



## **Iberian Electricity Market**

## **Discussion Paper**

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## 1 INTRODUCTION

The collaboration protocol signed by the Spanish and Portuguese Administrations on November 14th 2001 sets out that "The Iberian Electricity Market will start operating on January 1<sup>st</sup> 2003, guaranteeing all agents established in both countries access to the Iberian Market Operator and to the interconnections with third countries under free and equal bilateral trading conditions."

From January 1<sup>st</sup> 2003, the Iberian Peninsula will become an integrated electricity market that will interact homogeneously with the rest of the European Union through the interconnections between Spain and France. This initiative represents an important step forward on the road towards the internal energy market in the European Union.

According to the protocol quoted above, the Iberian Electricity Market (IBELM, for short) will be developed along two complementary lines:

- bilateral trading contracts to be freely entered into by agents;
- trading organised through the Iberian Market Operator, a new entity whose "capital should be open to companies from both countries".

The Protocol sets out the following points with regard to the organisation of the IBELM:

- "
- 1. The regulatory authorities in the electricity industries in Spain and Portugal must submit a model for the organisation of the Iberian Electricity Market by March 31<sup>st</sup> 2002. That model should take into account the aforementioned aims, applicable Community legislation, recent experience in the workings of electricity markets in the two countries and best regulatory practices.
- 2. The model referred to above must allow for a competitive, smooth-running and effective market to be developed. That market must be equipped with all the necessary monitoring and control mechanisms to guarantee the satisfaction of consumer needs, short-term and long-term security of supply and it must be fully compatible with the goals of improving energy efficiency and promoting renewable energies in the two countries.
- 3. When drawing up the organisational model for the Iberian Electricity Market, the regulatory authorities must involve consumer associations, producers, distributors, traders, system operators, market operators and any other parties interested in the development of the said market."

The National Energy Commission (CNE) and the Electricity Industry Regulatory Body (ERSE) welcome the political initiative to create the IBELM and will do everything possible to ensure that its goals and deadlines are met.

Under the Protocol, the CNE and the ERSE are responsible for requesting the involvement of "consumer associations, producers, distributors, traders, system operators, market operators and any other parties interested in the development" of the IBELM. Obviously, the CNE and the ERSE believe that the support and degree of involvement of the bodies listed above in all phases of the project, from the design of the market through to its implementation and its subsequent development, will be crucial to the success of the IBELM.

The aim of this discussion document is to open the consultation process during which suggestions and ideas that may help to make the IBELM more solid, stable and efficient will be gathered. All the suggestions received will be published unless otherwise indicated and they will be discussed at the appropriate time.

This document is structured as follows:

- chapter 2 reviews the criteria to be followed when drawing up the organisational model for the IBELM;
- chapters 3 to 7 raise a number of questions grouped around the following topics: structure of the electricity industry, entities that intervene in the market, organisation of the wholesale market, organisation of the retail market and the technical management of the system;
- chapter 8 sets out some important questions to be addressed in the medium term.

The questions submitted for public discussion in this document are not exhaustive. They merely reflect an initial core of fundamental concerns to allow the IBELM to start up in an orderly fashion and on time. For the regulatory bodies to be able to continue the work they have embarked on it seems essential to canvas the views of the interested parties n those issues. Nevertheless, any other thoughts and contributions concerning aspects not included in this document will be equally welcome.

Spain and Portugal have gained different but equally valid experience in the liberalisation of electricity markets and both countries have brought forward the scheduled date for the implementation of Directive 96/92/EC. Their experience is a useful background that offers much food for thought that could be explored together.

The creation of the IBELM represents an excellent opportunity to speed up the liberalisation and integration of the two markets in line with the conclusions of the European Council meeting held in Lisbon on March 23<sup>rd</sup> and 24<sup>th</sup> 2000, by strengthening previous experiences and fostering their swift convergence. At the same time, however, the creation of the new market and its associated new rules, new instruments and new institutions is an opportunity to innovate, taking advantage of the technical design and experience of other countries, mainly within the European Union. The public discussion process now commencing cannot ignore the recent experiences of Spain and Portugal but nor must it be constrained by what has happened in the past.

The CNE and the ERSE thank everyone in advance for all written comments sent in before January 25<sup>th</sup> 2002.

# 2 CRITERIA FOR DRAWING UP THE ORGANISATIONAL MODEL FOR THE IBERIAN MARKET

The IBELM organisational model should follow the principles laid down in the Protocol signed on November 14<sup>th</sup> 2001 and conform to the applicable Community legislation. Its implementation is evidently going to require legislative alterations to be made to the legal systems of both countries and the two Administrations will have the opportunity to make the necessary modifications. The implementation of the organisational model for the IBELM is the responsibility of the system operators in Spain and Portugal (REE in Spain and REN in Portugal) and the costs of doing so will be appropriately shared out between them.

The construction of an electricity market is a complex process requiring a huge amount of pragmatism and a phased development process. Indeed, it would neither be possible nor desirable to make radical changes to the way the electricity systems are organised in the space of just one year. The proper functioning of a wholesale electricity market on an Iberian scale does not mean that all the aspects concerning the electricity industry must be harmonised immediately; the harmonisation process may be gradual and does not necessarily have to be a complete process. That is why it is important to make a distinction between the absolutely essential aspects that are crucial for the launch and start-up of the IBELM and those modifications that might be developed from 2003 onwards with a view to greater integration.

The electricity industry is an extremely technical and highly complex industry. The industry's regulation should be simple in order to aid comprehension by all agents and to make the evolution of its rules more flexible. Transparency is a fundamental element for the credibility of the system.

Regulated activities operating as a monopoly and non-regulated activities operating in a regime of free competition will coexist side by side within the IBELM. It is advisable for the activities to be clearly separated and for the rights and obligations of each one of the agents involved in the market to be clearly defined.

The IBELM must be compatible with and must stimulate the development of renewable energies and of demand-side management mechanisms tending towards a more rational use of energy.

There are risks involved in the functioning of the market. It is important that the IBELM is equipped with supervision, warning and control mechanisms to avoid any risks in the system itself and to guarantee mainly adequate levels of security of supply.

## 3 STRUCTURAL ASPECTS OF THE INDUSTRY

## 3.1 SEPARATION OF REGULATED AND NON-REGULATED ACTIVITIES

It is fundamental for the development of the market to define the activities and the rights and obligations of each one of the agents forming part of the industry.

The separation or unbundling of activities imposed by law in both countries allows regulated activities (transmission and distribution) and liberalised activities (production and trading/supply sales) to be carried out within the same business structure. This vertical integration of electricity companies makes it difficult in practice to develop the activities that should be developed in a regime of free competition.

It is important for clear regulations to be set out to separate or unbundle the different activities. These must go hand in hand with a definition of the internal barriers required to separate the management of activities performed within the business structure, especially the activities carried out under monopoly conditions (transmission, distribution and system operation), from those carried out in a competitive regime (production and trading/supply sales).

Do you regard the current level of separation or unbundling of activities carried out by companies sufficient to set up an efficient, transparent market?

On the assumption that greater separation or unbundling of activities by companies would be advisable, should limitations be imposed on the shareholding structure of companies, thus preventing majority shareholders in companies with a given activity from concentrating significant interests in companies performing other activities?

Would it be a good idea to separate production and trading/supply sales activities so that trading could be developed as a completely independent activity from the others?

Apart from the independent development of trading/supply sale as an activity, what other measures might help to improve the efficiency and transparency of the market?

Should any limits be imposed on trading contracts between production and trading within the same company or business group?

## 3.2 BUSINESS CONCENTRATION IN THE ELECRICITY INDUSTRY

One of the characteristics of the electricity industry in Portugal and Spain is that it is highly concentrated. There are five vertically integrated companies forming business groups that own the bulk of production facilities, the distribution network and the trading/supply sales business.

This situation discourages the appearance of new entrants to carry out liberalised activities (production and trading), as there will be a high risk for any new trading company that it will not manage to obtain electric power in sufficient amounts and at the right price to fulfil its contracts and obtain an adequate margin. The problem is exactly the same for a new generator.

Do you regard the current level of concentration of companies compatible with the setting up of an efficient, transparent market?

Assuming that a lesser degree of company concentration would be advisable, do you believe it is more important to reduce concentration in production or in trading?

What other steps might help to improve the efficiency and transparency of the market?

## 3.3 PAYMENTS TO ELECTRICITY PRODUCERS

In Portugal, electric power producers belonging to the Public Service Electricity System (SEP) have long-term contracts with REN for the exclusive sale of all the electricity they produce.

In Spain, since the industry was liberalised and with the setting up of the market to buy and sell electric power, electricity producers receive the so-called 'competitive transition charges or costs' (CTCs).

A fundamental factor for the Iberian electricity market to work transparently and to be distortion-free is that producers should place their supply offers on equal terms. In other words, any eventual compensation payments should be harmonised in some way.

Thus, it is important to analyse how the contractual terms and conditions in the two countries can be examined so as to allow compensation payments to cover part or all of the costs without causing any distortions.

Should compensation payments made to producers be harmonised?

How can the terms and conditions of the contracts currently in force be examined?

What conditions can be laid down in order to recover costs without causing market distortions?

## 3.4 PRODUCERS USING RENEWABLE ENERGY SOURCES AND COGENERATORS

The European Union has demonstrated its strong determination to comply with the commitments taken on under the Kyoto protocol as regards reducing pollution-causing emissions. Most of the European Union countries have strengthened their incentives for energy production using 'clean' sources. This has mainly been achieved through programmes supporting renewable energy sources and cogeneration facilities using natural gas. As a result, these types of energy have been growing at a fast pace and the trend is for them to

increase even more in the future, with their share of production accounting for approximately 50% by the start of the next decade.

As these producers represent an increasingly significant part of the electricity industry, their participation in the market would bring certain advantages by increasing the number of agents participating on the supply side and, consequently, the market's turnover and liquidity. However, the current regime of incentives is based on a subsidised tariff that provides these producers with higher remuneration than what the other producers receive, supplemented by the obligation on the part of the distribution companies to purchase the power that they place in the network. This system does not allow them to participate directly in the market.

What alterations might be made to the current regime of incentives to producers using 'clean' energy sources to allow them to act efficiently and transparently in the Iberian market?

## 4 ENTITIES INTERVENING IN THE IBERIAN MARKET

Companies owning electricity production units are the natural market agents on the supply side. Nevertheless, it is still important to define exactly how they will be able to operate in this market.

What is the degree of discrimination whereby electricity producers using thermal power plants may submit offers to the electricity market: by generating set, plant or is an overall offer good enough, without any discrimination linked to the origin of the production when it is the same owner?

What is the degree of discrimination whereby electricity producers using hydroelectric power plants may submit offers to the electricity market; by plant or is an overall offer good enough without any discrimination linked to the origin of the production when it is the same owner, they belong to the same hydrographic dam and function in cascade?

Should electricity producers using cogeneration facilities and other producers in the special regime be able to submit offers to the electric power market?

In addition to the companies owning electric power production units, it is important to define what other agents can intervene on the supply side in the Iberian electricity market:

External agents, from outside the Iberian market;

What are the necessary requirements for entities not established on the Iberian Peninsula to be able to carry out transactions in the Iberian market?

Traders;

The introduction of the figure of the trader, with well-defined powers and responsibilities, allows liberalisation and competition in the electricity industry to be developed and simplifies the way the whole process works with producers and customers in the market and the relationship with the market operator.

What should the scope of action be and the powers, responsibilities and obligations to be assigned to the trader?

What other agents on the supply side may operate in the electricity market?

Electricity customers are natural market agents on the demand side.

What are the necessary requirements for customers to be able to purchase electric power in the market?

Electricity distribution companies are likewise demand-side market agents although it is also important to define exactly how they may be able to operate in this market.

In addition to the agents mentioned above, it is important to define what other agents may intervene in the market on the demand side in the Iberian electricity market:

- Traders.
- External agents, from outside the Iberian market.

What are the necessary requirements for distribution companies, traders and external agents to be able to purchase electric power in the market?

What other agents on the demand side may operate in the electric power market?

## 5 ORGANISATION OF THE WHOLESALE MARKET

## 5.1 Types of commercial relationships

There are different ways of organising an electricity market and its auxiliary services. The most popular ways include physical bilateral contracts (PBCs) and the day-ahead power market or exchange, also known as the 'pool'.

Any of these ways is deemed extremely important when setting up the Iberian electricity market and could be implemented either independently or through mutual interaction.

Each one of these relationship types are described below, together with a set of questions that are the most important questions to ask at this point in time.

Which of the contracting possibilities described below are deemed fundamental for the functioning of the Iberian market?

Which contracting forms may be implemented at a later date?

What priority must be given to the implementation of different contracting forms?

## 5.1.1 PHYSICAL BILATERAL CONTRACTS

Physical bilateral contracts (PBCs) are a commercial relationship between two parties where one of the parties undertakes to place the power in the network and the other party to receive the electricity contracted.

These contracts must be made known to be the market operators and system operators who are the bodies responsible for verifying and validating the contracts in technical terms and also for the commercial relationship with the parties involved that directly affect the rest of the market.

The effective functioning of the Iberian market - just like any other market - is directly linked to the number of bidders in the market. That is why steps should be taken to increase the number of agents.

For the level of relationship formed through PBCs, it is important for agents to identify the business opportunity in the market. Consequently, the degree of performance of PBCs depends on maximising the information available to the agents.

Once different guideline assumptions about the way the future Iberian market could be implemented exist, the above issues should be debated including the following questions:

Are PBCs a suitable instrument to foster the efficiency of the Iberian electricity market?

Do PBCs allow an increased number of agents in the market and do they act as an incentive for this?

Who should be able to enter into PBCs?

What is the level of information that should be made available to the agents?

What level of information should be made available to the regulators?

Should limits be set on vertically integrated contracts being established within one company?

## 5.1.2 ELECTRICITY SPOT MARKET

The electricity spot market is a form of organised contracting or trading where a central body accepts sale offers and purchase bids for electric power and matches them for each predefined time interval.

The bids and offers are submitted by different bidders. They can be simple in the sense that they only refer to the amounts and prices of the power for each matching interval or they can be complex by covering additional information on technical constraints or a breakdown of prices and outputs by time intervals. The bids and offers can also be classified as firm bids or offers when they cannot be altered after the market closes, or, on the other hand, they may be subject to subsequent alteration when a given assumption on which the bids were based ceases to be valid.

In addition to the bids and offers to buy and sell electricity, there may also be capacity bids, i.e. bids referring to the available capacity in a given time interval. Although this kind of bids is not often used, it can be useful for the bidding agents purchasing the power for supply security reasons.

The market can operate on a weekly, daily (day-ahead) or intra-day basis. The latter two options are the most used.

The spot market can be made compulsory. If it is, it means that all the bidding agents are under the obligation to submit power purchasing bids to the market to purchase their electricity needs. In a second phase, the agents who did not fully cover their needs on the market can purchase the power they lack through PBCs, or through secondary markets.

The spot market may be voluntary. If it is, the agents are free to negotiate their electricity needs through PBCs and only submit bids to the market for surplus power or to purchase energy on better economic terms.

Prior to the implementation of the new Iberian market, a debate should be held on what type of market should exist and about the way in which it should work, particularly about how the part involving the bidding agents will work, about the direct responsibility of the market operator and how the market can be linked to other market organisational forms like physical bilateral contracts.

Some of the issues and the questions linked to them are set out below:

Will the spot market be the right instrument to implement the future Iberian market?

Should the market be compulsory or would it be better if it worked on a voluntary basis?

Should the day-ahead market be compulsory and all the other (intra-day, system services) markets be voluntary?

What is the price to be paid for energy sold through the market: the value of each supply offer contracted or the value of the most expensive offer contracted?

On what time basis should the market close?

Should a secondary intra-day market exist?

What type of offers should exist: simple and/or complex ones?

What types of complex offers are necessary and why are they justified?

Should the bids and offers submitted be regarded as firm proposals or can they be altered after the market close time?

What lessons can be learnt from the international experiences of day-ahead electric power markets?

## 5.2 SYSTEM SERVICES MARKET

For the electricity system to operate with adequate levels of security and stability and for acceptable service quality standards to be attained in the supply of electric power, a number of ancillary services supplementing the supply of electric power must be taken into account. These could be called system services.

The system services are all about regulating frequency and voltage. Concepts such as automatic regulation, spinning and non-spinning reserves, independent start and remote-controlled start and static or dynamic reactive compensation are linked to these services.

Most system services can essentially be supplied by producers or bidders with production facilities. Then there are other services that can also be supplied by other agents such as network operators and consumer facilities.

The provision of system services can be linked to market mechanisms or can be centrally managed by one body that contracts all of these services. Regional management of these services is another option when some system services are essentially local in nature as is the case of the supply of reactive power.

Just as in the case of the electricity market, it is also necessary to decide what direction to move in for system services too with a view to setting up the Iberian market. A set of questions that could prove useful to the discussion is listed below.

What is deemed to be a system service? What services are included in this market?

Will the setting up of a system service market be beneficial for the efficiency of an Iberian electricity market or, on the contrary, should the provision of system services be managed and planned in a centralised fashion by one or more of the system operators on the scale of the Iberian Peninsula?

Which body should quantify system services needs? Should regional plans be drawn up?

Which of the system services should it be compulsory to provide and which ones should be voluntary?

Which system services could be acquired through market mechanisms?

What are the market mechanisms for the voltage control service?

How can system services be valued? By the value of the necessary investment or by the value of the service they provide?

For operating safety reasons, is it better to choose the contracts option for the provision of system services?

How can the cost of the provision of system services be passed on to consumers in a market rationale?

How can possible investors be sent economic signals for the correct location of their facilities to supply system services?

In what way can system services be offered on the demand-side?

## 5.2.1 PRODUCTION/CONSUMPTION BALANCE AND RESERVE REQUIREMENTS

The operation of the electricity system in real time is based on consumption forecasts and production schedules to meet forecast consumption. As real consumption of electricity does not match up exactly with forecasts, production schedules need to be adapted throughout the day to bring output into line with real consumption. Any alterations to the production schedule resulting from that adaptation process correspond to the provision of the regulation service.

This regulation service may be a central body (especially the system operator) that is responsible for managing situations of imbalance between production and consumption. To this end, that body can take action involving a group of given power stations, using whatever criteria may apply in order to have available a previously defined reserve margin that can be placed on the network in a short space of time or can choose the option of contracting that reserve margin in line with offers submitted to a market created specifically for that purpose.

As a result, the first thing to be decided is how the Iberian electricity system is to be operated once it can be organised independently in such a way that each one of the countries represents a control area, or it can be organised differently with a central controller and different secondary areas corresponding to different electrically dependent regions.

These issues merit detailed analysis that may then answer some of the following questions:

How should the Iberian electricity system be organised with regard to control areas?

Should an imbalances or balancing market be created? Should the market be a global one or divided into areas or zones?

Who should be responsible for managing any market that is eventually set up or the centralised management?

What entities can make a contribution to solving these imbalances?

What is the necessary reserve margin?

How can the energy supplied be valued? By the value of the investment needed or by the value of the service?

What incentives have to be assumed to exist previously to prevent any lack of provision of this service?

## 5.2.2 DEALING WITH DEVIATIONS

On a physical level, the creation of the concept of deviation, variation or difference from the contracting or trading schedule is justified by the need to assign the costs of the provision of the regulation service, i.e. the monitoring of the consumption of electricity by production.

Deviations may be divided up into two categories: Deviations by excess, when output is higher or the consumption is lower than scheduled or deviations by default, when the opposite case is true.

In commercial terms, deviations may be dealt with in different ways depending on whether they are attributed to the power contract - either through a PBC or directly in the spot market - or to each bidding agent by taking an overall balance view.

If they are attributed to the power contract, the deviations are valued according to the difference between the actual or real situation and the stipulations of each contract entered into by one or more bidding or selling agents. Each agent with more than one contract entered into may incur deviations by excess as regards one contract and deviations by default as regards the other contracts even when the physical balance of the deviations is nil.

When the deviations are attributed to the agents, they are valued together on an overall basis for each selling agent, regardless of the deviations verified in each one of its individual contracts, PBCs and spot market.

Both ways of dealing with deviations may be considered with their consequent advantages and disadvantages. It is important, therefore, to reflect on and analyse each different situation to come up with the best possible answer, which must be the one that makes the Iberian market work more effectively and efficiently.

Should deviations be dealt with individually or altogether?

Should deviations be attributed to each power contract or to each selling agent?

How can deviations be valued to act as an incentive to a more efficient, fair commercial relationship between the different bidding and selling agents?

Should the valuation of the deviations be done a priori, on the basis of forecasts, or should it be done subsequently, based on cost share-out criteria?

The submission of consumption scheduling by bidders should be done sufficiently in advance to allow the system operator and market operator to regulate the electricity system in coordination.

The deadline for the submission of schedules and any eventual alterations is directly related to the level of deviations obtained, especially as regards schedules for weekends and holidays.

To promote market efficiency, the creation of well-structured and well-planned rules tending to minimise the volume of deviations through a closer match by agents of their consumption forecasts and real consumption will be useful.

What is the importance of the possibility of modifying the trading schedule with less advance notice, thus reducing the probability of deviations being produced?

In what way can bidders be given incentives to forecast their electricity schedules with as little margin of error as possible?

## 5.2.3 OTHER SERVICES

In order to control any frequency variation as quickly as possible, frequency load shedding is carried out automatically from the moment when a predefined frequency limit is reached.

There may be alternatives for frequency control and system safety guarantee, particularly through market mechanisms.

Is it desirable to create a market in which each customer or producer sets an economic value for the load they propose to shed by establishing a merit order?

## 5.3 SUPPLY GUARANTEE AND INTERRUPTION

The implementation of an Iberian electricity market is in itself an economic benefit in terms of supply guarantee. The advantages generated by the integration of the two markets are limited by the interconnection capacity.

A supply guarantee could be integrated into the regulatory design of the market in different ways. It can be considered a payment associated with all kinds of supplies, imposing the requirement for all the power to be guaranteed. In these cases, some customers can be allowed to have access to interruption contracts. As an alternative, the supply guarantee can be considered as a characteristic of supply that the customer may or may not be prepared to pay for.

It is also possible for the approach taken for supply guarantee to be different in line with the characteristics of customers and the way they participate in the market although there should always be equal treatment between customers and between systems. In other words, if a customer who participates in the market has the selection option when contracting a supply guarantee, a customer who does not participate in the market will be offered an interruptible tariff and vice versa.

Supply guarantee may be valued through a supply guarantee market or, alternatively, may be internalised in the electricity market clearing price, with the result that there is the possibility of very high prices at times of strong supply and demand imbalance.

A value could also be set on supply guarantee through a regulated tariff that must take into account marginal capacity costs, which in an optimised system are limited by the capacity costs of plants with single cycle gas turbines. This tariff may have a binomial structure with a capacity term and an active energy term during the hours when there is greater intensity of demand, i.e. at peak times and eventually complete times.

Clear, transparent rules for attributing the costs relating to supply guarantee for different customers together with the different voltage levels and with different metering structures must be established. They must reflect costs. They should likewise guarantee the non-existence of cross-subsidies and promote efficiency in the use of this scarce resource. Identical principles should be followed when remunerating production units for providing guarantee of supply.

The existence of interruption contracts allowing the time difference of the expansion of the generating system in peaking production facilities - mainly single cycle gas turbines - may be an interesting alternative for the provision of supply guarantee. Interruption may also be justified through the occurrence of exceptional circumstances. Customers who join an interruption regime accept a reduction in their consumption according to the terms and conditions set out in interruption contracts, making it possible to guarantee supply to all

other customers and obtaining lower prices in exchange. It is important to underline here that the interruptions associated with the interruption regime are totally separate from the supply interruptions that can be attributed to flaws in the transmission and distribution system.

The way the value of the interruption is worked out should take the costs avoided in the system as a reference. In fact, since it makes the replacement of single cycle gas turbines possible, it could be valued through the fixed costs of this kind of power plants. The prices granted to customers who accept an interruption contract will depend on the types of contract as regards advance notice given, frequency and duration of the interruptions.

The interruption regime and the way supply guarantee can be valued should be addressed consistently and should reflect the costs of the several types of supplies contracted, thus avoiding cross-subsidies between customer groups and sending out price signals inducing economic efficiency.

## Should a capacity market also exist or should only electric power be traded?

How can bids in the day-ahead power market be combined with those placed in the capacity market?

How could supply guarantee be valued? Though what market mechanisms or regulatory formulas?

Should all the power supplied to customers participating in the market be guaranteed? Or might customers choose between guaranteed power and non-guaranteed power through different payments? What about customers who do not participate in the market?

What ways for setting a value on interruption can be considered so that they provide equal treatment between customers, regardless of the way they participate in the market and so that they are consistent with the methodology used to value supply guarantee?

What interruption regimes and what contract types should be available for customers not participating in the market?

## 5.4 FINANCIAL DERIVATIVES MARKET

Financial derivatives markets often operate alongside power markets. These derivatives are financial instruments created on the basis of the transactions in the day-ahead power market with the aim of regulating the risk linked to the volatility of prices formed in the day-ahead market. Essentially, they are risk hedging instruments that can be contracted bilaterally or can be traded in an organised market.

If an organised market of financial derivative products linked to an electric power market is to be efficient, the following prerequisites need to be met:

- The electric power market to which it is linked also needs to be efficient.
- Standardised products must be created.
- There must be a large number of market participants.

- The market must have liquidity and transaction capacity.
- There must be transparency in the formation of prices.

Other factors that contribute to the success of a derivatives market include:

- The degree of liberalisation of the industry.
- The market power of the agents.
- The transparency of the day-ahead electric power market.
- The regulation established.

The derivatives market may be set up at the same time as the day-ahead power market or solely when the electricity market linked to it becomes mature to some extent.

Is it important to create a financial derivatives market linked to the electric power market?

Will it be possible to meet the conditions for setting up a derivatives market?

What other factors contribute to the proper functioning of the derivatives market?

Should it be set up simultaneously with the Iberian market or only when the Iberian market is mature?

The existence of a financial derivatives market has countless advantages for the way the electricity industry works in general:

- It allows the price of electricity deliveries in the future to be ensured.
- It stabilises prices through hedging between spot prices and future prices.
- It lessens the barriers to entry to the electricity market linked to it for agents by allowing access to risk hedging mechanisms.
- It increases liquidity in the market.
- It contributes to the consumer's individual supply guarantee by allowing outputs to be ensured.
- It allows producers to hedge risks linked to fuel costs and other operating costs.
- It allows physical products to be combined with innovative financial products through simultaneous action in the two markets.

Are the advantages of creating the derivatives market big enough to make up for the cost of setting it up?

Are there any disadvantages in the existence of those markets?

The participants in this market are usually:

- Electricity producers.
- Brokers or traders who participate in the market on behalf of customers by taking up firm positions in the market or not.
- Electricity consumers.

## Should there be other agents involved?

The products usually traded on this market are futures, forwards, contracts for differences (CFDs) and options.

Futures are standardised products for the sale and purchase of a given amount or output of electric power at a given price during a given period of time. From the time of the transaction until the time the product matures, any gains or losses are accounted for and processed on a daily basis.

Forwards are similar products to futures although the accounts are only made to coincide on the maturity date.

Product standardisation aids changes by increasing liquidity and introduces transparency into the process. The products are standardised and the following types of contracts can exist:

- Daily, weekly or monthly.
- For supply on the basis of the load profile or at peak times.
- With set prices.

Contracts for differences ensure a given price, with the difference between the prices formed on the market and the prices agreed in the contract being paid or received.

The options may be:

- Purchase (call) option where the vendor undertakes to sell at a price that is lower or equal to the exercise (striking) price.
- Selling (put) option where the vendor only sells at a price that is higher than the exercise price.

Different combinations of options offer different types of risk hedging.

## 5.5 PROCEDURES FOR OPERATING IN THE MARKET

The points above describe the possible types of commercial relationships within the scope of the Iberian market.

Each one of the types of commercial relationship referred to above will have specific participants and rules for the way it functions. Requirements will have to be established for the different types of commercial relationship regarding how agents can obtain the status entitling them to operate in the Iberian market.

What are the requirements that will have to be met by the agents who intend to participate in the Iberian market?

What are the slight differences linked to each one of the different types of commercial relationship?

It will also be important to define what are the legal instruments needed for the different participants to be able to participate in the Iberian market.

What are the exact points to be taken into account in each one of the contracting types? Will it be necessary to enter into a membership contract to join the Iberian market for all the relationship types? Will it be compulsory for the holders of physical bilateral contracts to join the market?

It is likewise important to make participation in the Iberian market equal for agents from third countries, particularly from those other countries with electricity systems that are interconnected with the electricity system in Spain.

What kind of external entities can participate in the Iberian market? What are the requirements to be met by external entities?

The submission of bids and offers in the scope of the different types of commercial relationship must be defined and must particularly include the following aspects:

Deadlines and timetables to be kept to for the submission of bids/offers?

Format of bids/offers?

Methods of communicating bids/offers?

The information furnished to the different participants in the Iberian Market should be analysed. There will be information that should be accessible to the general public and other information that should be organised and dealt with in a way that 'satisfies' specific sectors of participants in the Iberian market.

How can the balance between transparency and confidentiality be guaranteed when it will have to be guaranteed for certain information? What are the suitable methods of disclosing information? How often should the information be disclosed and updated? What are the terms and conditions for the market participants to have access to the market operator's information system?

Another hugely important matter is the definition of the procedures to be followed in the event of exceptional circumstances occurring that might prevent the normal functioning of the market.

What are the situations or circumstances that can be classified as exceptional? What are the actions that should be taken in the course of such type of situations? What are the exceptional situations that may justify the payment of financial compensation to the agents intervening in the market?

It is expected that a large number of economic agents will end up operating in the Iberian Market. Inevitably, commercial or contract-based disputes will arise out of the different commercial relationships. The existence of mechanisms that can swiftly solve such disputes will be an important advantage in the new Iberian electricity market.

What are the dispute solving mechanisms that should be considered? Should only courts of law be deemed competent or should out-of-court dispute mechanisms, particularly voluntary arbitration, be considered?

The implementation of a market and its functioning entail significant costs that should be paid for by the different participants. It is important to find suitable methodologies that allow the costs to be borne by each agent intervening in the market to be correctly defined.

Who should bear the costs of the functioning of the market operator? How should the costs for different commercial relationships ('markets') be shared out? What are the drivers of the market operator costs in each one of their facets?

## 5.6 RELATIONSHIP BETWEEN SYSTEM OPERATORS AND MARKET OPERATOR

The system operators in the two countries and the future market operator are responsible for managing the Iberian market in the terms to be agreed by the regulators in both countries. The way in which they actually perform that task is one of the crucial factors for success in the new organisational model.

To guarantee that success initially, the regulators must ensure the organisational design contains a set of rules that ensure independence and clearly define the limits of action for each operator without affecting the relationship between them. This task involves additional difficulties in the electricity industry where a balance has to be struck between the technical complexity that characterises it and the simplicity of the rules to be established.

There are two questions that must be asked in a general analysis of the relationship between operators:

What scope of action, powers and responsibilities and obligations should be allocated to the market operator?

What scope of action, powers and responsibilities and obligations should be allocated to the system operators?

In a more detailed analysis of the problem, it is true that specific rules need to be created to respond to certain doubts about the responsibilities of each entity in order to make the Iberian market work effectively and efficiently, particularly at the level of offers and bids to sell and purchase electric power and eventually system services and scheduling and the real-time operation of the system.

What entity should receive the electric power bids and offers?

What entity should receive the system services bids?

What entity should be responsible for processing those bids?

From a technical point of view, who is responsible for verifying and validating the bids and offers?

Who should draw up the operating scheduling for the different time horizons?

Who is responsible for resolving any eventual network technical constraints or any environmental or operating constraints?

As the way the market is to be organised has not yet been defined, the assumption must be that power and services transactions will be made either through a day-ahead bidding market or through physical bilateral contracts.

Thus, what must be analysed in general terms are the possible interdependencies between these two types of relationship, with a definition of the competent or responsible entities in that field.

Which entity should be kept informed about volumes of power that are likely to be traded through PBCs?

In the event of network capacity constraints, who is responsible for resolving congestion, as regards combining PBCs with the day-ahead bids market?

If the existence of a day-ahead bids-based market is accepted, the conditions for any non-scheduled alterations to operating schedules must be created. One hypothesis is the solution already used in different markets operating today - an intra-day market.

Should the market operator do anything at the level of real time operation, particularly through the intra-day market, or should the management of the intra-day market be the responsibility of the system operators?

Will joint management of the intra-day market be possible, where its organisation is the responsibility of the market operator and the mobilisation of the respective agents the task of the system operators?

Who should the bidding agents notify about alterations to their schedules and who processes these modifications?

There are also questions about powers and responsibilities for procedures resulting from the way the market works.

What entity is responsible for settlements in the day-ahead market, the intra-day market and the PBCs?

Who processes the different settlements resulting from the matching of bids and other associated services?

Who responds to complaints made by the different market participants?

Who is responsible for the direct relationship with the regulator and who is accountable to the regulator?

The relationship between the market operator and the system operator is one of the fundamental elements for the success of the Iberian market.

Then the question arises about the degree of independence that each one of the two operators should have.

On the one hand, the idea is for the market operator to act with extreme transparency. This is fundamental to create credibility in the market and inspire confidence on the part of the agents. One simple way to guarantee this transparency is to set up an independent market operator in its shareholding structure compared to the other market operators and agents.

On the other hand, the idea is for the market operator to maintain a close relationship with the system operator so that the system can be guaranteed to work properly. Shareholding independence may not necessarily facilitate this relationship. If the market operator and the system operators had common interests, however, their relationship would clearly be much easier.

The right balance to be struck between independence and transparency is the issue that needs to be debated.

What degree of independence should the market operator have with regard to the system operators?

What is the most suitable shareholding structure for the market operator?

#### 5.7 DISCLOSURE OF RELEVANT INFORMATION FOR THE MARKET

In more mature electricity markets, physical products linked to the actual supply of electric power or other services and financial derivatives are available.

For the transaction of physical products to be able to take place, efficient co-ordination between the market operator and the system operators is necessary. This co-ordination particularly requires the disclosure of network capacity figures and the technical verification of the feasibility of transactions. That means that the relevant information for the market is not solely managed by the market operator; it also requires the involvement of the system operators depending on the type of information and the time horizon within which it is disclosed.

What requirements have to be stipulated so as to ensure a suitable level of cooperation and coordination between system operator and market operator as regards disclosure of information?

What is the information that is deemed relevant for the market?

Who decides what the relevant information is that can be disclosed?

Which part of that information is relevant information that must be specified by each one of the operators?

Who is responsible for disclosing relevant information for the market?

What is the most effective way of getting the information that the market agents need to them so that they can operate in the market?

## **6 RETAIL MARKET**

## 6.1 SUPPLY OBLIGATION

The liberalisation of the electricity industry will give consumers freedom to choose their supplier. As customers gradually start exercising their right to do so and start purchasing power in the market either directly or through a trader, they will stop paying the all-inclusive or integral sale price charged to end-customers and will start to pay a price for the power linked to the price formed in the market, the network usage tariffs and the tariffs for other regulated activities.

In this transitional period, during a certain length of time there will be customers who would like to continue to be supplied as they have been up to now, i.e. by their usual supplier with the usual supply guarantee and with the usual sale price charged to end-customers.

Should a transitional period be planned during which customers still have the chance to choose to be supplied by their usual supplier and to pay the all-inclusive sale price charged to end-customers? How long should it last?

As all customers are required to purchase (directly or indirectly) electric power in the market, should a supply obligation exist? Who should be put under that obligation?

Should a regulated tariff be set out for these mandatory supplies?

## 6.2 SETTLEMENTS SYSTEM

One of the main functions to operate in the market is the implementation of systems that allow rigorous and transparent gathering of the data needed to work out the bills and payments corresponding to market participants and to then settle all the transactions carried out.

Which entity should be assigned the responsibility of gathering the necessary accounting data for the settlement of the transactions carried out?

The way the settlements system works means a huge amount of data needs to be gathered in each settlement period, particularly through the use of metering systems that make it possible to know the volumes of power traded. Therefore, the existing metering systems will have to be made compatible and implemented in Spain and Portugal.

How can the compatibility of the systems used to gather measurements in the two countries be ensured? What is the architecture to be adopted for the data acquisition systems? What levels of data concentration and processing should be considered? What are the technical characteristics of the tele-accounting systems and metering equipment?

In the near future, all customers will be deemed eligible. Their participation in the market, either directly or through their electric power suppliers, may entail the need to install more sophisticated metering equipment or, during a transitional period, make it necessary for standard load profiling to be used for different types of consumers.

How can the participation of low voltage consumers in the market be ensured? How can the difficulties raised by the technical characteristics of the metering equipment already installed be overcome?

To ensure the total transparency of the market, anyone intervening in the market may have access to the relevant information - primarily the information that can be determined in transaction settlements.

What is the level of information that must be ensured for the different types of participants in the market? Should the agents involved in the market have direct access to the data gathered by the measurement acquisition systems? What are the costs to be borne by the different types of participants in the market with regard to the acquisition, processing and availability of data?

The functioning of the market entails financial risks for the market operator resulting from the transactions that are carried out in the market. The risk is linked to the possibility of non-payment of obligations resulting from the actions of market participants in the market. The risk is also linked to the periodicity of the settlements and their respective payment terms.

What should the billing periodicity be? What should the settlement terms be?

Should each transaction be invoiced individually? Or, on the contrary, should the net amount owing be billed in the event that the participants simultaneously have purchasing and selling positions?

As the entity responsible for transaction settlements, the market operator should demand financial guarantees from the agents intervening in the market to ensure that the risks set out above are hedged.

What are the methodologies to be used when calculating the guarantees to be given by the different market participants? What are the means to provide those guarantees?

## **7 SYSTEM OPERATION**

## 7.1 RELATIONSHIP BETWEEN SYSTEM OPERATORS

Each system operator will have a scope of specific, well-defined responsibilities focusing on the technical management of the current electricity systems in each operator's own country. However, for this joint management method to be possible, the rules that both operators are to follow and which will be the basis for their actions must be defined to a high degree of detail and nuance.

How should the system operators relate to each other, particularly as regards the solving of congestion constraints or other constraints in international connections?

What mechanisms can be applied in order to reach technical solutions within the time horizons typical of each restriction?

In the future, might these two operators end up being just one system operator or, on the contrary, should area or zonal operators be set up?

## 7.2 RESOLVING NETWORK CONGESTION

The first question that arises when dealing with the available capacity of the networks for commercial purposes is the question of forecasting the available capacity at the interconnections between Spain and Portugal by the system operators. This question becomes more complex with the liberalisation of the Spanish and Portuguese electricity industries and the creation of the Iberian market as new methodologies to determine and calculate the available capacities at the interconnections need to be established.

The definition of capacities is closely linked to the concept of interconnection between Spain and Portugal. With the creation of an Iberian market, the networks could be deemed a single Iberian electricity network.

How will interconnections within the scope of the Iberian market be treated? Will they be treated as a few more lines in an Iberian network or as interconnection lines between two networks?

What will the methodology be that the system operators will use to determine the interconnection capacity available for importing and exporting that may be freely used for commercial purposes?

What will the mechanisms be for sharing out the available interconnection capacity between the interested agents as used by the system operators?

The lack of capacity in networks for commercial purposes prompts another fundamental question, which is the guarantee of non-discrimination, transparency and economic and technical efficiency when setting up the lberian market and solving network congestion. Different methods are available to resolve any likely congestion. The preferred methods tend to be those that are based on market mechanisms with primarily auctions, market splitting, counter-trading and re-dispatch deemed the most transparent and efficient ones.

Auctions may be used to resolve congestion where the agents interested in using the line or area suffering from congestion have to place bids for the available capacity. The auctions can be held in different time horizons, with medium or short-term ones preferred for capacity availability since they are too complex to be done in real time. To avoid an agent purchasing an access right in an auction and then not using it, the 'use it or lose it' principle must be applied, linked to a second auction where the participants may sell access rights to interconnections that they have previously acquired and penalties may be imposed if they do not do so.

Market splitting is a congestion-solving method that requires the existence of organised electricity markets or pools on both sides of the congested line. In this case, different prices exist on either side of the congestion because these prices are the outcome of the matching of bids on the two markets with the constraint of transit limited to available capacity. This method is difficult to implement in practice, as it requires the existence of markets on both sides as already stated and, likewise, coordination between them. Thus, due to its complexity and to the difficulty of implementing it in real time, it must be used to resolve congestion in the medium or short term.

Through the counter-trading congestion management method, access to the congested line or area is made possible for all the agents interested in that access. In this case, the system operator in the transit destination area has to purchase in the respective area the power that cannot be carried due to congestion. This method demands great independence on the part of the system operator, can be applied in any time horizon and is especially designed for real-time operation.

Re-dispatch is another method of managing congestion whereby the system operator alters the scheduled output in one or more areas including the one where the congestion is occurring so that the available capacity between them increases. Here, coordination may exist between the system operators in the different areas. This method also demands great independence on the part of the system operator and can be applied in any time horizon and is especially designed for real-time operation.

## What congestion management mechanism should be used in the Iberian market?

Will a combination of different existing mechanisms be used to solve congestion as they are managed with different time horizons?

What resolution mechanisms for congestion should be used in the interconnection between the Iberian Peninsula and France?

In addition to these mechanisms to resolve congestion, there are also preventive steps that can be taken by the system operators to increase the capacity of the lines, such as operational measures (investment in network elements, like FACTS) and interconnections reinforcement. What incentives might be offered to the system operators so that they have the maximum possible capacity?

Correct, precise information to market agents on available capacities in the different electricity network lines is extremely important for the promotion of free, fair competition in the Iberian market.

What kind of information do the market agents need about available capacities in the networks and how regularly should this information be available?

What incentives might also be applied to system operators so that the available capacities they determine are not conservative?

In the event of a lack of network capacity, which entity or entities will be responsible?

## 7.3 ELECTRIC POWER LOSSES

The transit of electricity from generators to consumers results in losses of electric power in the transmission and distribution networks. The share-out of costs or of the physical value of these losses between the different agents intervening in the industry, i.e. the producers, the consumers or both, should be defined through clear, transparent rules that translate the costs prompted by each agent. Therefore, the part of the losses corresponding to each agent intervening in the transaction has to be defined.

To transmit the right economic signals for the efficient use of the networks, producers and consumers can be charged tariffs based on the marginal losses of the networks, calculated using nodal pricing or through explicit tariffs that reflect the costs linked to the losses, eventually broken down by voltage level and by time period.

For the purposes of determining the losses or the tariffs reflecting their costs, average loss nodal factors can be set or as an alternative staggered marginal losses at each voltage level or tier for each time period, for each network or for the overall market. The loss values may be paid in kind or incorporated into the network usage tariffs to be paid by different customers. However, the customer may only pay for the losses corresponding to the country of origin and losses cannot be accumulated.

Another possible methodology would be to make the companies that own the networks accountable for the electricity losses. To do this, the electricity losses would be contracted in the market by the network operators. The costs of purchasing electricity contracted by customers, whether or not they participate in the market, would be calculated by taking the electric power measured at the delivery point as a basis. The losses would eventually be paid for through the regulated network usage tariffs but would be based on standard loss factors. In the opposite case, the companies would not have sufficient incentives to invest in the reduction of losses once the costs incurred as electricity losses had been passed on to the 'next' economic agent.

Mechanisms acting as an incentive for companies owning networks to invest in the reduction of losses must also be implemented. In theory, company investment in reinforcing networks as a way of attempting to reduce losses is only justified when the cost of that investment is lower than the reduction in the cost of purchasing the electricity for the purposes of cutting losses. The regulations governing transmission and distribution companies must provide incentives for losses to be reduced through the definition of tariff levels for electricity transmission and distribution activities. In this way, losses would then become an additional risk factor for the company's business to be offset by the increased base profitability of the business, in accordance with the basic market principle whereby any change in the risk should be translated into a similar change in the premiums.

Would incentives to reduce losses in the form of a premium or a penalty for losses that are higher or lower than a reference value be a suitable methodology?

If so, how could the reference value set be worked out?

What mechanisms might be created as an alternative to the above?

Is it appropriate to define loss factors by voltage level and by time period? Should nodal loss factors be set?

Should the structure of loss factors be steered by average losses or by marginal losses?

Should losses be offset in kind by customers or be recovered through a regulated tariff? Alternatively, should the introduction of a losses market be considered?

## **8 OTHER QUESTIONS**

## 8.1 NETWORK USAGE TARIFFS

The proposal made by the Council of European Energy Regulators for 'cross-border trade' highlights that an economically efficient and fair single energy market system is unlikely to be compatible with the existence of different network usage and connection tariffs.

On this point, the harmonisation of the two tariff systems as regards the structure of the costs to be recovered, the respective tariff levels together with the structure of the tariffs and their variables is desirable.

The consequence of no harmonisation of network usage tariffs and other services will be the existence of differentiated payments in the two countries without that meaning cross-subsidy between Spanish and Portuguese customers or it being an initial obstacle to the creation of the Iberian market.

## Will it be necessary to harmonise the Spanish and Portuguese tariff systems to build the Iberian market? Should this harmonisation be at the level of network usage and connection tariffs?

The charges for use of the networks must reflect the real costs in order to guarantee that the market is efficient, ensuring equal treatment for any customer regardless of their voltage level and the way they participate in the market. That means the billing variables must be the most appropriate ones for the valuation of the costs actually caused by the service provided to the customer. The structure of the network usage tariffs must be guided by the structure of the marginal or incremental costs and must send out to customers and suppliers of the different services the right price signals in order to influence their behaviour in the direction of maximum efficiency. The way the items to be provided by each term of the tariffs are shared out should be defined so that only the profits allowed in each one of the transmission and distribution activities can be recovered.

The rules to put this method into practice should be based on a clear, transparent methodology that reflects the cost structure of regulated services all down the value chain. These rules must take into account the measurements supplied by all the existing metering equipment, mainly the equipment installed at low voltage. That may impose the obligation to bill some regulated services on the basis of load profiling.

# Should the billing of network usage tariffs and tariffs for other regulated services be based on load profiling?

Network usage tariffs and tariffs for other regulated services must be charged at the different electricity delivery points or supply points with a guarantee that there are no cross-subsidies between customer groups. The billing of network usage and other regulated services depending on the supply or delivery voltage level may be done separately, giving customers all the information. Alternatively, it may be done

through a single tariff worked out as the sum total of the different regulated tariffs applicable, converted at each delivery point.

Should network usage tariffs be charged separately at the delivery point or should they be put together into one single access tariff?

The most efficient way to recover network infrastructure costs in economic terms is for those charges to be passed on to the consumption side. Nevertheless, when there are very strong asymmetries between the location of production and consumption, the allocation of part of the costs to production should be considered. The proposal from the European Energy Regulators Council contemplates a 25% limit for that allocation.

Should network usage tariffs only be charged to consumers? Or, on the other hand, in order to take into account the location of production should they also be charged to producers?

Network usage tariffs should supply economic signals tending towards the efficient location of network users. These economic signals would provide an incentive to bring consumption closer to production with lower variable costs, reducing losses and congestion in the transmission lines that prompt a nodal difference in marginal power costs.

Should network usage tariffs send out consumption guidance signals by taking into account network losses and congestion?

Should the network usage tariffs be adjusted with the losses in order to send out those signals?

Should the charging of tariffs in each country take into account the amounts received adjusted by losses?

The existence of a single energy market presupposes non-discriminatory access by agents to that market. Interconnection line congestion points are barriers to commercial transactions between the different agents.

## 8.2 GLOBAL SYSTEM MANAGEMENT

There are costs associated with global system management in each country. These are particularly: system operator, market operator, settlements system, system services, regulatory body and costs resulting from energy policy, environmental policy measures or others of general economic interest and must be paid for by all the users of the system regardless of whether or not they participate in the market.

How should these costs be recovered? Through regulated tariffs that allow all the costs to be recovered together or each one of the costs individually?

Should some of these services be subject to market mechanisms?

## 8.3 HARMONISATION OF SERVICE QUALITY INDICATORS

The liberalisation of the electricity industry and the introduction of regulation has highlighted the importance of measuring the standard or level of quality of the service provided as a way of controlling and evaluating the impact of decisions taken either at operational level or at the level of investment in the industry.

As the electricity industry is such a strategic sector and one that is fundamental in the economic development of countries, it is important to establish service quality indicators that can influence the development of the industry and its supervision by conveying signals to the companies themselves and to the regulators.

Should service quality indicators used in both countries be harmonised?

Should the required levels of service quality be the same or do structural differences exist that recommend a period of transition until convergence is possible?

#### 8.4 ACCOUNTING STANDARDISATION

To be straightforward and transparent, regulations need quality information. Throughout the whole production-consumption chain, information is needed on costs, assets and investments, suitably broken down by regulated activity so that there are no cross-subsidies between regulated and non-regulated activities and between regulated activities. The idea is also to guarantee that the prices formed on the market or the prices that are regularly set do actually reflect the real costs and also that each customer pays for the costs they prompt in the system.

To guarantee that transparency and a thorough, itemised knowledge of the costs relating to each activity, it is important to set out some cost accounting rules, primarily concerning structural costs, financial costs and other mainstream costs.

Should this accounting standardisation cover all the companies operating in the Iberian market?

## 8.5 SITUATION OF THE ISOLATED ISLAND GROUPS IN SPAIN AND PORTUGAL

In Spain, tariff uniformity covers the off-peninsular territories and the compensation given to consumers in the island or isolated systems is paid for by consumers on the mainland.

In Portugal, there is only tariff uniformity on the mainland as the ERSE does not regulate the autonomous regions of the Azores and Madeira. Electricity tariffs in the Azores and in Madeira are subsidised through the State budget, which means the taxpayer pays for this subsidy.

This differentiated tariff treatment in Spain and Portugal may distort competition. It is important, therefore, to establish mechanisms allowing the goals of both countries to be attained without any distortions being caused in the Iberian market. The subsidies allocated to the islands should be clearly identified and paid for so that they do not have any impact on the market. In other words, the consumers who are paying for them should know what they are paying for and why and those that receive the payment should know what they are being paid and who it comes from.

What is the best way to deal with the question of tariff uniformity on the islands?

How can non-market distortion mechanisms be guaranteed?

Should these mechanisms be harmonised or can they be different in the two countries?