

ERSE ANALYSIS OF STEP INVESTMENT REQUEST 2018

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1 INTRODUCTION

On 23 July 2018, Enagás and Teréga (the transmission system operators (TSOs) of Spain and southern France, respectively) submitted an Investment Request (IR) to the national regulatory authorities (NRAs) of France, Portugal and Spain (CRE, ERSE and CNMC¹, respectively) regarding the construction of a natural gas interconnection between Northern Spain and Southern France, the so-called South Transit Eastern Pyrenees (STEP) project.

This project aims to increase the gas interconnection capacity of the Iberian Peninsula with France and, by extension, the rest of Europe. Beyond the overall security of supply, diversification and competition benefits this will bring to the EU and all Member States, this new interconnection will contribute to advancing the Iberian Peninsula's integration into the Energy Internal Market (IEM).

More specifically, the STEP project will allow Iberia to increase its access to diversified sources of gas (e.g. Norway and Russia), leading to lower gas prices for consumers and contributing to reducing the isolation of the Iberian market from the EU's IEM. Furthermore, this interconnection will provide an additional gateway for liquefied natural gas (LNG) for northern Europe, via the Peninsula's seven active LNG terminals (Sines, Barcelona, Huelva, Cartagena, Bilbao, Sagunto and Mugardos), thus mitigating the EU's dependence on only one large natural gas exporter and contributing to the security of supply for all of Europe. In this respect, the European Commission has underlined the fundamental importance of this project in terms of contributing to energy solidarity across EU.

As foreseen in TEN-E Regulation 347/2013², the NRAs have a period of six months following the date of submission of the IR to take coordinated decisions on the allocation of the investment costs to be borne by each TSO in relation to the project, as well as their inclusion in each country's network tariffs. The deadline for the decision on the STEP project's IR is 23 January 2019. If the NRAs do not reach a decision on the IR within this period, including cross-border allocation costs (CBCA), as well as the way in which the investment costs are reflected in the national network tariffs, this decision shall be taken by the Agency for the Cooperation of Energy Regulators (ACER) within three months after the date of referral, after consulting the NRAs and the project promoters.

¹ [Commission Delegated Regulation \(EU\) 2018/540 of 23 November 2017 amending Regulation \(EU\) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest](#)

² [Regulation \(EU\) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure](#)

Alongside its French and Spanish counterparts, ERSE has accompanied the development of the STEP project through its various phases and has contributed to an in-depth analysis and assessment of the IR submitted by Enagás and Teréga. The present document serves to provide ERSE's response to the project promoters on the proposals presented in their IR, resulting from this joint analysis and taking into account the aspects that fall under ERSE's remit and with implications for Portuguese consumers.

As part of its assessment, ERSE notes that the implementation of this project is a time sensitive opportunity to address the Iberian Peninsula's insufficient gas interconnection with the remainder of Europe as we undertake extensive market and infrastructure transformations to deliver the clean energy transition. The relationship between natural gas and electricity generation as well as the industrial applications for natural gas confirm the relevance of this energy vector in the European energy policy for the medium term (Energy Union). Its rejection risks rendering permanent Portugal and Spain's marginalization from the EU's ambitions for an Energy Union.

Thus, the strategic value of the STEP project in terms of increased security of supply, energy solidarity and competition are crucial factors to be considered when assessing the IR. As demonstrated in the promoters' proposal, the STEP project has an overall net positive impact for the concerned Member States, albeit with country-specific net negative impacts in one country. In this regard, ERSE recalls that the STEP was granted the status of European Project of Common Interest (PCI) in 2017³, under the EU's third call for applications in accordance with TEN-E Regulation 347/2013⁴. The EU has designed a framework that facilitates the investment of such projects, with a view to addressing any country-specific net negative impacts through the allocation of costs (and compensation) between the involved Member States and promotes the access to financial assistance under the Connecting Europe Facility for Energy (CEF-E) actions. The availability of this financial assistance is an additional factor in the project's feasibility, as identified in the IR.

In preparing its assessment of the IR, ERSE has identified a series of gaps and necessary improvements to the rationale presented in the promoters' proposal, which it considers essential to the project's successful delivery and to ensure a robust financial plan, including the allocation of the project's costs. This paper

³ [Commission Delegated Regulation \(EU\) 2018/540 of 23 November 2017 amending Regulation \(EU\) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest](#)

⁴ [Regulation \(EU\) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure](#)

presents ERSE's analysis and recommends appropriate revisions to the project promoters' CBCA analysis to reflect more accurately the costs and benefits of the STEP project for the Member States involved.

2 BACKGROUND

The STEP project emerged following the Madrid Declaration of 4 March 2015 and the work of the European Commission's High Level Group (HLG) on "Interconnections in South-West Europe", to which that Declaration gave rise. More recently, in the Lisbon Declaration of July 2018, issued by the heads of government of France, Portugal and Spain, the European Commissioner for Climate Action and Energy and the Vice-President of the European Investment Bank, the three Member States "recall their commitment to the development of interconnections and agree to set up a joint ambitious agenda for successful energy transition" and "recognize the importance of gas interconnections in the region, both for regional purposes and as a key contribution to security of supply in the European natural gas market."

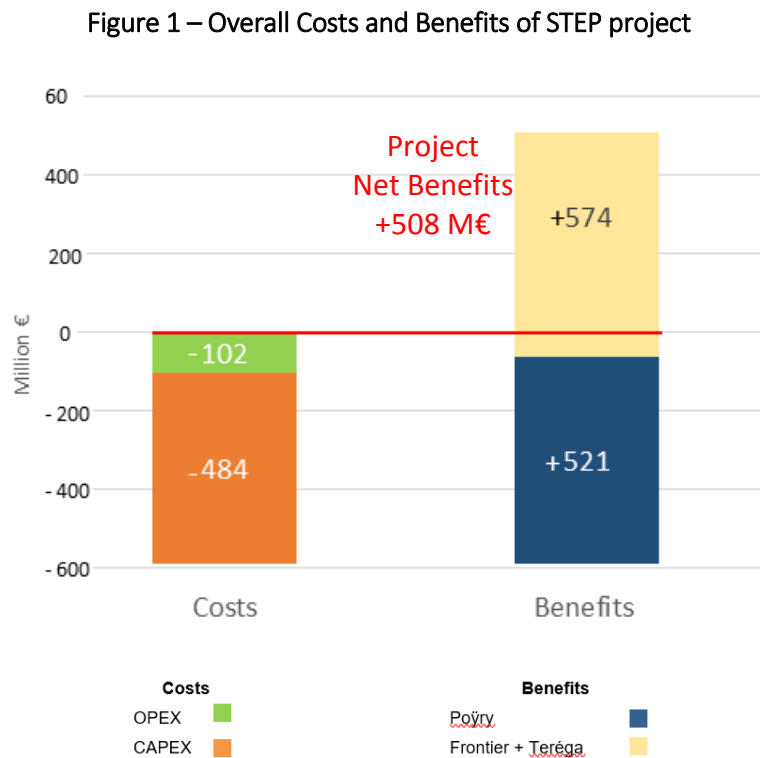
As part of the HLG's work, the European Commission contracted the consulting firm Poÿry, with the support of VIS Economic and Energy Consultants, to develop a Project Specific Cost Benefit Analysis (CBA) for the STEP project, according to the methodology established by ENTSOG. Poÿry completed its report in November 2017, available on the European Commission's website since April 2018⁵.

Taking into account the conclusions of the Poÿry CBA report, the European Commission considered the STEP project to be "mature" for the next phase of its implementation. As a result, and in line with Article 12(3) of the TEN-E Regulation, Térega and Enagás submitted the abovementioned IR. The request includes a CBA, a CBCA proposal and a business plan on the financial viability of the project.

⁵ [Cost Benefit Analysis of STEP, as first phase of MIDCAT - FINAL REPORT](#), November 2017

3 CBA AND CBCA PRESENTED BY THE PROJECT PROMOTERS

The CBA presented by the project promoters in the IR concludes that the project presents an overall net benefit, as illustrated in Figure 1. The IR considers the operational and capital costs of the project for a total of 587 M€. When set against the benefits identified by the promoters (drawing from the Poÿry study, analysis by Frontier Economics and Teréga estimations of avoided costs), the net overall benefit of the project is 508 M€.



Source: Enagás/Teréga Investment Request

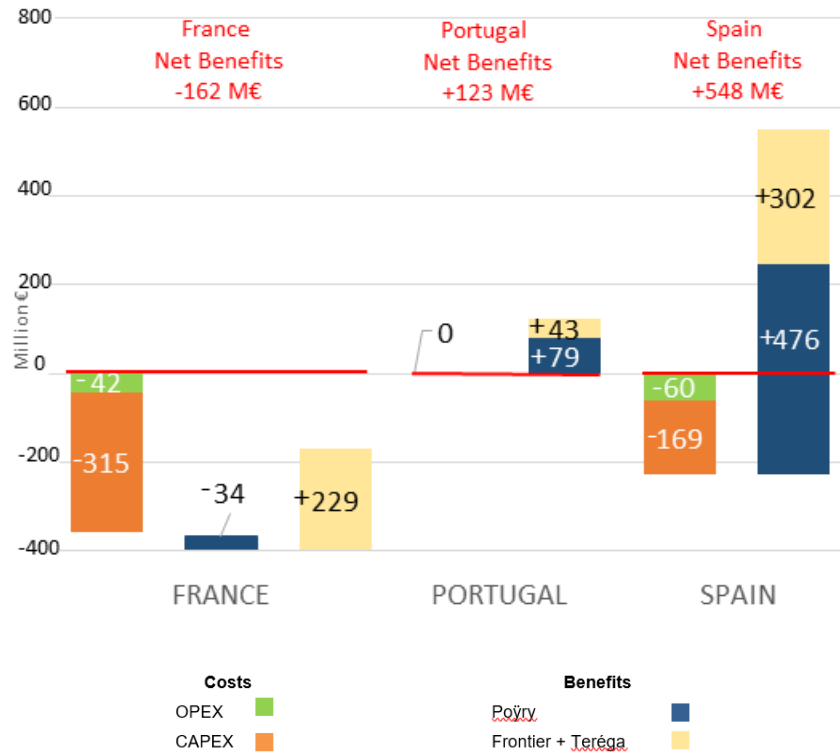
In their IR, and for the purposes of the CBCA, the promoters have also calculated the respective costs and benefits for the three Member States involved, as summarized in Figure 2. As noted previously, the CBCA proposal identifies a country-specific net negative impact for France, while Spain and Portugal have a country-specific net positive impact.

More specifically, the project promoters identify the following:

- Portugal: net positive impact of 122.6 M€ (122.6 M€ benefits and 0 M€ construction costs);

- Spain: net positive impact of 548 M€ (777.5 M€ benefits and 229.3 M€ constructions and operational costs on its territory);
- France: net negative impact of 162 M€ (195.2 M€ in benefits and of 357.7 M€ construction and operational costs on its territory).

Figure 2 – Breakdown of STEP project Costs and Benefits per country in the CBCA analysis



Source: Enagás/Teréga Investment Request

In view of the negative net benefit identified for France, the CBCA proposal of the project promoters foresees that:

- Portugal and Spain provide compensation to France, with contributions of, respectively, 5.3 M€ and 55.5 M€, to be recovered via the national network tariffs; and
- Financial assistance from the CEF funds totaling 154.9 M€, to be shared between France (101.7 M€) and Spain (53.2 M€).

4 ERSE'S CONSIDERATIONS

As part of its review of the promoters' Investment Request, ERSE has identified a number of factors which it deems should be taken into account and which have implications for the conclusions reached in the promoters' proposal for CBCA.

4.1 ANALYSIS SHORTCOMINGS

From the beginning of the process launched in the HLG, ERSE has expressed its concerns regarding some of the parameters used as a basis for assessing the project:

1. The project promoters consider that all the new capacity is interruptible and no new firm capacity can be made available by the STEP project at the Spain-France interconnection. In regulatory terms, such interruptibility is a critical and negative factor when assessing the project's feasibility. Furthermore, during consultation exercises organized by the promoters, stakeholders consistently cited this non-firmness as the reason for their lack of interest in the project⁶. However, having established this highly problematic basis for the new infrastructure, the promoters go on to present a joint calculation of the probability of interruption of capacity of STEP, whereby they assume that the interconnection will be available for more than 90% of the time. The low interruption probability level is clear when project promoters state that:
 - from France to Spain, in a year of extremely high consumption, the interruption probability amounts to 8% up to 110 GWh/d and 10.9% between 110 GWh/d and 180 GWh/d;
 - from Spain to France, this interruption probability equals 0% up to 120 GWh/d, and is between 1 and 14% between 120 GWh/d and 230 GWh/d.
2. The unitary cost (M€/km) of implementing the project in France is almost double that applied in Spain, despite having similar pipeline lengths in the two countries. Furthermore, costs presented by Teréga almost double the unitary equivalent costs assessed by ACER in a Europe-wide study⁷.

⁶ See [STEP Market Consultation](#)

⁷ [ACER Report on unit investment cost indicators and corresponding reference values for electricity and gas infrastructure – Gas Infrastructure](#), July 2015

3. The project analysis should include a scenario where Iberian Peninsula exports LNG from its regasification terminals to central and northern Europe in order to strengthen the EU's global security of supply and diversification of its gas sources.
4. In line with cost assessment requirements in Article 12(4) of the TEN-E Regulation, sections 1.5 (point 7d), 1.6, and 2(10) and Annex II of ACER Recommendation No 5/2015 state that in the case of gas projects: "the cross-border monetary flows should be included in the calculations of national net impacts, namely the expected revenues (payments) related to capacity bookings for gas PCIs and expected income for other charges".

Although the TSOs' proposal does not foresee any firm capacity for STEP, which makes it difficult to calculate revenues from annual or multiannual interconnection bookings, the low probability level of capacity interruption strongly indicates that the use of the interconnection will generate additional revenues for the two TSOs involved.

Accepting that the total value of these revenues may be lower than the 437 M€ estimated by Pořry (applying the rate of use by market agents), a reasonable percentage, computed as the product of this amount and the probability of firmness, should be considered in the CBCA analysis.

ERSE's analysis of the IR submitted by the project promoters reveals, unfortunately, that they have not addressed the above shortcomings in their final proposal.

4.2 CBA AND CBCA PARAMETERS

Notwithstanding the analysis gaps presented in the previous section, and in the knowledge that different assumptions and scenarios can be applied when assessing an infrastructure project, ERSE accepts the CBA presented in the IR by the project promoters, for the sake of achieving a degree of convergence and to advance the project. For this reason, the considerations presented in this section focus on two elements of the CBCA analysis presented by the promoters, as well as the corresponding guidance issued in ACER Recommendation No 5/2015, "On Good Practices for the Treatment of the Investment Requests, including cross border cost allocation requests, for Electricity and Gas Projects of Common Interest"⁸. The two issues identified by ERSE are:

⁸ [ACER Recommendation No 5/2015 On Good Practices for the Treatment of the Investment Requests, including cross border cost allocation requests, for Electricity and Gas Projects of Common Interest](#)

1. Inclusion of the OPEX values in the CBCA; and
2. Absence of the CAPEX residual value in the CBCA.

4.2.1 OPEX VALUES

As regards the parameters applied from the CBA to the CBCA presented by the promoters, ERSE recalls that according to paragraph 2(4) of ACER Recommendation No 5/2015, the CBCA decisions need only to consider, as a basis for allocation, the “efficiently incurred” “investment costs”). Therefore, the OPEX values (102.5 M€) included in the promoters’ CBCA cost calculations should be excluded, thus reducing the overall burden to be allocated to the project’s costs.

4.2.2 CAPEX RESIDUAL VALUE

When considering the standard depreciation times applied in Spain (40 years / 20 years for compression stations) and France (50 years), and thus the economic lifetime of the STEP project, the CAPEX residual values for Teréga and Enagás in the STEP project are, respectively, 83 M€ and 23 M€. ACER Recommendation No 5/2015 states⁹ that in the case of natural gas PCI projects, information on the treatment of the residual value should be fully transparent. The ACER Recommendation also affirms that the residual value should be set at zero and a time horizon of “n+20” applied, unless the involved NRAs agree otherwise. ERSE considers that the CAPEX residual value identified by the promoters, covering the full economic lifetime of the project, should be included in the CBCA analysis, as it is used to determine the compensations between the consumers of the different Member States involved.

4.3 ERSE’S MODIFICATIONS TO THE CBCA

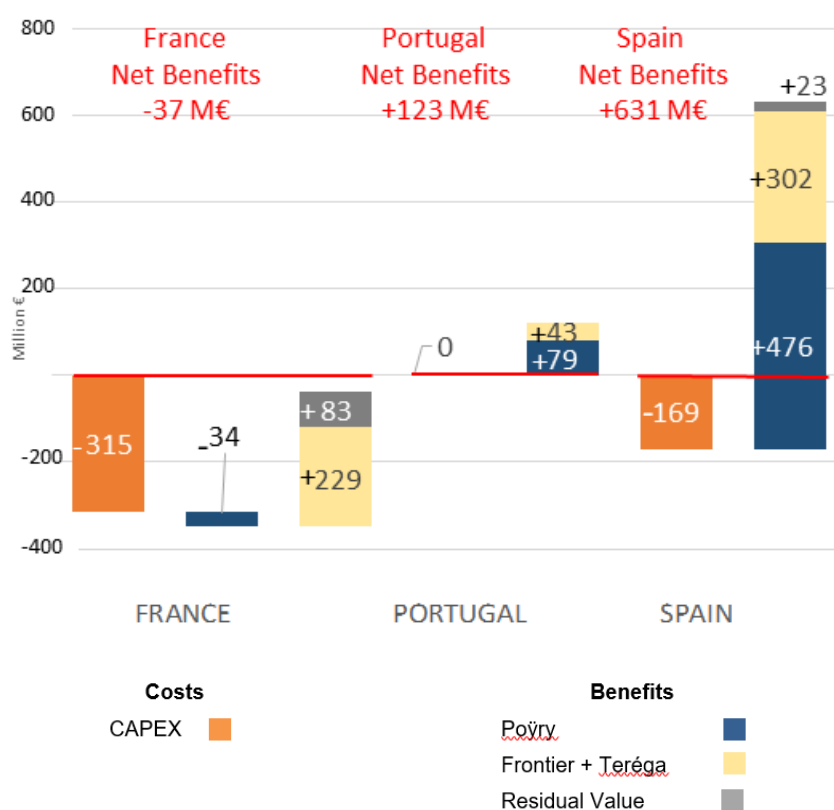
A recalculation of the CBCA, taking into account the issues outlined in the previous sections, alters the overall net benefits for the Member States involved, and, therefore, affects the subsequent compensation between them. In particular, by excluding OPEX and reflecting the residual value of the project, the net

⁹ Last paragraph of Chapter 1.6 and Annex I.3.

negative benefits for France are reduced from -162 M€ to -37.1 M€, while for Spain the overall benefits increase from 547 M€ to 631 M€, as illustrated in Figure 3.

As stated before, the cross-border monetary flows should be included in the calculations of CBCA, following ACER recommendation. However, ERSE has not recalculated the CBCA taking into account these flows given the difficulties mentioned above.

Figure 3: Recalculation of CBCA net benefits per country
(excluding revenues resulting from use of the new cross-border capacity)

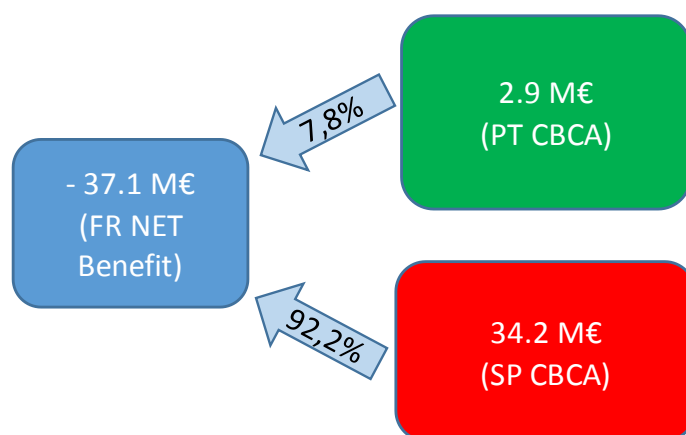


Source: Enagás/Teréga Investment Request; ERSE

Following these modifications to the CBCA, the resulting allocation between the involved Member States must also be reviewed. Specifically, the compensation due to France in order to reduce the country-specific net negative impact of the project must be revised downwards, resulting in contributions of 2.9 M€ and 34.2 M€, from Portugal and Spain, respectively. These contributions should be recovered via each country's network tariffs, as illustrated in Figure 4.

It is important to stress that the consideration of the cross-border monetary flows will reduce the referred compensations from Portugal and Spain.

Figure 4: Revised allocation of compensation to France
(excluding revenues resulting from use of the new cross-border capacity)



Source: Enagás/Teréga Investment Request; ERSE

5 CONCLUSIONS

During the assessment of the Investment Request undertaken by the NRAs, a range of considerations were identified by CRE, ERSE and CNMC, reflecting the complexity of the project and the differing impacts for the Member States involved.

Regulators identified the lack of firm capacity as the most negative aspect of the STEP project. Namely, the fact that, despite a total cost of 587 M€, the STEP interconnection between France and Spain does not add any firm capacity. This shortcoming justifies several stakeholders' criticisms, as expressed during the market consultations promoted by Enagás and Teréga when preparing their IR proposal.

In addition, ERSE's analysis demonstrates that the project's financial fundamentals would merit further refinement in order to facilitate this strategic PCI investment and in order to be able to establish a satisfactory CBCA among the three Member States. With this in mind, ERSE encourages ACER to take utmost importance of the considerations identified by ERSE when assessing the IR and preparing its decision, including the CBCA and the way the investments costs are reflected in the network tariffs.

ERSE's analysis of the CBA and CBCA results presented in the IR reveals the need for some improvements in the promoters' calculations in order to ensure that the most efficient investment costs are considered. In particular, ERSE notes the following modifications:

- a) OPEX should be equal to 0 in CBCA analysis.
- b) The residual value (106 M€) of the project over its economic lifetime, or a relevant proportion, should be factored into the CBA, in view of the disparity between the CBA / CBCA exercise horizon and the useful life of this type of investment in Spain and France, 40 and 50 years, respectively.

In closing, knowing that now is the opportunity for this project and taking into account the benefits of this project for the Iberian Peninsula and the European Union, as underlined by the EU and South West Member States in the Madrid and Lisbon Declarations, ERSE agrees that the strategic value of the STEP project in terms of increased security of supply, energy solidarity and competition are crucial factors to be considered when assessing the IR.