



## DELIBERATION No. 2017-204

# Deliberation by the French Energy Regulatory Commission of 21 September 2017 adopting the joint decision on cross-border cost allocation for the Biscay Gulf project

Present: Jean-François CARENCO, President, Christine CHAUVET, Catherine EDWIGE, Hélène GASSIN, Jean-Laurent LASTELLE and Jean-Pierre SOTURA, commissioners.

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The present deliberation is taken in accordance with the provisions of Regulation (EU) No. 347/2013 of the European Parliament and of the Council of 17 April 2013, on guidelines for trans-European energy infrastructure (the Regulation). Pursuant to Article 12 of the regulation, its purpose is to establish a decision of cross-border cost allocation for the Biscay Gulf electricity transmission infrastructure project, between France and Spain. This is at the request of the French and Spanish transmission system operators (TSOs) and project promoters, Réseau de Transport d'Electricité (RTE) and Red Eléctrica de España (REE). This joint decision by the French Energy Regulatory Commission (CRE) and the Spanish Comisión Nacional de los Mercados y la Competencia (CNMC – National Commission on Markets and competition) is based on a cost-benefit analysis of the project undertaken by RTE and REE.

## 1. BACKGROUND AND CRE REFERRAL

### 1.1 Regulation (EU) No. 347/2013

Regulation (EU) No. 347/2013 seeks to promote interconnections between European networks. It introduces the notion of Projects of Common Interest (PCIs) which, when applied to electricity, concerns transmission and storage infrastructure or smart grids. These projects are considered necessary for the implementation of the priority corridors in order to develop the domestic energy market. France belongs to two of the four priority corridors in the electricity sector:

- **The North Seas network**, which seeks to develop an integrated offshore electricity network and the related interconnectors in the North Sea, the Irish Sea, the English Channel, the Baltic Sea and neighbouring waters to transport electricity from renewable offshore energy sources to centres of consumption and storage and to increase cross-border electricity exchange. Other countries belonging to this group are Germany, Belgium, Denmark, Ireland, Luxembourg, the Netherlands, the United-Kingdom and Sweden;
- **North-South electricity interconnections in Western Europe**, to develop interconnections between Member States of the region and with the Mediterranean zone including the Iberian Peninsula, notably to integrate electricity from renewable energy sources and reinforce internal grid infrastructures to foster market integration in the region. The other countries concerned are Germany, Austria, Belgium, Spain, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal and the United-Kingdom.

Countries belonging to a priority corridor form a regional group tasked with selecting projects of common interest, in which representatives of the Member States, national regulatory authorities and network operators, the European Commission, the Agency for the Cooperation of Energy Regulators (ACER) and the European Network of Transmission System Operators for Electricity (ENTSOE), all take part. Regional lists of projects of common interest are produced by a selection request submitted by the project promoters.

Among the measures designed to foster the development of PCIs, the Regulation foresees the use of financing mechanisms that could mitigate the commercial viability issues of the projects, when those are an obstacle to the investment decision. Article 12 of this Regulation provides that, at the request of project promoters and on the basis of an analysis of the cost and benefits of the project for the countries concerned, the relevant national regulatory authorities decide on coordinated allocation of the investment costs. This decision opens the possibility to seek financial assistance from the European Union in accordance with article 14 of the Regulation.

### **1.2 Recommendation No. 05/2015 by ACER, defining good practices for the treatment of cross-border cost allocation requests**

On 18 December 2015, ACER published a recommendation defining good practices for the treatment of investment requests as part of the Regulation. This recommendation sets out guidelines on the required maturity of projects to proceed with a cost allocation, on consultation with non-hosting TSOs in countries where the project will have an impact and on inter-regulatory authority cooperation. It recommends, in particular, proceeding to a reallocation of costs only when a project has a net negative impact on one of the hosting countries.

### **1.3 Investment request from RTE and REE for the Biscay Gulf project**

RTE and REE submitted an investment request seeking a cross-border cost allocation decision for the Biscay Gulf project to the national regulatory authorities, the CRE and the CNMC. This investment request forms two documents (the investment request application and the investment request application – additional information), which the CRE received on 27 March 2017. RTE and REE consulted with the TSOs of non-hosting countries where the project has a significant impact (Portugal and Germany).

After assessing the application, the regulatory authorities considered that the project was sufficiently mature and that the investment request was complete. The CRE and the CNMC declared the investment request admissible and notified ACER, on 13 April 2017.

## **2. THE BISCAY GULF PROJECT AND THE TSO REQUEST**

The Biscay Gulf project is part of the Ten-Year Network Development Plan for Europe (referred to hereafter as TYNDP) which has been prepared by ENTSOE since 2012. It was declared a Project of Common Interest in 2013 and 2015 (reference number 2.7) and is candidate to be included in the list for 2017.

The Biscay Gulf project consists in building two independent HVDC (high voltage direct current) transmission lines, each of a capacity of 1,000 MW, between Cubnezais in France and Gatica in Spain. This will be complemented by the construction of four new converter stations. 70% of the 370 km route lies in France, and the route will include a 280 km offshore section. The project is therefore technically challenging, especially for the crossing of the Capbreton submarine canyon, which requires directional drilling to install cables underground (as the unstable sea bed means they cannot be placed on the surface). The TSOs' preferred route provides for this drilling to be undertaken 2 km from the French coast, off Capbreton. The work should last from 2020 to 2024 and the interconnector should be commissioned in 2025.

This project should increase the total interconnection capacity between France and Spain to 5,000 MW.

The TSOs estimate the project investment costs to be €1.750 billion, with an uncertainty of +/- €200 m. 68% of the project cost items are located on French territory and 32% in Spain. RTE and REE base their cost-benefit analysis on a 50/50 share of investment costs. Operating and maintenance costs have been assessed by the TSOs at roughly €10.2 m per year, 60% of which will be covered by RTE and 40% by REE, as per the TSO agreement. Finally, the TSOs have agreed to a 50/50 split of profits from congestion rent, as it is currently the case for other transmission lines between France and Spain.

## **3. CRE AND CNMC JOINT ANALYSIS**

### **3.1 Adopted assumptions**

The cost-benefit analysis undertaken by RTE and REE is based on TYNDP results from 2016 for network losses and the project's socio-economic benefits. The TYNDP features results for five scenarios, one for the 2020 reference year and four for 2030. The latter are called "Visions" and based on various assumptions about economic conditions, energy policy coordination, renewable energy growth and electricity consumption, to sketch out a range of contrasting scenarios by 2030 in Europe. Visions 1 ("Slowest progress") and 2 ("Constrained progress") take into account less favourable economic conditions and weaker growth in renewable energies than Visions 3 ("National green transition") and 4 ("European green revolution"). Visions 2 and 4 make the assumption of robust European coordination for energy policy choices compared to Visions 1 and 3.

The CRE and the CNMC give equal consideration to all the 2030 scenarios for the Biscay Gulf project cost-benefit analysis and compute the project's net present value (NPV) by taking an average of the four Visions.

The TYNDP analysis makes the assumption of a 100% interconnection availability. RTE and REE consider this to be unrealistic given the project's technological challenges. The TSOs have therefore proposed using an availability rate of 92%, echoed by the regulators.

The cost-benefit analysis detailed below is also based on the assumption of a 50/50 share of the congestion rent revenue and 60% operation costs for RTE and 40% for REE, as proposed by the TSOs in their investment request.

### **3.2 Costs**

The CRE and the CNMC note that the Biscay Gulf project is costly and there are few comparable projects (both in terms of length and geographical context) to properly compare project costs. This level of high cost can be explained by the choice to avoid building an overhead line crossing the Pyrenees. This is due to social and environmental reasons, as well as the need to bypass the most congested areas close to the border and make the most of this new transmission link, leading to the necessity to cross the Capbreton submarine canyon. The CRE and the CNMC retain the amount of investment costs mentioned by the TSOs in their investment request.

They do, however, emphasise the high degree of uncertainty of investment costs, as well as the significant risk of costs increase.

The CRE and the CNMC also retain the operating and maintenance costs by the TSOs, estimated at approximately €10.2 m per year. The costs retained for losses are those calculated in the TYNDP for the Visions, by allowing for a 92% interconnection availability rate.

### **3.3 Project's gross benefits**

#### **3.3.1 Value of the project's socio-economic benefits**

Based on the above assumptions, the value of the project's socio-economic benefit (or socio-economic welfare – SEW) for the benchmark year, 2020, is €184 m per year. In 2030, the SEW will amount to €110 m per year for Visions 1 and 3, €138 m per year for Vision 2 and €221 m per year for Vision 4.

The project's SEW is especially sensitive to the assumptions considered and accordingly delivers greater benefits in scenarios featuring robust European coordination.

#### **3.3.2 Security of supply benefits**

The ENTSOE methodology includes an indicator to value benefits in terms of security of supply, but according to the TSOs, monetising these benefits is complex and the TYNDP 2016 may underestimate them. RTE and REE have therefore developed an *ad hoc* methodology to value them. The CRE and the CNMC note that this additional evaluation employs significantly different scenarios to those contained in the TYNDP 2016. This runs the risk of a lack of accuracy.

According to the TSOs' analysis, project benefits in terms of security of supply amount to €40 m per year, starting as early as the year of the commissioning of the interconnector. The CRE and the CNMC agree to use the estimate provided by the TSOs for this investment request, while acknowledging the limits of the TYNDP 2016. However, they consider that this methodology is not mature and should be improved. As such, this value must be considered as a rough approximation and NRAs welcome the on-going work to improve the assessment of security of supply benefits in the context of the TYNDP 2018.

### **3.4 Project's net benefits**

The project cost-benefit analysis undertaken using the assumptions described above, concludes that the project's NPV is positive at a European level. This amounts to €222 m, on average, for the four TYNDP 2030 scenarios considered. The NPV is negative for Visions 1 and 3 (-€90 m and -€40 m) and positive for Visions 2 and 4 (€60 m and €957 m).

By using the cost allocation assumption proposed by the TSOs in the investment request (50/50, or €875 m for each TSO), the project NPV is negative for France. A country-specific appraisal shows that this applies when RTE bears investment costs above the amount of €528 m.

### **3.5 European funding request**

The CRE and the CNMC support the TSOs' request for a European grant from the Connecting Europe Facility (CEF) in 2017. The regulators note that the project would not be commercially viable without a grant. Although rises in

estimated tariffs remain low (1.2% in France and 1.5% in Spain), the project will be a serious weight in RTE and REE's investment programmes.

Furthermore, undertaking the Biscay Gulf project will produce a certain number of non-quantifiable positive externalities that will not solely benefit the hosting countries, but also other Member States and European stakeholders too. The Biscay Gulf project indeed marks the opportunity to develop technological innovations to cross the Capbreton submarine canyon. The project is also part of reaching the 10% interconnection target for Spain and achieving European climate and energy goals, such as developing renewable energy. The cost-benefit analysis therefore shows that the project's value depends especially on the achievement of these targets.

The regulators estimate that the level of grant that the project should be awarded by the CEF is €700 m, i.e. 40% of the project investment costs, below the theoretical limit of financial support set by the CEF of 50%.

#### **4. CRE AND CNMC CONCLUSIONS**

The TYNDP results highlight the unequal geographical distribution of the project's socio-economic benefits between France and Spain, with the latter securing most of these. This can be explained by Spain's geographical location, at the peripheral area of Europe. In addition, some non-hosting countries also benefit from the project. However, although the total amount of non-hosting country benefits is still quite high, taken individually, each one of these countries only secures a small part of these advantages. Following the recommendation by ACER, the TSOs have subsequently decided not to request a financial contribution from these countries. The CRE and the CNMC agree with this decision.

Based on an appraisal of the investment request and conclusions formulated above, the CRE and the CNMC recognise the need for a cross-border cost allocation so that the project's NPV for France is not negative. The analyses undertaken show that to reach this goal, RTE's contribution to investment costs for the Biscay Gulf project must not exceed €528 m.

The CRE and the CNMC therefore agree that RTE and REE should each bear half of the project investment costs (i.e. €875 m) and that the grant should be allocated so that the project NPV for France is not negative (which means that €350 m provided by the grant must be allocated to RTE, irrespective of the total grant amount). Should there be no grant, or grant aid less than €350 m, the CRE and the CNMC shall mutually agree on a review of the cost allocation, in terms that guarantee the prompt implementation of the Biscay Gulf project.

Furthermore, REE will cover any eventual project investment cost overruns, up to a total net contribution (i.e. net of any financial aid provided by the European Union) to investment costs of €875 m. Any subsequent cost overruns based on this amount will be covered at 62.5% by REE and 37.5% by RTE.

Finally, congestion rent revenue stemming from the project will be split 50/50 between RTE and REE, as proposed by the TSOs and included in the cost-benefit analysis. However, if the project is more profitable than initially anticipated, a specific mechanism would be introduced to share these additional profits. As such, any 1% gain in interconnection usage rate above the forecasted rate will result in a payment by RTE to REE of €0.3 m. This amount takes into account the project's estimated gross surplus (net of network losses) and a sharing key stating that RTE transfers to REE 25% of the extra benefit France gets from the interconnector.

Should the usage rate turn out to be lower than anticipated for a given year N, the transfer from RTE to REE will be reduced accordingly the next year N+1, unless it yields a negative transfer for this year (N+1) in which case no transfer will be made and the remainder will be passed to the following year (N+2).

The mechanism described above will be enforced during 25 years. If the remainder is negative at the end of the 25 years, no transfer from REE to RTE will be made. After 10 years of operation of the interconnection, NRAs will evaluate this specific mechanism, and could accordingly agree on a different mechanism.

**CRE'S DECISION**

The CRE adopts the decision treating the cross-border cost allocation request by RTE and REE, jointly drafted by the CRE and the CNMC and appended to the present deliberation.

The CRE and the CNMC agree that RTE and REE should each bear half of the project investment costs (i.e. €875 m) and that the grant should be allocated so that the project NPV for France is not negative (which means that €350 m provided by the grant must be allocated to RTE, irrespective of the total grant amount). Should there be no grant, or grant aid less than €350 m, the CRE and the CNMC shall mutually agree on a review of the cost allocation, in terms that guarantee the prompt implementation of the Biscay Gulf project.

REE will cover any eventual project investment cost overruns, up to a total net contribution (i.e. net of any financial aid provided by the European Union) to investment costs of €875 m. Any subsequent cost overruns based on this amount will be covered at 62.5% by REE and 37.5% by RTE.

Finally, any 1% gain in interconnection usage rate above the forecasted rate will result in a payment by RTE to REE of €0.3 m. This amount takes into account the project's estimated gross surplus (net of network losses) and a sharing key stating that RTE transfers to REE 25% of the extra benefit France gets from the interconnector.

Insofar as costs correspond to those of an efficient transmission system operator, those effectively borne by RTE under the conditions set out in the present cost allocation decision and after deducting financial aid from the European Union will be included in the network operator's tariff, pursuant to the applicable tariff rate rules. The CRE will also define the parameters of the incentive regulation regime applicable to the Biscay Gulf project in compliance with the conditions set by the TURPE 5<sup>1</sup> tariff.

The present deliberation will be forwarded to the CNMC, and will be notified to RTE and ACER.

The present deliberation will be published in the *Journal officiel* de la République française and sent to the Minister of State, the Minister for the Ecological and Inclusive Transition.

**Paris, 21 September 2017.**

**For the Energy Regulatory Commission,  
the President,**

**Jean-François CARENCO**

<sup>1</sup> Délibération de la Commission de régulation de l'énergie du 17 novembre 2016 portant décision sur les tarifs d'utilisation des réseaux publics d'électricité dans le domaine de tension HTB.