



RED ELÉCTRICA
DE ESPAÑA

**Red Eléctrica de España
Comments on ERGEG draft
proposal of Guidelines on
Inter-TSO compensation
(E06-CBT-09-08, dated 10-04-2006)**

22-05-06



RED ELÉCTRICA DE ESPAÑA welcomes these draft guidelines on Inter-TSO Compensation and considers that these draft Guidelines constitute an important step forward regarding the objective of permitting the free access to the whole European transmission grid to all European system users independently of the country where they are located, therefore contributing to the real implementation of the European Internal Electricity Market and at the same time allowing a fair remuneration of each national grid taking into account the transits that are borne.

It is the view of RED ELÉCTRICA DE ESPAÑA that this step forward is, in general terms, in the good direction and introduces significant advances with respect to the previous situation. However, any model which:

- a) has to take into account the impact on the flows in tenths or hundreds of thousands of transmission elements belonging to more than 20 countries in every hour of the year
- b) has to evaluate fairly the cost impact of those impact on the flows

must have such an inherent complexity due to a) and has also a high degree of difficulty due to b) that it is virtually impossible to arrive at a perfect solution.

So, any good model which could be proposed would have inevitably strong and weak points. The objective should be then to reach the best compromise, the overall best and fairest solution which inevitably can not be a simple or an extreme solution.

Here below are listed the comments of RED ELÉCTRICA DE ESPAÑA on these good draft guidelines with the clear objective of improving them in three aspects:

- a) Increasing precision wherever it is possible
- b) Facilitating transparency and the possibility of auditing wherever it is possible
- c) Proposing a fairer cost allocation.

RED ELÉCTRICA DE ESPAÑA hopes that this contribution is useful and serves to the best interest of the Internal Electricity Market development.



Explanatory Note

3. APPROACH FOR INTER TSO COMPENSATION

3.1. Basis for calculating the costs incurred by hosting cross-border flows

Weighting between forward looking LRAIC and existing network

ETSO position has always been that the costs to be used for ITC compensation are the regulated costs.

RED ELÉCTRICA DE ESPAÑA has always supported this ETSO position and RED ELÉCTRICA DE ESPAÑA continues holding this ETSO position.

LRAIC costs are not real costs, do not reflect in any way any real situation of the costs being borne by TSO holding transits, are not well defined in the proposed draft Guidelines, and are unknown and very difficult to audit.

Moreover, the use of LRAIC for ITC purposes is discriminatory since native users will be paying regulated costs.

Therefore, RED ELÉCTRICA DE ESPAÑA position is that LRAIC costs should not be used either for ITC or, at the most, limited to a testimonial 1% or 2% (instead of the proposed 20%) until they are well defined and well known.

Therefore, the following text:

“The weighting of the national regulated values should be 80 % and the forward looking LRAIC 20 % during the first years of implementation”

needs to be replaced by:

“The weighting of the national regulated values should be 98 % and the forward looking LRAIC 2 % during the first years of implementation”

3.2. Infrastructure – calculation of compensation:

NET SENSITIVITY FACTORS

Delete all mention to NET SENSITIVITY FACTORS



Guidelines

1. PARTICIPANTS AND PARTICIPATION

The possibility of joint participation by several participating entities in the ITC mechanism is established in the Draft Guidelines and defined as Participation collectively by several entities. However, in the proposed draft Guidelines it is not clear how it can start and end. To RED ELÉCTRICA DE ESPAÑA it is obvious that this must be on a voluntary basis and by the decision of the involved regulators. Therefore, the following text needs to be added:

“The Participation collectively in the inter TSO compensation will be effective at the moment that the regulators involved notified the agreement to the Commission. Also the Participation collectively will finish, at the moment the regulators involved notified the end of the agreement to the Commission.”

2. COST BASE – NETWORK AND FORWARD LOOKING LRAIC

General

Article 2.3

LRAIC should be completely eliminated or, alternatively, the weightings of existing assets and LRAIC must be changed from 80 – 20% to 98 – 2%. The reason for this reduction is that very rarely European TSO put in operation in one single year new lines or substations accounting for more than 2% of what they already have in operation. Therefore, there is no reason for considering more than 2% for LRAIC, being it the cost of new installations. This percentage could be increased for those TSO which in fact prove that they are installing new lines and substations in a percentage higher than 2%. However, a small percentage such as this can just be neglected.

In case that a small percentage of LRAIC (2%) is kept, the text:

*“according to the following weighting:
(a) Costs of existing network asset = 80 %;
(b) LRAIC of new network assets = 20 %”*

must be replaced by:

*“according to the following weighting:
(a) Costs of existing network asset = 98 %;
(b) LRAIC of new network assets = 2%”*



Cost of existing network assets

Article 2.6

The costs to be provided and to be used for ITC compensation must be fully precise in the following aspects at least:

- a) The units used. The following at least: km of circuit (not lines) of each voltage level, number of bays (with a clear definition of bay) of each voltage level, MVA of transformer capacity.
- b) The number of units of each of the above that each system has installed at the date of the contract. So, the data must specify separately the number of units of at least the following different kinds of elements: km of circuit of each voltage level, number of bays of each voltage level and transformers MVA.
- c) The unitary costs of each of the above defined elements

With these original data that should be collected and available the total costs, the costs per voltage level and any weighting factor that may be needed for the computations can be computed. It is very important that all the above mentioned elements are given separately: lines, bays and transformers. Otherwise, it's impossible to check the information provided and to analyze the resulting costs accurately.

Therefore, article 2.6 must be replaced by:

“Article 2.6 In relation to 2.2 (a) above, the cost of existing network assets, regulators shall provide a unit cost estimate based on data from year t-1, both for the purposes of reconciliation of payments in relation to year t-1 and for the purposes of an ex ante estimate of year t+1 in the following way:

(a) For each participating entity under this jurisdiction, each regulator shall provide a value for total allowed network related revenue by participating entities. This amount should only include revenue related to network assets (including return on network assets, depreciation on network assets and operating costs related to maintenance of network assets). It should exclude any revenue related to System Operation, network losses and other non-network asset related activities such as the costs of control room and despatch operations, the net costs of balancing the system and the costs of procuring ancillary services. Each regulator shall deduct the share of the participating entity's congestion management and/or the Trans-European Transport Networks (TEN-T) projects income from the total allowed revenues in order to take account of existing assets being financed by congestion management and/or TEN-T project income.

(b) Each regulator shall also provide the total circuit length (in km) of transmission network assets within the network asset base of participating entities that they regulate for each of the following asset classes:

- (i) Class A: above 300kV AC line;*
- (ii) Class B: 220kV to 300kV AC line;*
- (iii) Class C: other AC lines;*
- (iv) Class D: DC lines of any voltage;*

(c) Each regulator shall also provide the total installed capacity (in MVA) of transformers within the regulated asset base of participating entities that they regulate in each of the following asset classes:



- (i) Class E: transforming between voltages of assets in class B and class A, or between voltages of assets in class A or between voltages of assets in class B;
(ii) Class F: transforming between voltages of assets in class C and class B or class A;

(d) Each regulator shall also provide the total number of substations bays within the regulated asset base of participating entities that they regulate in each of the following asset classes

- (i) Class G: above 300kV AC bays;
(ii) Class H: 220kV to 300kV bays;
(iii) Class I: other bays;

(e) Each regulator shall also compute the country specific coefficient K1 which allows to include the bay costs of bays assets in class G into the total cost of line assets A, the specific coefficient K2 which allows to include the bay costs of bays in class H into the total costs of line assets B and, the specific coefficient K3 which allows to include the bay costs of bays in class I into the total costs of line assets C. These coefficients shall be computed as follows:

CA= Total cost of class A CG= Total cost of class G
CB= Total cost of class B CH= Total cost of class H
CC= Total cost of class C CI = Total cost of class I

$$K1 = (CA + CG) / CA$$

$$K2 = (CB + CH) / CB$$

$$K3 = (CC + CI) / CC$$

Forward looking long run average incremental cost of new assets

Because of the already given reasons, this full section should be deleted or alternatively reduced its weight down to a 2%. The following comments refer to this second possibility.

Article 2.7

Alls costs used for LRAIC should be based on auditable data. These costs should be real costs of new network elements really constructed or installed and put in operation the previous year of the contract (2.7 a).

A not so good alternative for the cases that those data could be unavailable is that LRAIC data are be provided by the Regulator describing also the mechanism to compute them and make them auditable.

In all cases the data provided must be the unit costs of all different kinds of elements: km of circuit of each voltage level, number of bays of each voltage level, transformers MVA....



Annex A – DESCRIPTION OF METHODOLOGY

A1 INFRASTRUCTURE – COST ALLOCATION

Calculation of sensitivity factors

A1.1 Sensitivity factors describing the electrical distance between the ITC entities shall be calculated as follows

The load flow algorithm to be used (DC or AC load flow algorithm) must be specified and not left undefined since in a model such as IMICA the impact of this kind of decisions can be very high. There is no reason for using approximate algorithms such as the DC load flow since:

- a) Snapshots to be used are AC load flow solutions
- b) AC load flow solutions are much closer to real flows than DC
- c) Nowadays there is no need for simplification

The text:

(b) Different entities when making calculations shall apply the same load flow algorithm (either DC or AC load flow algorithm).

Must be replaced by:

(b) Different entities when making calculations shall apply the same AC load flow algorithm

A1.2 Sensitivity factors shall be computed in different ways depending on the use of these factors:

The main weakness of the draft Guidelines is that they propose to use the so called “Net Sensitivity Factors” for the determination of the inter TSO compensations dues to the use of infrastructure made by transits. That is, regarding infrastructure costs. By using these “Net Sensitivity Factors” it is implicitly assumed that the use of infrastructure that a transit makes can result in benefits for the hosting TSO. Not only that: it is assumed that those supposed benefits are proportional to the cost of the infrastructure and the involved TSO is obliged to pay the so evaluated benefits to those who use its infrastructure.

RED ELÉCTRICA DE ESPAÑA supports the idea that a reduction in losses is a real benefit for the hosting TSO or for the hosting system, since real energy is being saved. This benefit can be returned to those causing the transits and this could be considered fair. Losses are variable costs and can be really saved. However, the fixed costs of infrastructure are never saved and benefits in this respect never exist.

Therefore, the principle behind “Net Sensitivity Factors” is clearly wrong and the results that could be derived by applying them could be very unfair.



ETSO position in this issue has been clear. The letter dated February the 14th, 2006 sent by ETSO president and ETSO chairman of the Steering Committee to Sir John Mogg as President of the CEER is very clear:

*“Benefits related to infrastructure are hardly present: reverse flows will not reduce the need for new investments, since investments are generally undertaken so as to meet demand within a specified area in accordance with a particular security standard. It is the national security standard that determines how cross border flows should be modelled in this process and hence whether investment in infrastructure is required. **According to ETSO, the selected model should not derive reduced compensations for infrastructure, since no benefits are achieved.**”*

RED ELÉCTRICA DE ESPAÑA has always supported this clear position and, therefore, demands that “Net Sensitivity Factors” are not used to determine the share of total grid costs to be borne by transit flows.

Both Positive Sensitivity Factors and Absolute Sensitivity Factors succeed in deriving compensations according to the above mentioned ETSO principle. Although RED ELÉCTRICA DE ESPAÑA prefers Absolute Sensitivity Factors, we have stated before that a perfect model does not exist and that the best practical solution needs to be a compromise solution that does not fully satisfy any of the existing extreme and opposite positions (Absolute versus Net) but is not either in full contradiction with them. This is another advantage of the Positive Sensitivity Factors and the reason why that RED ELÉCTRICA DE ESPAÑA proposes them as the best practical solution for the ITC model for 2007.

It has been argued that the use of Positive Sensitivity Factors or Absolute Sensitivity Factors results in higher funds. This argument is technically wrong: Positive Sensitivity Factors correctly applied (without over recovery of costs and without discrimination between native and transit users) do not result in a higher fund. Apart from that, RED ELÉCTRICA DE ESPAÑA supports that other means to cap the fund are introduced in the Guidelines (as they are in these Draft Guidelines).

Therefore, the text:

(b) Net sensitivity factors shall be calculated by aggregating all MW•km caused by induced flows in all grid elements taking into account the direction of the flow. These net sensitivity factors will be used to determine the share of total grid costs to be borne by transit flows, i.e. transit key.

Should be replaced by:

(b) Positive sensitivity factors shall be calculated by aggregating all MW•km caused by induced flows in all grid elements taking into account the direction of the flow in each of them as follows:

- 1) When the direction of the induced flow is the same that the direction of the total flow on the element, the induced MW.km are added.*
- 2) When the direction of the induced flow is contrary to the direction of the total flow on the element, the induced MW.km are replaced by zero.*

These Positive sensitivity factors have the intrinsic property that no transmission element in no period of time (snapshot, hour...) gets a negative compensation.



These Positive sensitivity factors will be used to determine the share of total grid costs to be borne by transit flows, i.e. transit key.

These Positive sensitivity factors are to be computed directly or scaled in a second step so that in each transmission element the total cost allocated to transits and the total cost allocated to native users is 100% of its cost and no discrimination between transits users and native user is done”

RED ELÉCTRICA DE ESPAÑA also proposes that with the experience that is gained in 2007, a thorough and open minded study is done about the results obtained with the objective of modifying whatever is needed so that for the following years the model is improved in the sense of being more precise and more fair.

A2.8 Determination of compensations for losses

The text of the draft guidelines computes the incremental losses for transits. These incremental losses need to be scaled down element by element to the value that would correspond to the average losses. In any case, the losses allocated to transits in one transmission element never shall be in a greater proportion than the transits are over the total flow on that element.