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# *Guidance for Project Promoters and Regulators for the Cross-Border Cost Allocation of Projects of Common Interest*

*Authors: Leonardo Meeus, Xian He*

## *Highlights*

- At present, the common cross-border cost allocation practice is that each country pays for the assets on its territory. The recently adopted Regulation (EU) No 347/2013 on guidelines for the implementation of European energy infrastructure priorities is an opportunity to improve this practice by introducing innovative cross-border cost allocation (CBCA) agreements. The Cost Benefit Analysis (CBA) that will now be available for all so-called Projects of Common Interest (PCI) is a tool that can be used to design this type of agreements.
- The current practice can be improved in three dimensions, and for each we propose a minimum standard. The first way to improve CBCA agreements is to base them on the CBA results. The minimum standard that we propose is that if one of the involved parties in a project is likely to be a significant net loser, that loss should at least be compensated. The second way to improve the CBCA agreements is to enter into a formal contract. The minimum standard that we propose is that this contract at least include a reward/penalty for the commissioning date. The third way to improve the CBCA agreements is to agree on a set of projects rather than individual projects. The minimum standard that we propose is that strongly complementary projects be defined as a single PCI.
- We recommend ACER guarantee the minimum standards in its decisions, and we also recommend that project promoters and National Regulatory Authorities (NRAs) consider going beyond these minimum standards in cases where this is opportune. There is indeed room for regulatory innovation in this context, and we illustrate that innovation in CBCA agreements is already happening by referring to the cases of Norway-Sweden and Italy-Greece.



## Introduction

A first list of so-called Projects of Common Interest<sup>1</sup> has been approved in Europe, as foreseen in the recently adopted Regulation (EU) No 347/2013 on guidelines for the implementation of European energy infrastructure priorities<sup>2</sup>. In line with this new Regulation, the projects have been selected based on a Cost Benefit Analysis (CBA) to ensure that they have a cross-border impact and a positive net benefit for Europe. Most of the projects on this list are well advanced so that the promoters can soon ask their National Regulatory Authorities (NRAs) to approve the costs. Following the new Regulation, NRAs then have 6 months to agree on how to allocate the investment costs between the Member States they represent, and if they do not, ACER is expected to decide.

At present, the common cross-border cost allocation practice is that each country pays for the assets on its territory. For an internal line, this means that the investment is fully paid by one member state, even if other member states benefit. For a cross-border line, this means that the exact routing of the project determines how the costs are shared between the member states, irrespective of the benefits of that investment for the country where most of the assets happen to be located. As a result, some projects are delayed or not even considered, and other projects are distorted in terms of their dimensioning, routing, or technology.

Project promoters and NRAs therefore should have an interest to come up with alternative Cross-Border Cost Allocation (CBCA) agreements, which enable them to consider cross-border compensation to improve the commitment of all parties involved in the development of a project that increases total welfare. With the CBA method that is being developed in the context of the Regulation (EU) No 347/2013<sup>3</sup>, there is now also an economic tool to support project promoters and NRAs in designing innovative agreements. Furthermore, in order to foster the cooperation of NRAs, ACER published a recommendation on information requirement and high-level principles that NRAs shall follow when handling a cross-border cost allocation request<sup>4</sup>.

In this brief, we discuss three paths to innovation in CBCA agreements: 1) basing the agreements on the CBA results; 2) entering into a formal contract; 3) agreeing on a set of projects rather than individual projects. We recommend project

promoters and NRAs to take the lead in designing innovative CBCA agreements, but if they cannot agree, ACER will have to decide. We argue that we are at an early stage of innovation in CBCA agreements. In the short term, ACER should therefore only guarantee a minimum standard for CBCA agreements in its decisions, and identify and disseminate good practices by project promoters and NRAs, like the examples we will showcase in this policy brief.

## 1. Basing the agreements on the CBA results

### Existing practice

As mentioned in the introduction, the common practice is that each country pays for the assets on its territory; compensation between countries is not considered. If the costs are not in line with the benefits of the countries hosting the line, this might lead to investment distortions. The distortion could be expressed in different forms, such as a delay in the commissioning date, or suboptimal project dimensioning or routing.

### Complete improvement

A complete improvement would be to allocate the costs strictly in proportion to the benefits, which is in theory the best way to allocate the costs across borders. This approach is, however, hard to implement in practice due to two main reasons. First, it requires a common understanding of the costs and benefits of these projects among all involved parties, i.e. a validated data set, scenarios and calculation models. Thanks to the new Regulation, a CBA method is under development in Europe with input from ENTSO-E, ACER, and academia. See, for instance, our own policy brief on the topic<sup>5</sup>. But this is a work in progress and the current PCI list has been made using a preliminary method. Second, even with a well-established CBA method, it can be difficult to agree on the allocation of investment costs across borders. CBA will generate a value of net benefit for each scenario considered, which raises the question of how to take uncertainty into account.

### Minimum standard

If the CBA shows that beneficiaries are stable across scenarios and that there is a high probability that one of the countries expected to invest in the project is a net loser, that loss could

1. European Commission, List of Projects of Common Interest. 14 October 2013.
2. Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009.
3. ENTSO-E Guideline for Cost Benefit Analysis of Grid Development Projects. 14 November 2013.
4. ACER, Recommendation of the Agency for the cooperation of energy regulators No 07/2013 of 25 September 2013.

5. Meeus, L., von der Fehr, N-H. M., Azevedo, I., He, X., Olmos, L., Glachant, J.-M., 2013. Cost Benefit Analysis in the context of the Energy Infrastructure Package. FSR Policy Brief No2/2013. <http://www.eui.eu/Projects/THINK/Documents/Thinktopic/PB/PB201302.pdf>



be compensated to avoid the risk that the net loser delays the project. This minimum compensation does not fully align incentives of all involved parties to develop a project with cross-border impact, but at least takes away a strong disincentive. Note that this is in line with ACER’s recommendation that, ‘unless the relevant NRAs agree otherwise, compensations are provided only if at least one country hosting the project is deemed to have a negative net benefit’. Note also that this approach reduces the risk that the compensation would be perceived as unjustified ex-post.

**Room for regulatory innovation**

Between the minimum standard to be guaranteed by ACER, and the complete improvement that might be practically difficult to implement, there is a lot of room for innovation by project promoters and NRAs. And, to support the involved parties in coming up with an innovative agreement, it is of course important to have the CBA results, including the net benefit for each involved party in each of the scenarios with the main sensitivities.

In what follows, we provide two examples with two neighbors that are developing an interconnector, and they managed to agree on an investment cost allocation based on CBA results. Our interpretation of the case is that they did not try to implement a proportional approach, but they did go beyond the above-described minimum standard.

**2. Enter into a formal contract**

**Current practice**

It is not yet common practice for project promoters from different countries that are jointly developing a project to write a formal contract to guarantee the execution of their CBCA agreement. As a result, a project might be delayed unilaterally, or worse, one party might stick to the originally agreed date while the other does not so that the former has stranded costs. There are indeed a few ‘bridges to nowhere’ in the European electricity network.

**Complete improvement**

A complete improvement to ensure the execution of the CBCA agreement is to write a fully contingent contract, specifying the expected action of involved parties in every possible scenario, including a clause for non-compliance. This is either too costly or simply impossible, given the large number of uncertainties in the scenarios as well as the project-specific uncertainties.

**Minimum standard**

The scope of the contract should be at least extended to include a reward/penalty for the commissioning date. If the CBCA agreement includes compensation (i.e. deviation from the ‘each party pays for the assets on its territory’ practice), the incentive scheme could be directly linked to the compensation. The compensation could for instance depend on the deviation between the agreed and actual commissioning date. This minimum standard will help avoid ‘bridges to nowhere’, like in the case of interconnection between Spain and France. Some of the necessary investments had already been made a long time ago on the Spanish side, while the French investments have been blocked for many different reasons<sup>6</sup>.

**Room for regulatory innovation**

Between the minimum standard to be guaranteed by ACER, and the complete improvement that might be practically difficult to implement, there is a lot of room for innovation by project promoters and NRAs. In one of the two examples we refer to in this brief, the project promoters did enter into a formal contractual arrangement, which was approved by their NRAs. Following that contract, the agreed compensation starts at the commissioning date of an interconnector, and stops at the commissioning date of an internal line that strongly complements the interconnector.

**3. Agreeing on a set of projects rather than individual projects**

**Current practice**

Investments on different borders are often developed as separate projects because they have to deal with different authorities for permit granting, and cost approval, even if they are complementary. Complementarity means that the value of one project depends on the existence of the other, which then also means that the same applies to the investment cost allocation across borders. As a result, a separate cross-border cost allocation process for strongly complementary projects can distort the development of both projects.

6. Inelfe, France-Spain Electrical Interconnection: The excavation of the French side of the tunnel begins. Press release, 2012. [http://www.inelfe.eu/IMG/pdf/ingles\\_021012\\_CP\\_tunnelier\\_Canigou\\_-\\_EN.pdf](http://www.inelfe.eu/IMG/pdf/ingles_021012_CP_tunnelier_Canigou_-_EN.pdf)



### Complete improvement

A complete improvement would be to make a single agreement for the first list of PCIs because there are strong network externalities in electricity networks. However, this overall agreement would need to be made contingent to all possible delays of each PCI. The complexity of such an agreement is beyond the manageable level given the number of the PCIs.

### Minimum standard

A minimum standard for project grouping should be part of the CBA method so that strongly complementary projects are defined as a single PCI. In our previous policy brief on the CBA method proposed by ENTSO-E, we already argued that complementarity should be measured on an economic basis. This recommendation has not yet been fully implemented in the sense that ENTSO-E adopts a technical criterion based on ‘increase of grid transfer capacity’.

### Room for regulatory innovation

Between the minimum standard to be guaranteed by ACER, and the complete improvement that might be practically difficult to implement, there is a lot of room for innovation by project promoters and NRAs. ACER also called upon project promoters to indicate potential complementary PCIs, and recommended NRAs to use it as an input to decide whether it is necessary to coordinate their decision-making processes for related CBCA requests. In one of the two examples we refer to in this brief, the interaction between two strongly complementary projects has been considered in the CBCA agreement.

## 4. Showcasing cross-border cost allocation innovation

### The Case of Norway-Sweden

Scandinavian countries pioneered the use of a commonly agreed upon CBA method for indicative planning in the Nordic Grid Development Plans. The case below illustrates how CBA results can be used to support project promoters and NRAs in designing innovative CBCA agreements.

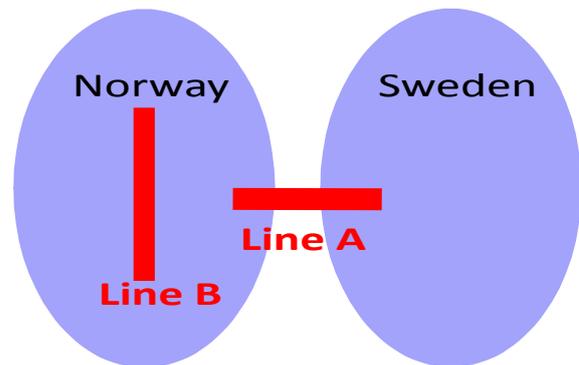
#### Facts<sup>7</sup>:

Norway is divided into 5 bidding zones because it has structural congestion within the country. In dry years, energy supply

7. Description of the facts is based on Nordic Grid Development Plan, 2012.

within each bidding zone can be very tight. This is also the case in mid-Norway, but the situation was worsened in 2005 because of new industrial consumption. The situation became critical in the following dry year. The easiest and quickest solution was to increase the interconnection capacity between mid-Norway and Sweden, i.e. Line A in Figure 1. This is a 100 km long 420 kV AC line between Nea and Järpströmmen, commissioned in 2009. 75% of the assets are on Swedish territory, but the short-term benefits are mainly for Norway. To fully utilize Line A, the isolation of mid-Norway from the rest of Norway needs to be reduced, i.e. Line B, which is less advanced in its development. Line B is expected to increase the available capacity on Line A from 200 to 750 MW. Norway agreed to compensate Sweden for Line A until Line B is ready.

Figure 1. The Norway-Sweden Case

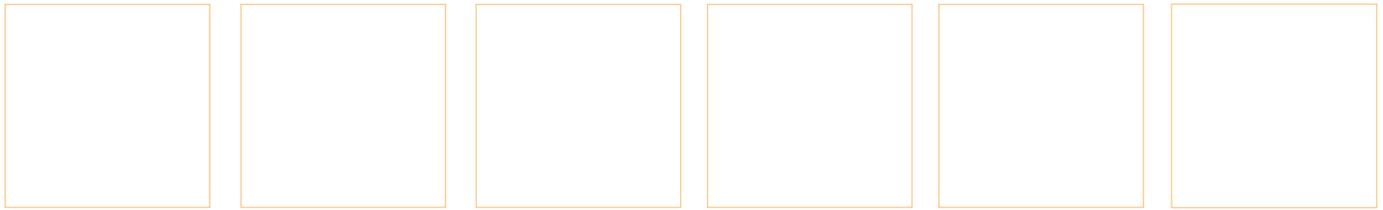


Source: own depiction

#### Interpretation:

The compensation incentivized Sweden to speed-up the development of Line A, and also incentivized Norway to speed-up the development of Line B. The details of the compensation are not publicly available, but has probably been negotiated starting from the opportunity cost for Norway, which is the cost of delay in the development of Line A, and from the extra costs that Sweden might have had for speeding up the development of that line. Moreover, the involved TSOs did enter into a formal contract, which has been approved by their NRAs.

In other words, this CBCA agreement showcases the three possible ways in which the commitment of the involved parties be improved because the compensation has been based on the CBA results (i.e. sensitivity analysis with regard to the commissioning date), the parties did enter into a formal contract, and the CBCA agreement considers the interaction between two strongly complementary projects.

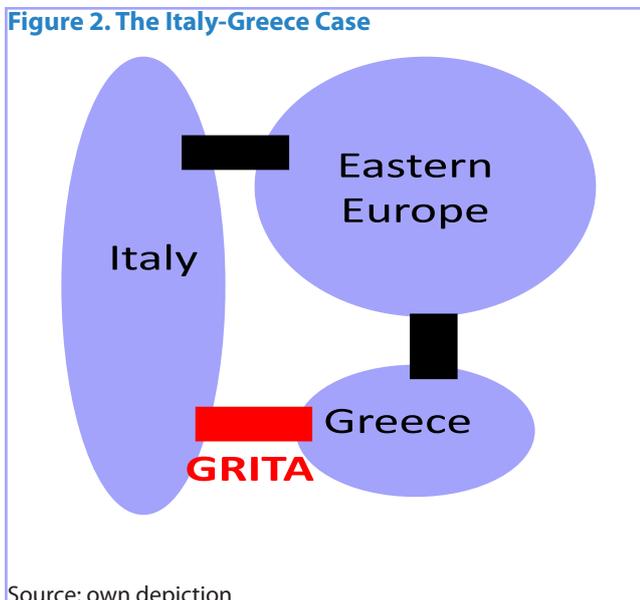


## The Case of Italy-Greece

### Facts<sup>8</sup>:

In 2002, a 500 MW submarine HVDC link between Greece and Italy (GRITA) was commissioned (Figure 2). Italy paid for and owns 75% of the project, Greece the remaining 25%. The project also received an EU grant so this CBCA agreement only applies to part of the project costs. The project allows Italy to import cheaper electricity from Eastern European countries, like Albania and Turkey, via Greece.

Figure 2. The Italy-Greece Case



### Interpretation:

This is a typical case with a transit country (Greece) that is compensated to jointly develop the project with its neighbor (Italy). According to the available information, however, this case only showcases one of the three dimensions for innovation in CBCA agreements, which is that the parties deviated from the common fifty-fifty cost sharing for submarine links.

## 5. Guidance to project promoters, NRAs and ACER

There is a lot of room for innovation in CBCA agreements, and we have illustrated that innovation is already happening. The future will tell if new practices will prevail and replace the current practice of 'each pays for the assets on its territory', or whether the current practice will continue to dominate, with exceptional innovative agreements.

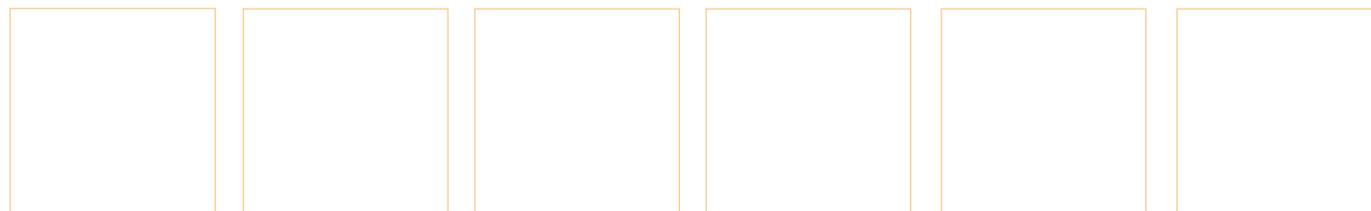
For the short term, we already recommend project promoters and NRAs look at the case introduced here for inspiration for their own projects, and consider each of the three dimensions for innovation in CBCA agreements that we identified: 1) basing the cross-border cost allocation agreements on the CBA results; 2) entering into a formal contract; and 3) agreeing on a set of projects rather than individual projects. ACER can play an important role in the identification and dissemination of good practices, like the ones we showcase in this policy brief.

ACER will also have to decide in cases that project promoters and NRAs cannot agree upon, but as already said in the introduction, it is too early for ACER to set a strong standard. This could indeed be counterproductive because it would leave fewer incentives for the involved parties to innovate in alternative CBCA agreements, so that more cases would go to ACER, while ACER is not necessarily in the best position to deal with regulatory innovation. We therefore recommend ACER set a minimum standard, which is also in the spirit of the new Regulation<sup>9</sup>.

Note, however, that this minimum standard will already make a difference by unblocking certain projects, and it will help avoid repetition of 'bridges to nowhere'. The minimum standard will act as a bottom-line or starting point for negotiations between project promoters and NRAs: 1) if there is a strong likelihood of a significant net loser, the loss should be compensated; 2) the contract, regardless the compensation, should be made contingent to the commissioning date; and 3) a minimum standard for project grouping should be part of the CBA method so that strongly complementary projects are defined as a single PCI.

8. Description of the fact is based on Draft agreement between the Regulatory Authority for Electricity and Gas of Italy (Autorità per l'energia elettrica e il gas) and the Regulatory Authority for Energy of Greece (PYΘMΙΣΤΙΚΗ ΑΡΧΗ ΕΝΕΡΓΕΙΑΣ) for the allocation of the electricity transfer capacity for the year 2002 on the High Voltage Direct Current link interconnecting Italy and Greece. <http://www.autorita.energia.it/allegati/docs/02/60-02all.pdf> and Giorgi, A, Rendina, R, Georgantzi, G, Marchiori, C, Paziienza, G, Corsi, S, Pincella, C, Pozzi, M, Danielsson, K.G, Jonasson, H, Orini, A, Grampa, R. The Italy – Greece HVDC link. CIGRE 2002. <http://dc217.4shared.com/doc/CgUYZGii/preview.html>

9. European Commission, Impact assessment. Accompanying the document Proposal for Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC. 19 October 2011



Florence School of Regulation  
Robert Schuman Centre  
for Advanced Studies

European University Institute  
Via delle Fontanelle 19  
I-50014 San Domenico di Fiesole (FI)  
Italy

Contact FSR coordinator:  
[Annika.Zorn@eui.eu](mailto:Annika.Zorn@eui.eu)

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