragraphs.

The Joint Opinion is based on:

- the assessment of the exemption request submitted by the Applicant as presented in the previous chapters of this document;
- further information collected during the assessment, including the evaluation of the expected additional NTC the interconnection would provide, jointly agreed upon by the two TSOs APG and TERNA.

3.1 Exemption request from the provisions of Art. 19 (2) and (3) of Regulation (EU) 2019/943

In order to enable the Applicant to realise the proposed investment by mitigating the level of risk associated to the project, ARERA and E-Control are of the opinion that the exemption from Art. 19 (2) and (3) of Regulation (EU) 2019/943 should be granted for a capacity as described in 3.3.1 and for a period of 12 years, starting from the beginning of the commercial operations of the interconnector Somplago – Würmlach, under the conditions reported in paragraph 3.3.

3.2 Exemption request from the provisions of Art. 9 (1) Directive 2009/72/EC

As reported in 2.1.8, the Applicant declared it will have no decision-making rights with respect to the management of the interconnector, which will be operated under the supervision of the concerned TSOs, APG and TERNA.

Therefore, the separation of ownership of the interconnectors from the system operator function as well as the ownership of transmission assets by undertakings active in generation or supply requires an exemption from the obligation of the owner of a transmission system to act as transmission system operator in Art. 9 (1) of the Electricity Directive.

Notwithstanding the above, in order to prevent any potential risk of undue influence by the Applicant over the interconnection's operation, the Technical Operation contract mentioned in paragraph 3.3, shall contain adequate measures ensuring compliance with Art. 16 Directive 2009/72/EC by the TSOs with regard to confidentiality of information. In addition, the Technical Operation contract shall contain provisions are forbidding the disclosure of any technical/commercially sensitive information related to the operation of the interconnection to the Applicant, 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 and E-Control may take all the necessary measures to ensure that:

- the exemption from Art. 9 Directive 2009/72/EC 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;
- the operator of the interconnector complies with the tasks as defined in Art. 12 Directive 2009/72/EC.

The Applicant shall comply with the measures decided by ARERA and E-Control.

In light of the foregoing, the exemption from the provisions of Art. 9 Directive 2009/72/EC is considered to be necessary and therefore shall be granted.

3.3 Conditions associated to the exemption from the provisions of Art. 9 (1) Directive 2009/72/EC and Art. 19 (2) and (3) Regulation (EU) 943/2019

The exemption from Art. 9 Directive 2009/72/EC relating to the Union provisions on unbundling and Art. 19 (2) and (3) Regulation (EU) 2019/943 relating to congestion income should be granted, under the following conditions.

3.3.1 Exemption: capacity, duration and expiry

i. CAPACITY

The additional NTC will be divided equally between Italy and Austria. The exempted capacity is based on the TSO analysis (Table 7) and considers of the capacity exempted on the Italian side and exempted on the Austrian side. The congestion revenues of the not exempted of the capacity on the Austrian side should be allocated and collected by the Austrian TSO, APG and used according to the priority objectives of Art. 19 Regulation (EU) 2019/943.

DURATION AND EXPIRY

- a. The exemption should be granted for a period of 12 years starting from the beginning of the commercial operations of the interconnector. The extension of the duration compared to the applicant's exemption submission results from the amortisation calculation (modified business plan) performed by the national regulatory authorities (ANNEX I), based on the TSOs capacity calculation and methodological corrections to the applicant's business plan. The calculation performed in ANNEX I results in an amortisation of the project at the end of of the operation of the interconnector. Taking into account the uncertainty of the Applicant's assumptions, the modifications of the model made by the NRAs and the following condition (Point "b"), ARERA and E-Control decided to set the duration of the exemption to be no longer than 12 years.
- b. If the actual incurred investment cost (CAPEX) are lower than the planned investment costs of (according to table 5) the positive effect of lower costs has to be shared equally between the Applicant and the TSOs (50% assigned to the Applicant and 25% to be assigned to each TSO). The share of the TSOs should be considered by reducing the auction revenues transferred to the applicant by TSOs in equal amounts for the after beginning of operation. The actual incurred investment costs should be proven by the applicant according their financial statement of the year of commissioning.
- c. the exemption shall expire when the European Commission's approval decision according Art. 63(8) of Regulation (EU) 2019/943 will expire, that is:
 - two years after the date the EC adopted its decision in the event that construction of the interconnection has not yet started by that date;
 - five years after the date the EC adopted its decision in the event that the interconnection has not become operational by that date.

Nevertheless, the exemption shall continue to be in force where the European Commission decides, pursuant to Art. 63(8) subparagraph 5 Regulation (EU) 2019/943, that any delay is due to major obstacles beyond the control of the Applicant.

3.3.2 Operational arrangements

- ii. In Italy and Austria, unless the TSOs agree to different arrangements, the interconnector shall be operated under the responsibility of AAE and according to the instructions provided by the TSOs. For this purpose, a specific Technical Operation contract shall be entered into between the Applicant and the TSOs (APG and TERNA) to enable the effective operation and maintenance of the interconnector. A copy of the Technical Operation contract shall be sent to ARERA for approval and to E-Control for information only.
- iii. The infrastructure shall be built according to the TSOs technical standards (with special reference to primary and secondary electrical system standards, as well as any other interface between their system and the Applicant system), APG shall especially define the specifications of the PST (phase shifting transformer).

3.3.3 Commercial arrangements

- iv. The capacities calculated for the new interconnection will be added to the existing NTC on the bidding zone border between Austria and Italy North and allocated by the TSOs through the same joint allocation procedures (for long term, daily, intraday and balancing timeframes) based on the existing regulatory framework (i.e. FCA GL, CACM GL and EB GL).
- v. In any case and especially in case the current capacity allocation regime changes the new interconnector is not entitled to be guaranteed any adopted or comparable NTC in a new capacity calculation regime (therefore, also see section 2.1.3 on risk) except from what identified by the following paragraph. In case of a new capacity calculation regime is introduced in the meantime, the commercial contract in point viii shall be updated accordingly and sent to NRAs.
- vi. With reference to the Italian part of the interconnection, according to article 4°(10) of Decree 21°October°2005, in order to facilitate the construction of new interconnection lines, the transport capacity granted in exemption pursuant remains unchanged in its absolute values for the of operation, and can be made available by the TSO to the Exemption holder also on interconnection lines other than the one subject to the exemption, provided that the latter is actually available in operation with the characteristics of reliability and continuity of similar lines that are part of the national transmission system. The Austrian legal framework does not foresee such requirements.
- vii. The Applicant is entitled to receive by the concerned TSOs, with reference to the exempted transmission capacity up to the end of the

exemption period, the revenues resulting from the allocation procedures of the NTC of the interconnection (i.e. a corresponding share of the revenues originating from the allocation of the NTC of the interconnection on the bidding zone border between Austria and Italy North).

viii. The commercial arrangements governing the transfer of the congestion rents attributable to the Applicant shall be defined in a Commercial contract to be signed by the Applicant and the concerned TSOs. A copy of the Commercial Contract shall be sent to ARERA for approval and to E-Control for information only.

3.3.4 Shareholders, ownership and unbundling

- ix. Any change in the composition of AAE share capital shall be communicated without undue delay to ARERA and E-Control for their evaluation. The concerned NRAs must then assess whether the conditions under which the exemption was granted are still met.
- x. With specific reference to Italy:
 - a. pursuant to Art. 3 of the ministerial decree of 21st October 2005, the Applicant shall provide a statement on their commitment to ask the Ministry for the Economic Development to include the interconnection in the perimeter of the National transmission system.
 - b. In accordance with Art. 36 (10) of the legislative decree n. 93 of 1st June 2011, which calls on the national regulatory authority ARERA to establish appropriate measures aimed at favoring the unification of the national grid, following the expiry date of the exemption the ownership of the section of the new interconnector built on the Italian soil will be transferred to the TSO (TERNA SpA). The value of the asset

. TERNA's

Regulatory Asset Base (RAB) will be amended accordingly.

xi. With specific reference to Austria, after the exemption period expires, the ownership of the section of the interconnector built on the Austrian soil has to be offered for sale to APG. The maximum price for

. If the investment costs are lower than expected, the maximum price for the sale is reduced proportionately.

3.4 Violation of the conditions of the present Joint Opinion

Any infringement by the Applicant of the conditions set in the present Joint Opinion may result in a penalty imposed on the Applicant to be determined in accordance to national laws and procedures.

Serious violation by the Applicant of the conditions set in the present Joint Opinion may result in withdrawal by the relevant body in the Member State (the Ministry of Economic Development in Italy and E-Control in Austria) of the granted exemption.