

**DEFINITION OF A NEW CO-ORDINATED CONGESTION
MANAGEMENT MECHANISM ON THE SPANISH-FRENCH
INTERCONNECTION**

**PRELIMINARY CONCLUSIONS OF THE JOINT PX-TSO
TASK FORCE
BY OMEL-REE-RTE-POWERNEXT**

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Part 1. OVERVIEW AND SCOPE

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1. PURPOSES OF THE TASK FORCE

1.1.Reasons to develop a new mechanism

This paper describes the different alternatives for a potential congestion management mechanism on the Spanish-French interconnection that have been jointly identified by the Power Exchanges and the Transmission System Operators in the two countries. Improvement of the existing congestion management mechanisms, complying with the European regulatory framework, is the main driver of this proposal. To that end, the paper is addressed to the regulatory authorities of both countries, CRE and Ministerio de Industria, Turismo y Comercio - CNE, in order to provide them preliminary conclusions on different alternatives and on harmonisation of both regulatory frameworks where required.

As a key stone to the development of the Internal Electricity Market, the Regulation (EC) No 1228/2003 of the European Parliament and the Council of 26 June 2003 on *Conditions for access to the network for cross-border exchanges in electricity* clearly states that market based congestion management methods should be implemented. The Regulation also includes preliminary *Guidelines on the management and allocation of available transfer capacity of interconnections between national systems*. The new proposed mechanism should comply with the EC Regulation.

The present congestion management mechanisms should be substituted by a new co-ordinated one, being in this way the available capacity used at an efficient level and covering the needs from all market participants.

To that end, the four parties, Compañía Operadora del Mercado Español de Electricidad SA (OMEL), Powernext SA, Red Eléctrica de España (REE) and Réseau de Transport d'Électricité (RTE) have jointly identified different alternative solutions for a new congestion management mechanism on the Spanish-French interconnection, even though no full agreement has been reached on one unique solution.

1.2. Main criteria to be fulfilled by congestion management methods on the Spanish-French border

The main criteria for the congestion management mechanism on the Spanish-French interconnection can be listed as follows:

- Co-ordinated mechanism
- Efficient price discovery and liquidity
- Firm schedules, maximum availability and maximum economic use of transmission capacity, compatible with the security of the interconnected electric system
- Maximum market participation and access
- Non-discriminatory between the different kinds of trade (bilateral and exchange)
- Offering all non-used and released capacity in the day-ahead horizon and subsequently at the intraday horizon
- Use of the current operation markets and balancing mechanisms for guaranteeing the the scheduled transactions in real time
- Respecting the particular bidding conditions in both Power Exchanges
- Extendable to other interconnectors
- Market confidence - requiring transparency and stability of the arrangements
- Robustness to non-competitive behaviour
- Reasonable timeframe for implementation and reasonable costs, while being compatible, to the furthest extent possible, with the diversity of the given physical and trading arrangements in the Spanish and French systems (type of contracts, grid access arrangements, extra costs applicable in both systems, bilateral trade, spot markets, intraday and balancing mechanisms...).

To comply with the above principles, the necessary harmonisation requirements and regulatory changes will be highlighted in chapter 3 of this part 1 of the common document.

2. MAIN GUIDELINES OF THE PROPOSED DIFFERENT ALTERNATIVES

1. Co-ordinated methods fulfilling the EC Regulation principles. In case of no full agreement, identify the parties that support each option, the agreements and disagreements with the corresponding arguments, and the regulatory harmonisation required between both systems.

2. Day-ahead Market Coupling, following the principles of EuroPEX's proposal, supported by the Power Exchanges and the TSOs.
3. The allocation of physical transmission rights (PTRs, through explicit auctions) supported by TSOs and accepted by Pownernext, but not supported by OMEL.
4. A financial contracts for differences (CfD) market, supported by Power Exchanges and accepted by TSOs as a complement of PTRs.
5. The previous three proposals could coexist.
6. Reasons for the supports are provided in Part 3 of this common document.
7. For the proposed congestion management method to be properly applied, existing extra-costs (power guarantee, losses and constraint solving cost in Spain) should not be applied for international trade and this proposal is made to Regulators.
8. Long term:
 - TSOs' position: a significant amount of physical capacity is offered in the long term PTRs mechanism.
 - OMEL's position: In case it is decided that some capacity must be provided to participants before day-ahead, an alternative to the amount of capacity requested by TSOs, is to express the same amount of capacity as a price acceptant financial bid in the CfD Market.

Day ahead:

- All parties agree to offer a significant amount of capacity in the D-1 Market Coupling (in addition to the capacity that could eventually be used by the Long Term Contracts).

The distribution of the available capacity between the above mechanisms should be established by Regulators.

Intraday horizon (intraday market sessions and balancing mechanisms):

- No capacity will be specifically reserved for this horizon. At this stage, allocation of:
 - non-used capacity in previous mechanisms or sessions
 - new capacity that could be released

9. TSOs' PTRs mechanism requires that, before the day-ahead market bid closing time, PTRs holders declare their intention of using those PTRs to TSOs for verification purposes. The specific energy transactions using those PTRs will be declared according to the existing regulations in each country.

Before the day-ahead market bid closing time, the use of the PTRs will be:

- Firm, being the corresponding capacity subtracted from the NTC and the rest of the capacity (ATC) be released to the Market Coupling mechanism; [in RTE's and Pownernext's opinion. REE also supports that option for being applied in a first transitory stage. OMEL does not support this as the only option].

- Firm only for physical bilateral contracts and export/import nominations (if properly declared and verified, as defined in the French and Spanish regulations) and provisional for the other transactions, conditioned to the matching of the energy in a Power Exchange, being the non-nominated PTRs lost without any kind of compensation and the corresponding capacity released and offered through the D-1 Market coupling[in OMEL's and REE's opinion].

10. At the day-ahead spot markets,

- market participants can present energy bids to the Power Exchanges.
- market participants can also present price-difference bids to OMEL or POWERNEXT for the D-1 Market coupling for executing cross-border bilateral trade, through the declaration of a physical bilateral contract in Spain and an import/export notification in France.

In RTE's opinion, the coexistence of PTRs firmly executed before the day-ahead markets and price difference bids needs to be analysed more in depth since it may lead to new technical and regulatory challenges.

In OMEL's opinion price difference bids are a requirement for treating physical bilateral contracts in a fair manner in DMC, as compared to bids in the exchanges, there is not any kind of technical problem in implementing them and should be accepted. They provide a very valid option for agents that want to execute their physical bilateral contract on condition of the price difference between the markets and it is the only way to comply with the regulation of treating bilaterals and market transactions equally (without discriminations).

Additionally, the treatment of differences between the Spanish and French regulations such as the existing Spanish Law that allows bids from external agents in the Spanish market and the existing French Access Rules (in relation to the use of PTRs, and participation in the D-1 Market coupling) is still an unsolved issue.

11. The Power Exchanges will communicate to the TSOs the total energy that crosses the interconnection due to the D-1 Market coupling process. In the Spanish system, the physical bilateral contracts that can be executed as a result of this process will also be communicated by OMEL to REE, separately for each contract.
12. The method to be finally applied will maximise the economical use of the available transfer capacity. The method will include an intraday solution.
13. The method will provide participants with efficient economic signals.
14. TSOs will put in place a system for guaranteeing the allocated capacity but in case of force majeure.

3. MINIMUM HARMONISATION ISSUES OF THE EXISTING REGULATORY FRAMEWORKS

If compared to the current situation in which two non co-ordinated congestion management methods are being operated in parallel, the implementation of a co-ordinated congestion management mechanism on the Spanish-French border has many advantages but may also require a higher degree of harmonisation of the existing regulatory frameworks. To that end, EuroPEX's concept of day-ahead Decentralised Market Coupling is supported by all parties since it provides an efficient level of co-ordination while it minimises the potential harmonisation requirements.

As explained before, one of the main objectives of the joint OMEL-RTE-REE-Powernext Task Force on congestion management, is the identification of the issues that may need further harmonisation of the existing regulatory frameworks in both countries.

In this regard, the joint Task Force has identified four main regulatory challenges to a sound and efficient implementation of EuroPEX's day-ahead Decentralised Market Coupling at the Spanish-French border:

- the compatibility of a co-ordinated solution in relation to the existing rules and regulation on the current non co-ordinated congestion management mechanisms in each country;
- the management of the existing additional costs applied to cross-border trade;
- the necessary French and Spanish regulation changes for the implementation of price difference bids in the Market Coupling;
- other issues (i.e.: harmonisation of both spot markets bid closing time, the confidentiality criteria about cross border congestion management information, quotas, etc,...);

3.1.Regulation on the existing congestion management mechanisms

At present, two different and non co-ordinated day-ahead and intraday congestion management methods are coexisting on the Spanish-French interconnector:

- In France, the allocation of capacity is based on a first-come-first-served rule (with a limit of 25 MW per transaction) for exports and a prorata rule for imports. Transmission and energy are therefore traded on a separate manner. Such rules are subject to the approval of the French CRE and are published under the title "Access Rules for Imports and Exports on the French Public Power Transmission Network".
- In Spain, the international congestion management is carried out through the mechanism established in the "External Agents" Ministerial Order, published in the 14th July 1998. This mechanism consists of the following stages:

First of all, market bids/offers are submitted to the market, including energy to be delivered/consumed outside the Spanish system by External Agents, and physical bilateral contracts (PBCs) are communicated to the Spanish Market Operator (OMEL); the agents wishing to declare an international PBCs have to make specific offers for the allocation of capacity, in case of congestions.

A first matching process is carried out by OMEL, considering "infinite" capacity values in all interconnectors;

Once this first iteration is completed, OMEL compares the cross-border schedules resulting from the matching process and communicated PBCs in each interconnector with the available commercial capacity values provided by REE: if congestion appears in any interconnector, then the available capacity is split into two blocks, one for the matched market transactions and one for PBCs, prorata to the total net balance of each type of transactions (market bids vs bilaterals) in the flux congested direction;

Then the capacity for market transactions is allocated by OMEL in a second step of the matching process according to the priority order of bid/offer prices, without a further charge for the agents who obtain capacity;

And the capacity for bilateral contracts is allocated by REE through an explicit auction (involving thus a specific charge at the auction marginal price for those bilateral contracts obtaining capacity).

As a general remark, new technical and regulatory challenges exist if day-ahead Market Coupling is to be implemented while keeping in place the current French "Access Rules for Imports and Exports" and keeping in place the Ministerial Order in Spain dealing with these issues.

3.2. Price difference bids to the D-1 DMC

In France, if price-difference bids are to be implemented in the Market Coupling mechanism, new types of regulatory and contractual arrangements are needed.

In Spain, the implementation of price-difference bids would require changes, although physical bilaterals contracts already send congestion bids.

3.3. Additional costs applied to cross-border trade

For the proposed congestion management method to be properly applied, existing extra-costs (power guarantee, losses and constraint solving in Spain) should not be applied for international trade and this proposal is made to Regulators.

3.4. Other harmonisation issues

Three specific co-ordination issues between OMEL and Pownernext need to be addressed for Market Coupling to be set up:

- Harmonisation of the schedule for day-ahead operations;
- Consistent rules in case of price indetermination.
- The confidentiality criteria about cross border congestion management information, quotas, etc

There should not be any major problem in harmonising the schedule for day-ahead operations. A possible common time schedule of each trading session is described in Part 2.

Given that the two Power Exchanges are using a different matching rule, in -rare- cases of price indetermination, there may remain an "artificial" price difference between markets even in the absence of congestion. Indetermination management rules will have to be consistently modified so as to solve these situations.

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Part 2. DETAILED DESCRIPTION OF THE PROPOSED DIFFERENT ALTERNATIVES

In relation to part 1, part 2 of the document intends to provide a more detailed description of the proposed different alternatives. Parties that support each alternative are identified through the text of this section; reasons and arguments for the supports are provided in Part 3 of the common document.

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1. Long-term mechanisms

1.1 *Specifications of the physical transmission rights auctions (PTRs)*

As stated in part 1 of this document, the allocation of physical transmission rights (PTRs, through explicit auctions) is supported by TSOs and accepted by Pownernext, but not supported by OMEL.

This chapter describes the way both TSOs will offer a certain amount of Physical Transmission Rights (PTR) to be allocated through a co-ordinated explicit auctioning system. This transmission product provides the possibility to perform cross-border bilateral trade at horizons longer than day-ahead.

1.1.1 Definition of Physical Transmission Rights

A long-term Physical Transmission Right gives its holder the right to execute a transfer of energy between two counterparts, one in Spain and other in France, with the following characteristics:

- The amount of power that can be scheduled is limited by the amount of PTR previously acquired by its holder.
- In order to release the unused capacity to the D-1 DMC, the PTR declarations need to be known and verified by TSOs before the spot markets' bid closing time of that day. Once the schedules and counterparts information are submitted to TSOs or PXs, according to the regulation in each country, and these data have all been checked by TSOs or PXs, the PTR can be used for executing a transfer of energy between the individual counterparts in France and Spain.
- The use-it-or-lose-it principle will be applied to the holders of PTRs.

The main principles underlying the declaration, execution and use of PTRs within the whole proposed method is described under chapter 2.1.1 "Interface between PTRs and day-ahead DMC".

1.1.2 Mechanism for the allocation of PTRs: co-ordinated explicit auctions

Under the framework set up by the 1228/2003 EC Regulation, the allocation of the Physical Transmission Rights must reveal the value that their acquirers place on gaining access to the concerned markets. Provided that economic efficiency will be achieved where capacity is allocated to those who value the capacity the most, both TSOs will allocate the PTRs via co-ordinated explicit auctions.

The amount of available capacity to be allocated in horizons longer than daily remains a regulatory issue.

In order to be qualified to take part in auctions, the market participants shall sign an "Physical Transmission Rights Agreement" with the TSOs. A summarised technical description of the auction system could be described as follows:

- Time horizons for the allocation of capacity: depending on the available capacity, several explicit auctions could be organised from an annual basis to a weekly basis. As recommended in the 1228/2003 EC Regulation, the capacity that has not been allocated at a previous auction would be offered by TSOs at the next one.
- Products: the Physical Transmission Rights can be acquired in the form of blocks multiples of 1 MW units. Different categories of units will be auctioned. Each category is characterised by its direction (Spain to France or France to Spain) and by the time period of application of the transmission right.
- Bids: they shall specify the number of units, the flow sense and a price per unit and per period of application of the transmission right. Once submitted prior to the auction deadline, bids can be modified only if a new one, substituting the former, is submitted within the authorized period for the reception of bids.
- Indivisibility conditions: users can submit bids with indivisibility conditions to apply in case their bids need to be divided in order to be partially accepted.
- Marginal-price auctions: if the amount of requested capacity is not greater than the total auctioned capacity, the Physical Transmission Rights will be allocated free of charge. If the sum of the bids exceeds the auctioned capacity, the latest piled up bid will be reduced, if necessary, to the auctioned capacity, and its price will be taken as the marginal price. The congestion management fee to be invoiced to all individual PTR holders will be that marginal price.
- Bids with equal price: when the sum of several requests with the same price bid exceeds the available capacity, these bids will be taken proportionally into consideration and the marginal price is then determined by the price of such last bids. Indivisibility conditions are also to be taken into account in this case.
- Reallocation process: it enables the PTR holders of units who do not intend to use their capacity to ask both TSOs to reallocate it to other potential users by submitting a sale offer to be taken into account in the next explicit auction. Such offers if matched shall receive the allocation marginal price.
- Secondary market: as stated by the 1228/2003 EC Regulation, to promote the creation of liquid electricity markets, the capacity bought at an auction shall be freely tradable in secondary markets. TSOs will set up the necessary arrangements to allow this possibility. For these changes of holder to be valid and taken into account, they shall always have to be communicated to both TSOs.
- Both TSOs shall publish the total allocated capacity and the marginal price for each auction, keeping the confidentiality of individual offers/bids data, according to each country regulation.
- If needed, additional conditions for the design of the explicit auction (reserve or guide prices, limits on the purchasable capacity...) could be set up by the TSOs subject to the agreement of the regulatory authorities in order to reduce any possibility to exercise market power by dominant players.

In all cases, the co-ordinated explicit auction to be set up at the beginning shall naturally be subject to improvements and modifications after a first year of operation.

1.1.3 Firmness of allocated capacity

As a general criterion, the cross-border capacity corresponding to PTRs already executed in day-ahead will be firm. This way, depending on the moment when the available transfer capacity shortage is known, the consequence of this shortage will be different:

- In case the cross-border capacity shortage in a certain period is known before the shortage affects the allocation of capacity (e.g. network planned outages) for that period (through an explicit auction or through the D-1 DMC process), TSOs will take into account that shortage under the way of a reduction of the cross-border capacity to be offered in the subsequent processes for that period.
- Capacity shortage may not only be caused by the non-respect of the network planned outages, but also by unexpected outages in the international transmission lines due to problems caused by real-time operation of the electrical systems, which last more than several hours within the same day. In this case, the capacity may not be firm for a maximum number of hours previously announced by TSOs. TSOs will apply transaction curtailment, and the payment duties of the PTR holders would be reimbursed on the following basis:
 - PTRs allocated in the yearly auction: reimbursement of the PTRs payments after the maximum number of hours of unavailability has been reached.
 - PTRs allocated in other auctions: reimbursement of the PTRs payments in every case.
- If the cross-border capacity shortage for a certain period takes place after the use of the allocated capacity has already been firmly declared, then, for that period in excess in relation to the new capacity value, TSOs will guarantee that capacity as described in chapter 4 of Part 2.

1.2 Specifications of the financial contracts for differences market (CfD)

As stated in the first part of this document the financial contracts for differences (CfD) market is supported by Power Exchanges and accepted by TSOs as a complement of PTRs.

This financial contract for differences provides the possibility to perform cross-border bilateral trade at horizons longer than day-ahead.

In 1.2.1, CfDs and their utilization in a market coupling context are introduced. Specifications of a CfDs market are then outlined in 1.2.2.

1.2.1 Definition and use of Contracts for Differences

The contracts for difference (CfD) offered are financial contracts in which the buyer of the contract commits to **receive** the difference between the French and Spanish price market prices over a period of time. When the difference is negative, the flow of money is reversed and goes from the buyer to the seller.

CfDs are futures contracts with daily settlement over the delivery period. CfD trades are cleared: in order to hedge the counterparty risk, variation margins are called from buyers and sellers with open positions throughout the period preceding the delivery.

The primary use of CfDs is for hedging purposes. However, other types of strategies, like arbitrage, can be developed. They will enhance market liquidity.

For an explanation of the use of CfDs for hedging purposes, let us define CfD_{FS} corresponding to the contract for difference between the Spanish OMEL price and the French Powernext price ($\Delta P = P_S - P_F$). CfD_{FS} trade at positive prices when the market anticipates the Spanish price to be higher than the French price. CfD_{FS} trade at negative prices when the market anticipates the Spanish price to be lower than the French price.

In the DMC context, take a French producer committed into a bilateral contract (Q, P) for supplying a Spanish client. In order to physically execute the contract, he will sell production Q on Powernext in day-ahead and buy it back on OMEL in day-ahead. In order to hedge the price-difference risks he is exposed to, he will buy a CfD_{FS} . The following table describes how, by this mechanism, the final revenues are known in advance.

| Transaction | Bilateral contract | Exchange prices difference | CfD contract | CfD payment | Revenue |
|-------------|--------------------|----------------------------|----------------------|-----------------------|--------------------------|
| Revenue | $Q \cdot P$ | $Q \cdot (P_F - P_S)$ | $- Q \cdot CfD_{FS}$ | $Q \cdot (P_S - P_F)$ | $Q \cdot (P - CfD_{FS})$ |

In the same manner, two Parties who desired to execute a cross-border transaction through the price difference bids in the DMC, could participate in the CfD market and hedge the difference of prices between the two markets, so that regardless of the DMC results, the price they would have to pay for crossing the interconnection will be known in advance.

1.2.2 Main features of the CFD market model

The main design features of the CfDs market to be offered by OMEL and Powernext will be the following:

- Legal status: CfDs are financial instruments. They are thus pursuant to the European Investment Services Directive (ISD, soon to be replaced by ISD2) and regulated by financial supervisory authorities.
- Cash settlement: traded CfD products are cash settled financial products. This will attract market participants that are not interested in physical delivery and therefore increase the market liquidity. Buyers of a baseload (resp. peakload) CfD will be receiving the difference between the actual market baseload (resp. peakload) prices difference (OMEL minus Powernext) minus the last settlement price of the contract (multiplied by the contract volume to be delivered that day). Sellers will be paying the same amount.
- Membership: the market is primarily intended to Powernext and OMEL members, however industrial or financial institutions exposed to a price difference between France and Spain can apply for membership.
- Central counterparty: transactions are anonymous. Immediately following their recording in the clearing system, a central counter part steps in between the buyer and the seller (novation principle). Starting then, the central counterparty accepts the risk of default of one of the counterparts, and guarantees the other counterpart that the initial contract terms are respected.
- Continuous trading: in order to allow rapid intra-day position movements and ensure coherence with existing futures market for arbitrage purposes, a continuous trading approach has been retained.
- Products: possible products are described in the following table.

| | Baseload | Peakload |
|-------------------------------|---|--|
| Underlying | The difference of the average MCP between OMEL and Powernext over 24h of each day during the delivery period. The differences will be expressed in €/MWh (or the trading unit agreed after consultation with market participants) | The difference of the average MCP between OMEL and Powernext over 12h of each week day (from 8:00 to 20:00 every day but the Saturdays and Sundays) during the delivery period. The differences will be expressed in €/MWh (or the trading unit agreed after consultation with market participants). |
| Convention | During the delivery period, the buyer of a CfD has the obligation to pay the CfD trading value and to receive the actual price difference $\Delta P = P_{OMEL} - P_{Powernext}$. This is equivalent to buying a Futures contract in Spain and selling one in France, but in a single operation. During the delivery period, the seller of a CfD has the obligation to receive the CfD trading value and to pay the price difference $\Delta P = P_{OMEL} - P_{Powernext}$. This is equivalent to buying a Future contract in France and sell one in Spain, but in a single operation. | |
| Delivery period | Days Week-ends Weeks 3 Months 4 Quarters 3 Years (1 month of overlapping) | Days Weeks 3 Months 4 Quarters 3 Years (1 month of overlapping) |
| Nominal | 0,001 MW x 24hours x number of days=number of MWh (0,744 MWh for 31 days) or the nominal agreed after consultation with market participants. | 0,001 MW x 12 hours x number of peak days=number of MWh (0,240MWh for 20 days) or the nominal agreed after consultation with market participants. |
| Price tick | 0,01 € (or the price tick agreed after consultation with market participants) | |
| Volume tick | 0,001 MW (or the volume tick agreed after consultation with market participants) | |
| Trading hours | 9:00 AM - 4:00 PM on business days | |
| Calendar | The list of business days will be defined by OMEL and Powernext. TARGET calendar of Banque de France will serve as a discussion basis. | |
| Daily settlement price | Last traded price or a proxy | |
| Daily variation margin | Variation margins are calculated as the "delta of value of the position" valued at daily settlement price minus previous daily settlement price or traded price for the newly open or closed positions. | |
| Last trading date | The first business day prior to the first day of the delivery month or the last day of the delivery month. | |
| Final Settlement | Settled in the exchange or payment by the seller to the buyer of the daily difference of both MCPs (OMEL minus Powernext). | |

Fees paid by market participants will need to be discussed by OMEL and Powernext.

1.2.3 Initial liquidity creation on the CfD market in the name of the final receivers of the “Congestion rent”

Independent of the possibility of creating liquidity that always exist in a financial market, if regulators considerer adequate, an additional initial liquidity could be created by submitting a price acceptant bid to the CFD market, for a certain amount of energy, and at precise moments (from annually to weekly) in the name of the final receivers of the “Congestion rent” .

This concept is detailed in part 3 of the document.

2. Day-ahead mechanism

2.1 *Interface between long-term mechanisms and day-ahead DMC*

2.1.1 Interface between PTRs and day-ahead DMC

Although the different views, regarding whether it is appropriate to offer to the participants forward rights over the physical cross-border capacity, have been expressed in the corresponding chapter (in summary REE and RTE propose them, POWERNEXT accepts them, and OMEL does not think that they are needed or adequate), this chapter is written for the case in which the congestion management system approved by Regulators incorporates the forward allocation of Physical Transmission Rights (PTRs).

- This chapter has been written under the following assumptions: neither the French nor the Spanish market break, that is to say, there are always remaining selling and buying bids in both markets. The situation, and consequences, of either or both markets failing will be described in the development phase.
- The D-1 Available Transmission Capacity provided by both TSOs to PXs is always positive or zero (both export and import). Therefore, this chapter of the proposal does not deal with the situation where the total commercial capacity, prior to the last moment in which PTRs can be exercised, is smaller than the allocated PTRs;
- The allocated capacity after the DMC is guaranteed by TSOs but in case of force majeure.

2.1.1.1 Option 1: “use it or lose it” rule applied prior to D-1 DMC.

This proposal is supported by RTE and Powernext and accepted by REE as an initial stage. OMEL does not accept this solution as being the only possibility, proposing also Option2 as an addition from the beginning.

Prior to the end of the bid reception period of the organised spot markets involved in the D-1 DMC, the owners of PTRs declare their firm intention to use them for physical bilateral contracts (Spanish system) and export/import nominations (French system) by declaring it to TSOs.

Procedure for firm D-1 declaration of PTRs

RTE and REE will verify that the participant who declares the use of a PTR really owns the declared PTR, if not, the next step of the declaration will not be accepted. Both TSOs will also verify that the amount of hourly power included in the firm schedules is compatible with the maximum amount of power in the direction of the corresponding PTR. In particular, if the schedule is higher than the amount of PTRs owned by the holder, TSOs will only authorize the schedule for a value equal to the amount of owned PTRs.

The subsequent declaration of the energy transactions in relation to the declared PTR will be performed in the two systems, France and Spain, according to the existing regulation:

- In France they will nominate it to RTE, indicating the balance responsible party for his transaction. RTE will verify the balance responsible party situation.
- In Spain they will declare it to OMEL in the form of a physical bilateral contract that crosses the French -Spanish border. OMEL will verify that the participant can declare the transaction.

Then, once applied the required controls and confirmation processes in both systems, according to their own rules, the PTR will be considered used and both systems Spain and France will act accordingly.

If any of these controls is not respected, the amount of PTRs used by the owner will be accordingly curtailed.

Consequences of firm D-1 declaration of PTRs in terms of energy

Once the PTR declaration is accepted by both systems, the following consequences will happen on each system:

- In France, RTE will consider the nomination as an injection or as a withdrawal in a balance responsible perimeter.
- In Spain, OMEL will include the declared physical bilateral in the list of accepted bilaterals and, since the available capacity is always, by definition of PTR, not lower than the declared one, it will always be on the schedule sent by OMEL to REE.

Finally, this schedule will be included in the establishment of the physical exchange program between both systems.

The firm declaration will have several additional consequences for the market players concerned:

- The correspondent energy transactions associated to a firm PTR used for physical bilateral contracts and export/import nominations will always be performed;
- The declared transaction will be subject to unbalances, if not materialised physically, in both systems, in France and in Spain. Therefore a participant declaring that he is going to use 100 MWh of PTRs in a certain hour from France to Spain will have to meet his obligations in the two systems and might be subject to unbalances:
 - In France if he does not really inject 100 MWh in France, according to French rules.
 - In Spain if he does not withdraw 100 MWh in Spain, according to Spanish rules.
 - In both systems, if he does not fulfil the two obligations.
- This use of PTRs, since it carries together with the right to schedule the transaction the obligation to inject and withdraw the electricity in each system, will always use part of the D-1 ATCs for a certain hour, in the direction in which they are declared, and create capacity in the opposite direction.

Day-ahead interface “TSOs → Power Exchanges”

Provided that the daily PTR declarations for use as physical bilateral contracts and export/import nominations in each system are known and have been validated, TSOs shall then inform Power Exchanges and the market participants of the total commercial capacity and the Available Transfer Capacities. Accordingly, ETSO has defined and published the three European capacity definitions:

- **NTC** (Net Transfer Capacity) is the maximum exchange programme between two areas compatible with security standards applicable in both areas and taking into account the technical uncertainties on future network conditions.
- The Already Allocated Capacity **AAC**, that is the total amount of allocated transmission rights, whether they are capacity or exchange programmes depending on the allocation method.

- The Available Transmission Capacity **ATC**, that is the part of NTC that remains available, after each phase of the allocation procedure, for further commercial activity. ATC is given by the following equation: $ATC = NTC - AAC$.

The calculation of the day-ahead NTC values only depends on the operational security standards that are applicable at each system in relation to foreseen network conditions, generation and load patterns.

By taking into consideration the daily declarations from the PTR holders, TSOs shall perform the calculation of the daily net AAC value as follows¹:

$$AAC_{FR \rightarrow SP} = \Sigma(PBC/Nomination_PTR_{FR \rightarrow SP}) - \Sigma(PBC/Nomination_PTR_{SP \rightarrow FR})$$

Therefore, the $AAC_{FR \rightarrow SP}$ can be positive or negative depending on the use of PTR made by their holders. This is in fact the application of the netting concept to the PTRs declared for use as physical bilateral contracts and export/import nominations in each system. TSOs shall provide to Power Exchanges the two ATC values, calculated as follows:

$$ATC_{FR \rightarrow SP} = NTC_{FR \rightarrow SP} - AAC_{FR \rightarrow SP}$$

$$ATC_{SP \rightarrow FR} = NTC_{SP \rightarrow FR} + AAC_{FR \rightarrow SP}$$

In all cases, the two daily ATC values above mentioned are always positive and should be provided by TSOs to Power Exchanges and to market agents before the markets' bid closing time. Such values shall be firm.

Within this option, the Available Transmission Capacities provided by TSOs to PXs already include all the necessary day-ahead information on the firm usage of PTRs that is necessary to PXs in order to operate the D-1 Decentralised Market Coupling.

2.1.1.2 OPTION2: "use it or lose it" rule applied during the D-1 DMC process by external agents holding PTRs bidding in the OMEL market.

This additional possibility is supported by OMEL and REE and not supported by RTE and Powernext.

At the current state of legislation in the two countries, this option would only be usable by external agents in the Spanish market.

This proposal allows the owners of PTRs to declare that they are going to use them during the DMC procedure. They are allowed to use them on condition of the Spanish market price.

If the owner of a PTR does not declare either the firm use of them prior to the DMC, or his intention of using them during the DMC procedure, he will lose the rights without any form of compensation.

The declaration of the intention to use the PTR during the DMC will have several consequences for external agents and for the markets and DMC:

¹ Note that the influence of the EdF-REE long term contracts is not yet taken into account under this point.

- ✓ The transaction declared by the external agent that declares that he wishes to use his PTR during the DMC will always be scheduled, in case the participant decides to do so. In order to do this he just has to send a price acceptant energy bid to OMEL; If not, the participant will only be in the schedule according to his bid price.
- ✓ The declared transaction will be subject to deviations penalties, if the transaction is matched in the Spanish market and is not materialized physically. Therefore a participant declaring that he is going to use 100 MW of PTRs in a certain hour from France to Spain sending a bid to the Spanish system will be subject to deviations, in case of matching the bid in the Spanish system, if he does not fulfil his commitment in the French and Spanish system.
- ✓ The capacity available for the DMC in the markets will be the total one plus and minus the PTRs declared to be used during the DMC, subject to the real usage according to bid prices.

Procedure for PTR declaration of usage during DMC by owners

A participant that wants to use his PTR during the DMC procedure will declare his intention in the following form:

First RTE and REE will verify that the participant that declares the intention to use of a PTR during DMC really owns the PTR right he is declaring, if not, the next steps of this declaration will not be accepted.

After that, RTE and REE will inform PXs about the users that have declared their intention of using their PTRs during DMC. Participants that have PTRs and present bids to OMEL, in case they are matched, they will be settled at the Spanish market price.

Second, the participant will declare his intentions to the two systems, France and Spain, according to the existing rules:

- ✓ In France they will declare it to RTE, indicating the balance responsible party for his transaction. RTE will verify the balance responsible party situation.
- ✓ In Spain they will declare it to OMEL in the form of a bid for either selling or buying electricity in the OMEL market crossing the French-Spanish border. OMEL will verify that the participant can present this bid in the usual manner, like any other bid from outside Spain.

Once confirmed by both systems, Spain and France, according to their own rules, the declaration will be accepted.

The consequence of this acceptance on each system will be:

- ✓ The PTR holder can present a bid to the Spanish market making use of the PTR.
- ✓ The bids and offers presented in reason of the use of the PTRs declared, as explained above, will be taken into account in the day-ahead markets as any other bid, the difference will be at the settlement moment in which the participant will not be charged the price difference between the markets, in case there is one.

The declarations will not be firm until the DMC procedure is finished and the matched transactions are confirmed by both, POWERNEXT and OMEL, to RTE and REE respectively.

If the transactions are not matched, due to the prices of their bids, the owners that declared the intention of using PTRs during DMC will lose the rights without any form of compensation, being released this capacity and reused, when applicable, during the DMC process.

PTR declaration of usage during DMC and consequences of being finally matched in the market

Once the PTR declaration of the intention of using it during the DMC is accepted, the following consequences will happen on each system:

- ✓ In France, RTE will consider the nomination as an injection or as a withdrawal in a balance responsible perimeter, if the bid is finally matched in the DMC and POWERNEXT communicates this circumstance to RTE.
- ✓ In Spain, OMEL will include the bid in the list of accepted bids, if finally matched in the DMC and, since the available capacity is always, by definition of DMC, respected in the result, it will always be on the schedule sent by OMEL to REE and in the one verified between REE and RTE.

Since all the prerequisites are fulfilled, this schedule will always be included in the establishment of the physical exchange program between both systems.

2.1.2 Interface between CfDs and day-ahead DMC

Although CfDs and day-ahead DMC are two different mechanisms, this section proposes the way in which the declaration and integration of market bids and market price difference bids sent by participants, who have participated in the proposed financial market to hedge the price difference between Spain and France, is performed and how they are interfaced within the Day Ahead DMC.

Therefore, the participant, who has already hedged the congestion cost using a financial product, will participate in the DMC in the same manner as any other participant who has not participated in this kind of long term mechanism (description in section 2.2).

As this participant is already hedged against the congestion price, if he wishes to do a cross-border physical transaction, he will normally participate in the DMC using price-acceptant energy bids or price difference bids.

2.2 Interface between agents with no long term physical or financial rights and DMC

The chapter proposes the way in which the declaration and integration of market bids and market price difference bids by participants who did not use any of the proposed long term mechanisms is performed and how they are integrated in the Day Ahead DMC.

This chapter has been written under the following assumptions:

- Neither the French nor the Spanish market break, that is to say, there are always remaining selling and buying bids in both markets. The situation, and consequences, of either market failing will be described in the development phase.
- The D-1 Available Transmission Capacity provided by both TSOs to PXs is always positive or zero (both export and import);
- The allocated capacity after the DMC is guaranteed by TSOs but in case of force majeure.

2.2.1 RTE's and Pownernext's vision

In the opinion of RTE and Pownernext, the content of this chapter is covered in the DMC membership description included under the DMC section. The way market participants declare their bids and are integrated in the DMC belongs to the local arrangements between the local Power Exchange and its members. Therefore only a brief explanation of the operational procedure that could be set up in France is included here.

Pownernext members need to be covered by a Balance Responsible party. To that end, prior to obtaining the authorisation to send any energy bids/offers to Pownernext or any price difference bids/offers to the DMC, Pownernext will verify with RTE that such participants are covered by a Balance Responsible party. After the DMC process has been operated, Pownernext will communicate to RTE on behalf of its members the firm commitments obtained by those.

2.2.2 OMEL's vision

In the opinion of OMEL there should be no discrimination, of either market participants or parties involved in a cross-border physical bilateral contract, due to the procedure that they have selected to hedge the possible congestion costs. Whether they have purchased physical transmission rights (PTRs), they have hedge the potential congestion cost (CfD market) or they have selected any other form of hedging of the congestion costs, or they selected to pay the real value of the congestion, if it exists, the notification requirements for the participants need to be identical, in order not to create an unnecessary discrimination between participants.

In this point it is described the interface with the DMC for participants that have selected not to hedge the possible congestion costs. It is equally applicable, as indicated in point 2.1.2, to participants that have hedge the congestion cost in the financial long term CfD markets (it is not written two times for simplicity, but the steps are exactly the same).

According to the proposal, the only difference for participants is at settlement time. If the participant has a PTR, he will not have to pay the congestion cost (price difference between the markets). If the participant has hedged the congestion cost financially in the CfD market, he will pay at the DMC time the real congestion cost, and receive from the CfD market the difference between the congestion cost that he paid at DMC settlement

time and the hedged cost. If the participant has any other kind of congestion cost coverage, or no coverage at all, he will pay the congestion cost at the DMC settlement time.

In all cases, as it is described in this point, the notification steps and requirements are identical for all participants.

Prior to the end of the bid reception period of the organised spot markets involved in the D-1 DMC, agents who have not participated in a long term mechanisms and wish to perform a cross-border energy transaction, must declare their intention. These declarations will be performed in each one of the two systems, France and Spain, according to the existing regulation:

- In France they will nominate it to RTE, indicating the balance responsible party for his transaction. RTE will verify the balance responsible party situation.
- In Spain they will declare it to OMEL in the form of a physical bilateral contract that crosses the French-Spanish border or as a bid to the market. OMEL will verify that the participant can declare the transaction.

Then, once applied the required controls and confirmation processes in both systems, according to their own rules, the declarations will be included in the DMC process. In case they are not matched, there will be no consequences for any of them. In case they are matched, they will be considered firm and both systems Spain and France will act accordingly.

Once the cross-border transaction declaration is matched in the DMC, the following consequences will happen on each system:

- In France, RTE will consider the nomination as an injection or as a withdrawal in the balance responsible perimeter.
- In Spain, OMEL will include the declared transaction in the list of accepted transactions and it will be on the schedule sent by OMEL to REE.

Finally, this schedule will be included in the establishment of the physical exchange program between both systems.

The matching of the declaration will have several additional consequences for the market players concerned:

- The correspondent energy transactions will always be performed;
- The declared transaction will be subject to unbalances, if not materialised physically, in both systems, in France and in Spain. The PXs, OMEL and POWERNEXT, will do settlement and invoicing according to their procedures. These international transactions will have to pay to the spot markets the price difference between the markets, in case of congestions, as the congestion cost.

2.3 Decentralised Market Coupling

The implicit mechanism called **Decentralised Market Coupling (DMC)**, following some of the principles previously described by EuroPEX, has been taken by all parties as the basis for the implementation of the day-ahead congestion management mechanism.

In part 2.3.1, general economic principles of the proposed mechanism are introduced in a stylised fashion. Part 2.3.5 gives a presentation of the actual market specifications.

2.3.1 Decentralised Market Coupling economic principle

Decentralised Market Coupling (DMC) is an implicit mechanism for cross-border congestion management. It applies implicit auctions principles to a two-area-case where:

- The control areas involved are the French system as operated by RTE and the Spanish system as operated by REE;
- The Spanish market as operated by OMEL;
- The POWERNEXT Day-Ahead™ market;
- Such DMC procedure will be extendable to other PXs in the future if requested.
- Day-ahead cross-border bilateral contracts are allowed in the DMC process with the same rights as the market transactions, through the use of price difference bids.

DMC principles are introduced step by step below.

2.3.2 Basic principles of Market Coupling

DMC is a day-ahead mechanism by which market participants can either:

- Send energy bids to Pownernext and OMEL in order to sell or buy electricity in the Power Exchanges. If the two prices of the markets diverge, electricity will flow from the cheapest one to the most expensive one, reducing the price difference.
- Send price-difference bids to OMEL or POWERNEXT for the DMC Market coupling for executing cross-border bilateral trade, through the declaration of a physical bilateral contract in Spain and an import/export notification in France.

PXs are in charge of performing a global matching process for each hour whereby the local markets equilibrium are reached and the cross-border transmission capacity is efficiently used.

Let us imagine in a first step that there are only energy bids presented to OMEL and Pownernext.

PXs receive bids and offers from their respective participants. They are in charge of performing a global matching process for each hour of the day, allowing not only transactions between buyers and sellers in the same market, but also cross-border transactions (with sellers in one market and buyers in the other one), using the **Available Transmission Capacity (ATC)** as determined and published by **TSOs**. The matching process attempts to maximise the total economic value of the transactions performed, under the constraint of the ATC.

As a result of the matching process, an equal aggregate amount of energy is bought and sold by market participants regardless of their bidding area, with the market as a unique counterparty to every buyer or seller. In each market, an energy bid is scheduled whenever its bid price is higher than **the Market Clearing Price (MCP)** of this market. An energy offer is scheduled whenever its offer price is lower than the MCP of the corresponding market. It is ensured that the resulting cross-border flow is always lower than the ATC between the two markets. The use of transmission is not allocated to any specific transaction: it is *implicitly* used and the effect of this is reflected in market prices. As only the best buyers and sellers have been matched, the transmission capacity is in practice used by transactions which value it most. In order to represent Decentralised Market Coupling, let us suppose that each market's price, as a result of independent price calculation, is known.

Figure 1: Market Coupling principle, congested case

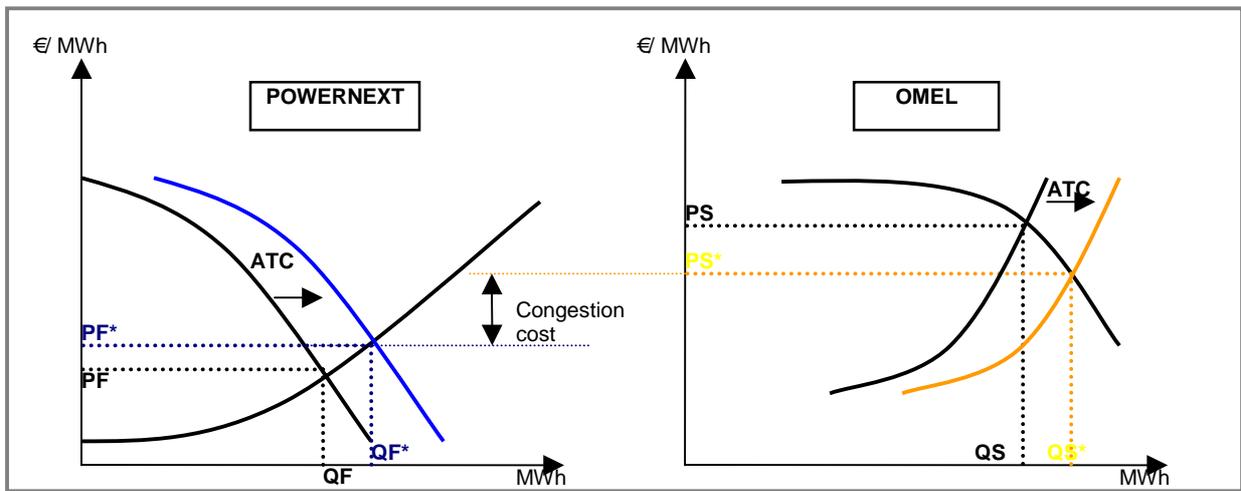
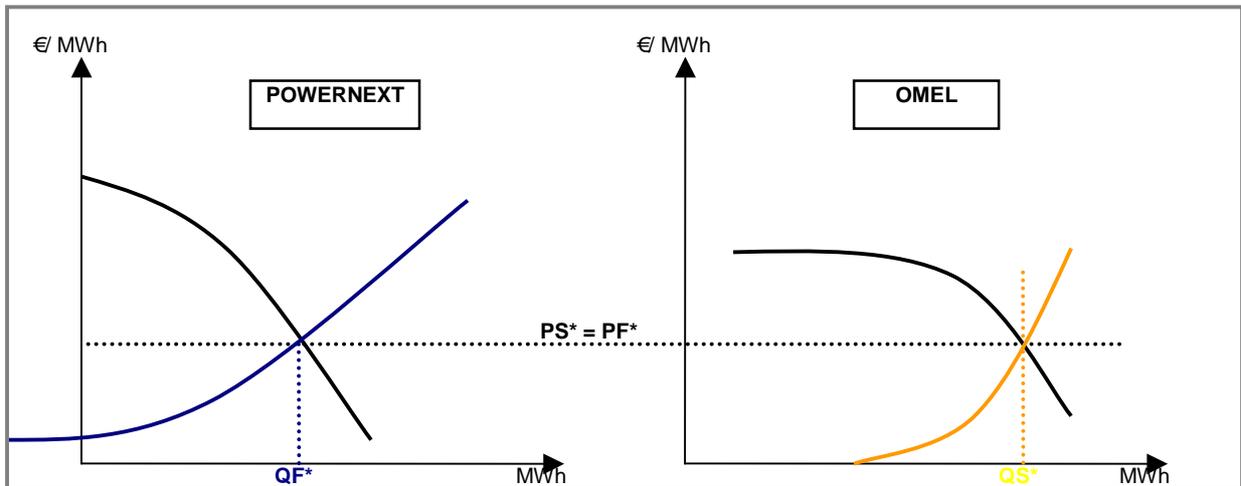


Figure 2: Market Coupling principle, non-congested case



As long as there is a price difference between the two markets, there are sellers in the low price markets that want to sell in the high price market and buyers from the high price market that want to buy in the low price market. As long as there is a price difference between the two markets, there are potential advantageous transactions to be performed. Performing the DMC can be represented as, for instance, moving sellers from the low price

market to the high price market. In terms of a PX's order book, this amounts to moving the supply curve horizontally to the right in the high price market and moving the supply curve horizontally to the left in the low price market by an equal amount, equal to the total quantity in the sales orders transferred. As a result, prices will increase in the low price area and decrease in the high price area. DMC behaves like a perfect arbitrageur between the two markets. Figure 1 and Figure 2 illustrate this for an hour where POWERNEXT prices are lower than OMEL's.

Depending on participants' bids in both markets, the ATC will be fully used or not. Figure 1 and Figure 2 describe the two possible cases in that respect. If there is still a price difference while the ATC is already fully used, then the ATC constraint is binding and there is **commercial congestion** (Figure 1). If the net transfer between markets is lower than or equal to the ATC and the prices are equal, meaning all beneficial transactions have been performed, then the ATC constraint is not binding. This is the non-congested case (Figure 2).

As participants are not explicitly bidding for crossing the interconnection, there is no explicit congestion price. Participants in each market pay or receive the price of this market. As a consequence, for a volume of transactions equal to the cross-border transfer, buyers pay the high-price area price and sellers receive the low price area price. The *implicit* congestion price is the price difference between markets resulting from DMC. A "congestion rent", equal to the volume of the transfer times the difference in area prices, is collected and disposed of according to the regulation.

In practice market participants can also present price-difference bids to OMEL or POWERNEXT for the DMC Market coupling for executing cross-border bilateral trade, through the declaration of a physical bilateral contract in Spain and an import/export notification in France MC allowing them to compete with the implicit cross-border flow described above for the use of the ATC.

2.3.3 Integration of price-difference bids providing the possibility to perform cross-border bilateral trade on the day-ahead horizon.

DMC is compatible with day-ahead bilateral cross-border trading and accepts cross-border price difference bids. Transactions for energy that have already been contracted on the one hand and energy bids on the other hand compete on an equal footing for the use of transmission capacity.

DMC solves congestions in the interconnections using a market based procedure. A price-difference bid is scheduled whenever its bid price is higher than the price difference between markets. A participant who wishes to schedule a bilateral contract and has presented a price-difference bid, if assigned, pays the difference in market prices at both sides of the interconnector.

Price difference bids for crossing the interconnections in the opposite direction to the congestion, acting as counterflows freeing up capacity in the congested direction, are also allowed. A counterflow is scheduled whenever its offer is less than the price difference between markets. A participant scheduling a counterflow receives the difference in market prices at both sides of the interconnector.

As a result, all cross-border bilateral transactions without PTRs need to send a price difference bid to cross the border.

As in any market, price acceptant bids will always be matched and the participants can in this way guarantee that their physical transactions are scheduled, as long as organised markets do not break.

2.3.4 Netting and firmness

As a result of Decentralised Market Coupling, all accepted bids and offers become firm commitments by the participants. This enables the efficient netting of all kinds of cross-border scheduled transactions.

Firmness of transactions inherent to the process requires that the ATC released by TSOs prior to market coupling and allocated in the DMC process, be firm, except in force majeure cases as described in chapter 4.

2.3.5 Market organisation and specifications

2.3.5.1 Membership

All participants that send energy bids for a **Day-Ahead** session to **Powernext** or to **OMEL** **will implicitly participate in the DMC mechanism**. A member of Powernext Day-Ahead will be able to send bids and offers to Powernext. An agent of OMEL will be able to send bids and offers to OMEL. In each case, it is necessary and sufficient that market participants comply with all conditions necessary to become a member of Powernext Day-Ahead or an agent of OMEL.

Participants willing to send a cross-border bid to DMC need to

- have signed a Balance Responsible Party agreement with RTE; or
- be an agent of OMEL; or
- establish a new type of contractual relationship with Powernext.

2.3.5.2 Products

Members of each market simply trade the products of this market at the price of this market. Who their counterparty is and whether their transaction crosses the border is not known.

There are a number of harmonisation requirements on the products of each market for DMC to be possible:

- the unit settlement period must be the same; currently both markets use the hour;
- both markets must have the 24 daily hourly contracts among their products; currently this is the case;
- the number of decimals for published price must preferably be the same; currently this is the case;
- the rules for defining the 24 hourly contracts on the switch day to winter time and the switch day to summer time must be compatible in both same markets; as both countries switch in a coordinated manner and both markets have the same 25 periods and 23 periods day each year, no problem is expected.

Each market independently from the other may offer additional products such as block contracts and may allow for inter-temporal constraints in participants' bids.

2.3.5.3 Trading

Trading schedule

DMC is performed for the following day every day of the year, with no exception.

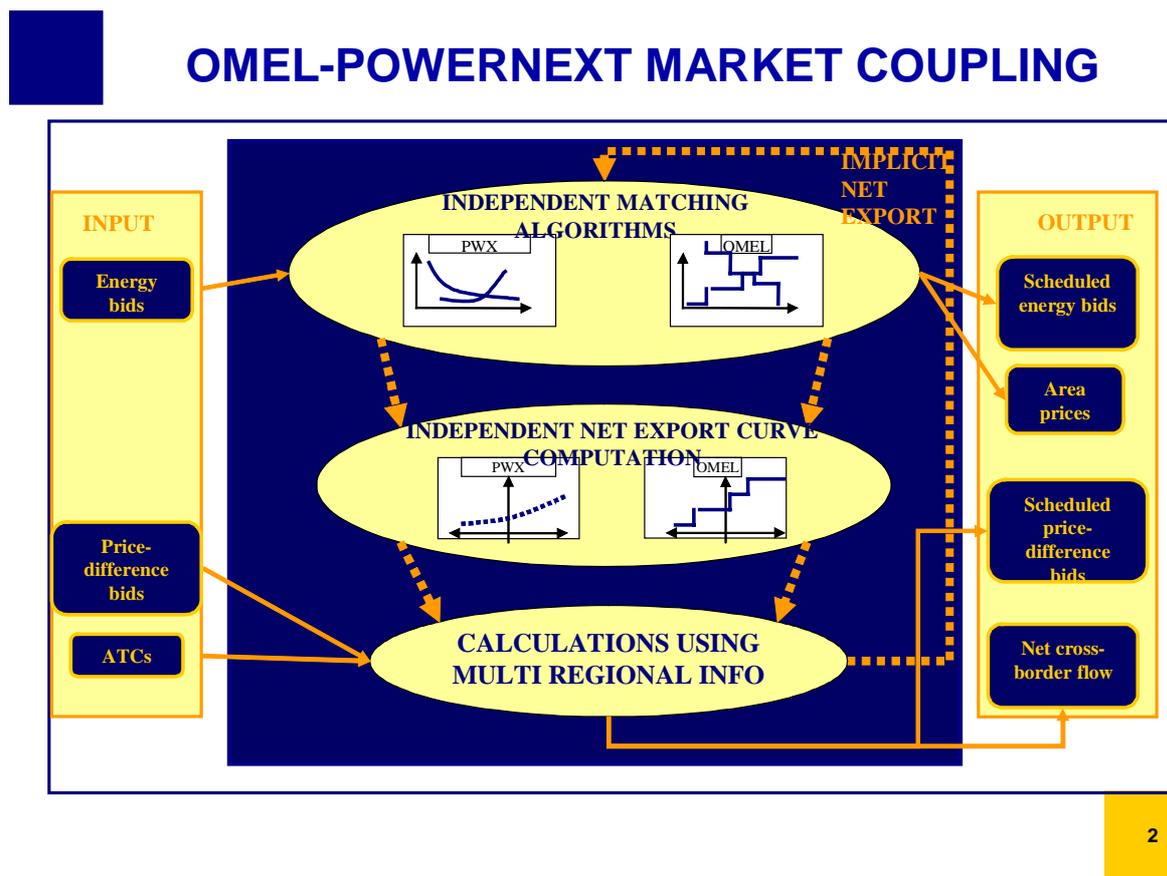
The harmonised time schedule of each trading session could be the following:

- 10:30: Bid submission closing time;
- 10:35: Closing of bid claiming on OMEL and start of the DMC auction process;
- 11:00: Markets results publication;
- 11:15: Closing of claiming period and final results publication.

Centralised Market coupling is a blind auction. At no time before the auction can participants see the central order book or have an indication of the area market price. After the bid submission closing time, a five minutes bid claiming period is open at OMEL. The auction process starts after this period. 11:00 is an indicative time for publication of the preliminary market results. Starting from the publication of preliminary results, participants have 15 minutes to report any claim. After this period, final market results are published.

Figure 3 gives a functional representation of the matching process. Steps are detailed in appendix.

Figure 3: MC functional matching process



Auction Input

Prior to the matching process, the PXs receive, for each hour of the following day:

- bids and offers from their respective participants as a list of price-quantity pairs forming a bid/offer curve;

- on POWERNEXT: between 2 and 64 price/quantity pairs (negative quantities for offers and quantities prices for bids) per participant portfolio;
- on OMEL: between 1 and 25 price/quantity pairs per (either selling or buying) unit;
- cross-border bids from participants on the cross-border bilateral market, specifying
 - a direction (France to Spain or Spain to France);
 - a price (positive if the participant is willing to pay to cross the border in the specified direction, negative if the participant is willing to earn money to cross the border in the specified direction);
 - a quantity;
 - a divisibility condition (divisible or indivisible).
- firm Available Transmission Capacities from TSOs;
 - ATC from France to Spain;
 - ATC from Spain to France.

Auction Output

After the process is completed, the PXs issue, for each hour of the following day:

- Scheduled energy bids and offers to their respective participants;
- Scheduled price-difference bids and offers (counterflows) to participants;
- Resulting net cross-border flow to the TSOs, specifying:
 - A direction;
 - An amount of capacity.

2.3.6 Day-ahead interface “Power Exchanges → TSOs”

Once the PXs finish the day-ahead DMC they will send to the TSOs the following information:

2.3.6.1 Information exchanges OMEL ⇒ REE after the DMC

After the DMC has finished, OMEL sends to REE the following information:

- Energy matched in the DMC from all bids that have been presented to OMEL and that have been matched.
- Executed bilateral contracts in DMC that have been declared prior the DMC process that were the owners of PTR and have previously declared to OMEL the execution.
- Executed bilateral contracts in DMC that have not PTR, but that have presented a bid to OMEL with a price for price difference, and that have been matched (these participants could have a CfD contract in case they wanted to hedge the price-difference risk).

2.3.6.2 Information exchanges POWERNEXT ⇒ RTE after the DMC

After the DMC has finished, POWERNEXT sends to RTE the following information:

- Energy matched in the DMC from all bids (energy bids and price-difference bids) that have been presented to POWERNEXT and that have been matched.

2.4 Integration of the EDF-REE long term contracts

These are long term contracts between REE and EdF pre-dating the Spanish and French Laws, that have specific conditions of execution.

Long Term Supply Contract EdF-REE

In regard to the Long Term Supply Contract EdF-REE (whose execution is programmed everyday), it should be always executed once it is matched in the Spanish production market, where it presents a bid for each hourly period, for 550 MW (current value) at its variable price which is updated every year.

The aforementioned contract has two steps, one totally guaranteed one of 250 MW that has to be executed, except in case of Force Majeure, and other partially guaranteed one of 300 MW that only could be interrupted in the case the unavailability of a interconnection line does not allow to guarantee the scheduling of that second power step.

The conditions of execution of this EdF-REE contract have to be considered in the frame of the Market Coupling mechanism as a priced transaction with provisional PTRs for the same amount of the nominal power of the contract (550 MW).

In REE's view, the energy from the contract will be scheduled in all those cases where the price of the Spanish market is equal or above the contract price and there are no cheaper energies on the Spanish System (being understood this concept in relation to the remuneration of the matched energy in the Spanish market).

In OMEL's view, the contract should be taken into account in the DMC considering its variable cost. The energy from the contract will be scheduled in all those cases where the price of the Spanish and Pownernext market are above the contract price. The contract will not pay the congestion cost.

If the Contract bid is not completely matched, a bid for the first intraday session in the Spanish market will be presented. If matched, it will be programmed in function of the total program after the first intraday session. If not matched, only the daily matched part will be programmed.

Long Term Supply Contract REE-EdF

In addition to the aforementioned EdF-REE contract, there is another contract REE-EdF with the same amount of nominal power and period of validity, that allows EdF to fulfil the guarantee power conditions of the contract EdF-REE in the peak winter periods.

The execution period of this contract goes from October 1st to March 31st.

Every September month, EdF must inform REE about his prevision of execution for the next winter period. The contract would be only taken into account in case of EdF had previously informed for that year.

Since the effective execution of that contract is very reduced, as well as the annual energy and total hours of utilization are limited and relatively small, the contract REE-EdF will not be considered in the frame of the Market Coupling mechanism.

TSOs will establish a coordinated balancing action to guarantee the execution of the contract REE-EdF, just in the case where the energy programmed for the contract REE-EdF were provoking a congestion in the French-Spanish interconnection.

3. Intraday mechanisms

All parties agree on the need of implementing an intraday mechanism for maximizing the use of the available transmission capacity.

This chapter has been written under the assumption that no capacity will be specifically reserved for the intraday horizon. At this stage, the available intraday capacities could be the non-used capacities in previous mechanisms or sessions as well as new additional capacity that could be published by TSOs.

Intraday decentralised market coupling could provide full compliance with the EC Regulation since it would imply a high level of co-ordination, it would reveal the value placed on capacity and produce efficient directional price signals to the market. However, the implementation of intraday market coupling requires a level of harmonisation that may be difficult to achieve in the medium term. The two main challenges set up by a potential implementation of intraday market coupling are:

- the need for two references for intraday energy prices at each session. Although both systems already produce intraday prices (i.e.: OMEL intraday energy market, French balancing market), they do not represent the same reality. In addition to this, Pownernext does not operate an intraday organised energy market in France.
- the need for harmonisation of the intraday sessions timetables and gate closure times (see table below). This could be possible on the day-ahead horizon (see chapter 2.2.2) but could become a difficult task if applied to each intraday session since other intraday mechanisms are also based on the existing timetables (i.e.: intraday congestion management on the borders of France and other European TSOs...).

| | OMEL Mercado Intradario | | | | | | RTE Intraday sessions | | | | | |
|-------------------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | session 1 ^o | session 2 ^a | session 3 ^o | session 4 ^a | session 5 ^a | session 6 ^a | session 1 ^a | session 2 ^a | session 3 ^a | session 4 ^a | session 5 ^a | session 6 ^a |
| GATE OPENING | 16:00 | 21:00 | 01:00 | 04:00 | 08:00 | 12:00 | 20:00 | 03:00 | 08:00 | 11:00 | 14:00 | 17:00 |
| GATE CLOSURE | 17:45 | 21:45 | 01:45 | 04:45 | 08:45 | 12:45 | - | - | - | - | - | - |
| MATCHING | 18:30 | 22:30 | 02:30 | 05:30 | 09:30 | 13:30 | - | - | - | - | - | - |
| RECEPTION OF DETACHMENTS | 18:45 | 22:45 | 02:45 | 05:45 | 09:45 | 13:45 | - | - | - | - | - | - |
| CONSTRAINTS SOLVING | 19:20 | 23:10 | 03:10 | 06:10 | 10:10 | 14:10 | - | - | - | - | - | - |
| PHF PUBLICATION / CONFIRMATION | 19:35 | 23:20 | 03:20 | 06:20 | 10:20 | 14:20 | - | - | - | - | - | - |
| SCHEDULING HORIZON (Hourly periods) | 28 hours (21-24) | 24 hours (1-24) | 20 hours (5-24) | 17 hours (8-24) | 13 hours (12-24) | 9 hours (16-24) | 24 hours (0-24) | 18 Hours (06-24) | 13 hours (11-24) | 10 hours (14-24) | 7 hours (17-24) | 4 hours (20-24) |

Two different alternatives have been identified and are described below.

3.1 OMEL proposal until a better common market coupling proposal could be identified

The proposed method to solve congestions in the interconnection Spain-France in the daily market is the market coupling method with the participation of the external agents. The two involved markets in the market coupling procedure are OMEL and Pownernext. Nowadays in the OMEL market takes place six intraday sessions every day, whereas in the Pownernext market doesn't take place any session.

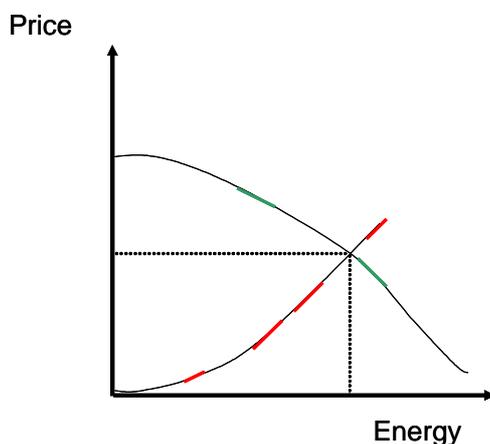
If there is remaining free capacity in some hourly periods to be negotiated in a session of the intraday market, any congestion can be produced in the interconnection, being

necessary to solve this congestion in the process of this market. The best solution for this problem would be the existence of intraday market sessions in the Pownernext market with the same schedules and to use the market coupling method in the same way used for the corresponding daily market session.

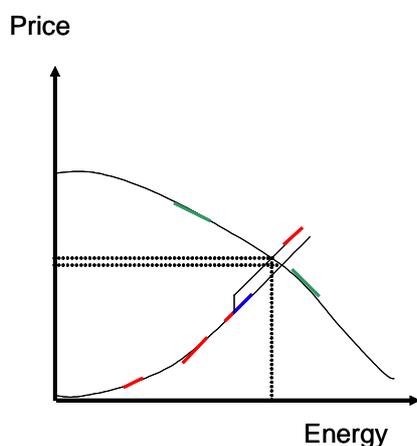
Nevertheless the administrative cost to take place these sessions in the Pownernext market may lead to this solution not being viable. For that reason it is proposed, until the organization of intraday sessions in Pownernext market, the participation of external agents in the Spanish market, and the use of market splitting method in the interconnection between Spain and France with the creation of a price in both sides of the interconnection, in the case of congestions. The residual price in the France side will be formed with these external agents' bids which have not been matched due to the congestion.

The method will be as follows:

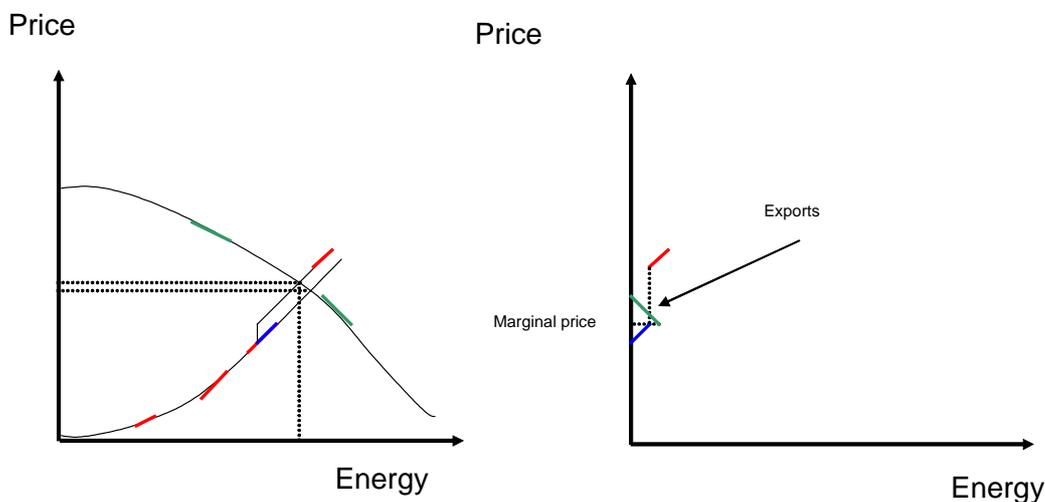
Step 1: It will be executed the matching process without any limit in the interconnection capacity. It is possible to match import bids (red colour) and also export bids (green colour).



Step 2: It will be calculated the balance in the interconnection as the difference between the matched import and export bids (taking into account the already matched energy in the daily market). If the balance is higher than the maximum value published by system operator, the most expensive bids will be retired (blue colour) in the order of economic precedence, if there is an excess of imports, or the cheapest if there is an excess of exports, till the balance in the interconnection will be the same to the maximum. When there is an excess of imports the system price is higher than the price got previously.



Step 3: So Spanish electricity system has received a balance of imports equal to the capacity. In the other side of the border it could be possible a matching process in which import not matched because of the congestion could match with export not matched because of its price:



The first and second import bid in the preference order price has been matched at the Spanish marginal price. The third import bid in the preference order has been completely matched, but with two different prices, because a quantity of energy has been matched at Spanish marginal price, and the energy that has been rejected in the matching process because of the congestion, has been matched at the residual French marginal price.

3.2 RTE proposal until a better common market coupling proposal could be identified

Concept of combined congestion management mechanism

Taking into consideration that intraday decentralised market coupling may not be feasible in the medium term, and that no possible agreement between all parties could be found under the assumption that one of the two countries could be entirely responsible for the allocation of capacity at the intraday horizon (new legal and regulatory challenges will also appear in this extreme case), it is suggested to favour the implementation of a “combined” congestion management mechanism based on significant improvements of the existing concepts.

Although the current intraday congestion management mechanisms are not co-ordinated and do not reveal the value place on the capacity, they both provide non discriminatory access to transmission. In France, requests for capacity are allocated on a prorata basis at each intraday session and are later confirmed by notification to RTE. In Spain, OMEL allocates the available capacity to the Spanish external agents based on the matching of intraday energy bids and offers.

Due to the fact that this process is repeated 6 times during the day on both sides of the interconnector (with different timetables), market participants may enter and exit the process starting and ending on either side of the interconnector (obtain transmission with RTE and then energy with OMEL or obtain energy with OMEL and then transmission with RTE).

Presumably, significant improvement of the existing mechanisms could be achieved by improving the interface between both systems by:

- setting up a co-ordinated data exchange interface in order to identify on a unique manner the French and Spanish market participants so as to avoid any inconsistencies of commercial exchanges and potential lack of convergence.
- optimising of the different intraday session timetables in order to simplify and reinforce the way to perform cross-border trade. Progress could be obtained even if there is not a single intraday session timetable for France and Spain.

Moreover, other further areas of work could also be explored in order to complement the combined congestion management mechanism. For instance, while designing the optimum compatibility of the intraday timetable, it might be feasible to reconcile access to the French balancing market with the congestion management mechanism. In addition to this, and even if access to transmission would be free of charge at the intraday horizon, the publication directional price signals could be published to the markets in this case.

Additionally, and since intraday market coupling may not be in place, an extension of the concept of "day-ahead price difference bid/offer" to "intraday cross-border request" at each intraday session could provide new possibilities so as to accommodate all users without any kind of discrimination even at the intraday horizon.

4. Real time congestion management

4.1 *Concept of firmness of scheduled transactions*

In fulfilment of the Regulation EC/1228/2003, of 26th June 2003, in the absence of Force-Majeure or other special situations strongly threatening the security of one or both electric systems (such as lack of reserve of available generation), RTE, or through the Operational Procedures and Market Activity Rules applied by REE and OMEL, will set the necessary arrangements after the day-ahead mechanism, in order to guarantee that the scheduled transactions are not affected in case of a reduction of the initially foreseen France-Spain exchange capacity.

This section shows:

- the conditions under which this system will be in application;
- the Operational Procedure that will be adopted by RTE, and the Operational Procedures and Market Activity Rules applied by REE and OMEL, for guarantee that the scheduled transactions are not affected in case of a reduction of the initially foreseen exchange capacity, so that they are fully guaranteed;
- the general scheme for the allocation and recovery of costs issuing from these procedures.

4.2 *General conditions for the application of the system of guarantee: Firmness of scheduled transactions after the day-ahead mechanism*

The concept of guarantee describes how to proceed after the day-ahead mechanism has been performed to maintain firm the day-ahead results including the bilateral contracts scheduled.

This chapter only deals with the situation in which a cross-border physical capacity shortage in a certain period is known after the day-ahead mechanism took place.

4.2.1 **Real time cross-border capacity shortage after the publication of the DMC results**

Such cross-border capacity shortages are caused during the real-time operation of the system. In this case, both TSOs shall guarantee that the final energy exchanges established in reason of all the commercial transactions accepted after the day-ahead mechanism (users of PTRs, transactions on the markets and bilateral contracts that either hedged the congestion costs on the financial CfD market, or did not participate on long term mechanisms at all) are not subject to any modification. Therefore, all the commercial transactions scheduled after the day-ahead mechanisms will always be firm. Other mechanisms such as curtailment of transactions will not be applicable in fulfilment of the Regulation EC 1228/2003, of 26th June 2003 (except in case of extreme situations, as described in Section 4.2.2).

The Operational Procedure to be applied by RTE, and the Operational Procedures and Market Activity Rules applied by REE and OMEL, for the guarantee of these transactions are described in Section 4.3.

4.2.2 Firmness of scheduled transactions in extreme situations. Force Majeure

In presence of Force-Majeure, lack of available generation or insufficient power reserves, the French and Spanish systems will not be able to guarantee the already scheduled transactions, and therefore the users' transactions can be affected, since in these cases priority is given to the secure operation of electric systems.

In this kind of situations, the consequences for the concerned users would be as follows:

- For the users of PTRs and the bilateral contracts scheduled after the day-ahead mechanism, the transactions would be curtailed and the payment duties for all of them would be reimbursed.
- For the rest of the transactions emergency mechanisms will be applied in both countries to solve the power imbalance necessary to return the system to safe operation.

In addition, the operational and financial procedures established in each system for emergency situations would then apply.

4.3 Operational Procedure for guaranteeing in real-time the commercial transactions and firmness costs

4.3.1 Option 1. TSOs' vision

In the framework of the European Florence Forum, ETSO has published the definitions and basic concepts concerning the possible counter measures for congestion management in real time that may be applied by European TSOs. A particular kind of these measures is the so-called "Counter-trading", in which both TSOs use offers from producers or traders within their spot markets in order to increase or decrease the generation in their areas. When applied to the Spanish-French case to deal with real time congestion management issues, the mechanism will be based on a co-ordinated use of the balancing markets in both electric systems to adjust generation in both systems. In the following part of this paper, such real-time counter measure will be called "**co-ordinated balancing action**".

In the framework of this co-ordinated balancing action, the setpoint of the automatic frequency control device controlling the exchanges between the two control areas is changed, and therefore the energy exchange program between such areas is accordingly changed. The previously established cross-border transactions are entirely fulfilled.

As explained in Section 4.2.1, if cross-border capacity shortage can affect the allocated cross-border capacity (except in case of extreme situations described in Section 4.2.2), both TSOs will guarantee the allocated capacity through a "co-ordinated balancing action".

4.3.1.1 Operation of Co-ordinated Balancing Action

As explained before, the co-ordinated balancing action consists of the co-ordinated use of the balancing markets in both electric systems for the minimum value needed for solving

the possible congestion caused by the cross-border capacity reduction. This mechanism will be put in place by TSOs through the participation of each TSO in the balancing mechanisms currently existing in his own system, this is:

- In the French system, RTE will make use of the offers submitted by the users to the French Balancing market (Mécanisme d'Ajustement).
- In the Spanish system, REE will make use of the offers submitted by the users to the Spanish Balancing markets (Gestión de Desvíos and Regulación Terciaria).

In practice, the guarantee of the available capacity already allocated will require opposite actions in both systems:

- If the cross-border capacity shortage requires a reduction of the physical flow from Spain to France, the countermeasures adopted by TSOs will be an energy increase in France and an energy decrease in Spain.
- If the cross-border capacity shortage requires a reduction of the physical flow from France to Spain, the countermeasures adopted by TSOs will be an energy increase in Spain and an energy decrease in France.

The implementation of this mechanism will be transparent and non-discriminatory for all users in both systems and will be carried out in a coordinated way by both TSOs, and the decision on the redispatching volume (identical to the reduction of the adjustment of the automatic frequency control device) will be jointly taken by both TSOs as an essential previous condition.

4.3.1.2 Capacity firmness costs

Every action taken by TSOs as described in Section 4.3.1.1 requires a complete coordination in the performance of both TSOs, which will consist of an energy increase in one system and an energy decrease in the other. Therefore, there will be a cost in one system (where there is an energy increase) and an income in the other (where there is an energy decrease).

The final economic result of the whole action will be the total balance of those costs in one system and income in the other. The whole procedure adopted for the identification of these cost and revenue shall be fully transparent and subject to an audit process.

The allocation and recovery of costs incurred by TSOs from the application of the mechanism of guarantee should be approved by Regulators. Additionally, the existence of a contract between both TSOs, covering (among other issues) the applicable procedures for economic compensation between them in these situations, is foreseen.

4.3.2 Option 2. OMEL's vision

In the framework of the European Florence Forum, the concept of counter trading has been discussed several times. In OMEL's opinion there are several kinds of counter trading that should not be mixed and analyzed separately, together with the circumstances where they could be applied. In OMEL's opinion there is no reason to develop and to apply this new combined mechanism in any moment that will imply a distortion of the already existing procedures (balancing markets in France and Intra-day market and real mechanisms in Spain).

4.3.2.1 Different kinds of counter-trading being discussed in Europe

- **Counter-trading prior to the day-ahead mechanism.** When a day-ahead cross-border mechanism is in place, this kind of counter-trading should not be permitted in any manner, since it will create a parallel to the day-ahead mechanism (DMC) proposed, create a different congestion value and totally destroy the idea of a mechanism to solve congestions in the day-ahead horizon.
- **Counter-trading to maintain the commercial transactions scheduled after the day-ahead congestion mechanism has taken place.** OMEL understands that the reference to counter-trading in this situation was done by the Florence Forum to cover the Member States where there are no market mechanism already in place for the system operator to raise production (decrease consumption), or lower production (increase consumption), when a problem appears in his control area in real time. If these market mechanisms do exist today, there is no reason to create any new mechanism to solve the same problem in the form of counter-trading, since the real time problem can be solved by France and Spain applying the already existing real time mechanisms. This new counter-trading mechanism will be an alternative the current existing mechanisms, fixing a different price for the same kind of energies therefore creating all sort of arbitrage and market power problems

4.3.2.2 Real time problem to be solved and solutions applicable in both countries

When a problem appears in real-time that reduces the commercial capacity between France and Spain below the level necessary to maintain the scheduled commercial transactions after the day ahead mechanisms, Spain has to modify the set point of the secondary regulator so that the energy that physically flows between France and Spain, respects the security constraints, and France has to take into account in his own schedules the new value, not in order to respect the security in the border between France and Spain, but in order not to increase the inadvertent interchange between France and other Member States.

As a consequence of a problem that happen in real time affecting the commercial capacity between Spain and France after day-ahead two actions need to be taken Spain has to raise the amount of electricity produced and France has to reduce the amount of electricity produced, if the problem decreases the maximum flow possible from France to Spain, or the opposite, if the problem is the direction Spain to France. In both cases the two actions need to occur at the same time, but unrelated.

- If Spain has, for a given period of time, has to increase electricity production, REE will have to combine this problem with all the other problems that he has to solve in the Spanish system for each hour (some of them will imply reducing production and some of them will imply increasing production) and solve the combined Spanish problems at the same time, using the currently available real time mechanisms after all intra-day markets. Normally the amount of net power solved in the real time procedure will be different than considering alone the problem in the cross-border commercial capacity and different from the amount solved by RTE (it could even have the same sign).
- If France, for a given period of time, has to reduce electricity production, RTE will have to combine this problem with all the other problems that he has to solve in the French system for each hour (some of them will imply also reducing production and some of them will imply increasing production) and solve the combined French problems at the same time, using the currently available mechanisms. Normally the amount of net power solved in the real time procedure will be different than considering alone the problem in the cross-border commercial capacity and different from the amount solved by REE (it could even have the same sign).

The procedures already existing in both systems are:

- In the French system, RTE will make use of the offers submitted by the users to the French Balancing market (Mécanisme d'Ajustement).
- In the Spanish system, REE will make use of the offers submitted by the users to the Spanish Balancing markets (Gestión de Desvíos and Regulación Terciaria) that takes place after all the intraday market sessions have take place for a given hour.

The implementation of this mechanisms will be transparent and non-discriminatory for all users in both systems and will be carried out as it is today by both TSOs.

In this case, further possible economic compensation mechanisms, as well as the settlement of incurred imbalances, will be adopted in each system according to the applicable regulation.

4.3.2.3 Transaction firmness after day-ahead costs

Every action taken by TSOs as described in Section 4.3.2.2 is taking independently in the French and the Spanish system in all cases and as such does not require any other coordination between both TSOs than agree the new value of the commercial capacity (it will be better that each TSOs publishes their own values and then select the minimum of the two). As indicated the actions taken by both system operators will consist of an energy modification using the existing mechanisms on each country. Therefore, there will be a cost on each system associated to the measurement taken on each system.

- If in one country, France or Spain the production is increased, it might be an overcost, if the price paid for the energy in the mechanism is above the daily marginal price of France or Spain respectively.
- If in one country, France or Spain the production is decreased, it might be an overcost, if the price paid to buy back the energy in the mechanism is below the daily marginal price of France or Spain respectively.

The recovery of the costs incurred should be done through the same mechanism as it is today, considering the responsible country on each case:

- If the action taken in Spain is due to a problem of the French system, the “communicated deviation” in the Spanish system will be accounted to France and Spain will have to recuperate from France the cost involved in solving the problem in Spain. France will take care of its own consequences of the problem. This will be done according to the Spanish and French regulations.
- If the action taken in France is due to a problem of the Spanish system, the cost of the solution in France will be accounted to Spain and Spain will have to recuperate from France the cost involved in solving the problem in Spain. Spain will take care of its consequences of the problem. This will be done according to the Spanish and French regulations.
- If the problem is in the tie-line itself or it is not possible to determine which country is the responsible one for the commercial capacity curtailment, then each country will bear its own solution costs. This will be done according to the Spanish and French regulations.

The allocation and recovery of costs incurred by Spain and France will be subject to each country regulation and the application of the mechanisms of guarantee the transactions should be approved by each Regulator.

5. List of other issues still pending or out of the initial scope of the TF

The joint Task Force has identified three main issues that are still pending and that should be carefully addressed after Regulators have provided their orientations on the alternatives that could be implemented.

Those issues are listed hereafter:

- Legal and contractual frameworks, taking into account the different legal and regulatory natures of each party.
- Roles and responsibilities of each party in relation to the operation of the congestion management mechanism.
- Financial scheme in relation to congestion income collected through the congestion management mechanism.

Even though no full agreement has been reached on one unique solution, the four parties have jointly identified different alternative solutions for a new congestion management mechanism on the Spanish-French interconnection. Further step-by-step implementation possibilities based on the proposed different alternatives are included in the position papers under part 3 of the common document.

**DEFINITION OF A NEW CO-ORDINATED CONGESTION MANAGEMENT MECHANISM ON
THE SPANISH-FRENCH INTERCONNECTION**

**PRELIMINARY CONCLUSIONS OF THE JOINT PX-TSO TASK FORCE
BY OMEL-REE-RTE-POWERNEXT**

**Part 3. POSITION PAPERS. TSO's vision on the congestion
management mechanism to be implemented on the Spanish-
French border**

Part 3. Table of contents

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1. Summary of TSOs' proposal for a congestion management system in the France-Spain interconnection

Background

The proposal supported by RTE and REE in this document is based upon the previous joint proposal carried out by both TSOs during the year 2000. This proposal was developed jointly by RTE and REE, and had the support from the Commission de Régulation de l'Électricité (CRE), in France, and the Comisión Nacional de la Energía (CNE), in Spain, but its implementation was pending of the modification of the "External Agents" Ministerial Order in Spain.

This former proposal consisted of a system of coordinated explicit auctions of physical transmission rights jointly run by RTE and REE, incorporating also a system of guarantee of the allocated capacity.

In this new stage of the project, re-launched after the publication of the EC Directive 54/2003 and Regulation 1228/2003, this previous proposal has been improved and updated, taking into account the existence of Powernext and of the Mécanisme d'Ajustement in the French system, and the existence of the EuroPEX's proposal of Decentralised Market Coupling.

Although the implementation of the solution supported by both TSOs may still require the analysis of technical issues and a solution to some regulatory challenges, this report should be seen as a step forward towards a co-ordinated congestion management mechanism on the Spanish-French border. In particular, the report clearly identifies the different key issues that need to be harmonised between both systems in order to be able to implement a sound and co-ordinated solution.

TSOs' Proposal

As it has been explained throughout Parts 1 and 2 of this document (in particular, in Chapter 2 of Part 1 and Chapters 1.1, 2.1.1, 2.3 and 4.3.1 of Part 2), TSOs' proposal for a congestion management system in the France-Spain interconnection consists of three main mechanisms:

- A system of coordinated explicit auctions in different time frames (e.g. from the yearly to the weekly horizons), through which all users can opt for Physical Transmission Rights (PTRs), having also access to secondary markets always in condition of the communication of the changes of holder to both TSOs.
- A Decentralised Market Coupling (DMC) mechanism symmetrically operated by Powernext and OMEL in the day-ahead horizon, following the principles previously described by EuroPEX, that allows using all the remaining cross-border capacity which:
 - has not been allocated in the explicit auctioning stage,
 - has been released by the netting of counter-flow transactions,
 - had been acquired as PTRs in explicit auctions, but has not finally been used by their holders (capacity released by the application of the "use-it-or-lose-it" rule).
- A system for guaranteeing the capacity allocated through explicit auctions or through the DMC process that has been effectively used, consisting of the application of a "coordinated balancing action" by RTE and REE through the use of the balancing mechanisms currently existing in their respective systems.

2. Main advantages of TSOs' proposal (Auction of PTRs + Market Coupling + System of guarantee of allocated capacity)

2.1 Fulfilment of the EC Regulation 1228/2003

Explicit and implicit allocations are both recognised in the EC Regulation as adequate mechanisms for cross-border congestion management. A combination of both mechanisms fully complies with the EC Regulation on congestion management.

2.2 Improvements in relation to the current situation

At present, two different and non co-ordinated day-ahead and intraday congestion management methods are coexisting on the Spanish-French interconnector:

- In France, the allocation of capacity is based on a priority list mechanism (with a limit of 25 MW per transaction) for France -> Spain transactions and a prorata rule for Spain -> France transactions. Transmission and energy are therefore traded on a separate manner.
- In Spain, the international congestion management is carried out through the mechanism established in the "External Agents" Ministerial Order, published in the 14th July 1998, as described on section 3.1 of Part 1.

As it is easily deduced, these methods currently applied in both systems present several aspects likely to be improved:

- The procedure should be agreed and coordinated between the two systems;
- The procedure should be non-transaction based, nor discriminatory and reveal the value placed on capacity;
- The system should be transparent for the users;
- The system should also allow allocating capacity in horizons longer than daily (e.g. from annual to weekly).

The quick establishment of the new congestion management method as proposed by TSOs in this document would have a great number of important benefits for both electric systems:

- The new congestion management method would be agreed, coordinated and executed in a joint way in both electric systems.
- It would be a non-discriminatory method. All the interested users would have the same possibilities to use the cross-border capacity
- It would be competitive and efficient. The cross-border capacity would be allocated to those agents that value the capacity the most.
- It would allow maximizing the use of transfer capacity without risking the security of electric systems.

- The new system would be transparent and easy to replicate for any of the agents that ask for the cross-border capacity.
- It would allow the interested users to acquire cross-border capacity also in the medium and long terms.
- The new system would reveal the value placed on capacity and provide sound directional price signals needed by the market. The allocation and use of the resulting congestion income are already described in the 1228/2003 EC Regulation.

3. TSO's analysis of the proposed different alternatives

3.1 Long term mechanisms

First of all, a long term mechanism should be necessarily established due to the following reasons:

- Market participants ask for them,
- They are needed to establish cross-border energy contracts at horizons longer than day-ahead,
- They allow to manage the authorizations for energy trades with another neighbouring systems,
- In case the exchange capacity was offered as a physical product, it would not necessarily force the agents to obtain their exchange energy programs in the organised markets.

The long term mechanisms should be always complemented with an implicit short term mechanism allows maximising the use of transfer capacity.

Explicit auctions for Physical Transmission Rights have been successfully developed and experienced throughout Europe. In addition to the robustness of operation and their acceptance by market participants, one of their main advantages is that do not require any previous market harmonisation being valid for exchange and bilateral trades.

In principle, TSOs' have no particular opinion about CfDs markets since CfDs in itself are not congestion management tools. However, this kind of mechanism cannot prevent users from having access to cross-border transmission capacity. TSOs feel that in the future both mechanisms could coexist and that the users should always have the freedom to choose between them.

Some opinions establishing that the auction of PTRs is unnecessary and inappropriate because inter-regional transmission capacity could be secured by submitting price acceptance bids into the day-ahead market, hedged using financial CfDs contracts, has been expressed. However, it is a fact that market participants could prefer to perform long-term cross-border bilateral trade using other tools, and in the scope of this task force, it has been analysed how to provide this choice to the agents.

The view of REE and RTE is that the transmission rights markets should be implemented because both TSOs do not feel able to avoid users to have an additional element of choice, especially as many of them consider more comfortable when they can obtain forward physical rights. It should also be reminded that the joint PX-TSO Task Force has agreed

that Market Coupling is able to co-exist with the allocation of physical transmission rights and the interface has been described under part 2 of this document.

Compared with the CfDs market, the PTRs solution allows to have the necessary liquidity in the market avoiding extra costs for the system. Within the CfDs markets, the initial liquidity must be created *"...by submitting a price acceptant bid to the CFD market, for a certain amount of energy, and at precise moments (from annually to weekly) in the name of the final receivers of the "Congestion rent"*.

Moreover, until the implementation of a market of futures in Spain, it will be difficult for traders to price CFDs; but in case a market of futures exists in Spain too, the usefulness of a CFD market is questionable since traders could arbitrate between futures in Spain and Powernext' futures.

Since 1993, NordPool has established a single financial market for all Scandinavian countries. Contracts for Differences were only introduced after seven years of operation of the financial market and traded volumes remain insignificant. As in the Spanish and French foreseen Derivatives Markets, NordPool first started with a "physical delivery" financial market before switching to a pure financial market.

3.2 Interface between PTRs and Market Coupling

In its article 6, "General principles of congestion management", paragraph 4, the EC 1228/2003 Regulation indicates that *"Market participants shall inform the TSOs concerned a reasonable time ahead of the relevant operational period whether they intend to use allocated capacity. Any allocated capacity that will not be used shall be reattributed to the market, in an open, transparent and non-discriminatory manner"*.

The application of the « use-it-or-lose-it » principle to the Physical Transmission Rights prior to the gate closure of both day-ahead spot markets establishes a separation between PTRs and Market Coupling. It provides firmness and therefore full netting of opposite declarations prior to the day-ahead spot markets, and is currently being applied in many European borders (e.g. Germany-Danemark, Netherlands, ...). However, with the existing regulation on the Spanish system, in case of applying the « use-it-or-lose-it » principle prior to the gate closure of the DMC, long-term PTRs could only be used in Spain to perform Physical Bilateral Contracts between physical units and not for market agents taking part in OMEL's market. In the Spanish system, in order to allow PTRs get used by both market transactions and Physical Bilateral Contracts, the application of the « use-it-or-lose-it » principle should be necessarily done inside the DMC.

Nevertheless, in the French system, the application of the « use-it-or-lose-it » principle prior to the gate closure of the DMC also allows the use of PTRs for non-bilateral cross-border trade. Additionally, the application of the « use-it-or-lose-it » principle inside the DMC would require significant changes in the current French market structure and organisation.

The application of the « use-it-or-lose-it » principle inside the DMC makes the DMC algorithm more complex, requiring also a higher level of information exchanges between TSOs and PXs.

In the explained situation, RTE is in favour of implementing the « use-it-or-lose-it » principle prior to the gate closure of both day-ahead spot markets, and REE would also consider acceptable the application of the « use-it-or-lose-it » principle prior to the DMC,

as a transitory measure. Nevertheless, in REE's view the application of the « use-it-or-lose-it » principle during the DMC would be the most suitable mechanism to be applied in the future.

3.3 Intra-day mechanism

As stated in part 2 of this document, REE and RTE feel that intraday decentralised market coupling could provide full compliance with the EC Regulation since it would imply a high level of co-ordination, it would reveal the value placed on capacity and produce efficient directional price signals to the market. However, the implementation of intraday market coupling requires a level of harmonisation that may be difficult to achieve in the medium term.

Taking also into consideration that new legal and regulatory arrangements (including new operational challenges, timetable and interfaces) should be needed if one of the two countries is to be entirely responsible for the allocation of capacity at the intraday horizon, RTE favours that the existing intraday congestion management practices are maintained while improving its efficiency as much as possible.

REE considers as another possible alternative the allocation of capacity in the Spanish Intraday Market, although REE recognises that this solution is a non symmetrical one and would have to be necessarily approved by the French electric system.

3.4 Guarantee of allocated capacity: TSOs' proposal vs OMEL's proposal

The Operational Procedure proposed by TSOs for guaranteeing the allocated capacity is the so-called "**Coordinated Balancing Action**". As explained in Chapter 4.3.1 of Part 2 of this document, this co-ordinated balancing action consists of the co-ordinated use of the balancing markets in both electric systems for the minimum value needed for solving the possible congestion caused by the cross-border capacity reduction.

This mechanism will be put in place by TSOs through the participation of each TSO in the balancing mechanisms currently existing in his own system, this is:

- In the French system, RTE will make use of the offers submitted by the users to the French Balancing market (Mécanisme d'Ajustement).
- In the Spanish system, REE will make use of the offers submitted by the users to the Spanish Balancing markets (Gestión de Desvíos and Regulación Terciaria).

In practice, the guarantee of the available capacity already allocated will require opposite actions in both systems:

- If the cross-border capacity shortage requires a reduction of the physical flow from Spain to France, the countermeasures adopted by TSOs will be an energy increase in France and an energy decrease in Spain.
- If the cross-border capacity shortage requires a reduction of the physical flow from France to Spain, the countermeasures adopted by TSOs will be an energy increase in Spain and an energy decrease in France.

Each one of these actions taken by TSOs within their respective systems also has a cost or an income associated:

- In the Spanish system, the cost/income of an energy increase/decrease depends on whether there has been a session of “Gestión de Desvíos” or not:
 - If there has not been such a session, the energy activated/disactivated within the Coordinated Balancing Action is valued at a price equal to $|P_{OF} - P_{mMD}|$, where P_{OF} is the price of the corresponding offer and P_{mMD} is the marginal price of the Day-ahead market for that period.
 - If there has been a session of “Gestión de Desvíos”, the energy used/reduced is valued at a price equal to $|P_{GD} - P_{mMD}|$, where P_{GD} is the marginal price resulting from that session and P_{mMD} is the marginal price of the Day-ahead market for that period.
- In the French system, the increase/diminution of injection in the schedules of the concerned balancing units (selected by merit order) will be paid by/to RTE. Naturally, in this case, the actions taken in the French system would also have a cost/income associated, if the generation dispatch is an increase or a decrease, respectively.

Finally, in relation to the settlement of these costs/incomes, the procedure would be the following:

- In the Spanish system, it would depend again on whether there has been a session of “Gestión de Desvíos” or not:
 - If there has been such a session, the actions taken in the Spanish system are settled together with all the other unbalances in the hourly period.
 - If, on the contrary, there has not been a session of “Gestión de Desvíos”, since the action/s (activation of Tertiary reserve offers) are taken for solving a constraint in real-time, tertiary offers are used, in this case, for choosing the economically most efficient offers, among all the technically valid ones, and for having a reference of prices for remunerating that energy.
- In the French system, this will be done according to the applicable rules of the “Mécanisme d’Ajustement”.

Advantages of TSOs’ proposal

- The cost is known immediately, avoiding any uncertainty for agents in this respect.
- It is absolutely transparent, fully co-ordinated between TSOs and market-based (based on the activation of offers in the respective balancing markets).
- The cost is not affected either by the use of Tertiary Regulation nor by the total volume of imbalances in that hour.

Reasons for coordination

According to the existing UCTE rules, the action proposed by TSOs (the already referred “**Coordinated Balancing Action**”) must be taken in a coordinated way by RTE and REE, due to the following reasoning:

- The global balancing action represents a modification in the use of cross-border capacity. Because of this, and as it is always done for establishing a new capacity value in the interconnector, the agreement of both TSOs (a common decision on the new value) is fully necessary.
- Every reduction of the available transfer capacity value causes a change in the adjustment of the automatic device that controls the energy exchange between both interconnected areas. Since this instantaneous change must take place at a

precise moment, it is necessary that both TSOs agree this exact moment when the adjustment will switch.

- Finally, and for guaranteeing that the schedules established in both systems always respect the new adjustment value, and that there are not unintended deviations, both TSOs must necessarily adopt actions by the same total value.

Some considerations regarding the accounting and recovery of costs

- The costs accounting must be transparent and common in both systems.
- According to article 6 of the EC Regulation, these costs are associated to the use of the network, and therefore they should be kept at the same account where the congestion revenues are collected, and their destination being finally subject to a decision of Regulators.
- Other alternatives (like a settlement process similar to usual imbalances settlement) would lead to a lack of transparency, since the cost of the action would be affected by all the balancing actions and imbalances from that hour. Moreover, in this case the exact cost incurred wouldn't be known until the definitive settlement time .

4. Reminder of the main regulatory changes needed in France and in Spain before applying the TSOs' proposal

As explained in the part 1 of this document, the implementation of a new co-ordinated congestion management mechanism in the France-Spain interconnection has a great number of advantages but it also requires a higher degree of harmonisation of the existing regulatory frameworks and procedures.

Main regulatory changes and new challenges in Spain

In the Spanish System, the main regulatory challenges to be dealt with, in order to properly apply the proposed congestion management method, could be described as follows:

- The "External Agents" Ministerial Order, published in the 14th July 1998, must be modified to make possible the implementation of the proposed mechanism, allowing the application of the new congestion management method.
- Existing extra-costs (power guarantee, losses and constraint solving cost) should not be applied for international trade.

Main regulatory changes and new challenges in France

In France, a new version of the "Access Rules for Imports and Exports on the French Public Power Transmission Network" will be required, as well as some changes in relation to the "Balance Responsible Entity System" rules.

The implementation of Market Coupling will also modify the existing interface between Powernext and RTE. Moreover, the implementation of day-ahead price difference bids may lead to new types of regulatory and contractual arrangements.

Other aspects to be harmonized between both systems related to specific co-ordination issues between OMEL and Powernext still need to be addressed for Market Coupling to be set up (please refer to parts 1 and 2 of this document).

**DEFINITION OF A NEW CO-ORDINATED CONGESTION MANAGEMENT MECHANISM
ON THE SPANISH-FRENCH INTERCONNECTION**

**PRELIMINARY CONCLUSIONS OF THE JOINT PX-TSO TASK FORCE
BY OMEL-REE-RTE-POWERNEXT**

Part 3. OMEL'S OPINIONS REGARDING THE ISSUES DISCUSSED

Introduction and preliminary comments

This paper presents OMEL's opinion to the proposed mechanism for the coordinated congestion management of the Spanish-French interconnection.

It presents OMEL's overall opinions regarding the issue, but also, the particular reasons for the different positions maintained through the development of the common document and our proposal for solving the apparent difficulties for implementing some of its features raised by the other parties which has collaborated in the writing of the common document.

Before presenting the particular reasons for the different positions maintained through the development of the common document, we consider necessary to refer to the following general statement.

I. Day-ahead solution to cross-border congestions and the role of market operators/power exchanges

The role of organised markets is not well defined in some Member States and, as a consequence, in the EU regulations. This lack of precise definition can be identify as one of the main obstacles to design and apply at the community level an efficient system to allow cross border transactions in a non discriminatory conditions regarding national transactions.

In case that a set of transactions are compatible (once netted) with the security standards in the networks, that is to say, if this were lower that the commercial capacity published by the RTO's, those transactions should be allowed.

On the contrary, if this set of transactions over passed the commercial capacity, a situation of congestion appears. It means that a congestion situation is the one corresponding to a rationed market. The congestion management is, thus, a method to solve market rationing and, moreover, a permanent congestion between systems of the European Union corresponds to an internal market submitted to a continuous situation of scarcity in which free transactions can not happen in the

same way than domestic transactions. Free access to the network without discriminations is not possible if we compare domestic and intercommunity transactions.

In this context, Power Exchanges can provide an essential transparency about the situation, as well as, the more efficient method to solve congestions when they occurred.

When an organised market incorporates prices formation by respecting the available commercial capacity published by TSO's, not only congestions are solved, but also it is in a manner so as to avoid artificial prices.

This is the reason for which, even if explicit auctions and/or prorata were required to be put in place, the day ahead implicit auction method should be applied. Otherwise, market efficiency and price convergence can not exist for the European single market.

The day-ahead mechanism based on implicit auctions is the same mechanism than the one used for organised markets to establish prices taking into account the available commercial capacity of international interconnections. It is essential that this reality will correspond with the recognition of the importance at the European Union level of market operators/Power Exchanges which in fact exist in almost every Member States.

The cooperation between these market operators, and this document deals with a local example, can provide additional benefits to price formation an efficient congestion management at the multinational level in the EU

II. Considerations about the applicable EU Regulation

On 1st the July, 2004 the Regulation 1228/2003 and the Directive 2003/55/EC will enter into force.

The main applicable regulation in Spain, in principle, does not need to be significantly modified to fulfil with the statements of the Directive and the Regulation indicated above. The reasons for this assertion are the following ones:

- Every domestic or foreign, producer, retailer or consumer can send bids to the organised market or to establish bilateral transactions.
- The only condition established to access the market is the a to figure in the corresponding Administrative Register which, in turn, makes it possible to become market agent.,
- The market agents have the right to participate in the daily and intraday markets.
- The information flows between the market operator and the system operator, needed to guarantee free access to the market and security of supply are clearly defined in the Market Rules and in the Technical Operational Procedures.

- Free access to the networks is widely established in the regulation as a regulated network access.
- The results of the markets and ancillary services and its prices are public and accessible in the webs pages of OMEL and REE.
- The congestion methods regulated and applied in Spain are based on a combination of implicit actions for bids and offers in the organised market and on explicit auctions for bilateral transactions.

In this respect we would like to underline the following statements of the Directive 2003/55.

Art. 3 of Directive 2003/55/EC establishes in point 3.

“They shall ensure (Member States) high levels of consumer protection, particularly with respect to transparency regarding general contractual terms and conditions, general information and dispute settlement mechanisms. Member States shall ensure that the eligible customer is effectively able to switch to a new supplier. As regards at least household customers these measures shall include those set out in Annex A”.

- Annex A includes, between others, the following provisions:

“... the measures referred to in art. 3 are to ensure that customers:

(a)

(b)

(c) receive transparent information on applicable prices and tariffs and on standard terms and conditions, in respect of access to and use of electricity services.

(d) are offered a wide of payment methods ... customers shall be protected against unfair or misleading selling methods.

(e) Shall not be charge for changing supplier.

...”

In the same line, and in a more specific way, the Note of the DGTREN on Directive 2003/54/EC: Practical measures for distribution resulting from the opening up to competition, underlines these rights.

Regarding the principles of the EU single market, these consumer rights should be applied not only in domestic contracts, but also, and in the same way, to international transactions.

When a consumer decides to be supplied through an organised market, there are not problems to preserve his right to change supplier or about the

conditions of the contracts, because prices are transparent and the participation in the market is one of the possibilities to be supplied. At least it happens in this way in the Spanish market.

However, when referring to international bilaterals, it is not clear that they can respect all the consumer rights specifically if these bilateral contracts are involved in explicit auctions.

This regime would not respect also Art. 20.1 of the Directive 2003/54: *“Member States shall ensure the implementation of a system of third party access to the transmission and distribution systems based on public tariffs, applicable to all eligible consumers and applied objectively and without discriminations between system users”*.

Regarding Regulation 1228/2003 art. 6 establish that:

“1. Network congestion problems shall be addressed with non-discriminatory market solutions which give efficient economic signals to the market participants and transmission system operators involved. Network congestion problems shall preferentially be solved with non transaction based methods, i.e. methods that do not involve a selection between the contracts of individual market participants”...

It seems clear that the implicit auction method is the only one that does not involve selection between individual transactions.

“6. Any revenues resulting from the allocation of interconnection shall be used for one or more of the following purposes:

- a) Guaranteeing the actual availability of the allocated capacity.*
- b) Network investments maintaining or increasing interconnection capacities.*
- c) As an income to be taken into account by regulatory authorities when approving the methodology for calculating network tariffs, and or in assessing whether tariffs should be modified”.*

The guidelines on the management and allocation of available transfer capacity of interconnections between national systems incorporated to the Regulation as its Annex, states:

“General

- 3 Different treatment of the different types of cross border transactions, whether they are physical bilateral contracts or bids into foreign organised markets, shall be kept to a minimum, when designing the rules of specific methods for congestion management. Any differences in how transactions are treated must be shown not to distort or hinder the development of competition”.*

“Principles governing methods for congestion management:

- 3 The possible merits of a combination of market splitting, or other market mechanisms, for solving “permanent” congestion and counter-trading for*

solving temporary congestions shall be immediately explored as a more enduring approach to congestion management.”

“Guidelines for explicit auctions

3 The explicit auctions procedures shall be and designed in such a way as to allow bidders to participate also in the daily session of any organised market (i.e. power exchange) in the countries involved.”

It should be taken into account that new Guidelines are being studied by the European Commission in which the day-ahead mechanism will play an essential role. The new draft Guidelines are based on art. 8.4.: *“Where appropriate, the Commission shall, acting in accordance with the procedure referred to in Art. 13 (2), amend the guidelines of the management and allocation of available transfer capacity of interconnections between national systems set out in Articles 5 and 6, in particular so as to **include detailed guidelines on all capacity allocation methodologies applied in practice** and to ensure that congestion management mechanisms evolve in a manner compatible with the objectives of the internal market”.*

The Annex of the Regulation 1228/2003 specifically deals with the long term contracts. It states that *“priority access rights to an interconnection shall not be assigned to those contracts which breach Art. 81 and 82 of the EC Treaty.”* It also states that *“existing contracts shall no pre-emption rights when they come up for renewal.”*

It means that long term contracts could hinder competition and that they will lose its preferential rights in interconnectors only when they come up for renewal.

This conclusion can be also derived from the note of D.G. Energy and Transport on Directive 2003/54/EC: Measures to secure electricity supply, when in point 3.A c) refers to long term contracts. In this point the DGTREN considers that those contracts can be established but that they have important disadvantages: *“Two main disadvantages of the “long term” contract approach are the possibilities for eligible customers to switch to suppliers with less expensive contracts, coupled with the feat that these contracts might not be long enough to dampen the business cycle”.*

From the point of view of avoiding dominant positions in the market and promoting competition it should be recognised that.

- Previous exclusive rights on interconnectors to the day-ahead market reduce competition in the organised markets.
- This could be mitigated in case that:
 - If the previous rights are not to be used, they shall be incorporated to the day-ahead market.
 - Market prices should not be distorted by the owners of these previous rights.

- However, these two conditions, which in fact materialise the application of the principle “use it or lose it”, implies that the previous rights are not needed to be considered or taken into account in the day ahead market.
- Also the degree of competition in the bilateral market is at least reduced if we compare it with a situation in which there are not previous rights on the interconnector to the day-ahead market. It is clear under the following assumptions:
 - Bilaterals indexed at the market prices vs. bilaterals at fixed prices.
 - A bilateral at a fix price benefiting from an exclusive right on an interconnector is equivalent to hedging price differences between the day ahead markets under congestions and Power Exchanges can deal with a financial instrument to cover price differences in a more efficient way.

The benefits from an efficient demand management including the one coming from the demand response to market prices are widely recognised in the Directive.

The direct participation in an organised market by a consumer contributes to its rational behaviour. This efficient demand response to prices increases the price elasticity of the demand for electricity and then reduces the effect of dominant market power.

In this respect, previous rights on interconnectors enjoyed by fix priced bilaterals do not promote the competition in the market. Besides, a variable priced bilateral contract can be effectively discouraged by explicit auctions.

III. Disadvantages of restricting access to organised markets.

Free access to organised markets is an essential contribution, not only to a transparent formation and general knowledge of the price of the commodity electricity along Europe, but also to other essential issues:

- It can contribute to mitigate dominant positions of producers or retailers.
- It enhances the dimension of the free market.
- It provides signals and possibilities for an efficient response to prices by consumers.

This free access deals with the need that every consumer, retailer or producer can access the market. Taking into account that organised markets are a valid instrument to the progress of the European single market, access to bids coming from agents established in other countries can not be distorted or forbidden.

This neither prejudice the access to trade bilaterals nor the consumer right to change supplier.

IV. Congestion rents.

The different uses of congestion rents are needed to be handling by Regulators. Rules incorporating maximum transparency should be established to avoid distortions regarding these kinds of charges on European international transactions.

- In case the congestion rent is used for guaranteeing the actual availability of the allocated capacity, it should be taken into account that some TSO's have economic incentives to solve congestions (benefits) and that, in that case, the congestions rent can increase them in an unduly manner.
- In case congestion management is used for network investments, it should be necessary that:
 - The retribution system to new lines is insufficient or does not contemplate it. Otherwise, it will be equivalent to pay twice a line or the maintenance of a line.
 - In case the investment is not done in a period, the TSO's should return to regulators the congestion rent.

It is clear that, if the congestion rent is not dedicated to networks investments or networks maintenance, this amount of money will increase the company benefits, whose destination according to accounting standards will be taxes, distributed benefits to the shareholders of the company or reserves. It is needed to establish a binding rule to constitute an accounting provision for this funds, if network investment or maintenance does not take place, on the year or in a period of years.

- It seems that the more neutral use of the congestion rent is the one contemplated in art. 6 (c) of the Regulation (reduction of access tariffs).

V. Scarcity of interconnections between France and Spain.

The Iberian Peninsula is connected with Central Europe through four electrical lines with France:

- Vic-Baixas: 400 Kv.
- Biescas - Pragnères: 220 Kv.
- Arkale-Argia: 220Kv.
- Hernani-Argia: 400 Kv.

The last interconnection was put in service in the first 70's. This means that during the last 30 years no new lines have been put into service.

The nominal capacity of these lines is 4.111 Mw in both senses (importing and exporting). However, the commercial capacity is much lower, between 1000-1400 Mw for imports and between 750-1000 Mw for exports. In the last months

a notorious reduction of the exporting capacity is in place from the mentioned figures to 250 Mw.

As a consequence, only 3,2% of the pick demand (38.000 Mw in Spain) can be exchanged between France and Spain. Taking the generation capacity (59.866 Mw 31-12-2003) only 2% of the generation capacity can be exchanged. If we discount the contract between REE and EDF these percentages are even more reduced.

The conclusion is that the present commercial capacity is negligible in terms of the Iberian Peninsula integration whitening the European internal market. Nevertheless, in case that the generation capacity reserve is relatively high in Spain, the international trade through the border can have a positive effect in the market price and on the efficiency of the market. The condition for such a result is not imposing new constraints to free trade on market agents and to continue applying or to improve the existing congestion method based on implicit auctions in the Spanish side.

This has been the aim of OMEL's participation in the works presented in this document.

In order to simplify its reading, the document follows the same structure than Part 2 of the common document, introducing the different comments in relation to the addressed issues as they have been raised on it.

1. Long-term mechanisms

The common document (Part 2, Chapter 1) presents two potential long-term mechanisms for congestion management, the first one based on explicit auctions, providing physical PTRs (section 1.1), the other one, a financial CfD market (section 1.2).

OMEL believes that the introduction of a long term congestion price hedging mechanism, complemented with the Market Coupling Mechanism proposed, is an adequate solution, since some participants may wish to have them in operation for ensuring the technical and economic feasibility of long term transactions. However, being the interconnection capacity between Spain and France very reduced (the order of 1200 MW, with a long term pre-liberalisation contract between EDF and REE which uses 550 MW of them), the final implemented system must not interfere with the market, provide the adequate economic signals and not allowing any type of market manipulation, or even, market advantages, for any of the participants.

Explicit auctions of PTRs have already shown in the places they have been put into operation that they do not fulfil these requirements, providing in many situations price signals in the opposite sense than market prices and leaving the interconnection unoccupied in many occasions. In order to reduce these negative effects, the "Use It or Lose It" principle has been proposed. However, although this method mitigates its inherent problems, it does not solve them completely. In fact, as it is discussed in Appendix 1 of this OMEL comments, the introduction of the PTRs auctions or markets is not feasible, even with the "use it or lose it" rule, if a

solution like the Market coupling presented in this document is not applied, since the physical capacity will not be fully utilized.

In the common document an alternative is presented, a CfD financial market that, providing the same possibilities for participants, does not include any of its damaging characteristics. The two alternatives are compared in Appendix 1, demonstrating the validity of this argument.

Two main arguments have been presented against the CfD market:

- Its *financial* characteristics against the *physical* ones associated to PTRs. With regards to the “physical” characteristic associated to the PTRs mechanisms as opposed to the financial CfD market, which has been introduced as the only advantage of PTRs in relation to the CfD market, Appendix 2 includes a demonstration of the financial character of the PTRs, and how, a participant with a PTR, in case of not having energy to fill the PTR, may not use it and, in fact, receive the difference of prices between the two markets. Appendix 1 already demonstrated that, even being financial, the CFD market provides a hedging that allows market participants to schedule a physical transaction in any case.
- The difficulties associated to generate the needed liquidity for the financial CfD market to be a useful tool has been questioned. In this regard, this problem could be real, especially at the start of the operation of the new congestion mechanism. For that reason, a proposal is made in the common document to provide initial liquidity to this market. A more detailed description of this proposal is made in Appendix 3.

Once established, as it is proven in the appendix, that through the financial CFD market you can hedge the potential congestion cost, and that through the proposed market coupling mechanism you can always schedule your physical contract or your transaction as an external agent, at previously known cost, it is clear that mixing the financial coverage of the congestion cost with the physical rights of the interconnection usage, as it is done in the explicit auction of the physical rights (PTRs), is a mistake that creates a series of problems and provides no advantage, compatible with Directive or with the competition rules, for anyone.

The main disadvantages of the PTR auctions vs the financial CFD markets are:

- In the PTR auctions you have to deal with the situation in which you have auctioned more rights than the ones that really exist in reality. This creates a problem for the receivers of the congestion rent since they will lose money due to the selling of a forecasted capacity by someone else. In the CFD market you have no problem since the counterparty is another market participant.
- You can only auction the physical capacity that is forecasted in each sense of the flow (netting is impossible) since you are only auctioning options to use the capacity. In the financial market there is no limit, as long as there are participants with a different view of the future congestion cost.

- The internal electricity market establishes competition in energy but not in transmission rights, which are considered a natural monopoly and are subjected to centralized mandatory planning. The auction of these physical rights introduces a very important unnecessary distortion in the model, when it is not necessary to provide adequate financial long term hedging for participants and the day-ahead mechanism to guarantee that will schedule the transactions that they desire.

As a consequence of all the above reasons, OMEL proposes for the new cross-border congestion solution not to create the explicit auction mechanisms of the physical transmission capacity (explicit auctions of the PTRs) and to create instead the CfD market to provide participants with a tool to hedge future potential congestion costs. In case there is a need to increase its liquidity at the initial stages of its implementation, a mechanism like the one proposed could be used.

2. Day-ahead mechanism

2.1 DMC

The Decentralised Market Coupling mechanism (DMC) has been proposed in the common document (Part 2 Chapter 2) by the four parties as the best method for the management of congestions in the day-ahead and intraday horizons. In fact as it is explained in appendix 1, the proposal by TSOs of explicit auctions of the forward physical transmission rights is not even possible, if a mechanism like the proposed DMC is not implemented in the day-ahead horizon, to make sure that the capacity is not left free, which is the obvious consequence, if the cross border capacity is auctioned, with no other mechanism in place. As indicated the “use it or lose it” mechanism, releases the capacity too late for being occupied by other participants.

DMC, as described in the document (section 2.2), integrates physical bilateral contracts, negotiated apart from the Organized Markets, and Organized Market transactions in a fully non discriminatory basis, as required by the EU Directive and Regulation, and automatically produces the necessary physical cross-border interchange of electricity between the two countries when the market prices justify them.

However, in spite of the agreement between the four parties in the general concept, there have been several issues under discussion that are addressed in the following sections.

2.2 Interface between PTRs and day-ahead DMC

In the common document (Part 2 section 2.1.1), there have been two main positions regarding this issue.

- The first, proposed by RTE and Powernext introduces the requirement to PTR holders to firmly declare their transactions before the DMC process, as the only option for the owners of PTRs to make use of them. OMEL thinks

that proposing only this option will aggravate the problems already created by the PTRs and that there is no valid reason for forbidding the conditional execution of the physical rights

- The second, proposed by OMEL and REE also introduces the requirement to PTR holders to declare the transactions before the DMC process. However, for those PTR holders who wish to participate in any of the markets, it allows them to present a “conditional” declaration, stating that, in case they are matched, they will use the PTR and, in case they are not, they will lose it in application of the “Use It or Lose It” rule inside the DMC mechanism itself. With this additional option some of the disadvantages of the PTRs auctions are solved since participants do not need to take the decision of whether they are going to use them or not prior to knowing the market prices. If this option is not known and market prices are uncertain, participants may end up having to produce

The difference, although it could be considered apparently small, is very important. The first proposal would in practice forbid any PTR holder to participate in the energy market allowing PTR holders to declare exclusively physical bilateral contracts to cross the interconnection. The second proposal would permit both types of transactions, physical bilateral contracts and market transactions, in equal terms.

Lets compare the two alternatives from different points of view:

- From the regulation point of view, we believe the first proposal goes clearly against the Regulation EC /1228/2003, of 26th June 2003, as it creates a clear different treatment between the two types of transactions, bilaterals and market ones, with a clear benefit for bilaterals.
- From the security point of view, there is no difference whatsoever between the two methods. For the System Operators, it is the same to know the final cross-border transactions a few minutes before 10h (declaration time), or a few minutes after (end of the DMC process)
- From the interconnection utilisation point of view, both alternatives ensure, in case there is a price difference between the markets, the full use of the interconnection capacity. The “Use it or Lose it” principle can be perfectly applied inside the DMC process for this type of “conditional” declarations.
- From the implementation point of view, there is no problem in the consideration of these transactions in the DMC process.

As a consequence of the above reasons, OMEL proposes that PTR holders who want to exercise their right of participating in the market, are allowed to do so, by presenting “conditional” declarations before the DMC process, losing these rights in the process, if their bided energies are not matched in application of the “Use It or Lose It” principle. A more detailed presentation of this topic is introduced in Appendix 4. A description of why it is not feasible to limit the PTRs owners to execute uniquely physical bilateral transactions is presented in Appendix 2.

2.3 Participation of physical bilateral contracts in the DMC process

In the common document, both in the description of the DMC process and in other related areas (Part 2, Chapter 2), it has been considered that physical bilateral contracts could participate and, in fact, compete against the market transactions for crossing the interconnection without any type of discrimination. However, during the discussions, some of the participating entities have doubted about these possibilities and one section of Part I (section 3.2) introduces the need of new types of regulatory and contractual arrangements for taking them into consideration.

As it is described in the document, DMC is a flexible method which permits the participation of physical bilateral contracts in the congestion management process in equal terms with market energy bids. Bilateral contracts present price difference bids to the DMC process indicating how much they are willing to pay for being executed. In case of congestion, if the congestion cost (difference of price between the two adjacent markets) is above the offered price, the bilateral will not be scheduled. If it is below the offered price, the bilateral contract will be scheduled. The proposal also includes the possibility of bilateral contracts in the sense that favour the congestion, these contracts are willing to be executed if they receive, at least, a certain amount of money. The combination of these two possibilities for bilateral contracts (paying or receiving money) and market bids of productions and consumptions in both markets Spain and POWERNEXT, will create the real congestion cost.

We believe that this feature of the DMC is very important. First, it permits the fulfilment of the Regulation EC /1228/2003, of 26th June 2003. Second, it gives the necessary freedom to participants to exercise whatever type of contractual arrangement they are interested on. Finally, it provides DMC with a full and integrated solution that, together with the proposed CfD financial market for long term congestion costs hedging, solves the existing problem of the scarce capacity between Spain and France in a simple, integrated manner.

Forbidding bilateral contracts to participate in the DMC, indicating that it could require the modification of the current regulation and contractual arrangements would be a mistake. In fact, the overall solution proposed would, at least in Spain, require several regulatory changes, many of them more important than this issue.

From the implementation perspective, the Market Coupling proposed by EuroPEX includes from the beginning the possibility of participation of bilateral contracts and does not present any problem from the design or implementation point of view.

As a consequence of the above reasons, OMEL considers very important that the proposal is maintained as it is described in the document, and bilateral contracts are permitted to participate in the DMC process by introducing price difference bids.

2.4 Participation of “external agents” in the DMC process

“External agents” in the Spanish regulation are those participants in the Spanish market who sell or acquire energy from outside Spain. That is to say, European (through the Portuguese or French interconnections) and African (through the Moroccan one) companies who wish to sell or buy electricity to Spanish companies through physical bilateral contracts or participate in the Spanish electricity market. Examples of current “external agents” are, among others, EDP and REN through the Portuguese interconnection, ONE through the Moroccan one, and EDF, Electrabel, ENEL, ATEL, RWE, etc... through the French one.

In the common document, there have been two main positions regarding this issue; RTE and Powernext have presented their opposition to allowing “external agents” to participate in the DMC process. OMEL and REE have been in general terms in favour of their existence.

Basically, the argument against these agents has been based in the current French situation, which imposes the need to all participants in the Powernext market to bid from the French hub, and, thus, does not permit the participation of participants from abroad (external agents) in the market. On the contrary, in Spain, several companies are already authorised to perform such type of transactions and it is not considered neither feasible, nor appropriate, to reduce the participant’s rights, even in the case it were possible, without a good reason.

In fact, the discussion has been directed towards the possibilities that each participant would have once the DMC process is implemented. The elimination of the “external agents”, in fact, forbids any company in the EU to sell (or buy) its produced (or consumed) energy in any other energy market than the one implemented on the country on which it is installed. If they want to perform any type of international transaction, it must be done through a bilateral contract, but never through an organized market. In reality, this approach intends to create a type of monopoly for the incumbent market operator on each European country. All energy consumed or produced on such country must be scheduled either through a bilateral or through the local market, forbidding any company to negotiate its energy in any other adjacent market.

From the regulatory perspective, we consider that it is not reasonable, in case it was legally possible, to limit the contracting possibilities of EU companies. This restriction also goes against the electricity single market objective proposed by the EU Regulation. In Spain, this issue is especially relevant, as several foreign companies are already allowed to perform such type of transactions. In France, recent documents generated by the CRE (Délibération relative à l’approbation des règles du mécanisme d’ajustement), require RTE to open the adjustment market to participants from the UK and Spain, also allowing, consequently, the participation of the called “external agents” in the French market.

From the implementation perspective, OMEL has already designed and presented to the other companies a solution to introduce these participants in the DMC process without causing any kind of difficulties.

As a consequence of the above reasons, OMEL considers very important to maintain the accessibility to the EU companies to freely participate in the different EU markets and not to eliminate the concept of “external agents” in the process.

2.5 Declaration of cross-border transactions

In the common document (Part 2 section 2.1.1), apart from the declaration firmness issue, the four parties have agreed in a common approach for the declaration of cross-border transactions and the nomination process in the two countries when these transactions have previously obtained PTRs. However, a similar agreement has not been reached in relation to cross-border transactions without PTRs (section 2.2).

RTE and Powernext has expressed their opinion that this issue is exclusively related to the power exchanges and that, in the French case, the only requirement is that all participants must be Powernext members, restriction that did not apply to the participants who had PTRs.

In the opinion of OMEL, if the proposed congestion management mechanism is finally applied, it is of the utmost importance to ensure that all declared transactions, both with PTRs and without PTRs are firm, and that if they are matched in the DMC process, they have followed all processes required in the two countries to ensure their validity. In this case, if RTE agrees that any transaction resulting from the DMC is firm and they accept it, situation that is not happening now under the current congestion management mechanism, it would be sufficient for OMEL. However, the introduced compulsory requirement of being all companies who may want to perform a cross-border transaction, even bilateral contracts, members of Powernext, it is not considered appropriate. This proposal is intended for two purposes:

- To create a disadvantage, adding an additional requirement, for participants that wanting to do cross-border transactions, do not want to participate on the explicit PTR auctions and want to hedge the potential congestion cost in a different manner.
- As indicated in the external agents issue to create the monopoly situation of the local Power Exchange in France since every participant that do not want to go to the explicit auction, need to participate on it, to be able to schedule a cross-border transaction.

Accordingly, there should be no discrimination, of either market participants or parties involved in a cross-border physical bilateral contract, due to the procedure that they have selected to hedge the possible congestion costs. Whether they have purchased physical transmission rights (PTRs), they have hedge the potential congestion cost (CfD market) or they have selected any other form of hedging of the congestion costs, or they selected to pay the real value of the congestion, if it exists, the notification requirements for the participants need to be identical, in order not to create an unnecessary discrimination between participants.

2.6 Integration of the EDF-REE long term contracts

EDF and REE maintain a pre-liberalisation long term contract which normally occupies 550 MW of the interconnection capacity in the France-Spain direction. The Spanish Law establish that this contract is introduced in the Spanish market at

a variable cost. Thus, if there are energies in the market cheaper than the contract, it is not scheduled. With the introduction of the proposed congestion management mechanisms, several alternatives could be envisaged to introduce the contract.

In the common document (Part 2 section 2.3), two alternatives have been presented, one by REE and one by OMEL. REE basically suggests that the contract must be scheduled whenever the Spanish price is above the variable cost of the contract, that is, its presented bid. OMEL suggests to continue applying the current Spanish regulation, introducing a bid associated to the energy at the variable cost and scheduling it only if its price is below the Spanish and French prices. Both companies agree that the contract, if scheduled, does not have to pay the congestion costs.

Both proposals are relatively similar. The only difference appears when the Spanish price is above the contract variable price and the French price is below it. In REE's proposal, the contract would be scheduled. In OMEL's one, inside the DMC process more energy would come from the French side in application of DMC until the price of the French market (Pownext) and the variable cost of the contract would be equal, thus reducing in this particular case the energy assigned to the contract.

In the past, several discussions have been held in Spain in relation to the scheduling of this contract. As the contract variable cost is known in advance, and it uses the interconnection, other bidders from France could theoretically present bids to the Spanish market at a price below it, having a preference over the contract in case of congestion. As in the current congestion management mechanisms in Spain, all bids receive the market marginal price, these participants that had presented bids to the market below the price of the contract would be scheduled but receive a price above it, producing a net loss for Spanish consumers (ultimate beneficiaries, or, in fact, losers from this contract). As a consequence, several proposals have been made in the past in the direction of scheduling the contract whenever the price received by the competing bid was above the price of the contract. In the current legislation, that required scheduling the contract whenever the Spanish market price was above the contract price. In the new DMC process, it requires scheduling the contract when both market prices are above the contract price that is precisely the proposal made by OMEL.

However, once this is mentioned, while the contract is maintained in the Spanish regulation it is important that it is respected and a mechanism is found to integrate it in the DMC process in a fair manner in relation to the other energies. OMEL proposal is directed towards this goal.

As it has been explained, the DMC process automatically produces a flow of electricity between the two adjacent markets when their prices are different. This flow finishes when the two prices are equal or when congestion has been reached in the interconnection. If this is the case, producers on each market receive their own market price. With regards to the introduction of the contract in the DMC process, its energy is thus competing against the rest of Spanish energies and the energy coming from Pownext. If the variable cost of the contract is below Pownext price, it is logic that it should be scheduled as its energy is more competitive than the one coming from France (its price is smaller). However, if Pownext price is below the contract variable cost, there are energies in France that are more competitive than the contract and, in fact, that will receive a minor remuneration than the contract (they will receive the Pownext price that is

below the contract price), and so they should be scheduled instead the contract. In REE's proposal, the contract will also be scheduled in this case. In OMEL's proposal, Pownext energies will be scheduled until the price of Pownext reaches the contract price.

We believe that OMEL proposal provides a fair way of introducing the contract in the DMC process in competition with all energies coming from France without distorting the DMC process. REE's proposal, besides being biased towards the contract, introduces an important distortion in the DMC process, not only in relation with the Pownext energies, but also in relation to the cross-border bilaterals which wished to cross the interconnection and had presented a price-difference bid in DMC and could be out of schedule because of this distortion.

3. Intraday mechanisms

With regards to the intraday markets, in the common document (Part 2 Chapter 3) all parties agree on the need of implementing an intraday mechanism for maximizing the use of the available transmission capacity.

Following the implementation of the day-ahead DMC market, the implementation of the intraday mechanism should follow the same structure and be organised in the same manner between OMEL and Pownext. Unfortunately, Pownext does not operate any intraday market and, consequently, cannot participate on it and this is the reason for the different opinions included in the common document.

In OMEL's opinion, in order to make the congestion management mechanism fully useful, an intraday market where all participants may modify, in case they need, their positions, is necessary. This mechanism will also take care of the spare cross-border capacity in the same manner as the day-ahead capacity has been taken care of. In this direction, OMEL would like Pownext to organise an Intraday market so that the two companies could provide a DMC process similar to the day-ahead one. However, we understand Pownext's reasons for not organising this type of market for the moment.

We believe that an Intraday solution must be provided to participants for the time being. It must be a solution, as similar as possible as the day-ahead one, and easy to be adapted to the Intraday DMC once Pownext organises its own intraday market. OMEL's proposal adheres to these principles and provides a solution that, if not perfect, at least it permits participants to perform their transactions with complete security and be prepared for the future. It is not perfect because there is no intra-day market at the other side of the international interconnection, and a smaller number of bids is expected for energy to be delivered or consumed in France.

Although we agree in principle with some of the comments and general guidelines introduces in RTE's opinion regarding the need of coordinate the intraday mechanism between the two countries, we believe that an intraday congestion management mechanism should be put into operation from the beginning, and that the good wishes for the future solution, once Pownext has an intraday market, must not hinder the current development of a viable solution like the one proposed by OMEL.

4. Real-time processes

With regards to real time congestion management, all parties have agreed in the common document (Part 2 Chapter 4) that all transactions resulting from the DMC process must be firm and that, unless extreme situations, they must be guaranteed. It has also been agreed that this firmness of transactions affect both the transactions directly related to the interconnection (i.e. cross-border bilateral contracts) and to the rest of operations inside the DMC.

OMEL does not agree that rights over the cross-border transmission capacity prior to day-ahead should be also maintained through the real time mechanism. The problems created by the explicit auction of PTRs should be solved prior to day-ahead and not mixed with the day-ahead transaction firmness.

There are however, two different opinions in relation to the specific procedure which must be applied for guaranteeing these transactions.

In both TSOs' opinions, there is a need to organise a kind of specific procedure for this situation, organising what is called a "Co-ordinated Balancing Action". In general terms, when there is a problem in the interconnection (say the lost of 500 MWh of capacity), the two TSOs would, at the same time, use the existing mechanisms on each country to solve the potential negative effect that might have been created by such problem (in our example, to increase production in one country by 500 MWh and reduce it in the other country in the same amount).

Additionally, both TSOs think that all over costs occasioned by the problem should be treated in an integrated and still undefined manner.

In OMEL's opinion, and in order to reduce the operation costs, when there is a potential undesired system situation caused by any problem in the interconnection, it must be solved jointly with any other problems, or particular situations, of each country at that moment. In the above example, if, due to the problem of the interconnection, there is a need to reduce production in one country by 500 MWh, instead of doing it always at that quantity, analyse if the current situation in the country by itself requires any other modification of production and apply uniquely, if necessary, the aggregated figure (i.e. due to the interconnection problem, there is a need to reduce production in 500 MWh, but the demand is higher than expected in another 300MWh, there is only a need to call for a reduction of 200 MWh, saving money and improving the functioning of the electricity system). If both countries were in a fully stable situation, both TSOs would apply the mechanisms with the same quantity, providing the same result than in their proposal. However, if due to the situation on one particular country, its associated quantity should be modified, apply on it the correct figure and later, at the settlement stage, distribute the associated over costs accordingly. To put it in simpler words, as the four parties have agreed that all DMC transactions (national and international) are firm and must be guaranteed, in case of any problem (in the interconnection or any other), apply the already existing mechanisms on each country to solve it and only differentiate at the settlement stage the distribution of the associated over costs.



As a second difference, and in relation to the subsequent treatment of the associated over costs, OMEL believes that, if the problem at the interconnection is caused by an specific problem in one country, the associated over costs should be paid by such country and should not be shared in equal terms between the two. We consider that this approach would help clarify the reasons behind any curtailment of the interconnection capacity, and will create an incentive for both TSOs to maintain, whenever possible, the interconnection capacity at its previous values and only reduce it when the problem is directly related to the interconnection tie lines and not due to any other internal congestion problem that might be solved by other means than reducing the cross-border commercial capacity.

APPENDIX 1

NOTE ON EXPLICIT FORWARD AUCTIONS OF COMMERCIAL CAPACITY BETWEEN SPAIN AND FRANCE

EQUIVALENCE WITH THE PARTICIPATION BY THE AUCTION ORGANISERS IN THE FINANCIAL MARKET(CFD market) TO HEDGE THE PRICE DIFFERENTIAL RISK BETWEEN THE FRENCH AND SPANISH MARKETS (congestion cost) ON BEHALF OF SPANISH AND FRENCH CONSUMERS

1.- INTRODUCTION AND PURPOSE OF THIS NOTE

The purpose of this note is to demonstrate that there are better alternatives to the long term explicit capacity auctions and that the latter indeed are equivalent to the participation of the organizers of the explicit capacity auction in the financial market for hedging the risk of the differential price between the French and Spanish markets proposed by the Market Operators as a part of the 'Market Coupling' arrangements (CFD).

The equivalent participation on the financial market would be on behalf of all Spanish and French consumers, since they are the ones that ultimately will suffer/benefit from the hedging.

The note will demonstrate that the financial market proposed by the Market Operators provides the same physical and financial assurances for both kinds of interconnector users:

- Agents that want to enter into a long term physical international bilateral contract;
- Participants that want to bid in the French or Spanish markets with energy originated or to be consumed in the other system.

2.- SUMMARY AND CONCLUSIONS

Regulation (EC) 1228/2003 of the European Parliament and Council dated 26 June 2003 requires that a method be established to resolve congestion in cross-border connections between EU member States prior to 1 July 2004. This method must be compatible with the requirements established in the aforementioned Regulation.

This note is based on two core arguments (explained in **Attachment 1** to this appendix):

- *Explicit auctions of forward interconnection capacity between Spain and France would have to be accompanied by an implicit*

auction or 'Market Coupling' in the daily markets. If not, such auctions would be unviable.

- *The manner in which the results of the explicit auctions are integrated into the daily markets should not permit any alteration in prices within the daily markets themselves. If this principle is not respected it will not be possible to implement the explicit auctions, because it could be shown that they would allow room for the manipulation of prices in the daily market.*

The solution to the problem of cross-border congestion presented by the Market Operators consists of Market Coupling based on two key elements in the case of the Spain-France interconnection:

- An algorithm to integrate the daily and intraday markets with the possibility of allowing physical bilateral contracts in the daily market using all of the available commercial capacity. The algorithm would ensure a single price in the two markets in the absence of congestion. All net power transferred via the interconnection would create a 'congestion rent' representing the price differential between the two markets in the event of a price gap between them.
- A financial market to hedge the price differential risk between the Spanish and French daily markets over varying terms (years, months, weeks, etc.).

This note will show that explicit auctions of forward physical interconnection capacity are **equivalent** to the participation of the organisers of the explicit auction in the financial market set up to hedge the risk of differential prices in the French and Spanish markets on behalf of consumers in both countries, who would be the actual bearers of the counterparty risk.

To put it another way, if explicit commercial capacity auctions were permitted, this would be mathematically the same as allowing the organisers to participate in the financial market hedging the risk of the price differences between the markets on behalf of Spanish and French consumers. If the price established in the capacity auction, for example for one year, were lower than the average price differential between the Spanish and French daily markets over the year, all Spanish and French consumers would lose on the transaction. If, on the other hand, the auction price were higher than average actual prices, all consumers would gain.

It would not seem advisable to arrange an auction of a public good (i.e. the right to charge users of international interconnection lines in the event of congestion) that is discounted in the calculation of access tariffs, where the risk would in fact be borne by Spanish and French consumers as a whole.

The following points of this note will demonstrate the above mentioned equivalence, both for agents seeking to make international physical

bilateral contracts and for those seeking to participate in the Spanish and French markets in terms of cross-border production or consumption.

3. SITUATION OF AGENTS SEEKING TO MAKE INTERNATIONAL PHYSICAL BILATERAL CONTRACTS

Whenever the matter of explicit capacity auctions is raised, their importance for long-term international physical bilateral contracts is inevitably mentioned. The usual argument is:

‘The parties to an international physical bilateral contract seek to obtain the certainty that they will be able to perform the contract (i.e. produce and consume) every day for a given period and to know in advance the cost of crossing the border with their electricity in over that period.’

Use of the ‘Market Coupling’ mechanism to meet all of the needs of parties to international physical bilateral contracts

The solution proposed through the ‘Market Coupling’ method includes provisions for handling physical bilateral contracts and provides the parties with the certainty of producing and consuming on each side of the border and, moreover, the cost of crossing the border is known in advance. The Market Coupling mechanism thus provides agents with the same facilities as explicit auctions but at the same time offers greater possibilities.

Let us break this argument down into two parts:

- Certainty of performing the physical bilateral contract on every day

Certainty is simply achieved through the proposed Market Coupling mechanism by tendering a price acceptance offer (i.e. accepting to pay any price) to perform the bilateral deal. This is easily understood: Market Coupling with a price acceptance offer to execute the bilateral deal is equivalent to making an offer to sell at a price of zero in the system in which the power is to be generated and a purchase offer at the maximum instrumental price in the system where the power is to be consumed.

Except where the marginal price in the market in which the power is generated is zero (i.e. all producers give away their power) the contract is absolutely certain as regards both production and consumption. Even in the unlikely event of a marginal price of zero (this has occurred in the Spanish market for a total of eight hours over a period of six years and

for the French market in a total of seven hours over the last year), the impact would be minimal, since the problem would be shared by all of the production agents in the country in question.

Having clarified that any international bilateral contract will always be physically performed (i.e. the power will be produced and consumed in both countries), settlements will involve payment of the producer in the bilateral deal at the market price where the energy is generated and collection from the buyer at the market price prevailing in the country where the power is consumed. Upon settlement of the collection and payment, the party performing the bilateral deal will bear the price differential between the two markets.

- **Prior knowledge of the price payable for crossing the border with their electricity (potential congestion cost)**

This is a purely an economic matter which involves hedging the financial risk, and it has nothing to do with the certainty of supply and consumption in the bilateral deal, which operates as explained in the preceding point.

The appropriate solution, which is the 'Market Coupling' mechanism proposed by the Market Operators, is a forward financial market to hedge, precisely, the uncertainty regarding the price differential between the Spanish and French daily markets. This price differential will only exist in the event of cross-border congestion, since Market Coupling would produce a single price in its absence.

If the parties entering into a bilateral contract wish to hedge the risk of price differentials between the markets, they would need to tender a bid in this financial market and, if it is competitive, it will be matched in the pertinent session. The price risk would then be perfectly hedged for the term of the bid. The parties to the bilateral contract would thus have eliminated all uncertainty regarding the cost of using the interconnection for the cross-border transfer of power.

Options could be proposed in the forward financial market to allow parties seeking to complete a bilateral contract in full to do so in a single act. The practical implementation of this possibility would represent an additional field for financial hedging offers, in which bidders would declare that if the offer were matched, they would request that a price acceptance offer be placed in the daily markets in Spain and France, in their name for the cross-border transportation of their bilateral power using the interconnection. Therefore, the only amount requiring settlement would be that contracted in the financial hedging operation.

Example:

The parties to a bilateral contract make an offer for the month of November 2004 in accordance with which they are willing to pay up to €0.02/kWh for a bilateral exchange of 10 MWh at the base rate for the whole of the month. The parties further indicate that if their offer is matched they wish to perform it physically on each day of the month. The markets then issue price acceptance offers on behalf of the agent entering into the bilateral contract in both markets and settle with the contracting party at €0.02/kWh under any circumstances. The counterparty matching the risk hedge with the contract (this could be the market as a whole if it is arranged as a match) will bear any difference arising.

The clearly shows that the proposed Market Coupling solution would fully meet the needs of physical bilateral contracts and, furthermore, exactly in the manner of explicit capacity auctions, ensuring the production and consumption of power and the price paid for cross-border transfers over the period required.

Equivalence of explicit auctions with the participation of the auction organisers in the CFD risk hedging market on behalf of consumers

The long term explicit capacity auctions are exactly the same thing as the proposal made by the Market Operators but with the added feature that the organisers would appear as bidders on behalf of all Spanish and French consumers.

Example:

The significance of auctioning, let us say, 10 MWh of capacity for the month of November 2003 is that the System Operators propose that Spanish and French consumers should act as the counterparty in hedging the price differential risk. If the auction were awarded at a price of €0.02/kWh (i.e. the same bilateral deal as discussed above), the situation of the party to the bilateral contract would be identical (it would pay €0.02/kWh), but this would not be the case for Spanish and French consumers. If the integral price differential during the month were €0.021/kWh, the difference between €0.02 and €0.021 (i.e. €0.001/kWh x 720 hours x 10 x 10 = €7,200) would represent a loss for Spanish and French consumers rather than a loss for the counterparty that hedged the risk in a free market, as should be the case.

We believe it will be understood that the capacities and periods announced in advance that will be auctioned are no more than financial price acceptant hedging offers made by the organisers on behalf of Spanish and French consumers.

Advantages of the CFD financial market solution over explicit auctions as regards bilateral contracts

Though we have shown that explicit auctions are equivalent to the CFD market, this does not mean that the reverse is also true. The CFD markets, in fact, presents a number of advantages over explicit capacity auctions for parties intending to perform an international physical bilateral contract.

- The amounts of power for which the price differential risk can be hedged are not confined to the available commercial capacity. In principle, there is no limit, although it would be possible, if required, to establish a ceiling until the liquidity of the French market increases.
- It permits bilateral contracts to be carried out in the opposite direction to the expected congestion, which is to say physical bilateral contracts in which the parties express in their offers the intention of performing the contract if they collect, at least, a certain price.
- Because it is a market, offers may be made in both directions. Thus, some agents might understand that the price will be X or higher and others might believe that it will be X or lower. In this way, the supply and demand curves for hedging the price differential risk would be established. This is much more open than an auction in which the only bids would be for payments to use capacity.

4. AGENTS SEEKING TO PLACE BIDS IN THE MARKETS FROM ANOTHER COUNTRY

These would be agents seeking to obtain the award of capacity in order to make purchase or sale bids in the other country for the power they would produce or consume on the other side of the interconnection.

The argument is similar in this case:

'The agents are prepared to assume the market price risk (or have hedged the risk in some other manner), but they wish to be certain of the price payable for crossing the border with their electricity.'

Satisfaction of the needs of market participants using power from the other side of the interconnection using the market Coupling/CDF financial market

The market coupling/CFD market solution provides exactly the same options as explicit capacity auctions, but it also provides other possibilities.

A producer in France seeking to sell power in Spain at Spanish prices will be obliged to pay a price to cross the border in the event of congestion. Using the Market Coupling mechanism, this producer would make a price acceptance bid to produce in France, thereby obtaining certainty of being able to produce and sell at the French price. Since the cost of crossing the border is equal to the difference in prices between Spain and France, the agent will generate power but collect at the French price.

If the agent is interested in, or has expectations about, the possible forward price in Spain, then it will be necessary to enter the financial market to cover the price differential risk between Spain and France. The producer will make a bid to cross the border with, let us say, 10 MWh at a given price. Once matched, the price differential risk will be covered. If the actual price differs from the expected one, the agent will gain or lose depending on the offer made.

On the basis of the settlements the agent will collect a given value X in France for the power, and the financial market will settle the difference between the expected and actual price.

The economic result for the producer is exactly the same as in the case of explicit auctions. The producer will make a bid for capacity, theoretically equal to the expectation in the preceding example, but will pay for such capacity the amount established in accordance with the commitment acquired in the capacity auction, as a result of which net income will remain the same as in the Market Coupling case.

Equivalence of explicit auctions to participation by the organisers in the CFD risk hedging market, proposed by the Market Operators, on behalf of consumers

The income obtained from any kind of use of the interconnection capacity is included, at least in the Spanish case, as income for the purposes of calculating access tariffs. Consequently, if they are not auctioned on a forward basis at a different price, Spanish consumers have the right to receive, let us suppose, half of the integral of the price differential between the Spanish and French markets.

If long term explicit capacity auctions were implemented, their organisers would be auctioning a right pertaining to consumers. This clearly reveals that the Spanish and French consumers would be the counterparty in a financial risk hedging market.

Advantages of the Market Coupling solution over explicit auctions in relation to bidders in the market with power from the other side of the interconnection

As in the case of bilateral contracts, the Market Coupling mechanism presents a number of advantages over explicit capacity auctions for parties intending to offer power from the other side of the interconnection in the markets.

- The amounts of power for which the price differential risk can be hedged is not confined to the available commercial capacity. In principle, there is no limit, although if required it would be possible to establish a ceiling until the liquidity of the French market increases.
- It permits bids to be made in the opposite direction to the expected congestion, which is to say bids in which the parties express their intention of buying or selling their power if they collect at least a certain price for the power offered.
- Because it is a market, offers may be made in both directions. Thus, some agents might understand that the price will be X or higher and others might believe that it will be X or lower. In this way, the supply and demand curves for hedging the price differential risk would be established. This is much more open than an auction in which the only bids would be for payments to use capacity.

ATTCHMENT 1

5. BASIS OF THE ARGUMENTS FOR THIS NOTE

The first argument used is:

- *Explicit auctions of forward interconnection capacity between Spain and France would have to be accompanied by an implicit auction or 'Market Coupling' in the daily markets. If not, such auctions would be unviable.*

To justify this argument, it is important to understand that the commercial capacity to import or export electricity is worth more to some agents if it is free than if it is occupied. This means that they would pay more to keep it free than for the benefit associated to using it.

Let us suppose that the Spanish interconnection is fundamentally an importer. An agent, a large Spanish producer, who is the owner of the cross border capacity (acquired in an explicit auctions), could take one of two decisions:

- Import energy with the associated benefit of earning money for the differential of the energy it imported. However, in return for using the interconnection as an importer, the marginal price of the entire production of the Spanish market diminishes. When weighing the benefit of importing energy against the consequent “damage” caused to its entire production.
- Leave it unused and take advantage of the profit that the marginal price increase yields in the importer’s system.

One mitigation measure proposed in the past was a “use-it-or-lose-it” (better called take-or-pay). However, the capacity price alone is unlikely to be a sufficient deterrent, since the benefit of not using the capacity far outweighs the auction expenses.

A variation of the “use-it-or-lose-it” principle was proposed whereby, in addition to losing money, third parties would use the successful bidders’ unused capacity. This is the current state of auctions throughout Europe and the problem is that capacity is freed so late, or so close to the moment of supply or consumption, that third parties do not have sufficient time to react and eventually a large part of the capacity remains unused.

In trying to solve this problem the idea of complementing long term explicit capacity auctions with a mechanism that “guarantees” full capacity utilization in real time was developed. The daily market was considered an “infinite” source of energy to fill the unused capacity.

It is an absolute necessity to add to the long term explicit capacity auctions a “filling” mechanism that is able to absorb the unused cross-border capacity with the non-matched offers of the daily market.

The second argument on which the note is based is:

- *The manner in which the results of the explicit auctions are integrated into the daily markets should not permit any alteration in prices within the daily markets themselves. If this principle is not*

respected it will not be possible to implement the explicit auctions, because it could be shown that they would allow room for the manipulation of prices in the daily market.

This argument is slightly more complex than the previous one but can be proved just as easily.

The successful explicit auction bidders who are willing to bid in the market should be granted some “privilege” for having won the auction. Otherwise it would make no sense for them to participate on the auction.

On the opposite, this “privilege” must adhere to one condition: “to refrain from producing any possibility of altering the daily market prices”.

- *Problem:* Granting some privilege to explicit auction winners who are willing to come to the market.
- *On condition that:* they can not use their privileges as successful bidders to alter the market price.

In any case, this note endeavours to prove the principle that, the “advantage” granted to successful auction bidders should not allow them to alter the market price under any circumstances.

APPENDIX 2

CONSIDERATIONS OF THE FINANCIAL CHARACTER OF THE PTRS AND OF ONLY PERMITTING PHYSICAL BILATERALS USING PREVIOUSLY ASSIGNED PHYSICAL TRANSMISSION RIGHTS IN AN INTERCONNECTOR

1. INTRODUCTION

The possibility of only allowing the owners of Physical Transmission Rights (PTRs) to use those declaring physical bilateral contracts has been proposed.

At the same time, explicit auctions and PTRs have been presented as if they were very different than the CfD market, as they are “physical” and not “financial”.

This document intends to demonstrate two things:

- PTRs can always be transformed into money by the agents without modifying its production/consumption plans.
- It is not feasible to limit the possibility of participation on the markets to the PTR owners.

This point shows why it is not possible to put in practice such a rule in a free market environment, as it is today the electricity market in Europe.

2. DEFINITION OF THE RULE THAT HAS BEEN PROPOSED

The rule that that has been proposed is:

“The agent that owns forward PTRs can only use them declaring a physical bilateral contract prior to a certain hour of the day before. If the agent does not declare the physical contract, he will lose the PTRs, and the capacity will be allocated to the market to be resolved in the daily “Market Coupling” mechanism. The participation by the agents that own PTRs in the markets with energy bids from the other system, using PTRs, is forbidden”.

3. SITUATION THAT WILL CREATED BY SUCH A RULE

A market agent owns PTRs for a certain quantity for a certain day. This note does not enter in to the procedure of how this market agent reached the ownership of PTRs, it is only intended to prove that they can be converted in cash in any case, and that forbidding the direct participation in the markets will only impose troubles to small participants.

Amount of PTRs owned

- To prove the point let us use an example: An agent owns 10 MWh of the import capacity from France to Spain for all the hours of March 12.

Time limit for the physical nomination of the PTRs

The agent has until, let's say, 9:30 a.m. on March 11 to declare the physical bilateral that will use the PTRs. If he does not declare it, he will lose the rights.

If the agent has the perception that the average price for the daily market for tomorrow will have a bigger value in Spain than in France, he will always declare a bilateral between France and Spain, nominating the units, if he is required to do so (this could mean a trouble for small agents but certainly not for big ones). The agent will do this, even if he has no intention of executing any international physical bilateral.

He will nominate a physical bilateral between any production unit in France (or energy to be delivered in the French hub), and any customer in Spain (or a retailer that has clients in Spain) for the 10 MWh on every hour of March 12.

Daily market participation of the agent in Pownext and OMEL

The agent will then simply go to Pownext daily market to buy 10 MWh on every hour of March 12, and go to OMEL daily market to sell 10 MWh on every hour of March 12 (both bids will be price acceptance, or bids at market price, on each market).

If the agent was going to participate in the markets in any case he will simply increase the buy bids in Pownext by 10 MWh (or decrease the purchase bids) and increase the selling bids in the OMEL market by 10 MWh (or decrease the buying bids).

Economic result of his participation in the markets

When settlement and invoicing takes place in both markets, the agent will receive the OMEL average daily price multiplied by 10 and by 24, and will pay the Pownext average daily price multiplied by 10 and by 24.

The net income, if the assumption of the agent was correct, and the Pownext average price was smaller than the OMEL average price, will be:

$$\text{Economic Result} = (\text{OMEL average} - \text{Pownext average}) \times 10 \times 24$$

Physical compromises of the agent

The agent intentions were to produce; let's say 1234 MWh on hour 3 of March 12 in France. Since he has already declared a production of 10 MWh in the physical bilateral and a purchase of 10 MWh in the Pownext market, he will continue bidding, or signing bilaterals, for the same amount of 1234 MWh he intended to produce from the very beginning.

In Spain he will do the same thing; If he has clients for 789 MWh in hour 3 of March 12, since he has declared a physical bilateral contract consuming 10 MWh in Spain and a selling bid in the OMEL daily market, he will purchase in the market, or obtain in any other way, the same 789 MWh that he was going to buy in any case.

Which agents can do this being impossible to impede the arrangement?

It is obvious that agents with production in France and in Spain, and consumers in France and in Spain, can cash the PTRs that they have, even if they do not really want to use them in a cross border physical bilateral contract. The rest of the agents, if the physical nomination is imposed, can do the same thing, but need agreements with owners of production or clients in either France or Spain.

The simple example presented, especially in the case of agents that participate in both markets, proves that it will be impossible to detect if they are really executing or not the cross border physical bilateral, since they will only increase or decrease their purchases in the markets, and no one could figure out the numbers that will happen without cashing the PTRs.

4. CONCLUSIONS

Owners of PTRs can always be transformed in money, in fact at the value of the congestion cost of the interconnection. For doing so, they only need to execute a physical bilateral contract using the PTR and two related transactions in the adjacent markets (OMEL and Pownext) and obtain the congestion cost without increasing or decreasing its production/consumption on each country.

In a free market environment it is not viable to try to impose a limitation of what agents can do with the PTRs that they previously own. Independent of the way in which they are allocated (explicit auction of the rights, pro-rata between requesters or regulated allocation), they can, in any case, be cashed out for the price difference between the adjacent markets. This sort of rules, in general, always discriminate in favour of bigger agents, with more possibilities than smaller agents, which have less ways of "living" with the rules.

APPENDIX 3

INITIAL LIQUIDITY CREATION ON THE CFD MARKET IN THE NAME OF THE FINAL RECEIVERS OF THE “CONGESTION RENT”

1.1. INTRODUCTION

The CfD market is a mechanism which allows participants to hedge the future congestion costs that they will have to pay for their cross-border transactions. Its operation is very simple and can be described like in the following example:

One participant (say one consumer) who wishes to sign a contract for a middle-term transaction (one month, two months, etc.) reaches an agreed price with another participant (say one producer) in the other side of the congested interconnection. He has a fixed price for the electricity. However, he knows there will probably be some congestion costs in the interconnection that he will have to pay. He does not know what will be the future congestion costs and, thus, he is not sure that the overall transaction will be economically profitable or not. What he knows (or he thinks he does) is what would be the benefit if there were no congestion costs. Thus, he also knows the maximum amount he would be able to pay for the congestion costs in the interconnection. In order to hedge his risks, he may go to the CfD market and present a bid for the amount he consider adequate (always inferior to the maximum amount). If he matches his bid, he is sure that, whatever the congestion costs, he will have a benefit.

In the CfD market, this participant matches his bid with another participant who may wish to present a bid for similar or different reasons. For example, one consumer in France, who may want to buy electricity to an Spanish producer, might want to hedge the congestion cost in the interconnection in the opposite direction. Moreover, a financial institution would potentially wish to present a bid and gain or lose money depending on the final congestion costs, acting as a counterpart of the market participants.

If in the future, one participant desires he does not want to make the forecasted transaction, he can always go to a new CfD market to renegotiate its contract and obtain a benefit (or loss) for the two transactions

This operation structure, as it has been explained in the main text of OMEL’s opinion, is very beneficial for the electricity market, as it allows participants to estimate and negotiate the future value of the congestion costs in a free manner and hedge against its potential variations. Moreover, the participation of financial companies can introduce the necessary liquidity to permit each participant to find always a counterpart to its desired transactions.

There is no discussion that this type of market, in case of full operation and with the necessary liquidity, would provide the necessary mechanisms to allow all type of participants to hedge its transactions against the cross-border congestion costs and would provide meaningful congestion costs price signals. However, during the document preparation, several voices have been raised in relation to the risks associated of not having the necessary liquidity and, thus, not fulfilling its objective.

This concern is reasonable and could be true, especially at the beginning of the market operation when the future price of the congestion costs is still unknown (DMC is a new procedure for providing this its value) and there will probably be a considerable reluctance to present bids associated to its future value. Once an history exists, this situation would be automatically solved. However, at the start, this would hinder the CfD market development.

If we look at the explicit auction mechanism proposed by the TSOs, we may see that both mechanisms have many things in common. First, the objective of the two mechanisms are practically the same; one participant wants to acquire the right to perform a cross-border

transaction with a fix price, in the CfD market he does it by hedging against the real congestion cost, in the explicit auction, by buying the right to execute the transaction at exactly the same price. Second, both mechanisms permit participants to renegotiate the previous transactions, increasing or decreasing the capacity acquired and its prices depending on the evolution of the estimated price of the congestion costs. Finally, both mechanisms permit participants to arrive in the end to the point of not executing any physical transaction, gaining (or losing) the financial benefit of its actions.

In spite of these similarities, when people speak of explicit auctions, no one raises the issue of its potential liquidity problem. The reason is simple. In the proposal for auctioning or granting in some way Forward Physical Transmission Rights (PTR) and to organize, following the initial assignment, subsequent secondary markets, the initial creation of liquidity in these markets is obtained by the auction/assignment of an amount of physical rights (50% at the annual scope, 25% at the monthly scope, etc.). This offering of transmission rights in an auction (equivalent of introducing a price acceptant bid in a market), creates the needed liquidity, at least for the initial auctions, as there will always be a price low enough for the participants to acquire the capacity and hedge against the cross-border congestion costs (in the limit, 0€/MW). The economic consequence of this initial assignment will be that the end consumers, or the final receivers of the "Congestion rent", instead of receiving the "Real time Congestion rent" will receive the initial value of the auction or the assignment process.

If regulators considerer adequate the offering of this possibility to market players, a similar but simpler approach can be done in the Contract For Differences Forward Market over the Price Difference between the adjacent markets (CfD market). In the same way that the initial auction/assignment of PTRs is organized by some entity, the same entity can place a price acceptant bid in the CfD market. The result will be identical than in the PTRs' case for everybody, participants which are matched in this auction will be able to schedule their contracts in the DMC in the same way as if having the PTRs and, instead of the "Real time Congestion rent", the final receivers of the "congestion rent" will obtain the price at which the price acceptant bid is taken in the CfD market. In this way an initial amount of liquidity, identical to the PTR proposal, will be created in the CfD market.

APPENDIX 4

COMMENTS ABOUT DECLARATION OF USE OF PTRs PREVIOUS TO DMC

RTE defends on his proposal that, in order to use the PTRs, obtained in the explicit auction TSOs want to organise, their holders must present a firm schedule previous to the DMC mechanisms. They consider that this declaration is firm and that it will have assigned the corresponding part of the interconnection capacity, regardless of its subsequent treatment in the internal processes applied in the two countries which could impede their execution.

This creates two unnecessary consequences:

- First, it forbids the holders of the PTRs to go to the markets to negotiate the associated energy. As the transaction is considered firm before the closing of the markets, they can only go to the markets with a price-acceptance bid. If not, they will incur in deviations. This situation in practice impedes their free participation in the markets. This promotion of bilateral contracts goes clearly against the EU Directive which states that all negotiation possibilities must be treated with equal rights.
- Second, as, at least in Spain, participants can declare bilateral contracts until the DMC process, and they are subject to validation, it could occur that one “pre-accepted” bilateral by TSOs would finally not be accepted in Spain, once it passed through the Spanish validation process. As a consequence, the holder of the PTRs would be subject to deviations, but the capacity in the interconnection would be freed.

The solution of these two problems is simple. Wait until the end of the DMC process to declare firm the presented schedules (bilaterals or bid intentions). In this way, holders of PTRs will be able to present bids to the markets and the final information associated to the bilaterals and its validation process in both countries will be known. This way, if any holder does not use its capacity, it will be used by other participants in the DMC process (Use It or Lose It principle). This approach presents four clear advantages:

- It is the correct application of the Use It or Lose It principle.
- Ensures the complete utilisation of the interconnection capacity
- Permits both countries to maintain their own authorisation process for bilaterals, adding only the new management of the interconnection but without adding new unnecessary changes.
- Does not present any problem from the technical operation of the networks point of view, as knowing the final schedules of the PTR holders after the DMC process instead than before does not present a technical operation problem for the TSOs. In fact, in the current system in operation, participants to the Spanish market may present to the TSOs their schedules after the markets execution as a function of the energy transacted both in the markets and through bilaterals.

As a consequence of the above point, all previous schedules only become firm after the DMC process. If TSOs consider it important, PTRs holders could present to them before DMC their initially planned schedules integrating planned bilaterals and



planned sales/buys at the markets. However, only after DMC, when they know if the transactions will be really executed, they can confirm their firmness.

Powernext position on congestion management at the French-Spanish interconnection

1 Purpose of the document

Since November 2003, OMEL, REE, RTE and Powernext SA have discussed the possible implementation of a coordinated congestion management mechanism on the French-Spanish border, based, among others, on day-ahead market coupling. No agreement could be reached so far on a common solution, mostly because the French and Spanish system are organised in a very different manner.

The purpose of this document is to describe and explain the position supported by Powernext in the discussion for a new coordinated mechanism on the Spanish-French border.

Part 2 defines concepts and abbreviations that are being used in the rest of the document. Part 3 presents the solutions recommended by Powernext. Parts 4, 5 and 6 develop on specific discussion points and explain the position defended by Powernext on those.

2 Definitions

| Word or abbreviation | Definition |
|----------------------|---|
| TSO | Transmission system Operator, namely RTE or REE |
| PX | Power Exchange, namely OMEL or Powernext SA |
| Market Coupling | Market Coupling referred to as the day-ahead mechanism which would be used by Omel and Powernext to jointly optimise their local energy markets and the use of the ATC. |
| CFD | Contract for Difference: financial contract enabling (among other strategies) market participants to hedge the price risk involved in cross-border trade. |
| Price-difference bid | Bids for the use of transmission capacity only, sent to the exchanges, which execution implies a transfer of energy through the interconnection |

| | |
|------------|---|
| NTC | Net Transfer Capacity, as defined by ETSO |
| ATC | Available Transfer Capacity, as defined by ETSO. More precisely, in this paper: Maximum firm capacity communicated by the TSOs to the exchanges which is used to transfer energy between both countries, as determined by the MARKET COUPLING. |
| Energy bid | Bids transmitted by the members (participants) of a PX to be included in the price determination mechanism and expressing an interest to buy or sale energy at a certain price for a certain quantity in the market operated by this PX. |
| PTR: | Physical Transmission Right, sold in periodical auctions organised by the TSOs and obtained by bidders which can be used by them to have energy transported through the interconnection. It is assumed that the TSOs cannot sell more PTRs than the capacity of the interconnection that is devoted to explicit auctions, <i>a fortiori</i> , no more than the total NTC (meaning that the ATC is always positive). |

3 Powernext approach and position

3.1 Criteria to be met by the Implemented Solution

- Abide by Regulation EC 1228/2003
- Try to limit possibilities for market gaming
- Minimize the legal changes
- Step by step approach
- Simplicity
- Legibility for the trading community
- Extendibility to the other borders
- Economical viability

3.2 Solution recommended by Powernext

On the basis of those criteria, the mechanism recommended by Powernext has the following features:

- There is a forward allocation of PTRs by TSOs.
- There is an efficient secondary market for PTRs.
- The use of the PTRs must be declared to TSOs before day-ahead. Scheduled PTRs must be associated on the Spanish side to bilateral transactions that are declared to Omel. On the French side, they are reported as a withdrawal/ injection in the corresponding Balance Responsible perimeter.

- If not exercised before the auction, PTRs are lost and the freed up capacity is included in the ATC = (ATC = NTC - exercised PTRs).
- The day-ahead mechanism is a market coupling mechanism operated by the PXs on the basis of the firm ATC calculated by TSOs.
- Price-difference bids are not offered. The capacity is only used to reduce the price differences between the two markets.
- Powernext notifies to RTE the total net cross-border flow from Market Coupling.
- The PXs may operate a CFDs market.

As regards the split between the forward allocation of PTRs and the day-ahead Market Coupling mechanism it is recommended that:

- the capacity left to the day-ahead Market Coupling should be significant, in order that economic value can be created;
- it may be that the capacity left to day-ahead Market Coupling should be released gradually (even over a short period of time), so as to be in line with market resilience and not create excessive disturbances on market prices.

Note that participants willing to back a bilateral cross-border transaction, say 100MW from Spain to France have several options to do so:

- acquire PTRs for 100MW from Spain to France at the explicit auction;
- acquire PTRs for 100MW from Spain to France in the secondary market for PTRs;
- sell 100MW at minimum price on OMEL and buy 100MW at maximum price on Powernext; they will then pay the same congestion cost as the implicit cross-border congestion cost.

This model has many virtues:

- In terms of implementation strategy, it is simple, which allows to reduce the technical risks; so it minimizes the risk of technical failures which are always high in complex projects involving several parties.
- In terms of communication, this model is easy to explain to the trading community.
- In terms of legal responsibility, the changes brought to the role and responsibilities of Powernext are also limited.

Mainly three features of this model have been subject to discussions and they are developed more in detail below.

4 Cancellation of existing congestion management mechanisms

Existing mechanisms

Current, non-coordinated mechanisms existing at the Spanish-French interconnection are the following:

- on the French-side, a priority list (with a limit of 25 MW per transaction) for exports and a prorata rule for imports. Transmission and energy are therefore traded on a separate manner.



- on the Spanish side, a mechanism involving so-called external agents. An *external agent* is a Spanish market participant considered as injecting or withdrawing electricity from another electrical system. An external agent is considered as bidding on OMEL (or contracting bilaterally) from a fictitious physical unit located on the other side of the relevant border. His bilateral transactions with Spanish agents or his purchases/ sales on OMEL are conditional to the capacity constraint at the relevant interconnection. Transmission (or more precisely the Spanish "half" of it) and energy are therefore obtained on a simultaneous manner.

The existence of external agents stems from two principles:

- the Spanish market is a physical market: bids and offers or bilateral contracts are not attached to a portfolio but to a physical unit;
- OMEL is responsible for allocation of interconnection capacity.

The external agent system is very close to a partial implicit allocation:

- single entry point for energy and capacity
- capacity allocation according to economic criteria.

However, it is to be noted that neither the current French mechanism alone nor the current Spanish mechanism alone is compliant with Regulation 1228/2003, as none of them gives price signals to participants regarding the value of capacity.

Market coupling mechanism as proposed by OMEL

OMEL supports the continuation of the external agents system along with the new proposed mechanism. Day-ahead market coupling would in this case allocate the available cross-border capacity between three types of bids:

- implicit flow from energy bids in both markets;
- explicit flow from price-difference bids;
- explicit bids by external agents on OMEL.

In this proposal, external agents buying or selling on OMEL pay or receive the Pownernext Day-Ahead™ price.

In this proposal, on the French side of the border, RTE would have to accept the export/imports transactions resulting from bids scheduled on OMEL for external agents.

Pownernext position

Pownernext is opposed to this proposal and recommends a **coordinated and symmetric** mere implicit mechanism with the following principles:

- Participants buying or selling on Pownernext Day-Ahead™ pay or receive the Pownernext Day-Ahead™ price.
- Participants buying or selling on OMEL pay or receive the OMEL price.
- Market Coupling optimises the use of transmission capacity only implicitly.
- Each TSOs accepts the nomination by its local PX.

This does not require that external agents are excluded from the Spanish system. One of the possible ways of handling them is as follows:



- external agents are considered as bidding on OMEL (or contracting bilaterally) from a fictitious physical unit located on the SPANISH side of the border;
- whether they have energy in Spain or not is handled by a mechanism of imbalances. This is the way the majority of European markets work (at least France, the Netherlands, UK, the Nordel area, Germany and the future Belgian Exchange).

There are many reasons for this position:

1. **Coordination:** A requirement for implementing a new coordinated mechanism is that parties involved accept to cancel existing mechanisms that they are operating unilaterally; besides, the external agent concept performs a very similar function to that of Market Coupling, but unilaterally organised by the Spanish system.
2. **Redundancy:** The external agents system is redundant when Market Coupling is in place: if external agents were to be included in the process, buying as an external agent located in France would be exactly equivalent to buying on Pownernext and selling as an external agent would be exactly equivalent to selling on Pownernext, both in terms of physical and financial compromises.
3. **Complexity:** introducing external agents brings additional complexity into the Market Coupling contractual structure, as external agents of OMEL would need to have a contractual relationship as such with Pownernext.
4. **Asymmetry:** Alternatively, introducing external agents brings asymmetry of information into the common Market Coupling process, because OMEL alone gets information from the external agent that are necessary to the Market Coupling module to allocate the capacity between the different types of bids. Pownernext would in this case not be able to control the economic process that determines its own prices and schedules. Functionally, the process would actually be equivalent to Pownernext becoming an external agent of OMEL.
5. **Extendibility:** If the market coupling mechanism is to be easily extendable to other European markets, processes, roles and responsibilities need to be symmetric.

5 No price-difference bids

Pownernext recommends implementing Market Coupling without price-difference bids.

The following points concerning the origin and function of price-difference bids must be reminded:

1. Catering for price-difference bids within Market Coupling originates in the will of its designers to propose a self-supporting model in which 100% of the capacity of the interconnection would be allocated to the day-ahead Market Coupling mechanism. The purpose was to not discriminate cross-border bilateral trading and allow these trades to compete on equal footing for the capacity.
2. In the case of implementing a Market Coupling between Spain and France one should consider that:
 - TSOs will issue PTRs though explicit auctions

- there will likely be a secondary market for PTRs.
The PTRs which are firm rights on the capacity will be purchased in advance by those who need to have the power transported through the border in order to back their bilateral bids.
- 3. In any case, as explained in 3.2, bilateral transactions that want to secure day-ahead physical access to transmission capacity and do not have PTRs would normally use price-acceptant price-difference bids. Note that such a bid, say from France to Spain, is exactly equivalent to the combination of two energy bids: a price acceptant offer in France and a price-acceptant bid in Spain. Price-difference bids offer an additional functionality only when they have a limited price, which is a secondary benefit.

On this basis, one should balance the interest to cater for the price-difference bids within the MARKET COUPLING against the complication brought by such price-difference bids.

1. **Contractual difficulties:** The execution of price-difference bids will entail financial relationships between those bidders and participants sending energy bids, via the clearing house. If the bidders are already members of Pownernext Day-Ahead™, there are no serious difficulties; otherwise, one should set up a specific contractual or regulatory framework to organize and secure them. In any case, participants willing to send price-difference bids will need to have a contractual relationship with Pownernext and its clearing house, which cannot be very different from being a member of Pownernext Day-Ahead™.
2. **Technical difficulties:** There a number of difficulties added to the Market Coupling algorithm by price-difference bids. For instance, in cases where no full convergence can be reached in the relevant time window and the process must be stopped before the last iteration, coexistence of block energy bids and price-difference bids causes serious difficulties in getting a consistent solution. In addition, in a first analysis, block price-difference bids would cause serious convergence problems in the Market Coupling and therefore are very difficult to handle.

Again the view of Pownernext is that simplicity favours transparency and extendibility of the mechanism to other markets.

6 Declaration of Physical Transmission Rights to the TSOs

Another issue in the discussions was the declaration of Physical Transmission Rights on the French-Spanish interconnection acquired by participants prior to day-ahead.

The model proposed by OMEL differs from the one explained in 3.2 on the extent of the cross-border Capacity (ATC or NTC) given to the PXs by the TSOs and the moment in which the Use-It-or-Lose-It is performed. In this approach:

- TSOs give a firm NTC in each direction to PXs;
- TSOs give the list of PTRs held by each user to PXs;
- PTR holders must send price-difference bids to PXs before the Market Coupling auction time;
- If no price-difference bid is sent or the transmission bid is not executed, the PTR is lost and the corresponding capacity is automatically released in Market Coupling.

- In Market Coupling settlement, those scheduled price-difference bids that are linked to a PTR are not charged the day-ahead price difference between markets.

The two approaches are economically equivalent. Assuming price-difference bids sent by PTR holders are price acceptant, the resulting allocation of the use of transmission capacity is exactly the same in the ATC and NTC models.

Powernext bases its recommendation on the following grounds:

1. PTRs are rights issued by the TSOs and their use should be declared to them. Furthermore, PXs have no legitimacy to get this information.
2. Powernext has no contractual relationship with PTR holders as such. Since there will probably be a secondary market on the PTRs, the validity of those rights must be ascertained. To provide for clear resolution of disputes regarding the detention of PTRs, rules or agreements linking TSOs (issuers and grantors of PTRs), the holders of PTR and the PXs must be set up. Given that these three kinds of entities have no legal relationships or have them on different basis (public law vs commercial law), this creates a legal complexity, particularly if one considers extension to other borders.
3. Clarity and ease of implementation contractually and technically for PXs.
4. Clarity and ease of explanation to the trading community: the PTRs are issued by the TSOs to support the bilateral trades; if they are not used by such trades, they are lost and increase the capacity allocated to the Market Coupling.

7 Conclusion

As Powernext sees the situation today, the French and the Spanish electrical systems and markets are organised in such a different way that some of the proposals could not be implemented without:

- either excessively increasing technical complexity,
- and/or adding substantial contractual complexity,
- and/or seriously damaging the independence or business of some parties involved.

Powernext is pessimistic regarding the possibilities for an agreement between the parties in the current regulatory framework, and is looking for a balanced solution which could suit all parties involved and be useful to market participants.

