

Project name: 3rd Interconnection between Portugal and Spain

Project description:

The project is on the third List of Projects of Common Interest¹ with the designation 5.4 *PCI 3rd interconnection point between Portugal and Spain*, is part of the *Priority corridor North-South gas interconnections in Western Europe (“NSI West Gas”)*.

The 3rd Interconnection between Portugal and Spain will connect Celorico da Beira to Zamora (pipeline Celorico - Vale de Frades). The project is developed in two stages, which incrementally include the respective capacity enhancements in each of the countries.

1st stage of the project 3rd Interconnection between Portugal and Spain

In Portugal, the first stage of the 3rd interconnection between Portugal and Spain will be constituted by a pipeline, connecting Celorico da Beira, in the District of Guarda, to the border between Portugal and Spain in Vale de Frades, in the district of Bragança². The European code awarded by ENTSOG to this section of the pipeline in Portugal is TRA-N-283.

In Spain, the first stage of the 3rd interconnection between Portugal and Spain will be constituted by a pipeline with a length of 86 km and with a diameter of 700 mm, connecting the border between Portugal and Spain in Vale de Frades, in the district of Bragança, to the station of Zamora, in the province of Zamora. In addition to the connecting pipeline, compression reinforcements are also contemplated at this compression station in Spain. The European code awarded by ENTSOG to this project in Spain is TRA-N-168.

The first stage of the 3rd Interconnection will have an inlet capacity to Portugal of 70,0 GWh/d and an outlet capacity to Spain of 70,0 GWh/d. The infrastructure will start operation from the year 2024.

Designation	Infrastructure	Description	Code ENTSOG	Capacity ES -> PT	Capacity PT -> ES
3rd Interconnection PT-ES (1st Stage)	a)	PT: Celorico -Spanish Border Pipeline	TRA-N-283		
				70	70
	b)	ES: Zamora- Portuguese Border Pipeline	TRA-N-168		
	c)	ES: CS Zamora	TRA-N-168		

¹ According with the Delegated Regulation amending Regulation on guidelines for trans-European energy infrastructure (EU) No 347/2013 (November 2017).

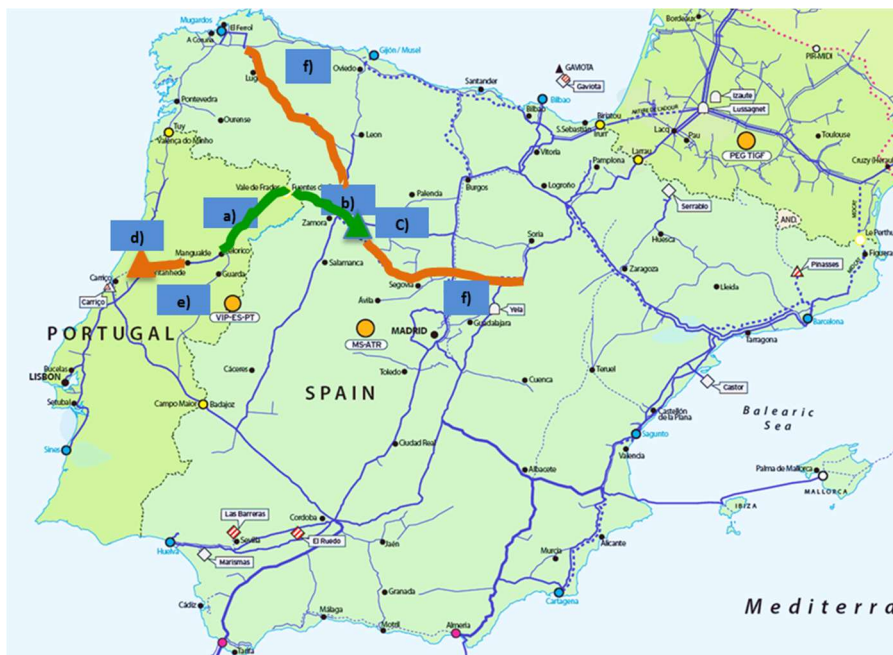
² As a consequence of the issuing of the unfavorable EIS, on 05/02/2018, regarding the route initially proposed and subject to EIA, process No. 2871, the Competent Authorities are studying an alternative which respects the international commitments assumed, namely, considering the maintenance of the actual interconnection point with the Spanish network in Vale de Frades / Fuentes de Onoro.

2nd stage of the 3rd Interconnection PT-ES

The second stage of the 3rd interconnection between Portugal and Spain comprises the 2nd and 3rd phases of the project in Portugal, with the European codes assigned by ENTSOG, TRA-N-284 and TRA-N-285, and the 2nd phase of the project in Spain with the European code assigned by ENTSOG, TRA-N-729. In Portugal, the second phase of the project will include the installation of a compression station on the pipeline between the JCT 11000-Cantanhede and BV 11300-Mangualde stations, with a capacity of 12 MWh for flow rates of 500,000 to 550,000 m³ (n) / h and an impulse of 35 bar. In the third phase, a second gas pipeline will be built, with a length of approximately 67 km, parallel to the pipeline between the JCT 11000-Cantanhede and BV 11300-Mangualde stations. In Spain, the second phase comprises the construction of a Guitiriz-Zamora-Adradas gas pipeline with a total length of 625 km.

This stage will be completed after the year 2028. The final import capacity is 139,0 GWh / d, and export capacity is 126,0 GWh / d.

Designation	Infrastructure	Description	Code ENTSOG	Capacity ES -> PT	Capacity PT -> ES
3rd Interconnection PT-ES (2nd Stage)	d)	PT: CS Cantanhede	TRA-N-284		
	e)	PT: Cantanhede – Mangualde Pipeline	TRA-N-285	139	126
	f)	SP: Guitiriz-Zamora-Adradas gas Pipeline	TRA-N-729		



The modular configuration of the project will fit the needs and the trend of natural gas demand in the Iberian Peninsula, both from the point of view of market integration, system flexibility and competition, and also from the point of view of security of supply.

The development of the new interconnection between Portugal and Spain is associated with the strategic potential of the underground storage of Carriço in Portugal to store and withdraw the strategic reserves in case of an emergency scenario, particularly when a supply disruption occurs in both countries, as well as promoting a competitive market in the national natural gas system and also in the Iberian market (MIBGAS).

The 3rd Interconnection between Portugal and Spain plays a major role in the market integration of the Iberian Peninsula, increasing the systems flexibility and helping to achieve the National and European energy policy goals through the following:

- Diversification of routes, promoting the access to new sources of supply;
- Enhancing the adequate coverage of the national territory with natural gas infrastructures, thus supplying the northeast of Portugal;
- Promoting the integration of the European network and the Iberian Peninsula (Portugal and Spain), developing the energy networks according to the principle of regional solidarity;
- Fostering the integration of the Renewable Energy Sources (RES) in the electrical systems', providing the capacity needed for the CCGT to operate as back-up production units.

From the point of view of security of supply and in certain natural gas demand scenarios, the 3rd Interconnection between Portugal and Spain is necessary to meet the N-1 criterion of the Regulation (EU) Nº 2017/1938 from European Parliament and of the Council of 25 October, for the Portuguese natural gas system, considering the total failure of the most important supply infrastructure of the network - the LNG Terminal in Sines - during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years, as defined in the Regulation.

The 3rd Interconnection between Portugal and Spain contributes to a balanced architecture of the national natural gas system of both Member-State and creates conditions to promote and sustain the Iberian Natural Gas Market (MIBGAS). The project will allow the Iberian Peninsula to become a potential gateway for gas to come into Europe, taking advantage of its LNG terminals and its proximity to Africa (Mediterranean and Western) and to the natural gas producing countries.



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