

CONTRIBUTION TO ERGEG'S BENCHMARKING REPORT ON MEDIUM AND LONG-TERM ELECTRICITY TRANSMISSION CAPACITY ALLOCATION RULES (E09-ERI-23-03)

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IBERDROLA welcomes and appreciates the work carried out by ERGEG in order to create a high quality document which compiles the current status of the transmission capacity allocation rules in European interconnections. This work will definitely contribute to trigger the discussion of the necessary improvements to be established in order to reach a best practices set of rules for cross border trading of electricity.

From IBERDROLA, we support EFET's response in every of the aspects subject to this consultation.

However, we miss in such a complete study a reference to the particular and unprecedented dispositions of the Spanish normative regarding import and/or export operations in the Spanish system. We think that a deeper detail in the requirements to participate in the IFE auctions should be described.

Due to Spanish Regulation RDL 5/2005, the so called "dominant operators", companies with an ordinary regime production greater than 10 % within Mibel (Spain + Portugal), are not allowed to import energy into Spain from neighbouring countries.

Therefore, we would like to bring your attention in two particular aspects:

1. Non-harmonised additional requirements and national laws that hamper participation in auctions: any additional regulatory requirement, and notably if it limits participation, should have a clear impact analysis on how it affects competition and efficient allocation of capacity rights. An example can be found on IFE, where the participation of four market players in auctions from France to Spain is forbidden exante without an impact analysis on the causes and consequences of such a measure.

It is well known that the greater the number of participants in a market, the better price signal is provided. This same principle applies in capacity auctions, where the more agents participate, the more efficient the cross border trading becomes.

Without having carried out a proper impact analysis of the measure established by Spanish Regulation, it has caused that the participation in auctions is being hampered and, therefore, insufficient competitive pressure appears in the France-Spain direction. As an evidence of this, please refer to the Annex to this contribution entitled "Effects of Imports Ban to Dominant Operators in the IFE Interconnection".



Moreover, studies carried out in this interconnection show that it is not congested a significant percentage of hours in which importing energy from France to Spain is economically viable (EPEX Spot France < OMEL)1 as the following data reflects:

	As a percent of total	As a percent of hours when the price in Spain exceeds that in		
	nours in the year (6760)	France		
Until Feb. 2006	32%	59%		
From March 2006	47%	71%		

As it can be seen in the chart above, the number of economically viable non-congested hours in the import direction increased after the ban introduction. This means, that despite having available capacity, some agents are prevented from having the possibility to access it and thus making the use of this interconnection more inefficient.

2. We would also like to bring the attention of ERGEG and other participants to the possibility of introducing and increasing the number of interconnections where FTR (Financial Transmission Rights) are made available.

In our opinion, we believe that before new FTR products are introduced in the interconnections, all possible taxes implications should be seriously taken into consideration, notably national laws about VAT.

We would like to ensure that the introduction of FTRs boost cross-border trading. But this won't happen if taxes issues create distortions and new entry-barriers in comparison to current PTRs (Physical Transmission Rights).

¹ The criteria used to determine these numbers is: Economic flow is available when the price in OMEL is higher than the price of EPEX Spot France for a certain hour. Ban of imports was established in Spanish Regulation since March 2006.



ANNEX

EFFECTS OF IMPORTS BAN TO DOMINANT OPERATORS IN THE IFE INTERCONNECTION

1. ABSTRACT

The purpose of this paper is to discuss how the interconnections create Social Welfare (SW) in the wholesale markets both in the import and export country.

In particular, this document focuses on the ban on imports to the *Dominant Operators* in the Spain-France interconnection. According to the Spanish regulation, companies with an ordinary regime production greater than 10 % within MIBEL market (Spain + Portugal) are not allowed to import energy from neighbour's countries. These companies are called *dominant operators*. Throughout this paper we will prove that the relative competition in the E-F direction is greater than in the F-E direction, that there is a reduction in the Total Social Welfare in both countries and that the interconnection is not congested in the 27% of the hours since the prohibition came into effect. However, Dominant Players still cannot access F-E capacity.

2. BENEFITS OF INTERCONNECTED MARKETS

First of all, we will analyze the behaviour of a single market (country A). As the basis of economics states, the marginal price of the market stands where offer and demand match each other (P'_{A}) .



Figure 1

On the left part of equilibrium point (P'_A), the producers will be overpaid compared with what they requested (blue area). Analogously, suppliers will pay less than what they were willing to (orange area). These two areas are known as the Producer Social Welfare and the Consumer Social Welfare, respectively. In case this market has the possibility of exporting energy to a neighbour country (country B), this will trigger to an increase of the price (from $P_{A'}$ to P_A), a rise in the production (from $O_A(P'_A)$ to $O_A(P_A)$) and a reduction in the consumption (from $D_A(P_{A'})$ to $D_A(P_A)$). As a result of all of this, the social welfare in country A will be increased by Δ SW_A (striped green area).



The Net Export Curve (NEC) is defined as the difference between the offer and the demand, as shown in the illustration 1 on the right side. The NEC is positive when energy is carried from country A to country B and negative when energy is carried from country B to country A.

Secondly, we will analyze which is the situation with the two interconnected countries, country A and country B (illustration 2). As shown in the Illustration below, the right side of the horizontal axis corresponds to the "quantity exported from A to B", while the left side illustrates the "quantity exported from B to A". Thus, the NEC of country A (NEC_A) will be an increasing function, whereas the NEC of country B (NEC_B) will result in a decreasing function.

In case there would be no congestions in the interconnection, both markets would have the same price ($P_A=P_B$). As it is illustrated on the illustration below, this will lead to an increase of the Social Welfare in both countries. In particular, the increase of Social Welfare of country A (ΔSW_A) will be received entire by the producers of this country, whereas the increase of Social Welfare of country B (ΔSW_B) will be received fully by the consumers of the latter country.



Figure 2

However, in most cases the available capacity is limited to a value that does not lead to an equality of prices in both countries ($P_A \neq P_B$). This case is shown in the following illustration.





In countries in which cross border capacity is allocated through an explicit auction, market players place bid based on a competitive mechanism. According to EC/1228/2008 we assume the congestion revenues generated by these auctions, will serve to increase the Social Welfare generated in both countries. In this case, the Total Increase of Social Welfare can be determined by the following equation:

Total Increase of Social Welfare = $\Delta SW_A + \Delta SW_B + Congestion Revenues$ (CR)

Given the fact that market players place bids for the Interconnection Wholesale Value (IWV), which is the difference between P_A and P_B multiplied by the cross-border capacity, the IWC can be divided into:

Interconnection Wholesale Value (IWV) = Congestion Revenue (CR) + Arbitrage Revenue (AR)

The greater the Congestion Revenue (CR) is in comparison with Interconnection Wholesale Value (IWV) the less arbitrage revenue is obtained by players in the interconnection and the higher Total Increase in Social Welfare in both countries. This can be achieved through a transparent, non-discriminatory and competitive auction process.

3. THE SPAIN – FRANCE INTERCONNECTION CASE

Due to Spanish Regulation RDL 5/2005, *Dominant Operators* are not allowed to purchase energy outside the Iberian Peninsula in order to import it to Spain.

The definition of Dominant Agent can be found in the abovementioned law and it is shown as follows: "having a higher share of 10% of generation and power supply in (Spain & Portugal)". The list of *Dominant Operators* is published periodically by CNE, the Spanish Regulator, on which currently IBERDROLA, ENDESA, UNION FENOSA and EDP are listed.

In this part of the document, we will analyze which are the effects that this ban is creating on the Total Increase of Social Welfare both in France and Spain.

<u>1. The Arbitrage Margin in the France to Spain direction is greater that in the Spain to France direction</u>

The following tables show in columns the Congestion Revenue (CR), the Arbitrage Margin (AM), the Interconnection Wholesale Value (IWV= CR+AM) and the ratio between Arbitrage Revenue and Interconnection Wholesale Value (AR/IWC). We will perform this analysis for the annual, monthly and daily capacity rights during the year 2008 in both directions. Figures are shown in Euros⁽¹⁾.



	Fr-Es				Es-Fr			
2009	CD		114/17		CD		114/17	
2008	UR	Alvi		AWI/TWC	UR	AIVI		AWI/WC
January	3.273.950	2.220.050	5.494.001	40%	234.217	29.416	263.634	11%
February	2.498.914	740.768	3.239.682	23%	90.625	37.288	127.913	29%
March	1.691.858	728.015	2.419.873	30%	614.422	285.337	899.759	32%
April	530.073	1.173.152	1.703.226	69%	1.203.177	118.935	1.322.112	9%
May	3.080.969	323.587	3.404.556	10%	558.778	99.589	658.367	15%
June	2.038.805	734.525	2.773.329	26%	2.126.046	305.750	2.431.796	13%
July	2.819.765	822.801	3.642.566	23%	823.594	-35.007	788.587	-4%
August	4.266.028	-53.002	4.213.026	-1%	227.898	23.133	251.030	9%
September	852.549	661.446	1.513.995	44%	613.526	86.806	700.332	12%
October	445.400	531.112	976.511	54%	2.447.839	31.771	2.479.610	1%
November	2.480.155	1.481.116	3.961.271	37%	1.126.777	123.943	1.250.720	10%
December	2.294.475	1.263.517	3.557.991	36%	586.267	-9.255	577.012	-2%
Total	26.272.940	10.627.087	36.900.026	29%	10.653.166	1.097.707	11.750.873	9%

⁽¹⁾ We would like to clarify that in the studies performed, when no export capacity was available, the considered value of the interconnection was the compensation for the Long Term Capacity.



AM/IWV Daily Capacity Rights

b. Monthly Capacity Rights 2008

	Fr-Es				ES-Fr			
2008	CR	AM	IWV	AM/IWC	CR	AM	IWV	AM/IWC
January	323.417	1.415.985	1.739.402	81%	1.673.330	-1.398.936	274.394	-510%
February	584.640	499.021	1.083.661	46%	160.080	-110.482	49.598	-223%
March	463.460	-2.047	461.413	0%	108.713	209.137	317.850	66%
April	246.024	-81.724	164.300	-50%	417.024	1.796.536	2.213.560	81%
May	777.816	1.849.847	2.627.663	70%	179.280	286.529	465.809	62%
June	308.160	5.044	313.204	2%				
July	960.541	432.659	1.393.200	31%	482.890	-227.622	255.268	-89%
August	463.680	78.190	541.870	14%	487.368	-345.317	142.051	-243%
September	994.006	-186.767	807.239	-23%	630.240	253.065	883.305	29%
October	349.085	321.908	670.993	48%	2.114.112	475.339	2.589.451	18%
November	190.000	865.794	1.055.794	82%	2.532.240	-1.843.610	688.631	-268%
December	363.648	187.455	551.103	34%	1.266.170	-149.342	1.116.828	-13%
Total	6.024.476	5.385.366	11.409.842	47%	10.051.447	-1.054.702	8.996.745	-12%







c. Annual Capacity Rights 2008



The following conclusions are drawn:

- 1. Arbitrary Margin is significantly greater in the France-Spain direction than in the Spain-France direction.
- Should we have the same decree of competition in the France-Spain direction than in the Spain-France direction, the increase of the Social Welfare in both countries will be equal to 20.697.631 M€ in 2008 (7.180.074 M€ from the daily capacity rights, 6.722.959 M€ from the monthly capacity rights, and 6.794.597 M€ from the yearly capacity rights).





As shown in the graph below, players obtaining high Arbitrage Margin are not using the energy to supply end consumers.

Despite the huge advances taken in the Spanish Retail Business during 2008, the supply to endcustomers by active players importing from France was considerably lower than the volume imported by them. In fact, the total volume imported in 2008 accounted for 5.1 TWh, while the total Retail Business of these players was only 1.8 TWh.

3. The interconnection is not congested a significant percentage of hours in which importing energy from France to Spain is economically viable (Powernext<OMEL).

There is spare and economically viable capacity in the interconnection. Even in these hours, importing energy from France to Spain is forbidden to the *Dominant Operators*. Since the prohibition came into effect, 43% of the hours in which importing was economically viable have not been congested.

In the following table, percentages of non-congested hours during the year are shown:

	2006	2007	2008	2009
Percentage of non-congested				
hours in which importing energy	67%	31%	39%	36%
is economically viable				