

ELECTRICITY MARKET ACTIVITY RULES

(Non binding unofficial translation)

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PREAMBLE

- I. By virtue of articles 32 and 33 of the Electric Sector Act, the market operator assumes, with the purpose of ensuring the proper operation of the electric system, the functions required to perform the financial management applied to the effective development of the electric power production market and, in particular, the management of the system of electric power purchase and sale bids.
- II. Article 19.3 of the Electric Sector Act stipulates that production unit owners, transporters, distributors, resellers and qualified consumers must adhere to the terms jointly established by the market operator and the system operator to govern settlement and power payment transactions, which shall be public, transparent and objective.
- III. Royal Decree 2019 of 26 December, which organizes and regulates the electric power production market, establishes that, in order to become electric power production market participants, producers and auto-producers of electricity, external agents who bring power from systems outside Spain into the national transport and distribution systems, distributors, resellers and qualified consumers, must first expressly confirm their adherence to the electricity market activity rules and the operating and settlement terms established by the market operator by signing the corresponding Contract of Adherence.
- IV. In order to carry out the financial management whose purpose is the effective development of the electric power market cited in section I above, these Market Activity Rules must be established. These Rules comply with the mandate of Law 54/1997, of 27 November (the Electric Sector Act), and the Royal Decree 2019/1997 of 26 December. Buyers and sellers who wish to operate in the electric power production market commit themselves expressly to the observance of these rules by signing the concomitant Contract of Adherence.
- V. The structure of the production market comprehends the daily production market, the intra-day market, the ancillary services market and physical bilateral contracts, in accordance with article 2 of Royal Decree 2019/1997, as well as bilateral contracts, as stipulated in article 21 of Royal Decree-law 6/2000. Market participants act as buyers and sellers on the daily and intra-day markets. Moreover, they can sign bilateral contracts, of whose execution they shall notify the market operator before the closing of the daily market session if the contracts affect international tie-lines, or, if they do not, after matching is completed in the daily market. Finally, participants can also be bidders in the ancillary services market when the services traded are optional ones, and under the terms established in the System Operation Procedures and, for settlement purposes, in these Rules.

CHAPTER ONE

GENERAL RULES

RULE 1 SCOPE OF THE MARKET RULES AND PURPOSE OF THE CONTRACT OF ADHERENCE

In compliance with the provisions of Royal Decree 2019/1997, the Market Activity Rules contain the procedures and terms of a general nature that are necessary for the effective development of the electric power production market, and specifically for the financial management of the daily and intra-day markets and the participation in those markets of the individuals who carry out activities whose objective is the supply of electric power and qualified consumers, and, in particular, regarding:

- a) The definition, development and functioning of the computer systems required to guarantee transparency in the transactions which take place in the electric power production market, which include:
- the issuing of sale bids and purchase of electric power;
 - the matching, in the daily and intra-day markets, of electric power sale and purchase bids;
 - the determination and reporting to the system operator of the data regarding the results of matching the bids in the daily and intra-day markets, and to the market participants, of the information relative to their production and purchasing units;
 - the determination and reporting to the system operator of the daily base functioning schedule derived from matching in the daily market, of the bilateral contracts notified by participants, and of auto-producers' production surpluses; to the market participants, of the data relative to their production and purchasing units; and to the distributors, of the data pertaining exclusively to their distribution system added for each of their busbars as defined and notified by the system operator;
 - the determination and reporting to the system operator of the final hourly schedule derived from each intra-day market session; to the market participants, of the data regarding their production and purchasing units; and to the distributors, of the data pertaining exclusively to their distribution system, aggregated for each of their busbars as defined and notified by the system operator;
 - the determination and reporting to the market participants and system operator of the marginal price of electric power, in the daily market and in the intra-day market sessions;
 - the determination and reporting to the market participants and system operator of the final prices of electric power;
 - the settlement and reporting of payments and collections that must be made in accordance with the final price of electric power;
 - the calculation and acceptance of the guarantees that must be made by all participants who make purchases in the electric power production market.
 - the publication of the daily and intra-day market aggregate supply and demand curves, with explicit splitting of each of the points that configure the said curves, as well as the modifications derived from the process of solving technical constraints, including, when such restrictions exist, the bilateral contracts they affect;
 - the publication of the sales capacities and cross-border intracommunity and international exchanges;
 - the publication of the results of the power programs aggregated by market participant and calendar month of the electricity market, when a month has passed since the last day of the month referred to;

- the monthly publication of the bids placed by the market participants in each of the daily and intra-day markets, after three months have passed since the end of the month referred to.
- b) The terms of Adherence to the Electricity Market Activity Rules.
- c) The determination of the guarantees that must be made by buyers in the electric power production market.
- d) The procedure for revising the Market Activity Rules.

RULE 2 TERMS OF ADHERENCE TO THE MARKET ACTIVITY RULES

- 2.1. The participation of buyers and sellers in the electric power production market is predicated on their obligatory commitment to observe these Market Activity Rules as well as the rest of the requirements established in them, and particularly in this Rule.
- 2.2. The buyers and sellers who wish to operate in the electric power production market shall request authorization to do so from the *Compañía Operadora del Mercado Español, S.A.* [the Spanish Electricity Market Operating Company, Inc.] by signing and submitting to the headquarters of the said Operating Company, in duplicate, an application to join the market and to adhere to the Market Activity Rules. The Operating Company shall have available the adherence application form for interested parties' voluntary use.
- 2.3. The following documents shall be attached to the application for adherence:
 - Document certifying, with sufficient reliability, the legal capacity and powers of the person signing the application as well as the individual who will eventually sign the Contract of Adherence.
 - Taxpayer Identification Number of the entity submitting the application.
 - Any other documentation that may be required in accordance with the applicable laws and regulations, especially documents relative to authorizations by government bodies and registrations in any registers that may be necessary.
- 2.4. Once the application for adherence has been submitted, the market operator shall confirm that the applicant has the technical means needed to carry out the activities incumbent on it as a market participant, and that it complies with the terms of issuance of electric power sale and purchase bids referred to in these Market Activity Rules. In particular, in order to formalize a Contract of Adherence, the applicant must be connected, via the communications network, to the market operator's computer system, and must be in possession of the type-approved means cited in these Rules for sending and receiving the electronic communication required for its participation in the electric power production market. The market operator shall be able to establish, for the purposes of the provisions of these Rules, a system of tests that the applicant must pass.
- 2.5. When the acts and confirmations set out in the preceding paragraphs are complete, the applicant shall sign the Contract of Adherence to the Market Activity Rules, whose content (both documents) shall have been approved by the [Ministry of the Economy](#), in compliance with the provisions of Royal Decree 2019/1997, of 26 December.

- 2.6. After signing the Contract of Adherence, the market participant shall provide the market operator sufficient guarantee to cover the financial obligations it may contract in its operations as a purchaser in the market, according to the terms established in the Contract of Adherence and in these Rules. Aspiring participants who fail to provide this guarantee shall not be allowed to do business in the market. If an aspiring market participant still has not provided the guarantee fifteen days after signing the Contract of Adherence, the contract shall be voided and the Adherence shall be null. The regime governing the guarantee shall be the one established in these Rules.

CHAPTER TWO

DAILY MARKET

RULE 3 CONCEPT AND PURPOSE

The purpose of the daily market, as an integral part of the electric power production market, is the execution of electric power transactions for the following day through the submittal of electric power sale and purchase bids by market participants.

These bids shall be submitted to the market operator, and shall be included in a matching procedure effective for the daily scheduling horizon, corresponding to the day following the market session, and comprehending twenty-four consecutive hourly scheduling periods (twenty-three or twenty-five periods on days when clocks are changed to go on or off Daylight Savings Time).

The daily market shall be structured in one single session for each daily scheduling horizon.

RULE 4 ELECTRIC POWER SALE BIDS

4.1 SUBJECTS

4.1.1 SELLERS IN THE DAILY MARKET

Sellers in the electric power production market are obligated to make a formal commitment to observe the Electricity Market Activity Rules by signing the corresponding Contract of Adherence. They are also required, in order to be able to issue electric power sale bids in the daily market, to have registered the electric power plants they own in the Administrative Register for Electrical Power Generating Units, without affecting the First Temporary Provision of Royal Decree 2019/1997, of 26 December, which states how the electric power production market is to be organized and regulated.

[In order to be able to act as sales agents, those market participants who hold the status of resellers shall provide evidence of their registration in the Administrative Register of Distributors, Resellers and Qualified Consumers, in the section on resellers of the said Register.](#)

In accordance with the stipulations of Royal Decree 2019/1997, sellers in the daily market are defined as:

- a) Owners of production units whose installed capacity is greater than 50 MW, without affecting the provisions of the Eighth Temporary Provision of the Electric Sector Act;
- b) Owners of production units which, since the Electric Sector Act came into effect, are subject to the regime provided for in Royal Decree 1538/1987, of 11 December, regarding the determination of the tariff applicable to public service management undertakings;

- c) Owners of production units which are not subject to the regime stipulated in the above-cited Royal Decree 1538/1987 and whose installed capacity is equal to or less than 50 MW and greater than 1 MW;
- d) Auto-producers referred to in article 25.3 of the Electric Sector Act, after they have supplied their own installations, their parent company's or subsidiaries' installations, when they hold the majority of the shares, for the surplus electric power they may have available;
- e) External agents whose participation as producers in the electric power production market is authorized by the [Ministry of the Economy](#), who are registered in the appropriate administrative register and who make a formal commitment of adherence to the Market Activity Rules.
- f) [Selling participants who act as mediators, referred to in article 17.2 of Royal Decree-law 6/2000, according to the terms in which the Ministry of the Economy authorizes them.](#)
- g) [Resellers who have entered into a power purchase contract with undertakings authorized to sell electric power in European Union countries or other countries outside the European Union, as well as with national power producers operating under special regimes.](#)

Sellers of electric power in the daily market shall submit electric power sale bids to the market operator for each of the production units they own, and for the hourly scheduling periods of one and the same daily scheduling horizon in the daily market.

The owners of the types of production units cited in the preceding paragraphs a) and b) of this section shall be required to submit electric power sale bids to the market operator for each of the said production units they own for each and every one of the hourly scheduling periods of one and the same daily scheduling horizon, except in the situations provided for in article 25 of the Electric Sector Act, and when the production unit owners in question have not opted for bilateral contracting systems which, due to their characteristics, are excluded from the bidding system.

The owners of the production units referred to in paragraph c) above shall be allowed to submit electric power sale bids to the market operator for those hourly scheduling periods of one and the same daily scheduling period they deem appropriate.

The auto-producers defined in the preceding paragraph d) of this section shall be required to submit electric power sale bids to the market operator for whatever surplus electric power they may have available, corresponding to the production units they own whose installed capacity is greater than 50 MW, except in those situations provided for in article 25 of the Electric Sector Act, and when they have not opted for bilateral contracting systems which, due to their characteristics, are excluded from the bidding system.

In the rest of the bidding and operating scenarios, these auto-producers shall be allowed to submit electric power sale bids for the surplus power they may have for those hourly scheduling periods of the same daily scheduling horizon they consider appropriate.

The external agents cited in the preceding paragraph e) of this section shall submit sale bids when they are authorized only to sell electric power. If they are authorized both to sell and purchase electric power, they shall submit purchase or sale bids.

[The selling participant referred to in section f\) may act comprehensively for all the special-regime units as a group, in accordance with the provisions of article 17 of Royal Decree-law 6/2000, as long as the said participant is explicitly listed in the authorization issued for this purpose by the Ministry of the Economy, for the power that the selling participant offers in its own name but on behalf of third parties. If the said participant acts on behalf of the holder or owner of the](#)

installations, the latter shall have to have market participant status, and all bids shall be issued individually for each generating unit.

The resellers referred to in section g) may submit quotations for the sale of electric power for the power purchased in the contracts cited for the scheduling periods of the relevant daily time schedule, or may sell the said power to their qualified consumers, in accordance with the stipulations of article 21 of Royal Decree-law 6/2000.

4.1.2 PRODUCTION UNITS

For purposes of the stipulations of these Market Activity Rules, production units shall be defined as those power generating installations that have been duly authorized, and whose owner has registered them in the Administrative Register for Electrical Power Generating Units referred to in articles 21 and 31 of the Electric Sector Act according to the terms established in article 4a) and in the First Temporary Provision of Royal Decree 2019/1997, of 26 December, which states how the electric power production market is to be organized and regulated. Moreover, for all intents and purposes, the definition of production units also includes those units defined to submit sale bids through external agents, resellers and selling participants referred to in article 17 of Royal Decree-law 6/2000.

For purposes of submitting electric power sale bids, a production unit is understood to be:

- a) Of the production units operating under the ordinary regime, each thermal turbogenerating set, each pure pumped storage station and each hydroelectric station management unit, in the terms established in the Ministerial Order of 29 December 1997, which develops some aspects of Royal Decree 2019/1997, of 26 December, which states how the electric power production market is to be organized and regulated.
- b) Each one of the power producing participants authorized to sell power in each of the international tie-lines in which they are authorized to sell.
- c) Of the special-regime production units, each power generating unit operating under the special regime with an installed generating capacity greater than 50 MW, and each generating unit whose generating capacity is less than or equal to 50 MW, each hydroelectric station management unit and each management unit of a set of wind turbines in an energy park, according to the terms established in the Ministerial Order of 29 December 1997, which develops some aspects of Royal Decree 2019/1997, of 26 December, which states how the electric power production market shall be organized and regulated, whose owner is a market participant.
- d) Of the special-regime production units, each set of special-regime generating installations that complies with the terms established in article 17 of Royal Decree-Law 6/2000, whose bids are submitted through a Selling Market Participant, provided that the said market participant explicitly appears in the authorization cited in paragraph f) of section 4.1.1.
- e) Each of the resellers who are authorized to conclude purchase contracts according to the terms established in article 21 of Royal Decree-law 6/2000, shall define a different production unit for each of the borders with the Spanish peninsular electric system, as well as a specific production unit for all special-regime power; each of these resellers shall use the cited units to submit sale bids to the market, making individualized bids with each of the units, for the power it contracts according to the terms established in article 21 of Royal Decree-law 6/2000, and which it wishes to incorporate into the market. With those same units, the reseller may enter into bilateral contracts with its customers.

4.1.3 MARKET OPERATOR

Sale bids shall be submitted to the market operator.

4.1.4 RECORDING OF PRODUCTION UNIT DATA IN THE MARKET OPERATOR'S INFORMATION SYSTEM

The market operator shall register production units in the market operator's information system by entering the data that the production unit holding participant has recorded in the Administrative Registry of Power Production Plants, or in the Administrative Registry of Distributors, Resellers and Qualified Customers maintained by the Ministry of the Economy, with the data regarding the administrative authorizations, and with the information supplied by the production unit holding participant.

The data regarding production units stored in the market operator's information shall be:

- The production unit code (defined by the market operator)
- Description of the production unit
- Type of production unit
- Type of bid (sale or purchase)
- Code of the electric system to which it belongs
- Minimum and maximum hourly power in MWh, expressed to no more than one decimal place
- Maximum rising, maximum descending gradient, start-up and stop gradient, in MW/minute. If no value is given, it shall be understood that it has no limit.
- Indication of whether the hydroelectric management unit is made up of run-of-the-river hydro units.

The electric system code indicates whether the production unit is in an external electric system and the electric border involved for the sale of power bid in the Spanish electric system. All external production units shall state the interconnect border with the Spanish electric system (France, Andorra, Portugal and Morocco) across which they are going to execute the sales for which they bid.

Authorization to use the market operator's electronic means of communication shall be conferred as a personal, untransferable concession to the specific individual who acts on behalf of the participant.

No one may be authorized to act simultaneously on behalf of more than one participant, nor to act on behalf of another, different participant from the one with which he maintains a dependent service relationship.

For these intents and purposes, those who intend to act on behalf of a market participant shall, before they are authorized and equipped to use the market operator's electronic means of communication, provide the participant in question with a statement in which they declare that they do not maintain a dependent service relationship with other participants.

The provisions of the above two paragraphs are understood not to affect situations in which the provisions in effect regarding the electric sector provide for the intervention of a single participant or agent on behalf of several participants.

4.2 TYPES

The electric power sale bids submitted by sellers to the market operator can be simple or complex, depending on their content.

4.3 PURPOSE AND CONTENT OF BIDS

4.3.1 SIMPLE BIDS

For purposes of the provisions of the Market Activity Rules, simple bids are defined as those electric power sale bids which sellers submit for each hourly scheduling period and production unit they own, with the expression of a price and an amount of power. For each hourly scheduling period within the same daily scheduling horizon, there can be as many as 25 power blocks for the same production unit, with a different price for each of the said blocks, with the prices increasing from block to block. Simple bids may not include any additional terms to be considered in the matching process.

4.3.2 COMPLEX BIDS

For purposes of the provisions of the Market Activity Rules, complex bids are defined as those electric power sale bids which, while complying with the requirements governing simple bids, include all, some or any one of the conditions which are listed and described below. The market operator shall include these conditions in the matching process according to the terms established in Rule N° 6. The following are the conditions that can be included in complex bids:

4.3.2.1 CONDITION OF INDIVISIBILITY

The condition of indivisibility is the condition by virtue of which the market operator's acceptance of the electric power sale bid generates, for the benefit of the production unit owner, the right to be assured that, if the indivisible block of its bid is matched, it will be matched in its entirety—that is, for all the electric power bid and never for a fraction of that power, apart from the provisions of Rule 8 or unless the load gradient condition is applied.

Sellers shall only be allowed to include the condition of indivisibility in an electric power sale bid for the lowest-priced block of the 25 possible power blocks in each hourly scheduling period.

Hydroelectric management units shall not be permitted to include this condition unless they are run-of-the-river hydro units.

4.3.2.2 MINIMUM INCOME CONDITION

Sellers may include, as a condition governing the electric power sale bids they submit for each production unit, that the bid in question is only to be considered submitted for matching purposes if the seller obtains a minimum income, which shall be expressed as a fixed amount in pesetas or in hundredths of a Euro, without decimal places, and as a variable amount expressed in pesetas or hundredths of a Euro per kwh, with as many as three decimal places.

When bids are submitted for each production unit with more than twelve blocks priced at zero, the minimum income condition shall not be allowed.

The minimum income condition shall not be allowed if the income requested exceeds the income resulting from the complete acceptance of the bid at the price bid by more than 100%.

4.3.2.3 SCHEDULED STOP CONDITION

This is the condition that sellers may include in the electric power sale bids they submit for each production unit so that, in the event that these bids are not matched due to the application of the minimum income condition, they can be treated as simple bids in the first block of the first three hourly scheduling periods of the daily scheduling horizon. The electric power bid which includes the scheduled stop condition shall be decreasing during the above-cited three hourly scheduling periods, and the production capacity variation condition shall not be applied to electric power sale bids in these three periods.

In any case, bids rejected due to the minimum income condition that include the scheduled stop condition are also indivisible, except as provided in the splitting rules. No other indivisible production block can exist in the same scheduling period.

4.3.2.3 PRODUCTION CAPACITY VARIATION OR LOAD GRADIENT CONDITION

Sellers may also include this condition in their electric power sale bids. The production capacity variation condition consists of establishing, for each production unit, a maximum upward or downward difference in production capacity variation, between two consecutive hourly scheduling periods. Variations due to starting up and stopping the production unit in question can also be included. This condition shall be expressed in MW/minute, to one decimal place, and the result of applying it shall be, in any case, limited by the production unit's maximum production capacity. This condition must at all times respect the continuous linear variation of the production unit in the hourly scheduling period for which the seller submitted the electric power sale bid.

4.4 TIME AND PLACE OF SUBMITTAL OF SALE BIDS

Sale bids must be received in the market operator's information servers before the close of the bid acceptance period, via the electronic medium that is set up and authorized for this purpose.

The electronic media available for the reception of bids from the date the Market Activity Rules comes into effect shall be one or more of the following:

- Access through Internet
- Access through Basic Network Telephone Lines (Spanish abbreviation: RTB)
- Access through Integrated Services Digital Network lines (Spanish abbreviation: RDSI)
- Access through leased lines, for those market participants requesting it.

The market operator shall be allowed to update its computer system communication media in order to add the technological advances that may emerge.

The market operator shall keep market participants informed at all times of any modifications it may make in its computer system.

Sellers shall transmit their electric power sale bids to the market operator at their own expense, and shall assume the responsibility for contracting and maintaining the communication media services they deem necessary for conveying their sale bids.

The time of reception of information that sellers must submit to the market operator shall be the time indicated by the market operator's computer system at the moment the information is received.

The market operator shall inform the sellers of the result of the verifications of their bids and of the result of matching by placing the results at their disposal in the information servers of the market operator's information system. This information shall be accessible through the media indicated above.

The market operator shall use its message communication system, which generates a record of the message content and time of sending, to notify the sellers of the opening of the bid reception period for the first iteration.

4.5 FORMAT FOR SUBMITTING SALE BIDS

In the electric power sale bids they submit to the market operator, sellers shall include the data listed below for each production unit and scheduling period.

- e) Production unit code
- f) Description of the bid. Alphanumeric field which does not use the algorithm.
- g) Type of bid, which will obligatorily be a sale bid
- h) Daily scheduling horizon date. This shall be the date on which the bid is submitted. This item shall be left blank if the bid is a default bid.
- i) Default bid. The valid data that can be included in the bid are:

YES, which indicates that the bid is a default bid, and that the market participant is keeping it in force for all the daily scheduling horizons, as from the moment the bid is received by the market operator. In this case, the daily scheduling horizon date is not used.

NO, to indicate that the bid is not a default bid, and that it is only valid for the daily scheduling horizon date indicated.

- j) "Default bid for" indicator, which indicates whether the default bid is for daily market matching execution or for the first iteration process. This indicator is only valid for default bids.
- k) Indicator telling whether the prices stated in the bid are expressed in pesetas or hundredths of a Euro.
- l) Minimum income condition for the production unit, which shall be expressed by means of the following two values:

- Fixed term (TF) for a single daily scheduling horizon, set in pesetas or hundredths of a Euro; no decimal places may be included.
 - Variable term (TV), which shall remain invariable for a single daily scheduling horizon, set in pesetas or hundredths of a Euro per kWh; in this case, as many as three decimal places may be included.
- m) The production unit's maximum rising or descending load variation gradient (maximum rising, maximum descending gradient, start-up and stop gradients), expressed in MW/minute to no more than one decimal place. If the value is zero, it shall mean that the bid in question does not include this condition.
- n) For each of the up to twenty-five (25) blocks into which a production unit's sale bid can be divided, and each of the hourly scheduling periods, the following data shall be provided:
- j.1) Hourly scheduling period to which the sale bid corresponds
 - j.2) Volume of electric power bid in the block by the production unit for each hourly scheduling period, expressed in MWh to a maximum of one decimal place
 - j.3) Price at which the block is bid for sale in pesetas or hundredths of a Euro per kWh, to a maximum of three decimal places
 - j.4) Indication, in the first block of each scheduling period, of whether the electric power block is divisible
 - j.5) Indication, in the first three periods of the scheduling period, of whether the electric power sale bid of the first block corresponds to a scheduled stop condition, for the first three hourly scheduling periods of the scheduling period.

4.6 EFFECTS

4.6.1 VERIFICATION OF SALE BIDS

Sale bids submitted by sellers shall be verified by the market operator, as a prior condition for their acceptance, in accordance with the following:

4.6.1.1 VERIFICATION OF THE SESSION STATUS

At the moment it receives a sale bid in its computer system, the market operator shall verify, according to the reception time available in its computer system, that this reception time falls before the close of the bid acceptance period.

4.6.1.2 VERIFICATION OF THE SELLER

The market operator shall verify:

- That the selling participant is registered in the market operator's information system

- That the participant is authorized to submit sale bids for the production unit at the time the bid is submitted. If a participant submits bids for production units for which it is not authorized, those bids shall be rejected.

4.6.1.3 VERIFICATION OF THE PRODUCTION UNIT

At the moment each sale bid is submitted, the market operator shall verify that the installations that make up the production unit for which the bid is being submitted are registered in the market operator's information system.

4.6.1.4 VERIFICATIONS OF THE AGREEMENT OF THE SALE BID DATA WITH THE INFORMATION CONTAINED IN THE MARKET OPERATOR'S INFORMATION SYSTEM

1. Maximum power to bid in a scheduling period:

The market operator shall verify, at the exact time the bid is submitted, [and before matching takes place](#), that the power bid by the seller for the production unit in each scheduling period is less than or equal to the power the unit could supply as the production unit maximum, in accordance with the data in the market operator's information system.

2. Condition of production capacity variation

The market operator shall verify, at the exact time the bid is submitted, that the rising, descending, start-up and stop gradient stated in the bid is equal to or less than the corresponding values recorded in the market operator's information system. If a maximum value is not recorded in the information system, it shall be understood that the gradient has no maximum limit value.

4.6.1.5 VERIFICATIONS OF THE AGREEMENT OF THE SALE BID DATA WITH THE INFORMATION SENT TO THE MARKET OPERATOR BY THE SYSTEM OPERATOR

The market operator shall verify, before accepting a sale bid, that the electric power bid by the seller for the production unit is less than or equal to the power it could supply as a production unit maximum, in accordance with the information regarding exceptions to the obligation to bid which the market operator has in its records, which the system operator shall have sent previously to the market operator's information system, at the time the bid was submitted. In particular, the market operator shall verify the availability of the production unit in each of the hours in the scheduling period.

[Notwithstanding the provisions of the previous paragraph, the subsequent data sent by the system operator to the market operator's information system, received by the market operator's information system before the close of the session, as well as the notification of the execution of international bilateral contracts, could cause the respective sale bids to be considered invalid and, as a result, excluded from the matching process.](#)

4.6.1.5.1 DEFINITION AND INCLUSION OF THE INFORMATION ON UNAVAILABILITY SENT BY THE SYSTEM OPERATOR TO THE MARKET OPERATOR'S INFORMATION SYSTEM

The information on unavailability shall be sent by the system operator to the market operator's information system and shall always contain all the instances of

unavailability that the system operator has recorded and confirmed from any of the physical units at the time it is sent. The unavailability data shall be sent by physical unit, although in the case of hydroelectric management units, the system operator may indicate, in the record of the transmission of the unavailability of a physical unit, that the hydroelectric management unit to which it belongs is completely unavailable. As a result, the market operator shall consider that all the production units that are not part of the latest information received from the system operator are available.

The information on unavailability shall be included in the market operator's information system at the time of its reception. The latest permissible time of inclusion for matching purposes shall be the session closing time.

4.6.1.5.2 VERIFICATION OF BIDS

The market operator shall verify that the power included in the sale bids per hour by the production units is within the permitted margins, that is:

- It is less than or equal to the lesser of PMAX or PDISP
- It is greater than or equal to PMIN.

If these two verifications give positive results, the bid shall be considered valid, where:

PMAX: Maximum power defined in the information system for the production unit (sum of the maximum powers of the physical units)

PMIN: Minimum power defined in the information system for the production unit (sum of the minimum powers of the physical units)

PDISP: The production unit's maximum power, after discounting the unavailable power of its physical units.

4.6.1.6 VERIFICATION OF THE CONTENTS OF THE BID

- a) Verification that the blocks corresponding to the scheduled stop correspond to the first block of the first three hourly scheduling periods, and that the latter are decreasing in terms of the electric power bid.
- b) Verification that the prices of the different power blocks of a single production unit have rising prices with respect to the electric power bid.
- c) Verification that the minimum income that the seller may include as a condition in the electric power sale bid for the production unit is not greater by 100% than the income that would be brought in if the production unit's sale bid were simple and complete.
- d) Verification that there are not more than twelve blocks priced at zero if the seller has opted for the minimum income condition.
- e) Verification that the production unit's bid includes a single indivisible block for each hourly scheduling period.

4.6.2 ACCEPTANCE OF SALE BIDS

The last valid electric power sale bid submitted by the seller to the market operator for each of the production units they own, shall become firm at the moment when the bid acceptance period closes.

4.6.3 CONFIDENTIALITY

The market participants undertake to maintain the confidentiality of the data relative to access to the market operator's computer system, to guard the computer access codes and passwords, and to notify the said market operator of any incident regarding information security.

The market and system operators undertake to maintain the confidentiality of the information that the seller has placed at their disposal in the electric power sale quotation in compliance with the provisions of these rules.

4.6.4 INFORMATION

The market operator shall inform sellers in the daily market of the following:

- Automatic confirmation of the reception of the electric power sale quotation by means of the procedures established in these Rules.
- Placement of the bid content information at the market participants' disposal in such a way as to allow them to reproduce the matching process in their computer systems as from the end of the predetermined period of confidentiality.
- Verification, according to the terms established in this Rule, of the electric power sale quotation made by the seller, and automatic notification of the verification result.
- Acceptance of the electric power sale bid if the result of the verification set out in the preceding section is positive, and inclusion of the said bid in the matching process.
- Inclusion or non-inclusion in the matching results, and, as appropriate, the reasons for the exclusion according to the terms stated in these Rules, when the participant requests this justification.

4.6.5 EFFECTS OF INCLUDING THE SALE BID IN THE MATCHING PROCESS

The inclusion of the sale bid in the matching process shall have the following effects:

- The electric power sale block shall be matched if the price bid for the electric power in the hourly scheduling period in question is equal to or less than the price resulting from matching in the said hourly period, without affecting the application of the splitting rule contained in the simple matching process. If simple and complex electric power sale bids were to be placed in the same daily scheduling horizon, the matching of one block of a complex bid would be subject to the conditions established in the matching process when simple and complex bids coincide in the market.
- The production unit owned by the seller shall be included in the order of financial precedence which is derived from the prices of the electric power sale bids submitted to the market operator in each hourly scheduling period, both when all the electric power sale bids are treated, in the matching process, as simple bids, and when simple and complex sale bids coincide in matching.
- The production unit owned by the seller, for which it has submitted electric power sale bids to the market operator, shall have precedence in the order in which it began operating with respect to other production units, in accordance with the order of

precedence cited in the previous paragraph, provided that the corresponding bid ends up being matched, and without affecting the possible technical constraints, according to the procedure for solving technical constraints.

- The seller shall obtain, according to the terms established for this purpose, the price for the electric power that it actually delivers, without affecting the engagements into which it may subsequently enter in other markets.
- The electric power sale bid presented to the market operator by the seller shall remain valid as long as it is not replaced by another electric power sale bid submitted by the same production unit and for the same hourly scheduling period, or is withdrawn by the market participant in the event that the unit becomes exempt from the obligation to submit bids, without affecting the participant's fulfillment of its legal obligations as well as its obligations to inform the market operator.
- The seller shall accept the results of matching according to the terms derived from the Market Activity Rules.
- The seller shall supply the electric power it has bid for each production unit it owns or controls, assuming that the electric power sale bid is matched, and the production unit dispatched, without affecting the commitments it may subsequently make in other markets.

RULE 5 ELECTRIC POWER PURCHASE BIDS

5.1 SUBJECTS

5.1.1 BUYERS IN THE DAILY MARKET

5.1.1.1 For the intents and purposes of the provisions of the Market Activity Rules, buyers in the daily market are distributors, resellers, qualified consumers and external agents whose participation as distributors, qualified consumers or resellers in the electric power production market is authorized by the [Ministry of the Economy](#). At any rate, in order for buyers to be permitted to submit electric power purchase bids, they must be registered in the Administrative Register of Distributors, Resellers and Consumers that is established in article 45.4 of the Electric Sector Act, without detriment to the stipulations of the First Temporary Provision of Royal Decree 2019/1997, of 26 December, which states how the electric power production market is to be organized and regulated. Likewise, buyers are required to commit themselves formally to observing these Market Activity Rules. Sellers may act as buyers after registering themselves in the previously mentioned Administrative Register of Distributors, Resellers and Consumers.

5.1.1.2 Distributors are those trading corporations whose function is to distribute electric power, as well as to construct, maintain and operate distribution installations for the supply of electric power to their final consumers at tariff rates, or to other distributors which also purchase electric power at tariff rates. Distributors shall have the obligation to submit electric power purchase bids to the market operator only for the difference between the total quantity of electric power they have to supply at tariff rates and the purchases of electric power they are obligated to buy from producers operating under a special regime.

Distributors must formulate their electric power purchase bids after deducting from their demand, in all cases, the projection or forecast of electric power coming from special-regime installations as indicated in article 27 of the Electric Sector Act, which could be discharged into their system when the owners of the said special-regime installations had not chosen to come to the daily market. Distributors shall be required to notify the market operator, within one hour of [the close of the daily market session](#), of the quantity of electric power they have planned to purchase directly from owners of special-regime installations, for each of the following day's hourly scheduling periods.

5.1.1.3 [Resellers are those corporate persons who have access to transport and distribution systems and who sell electric power to other buyers or to the market, provided that they have concluded contracts compliant with article 21 of Royal Decree-law 6/2000.](#)

5.1.1.4 [For market purposes](#), qualified consumers are:

- a) Owners of railway transport installations, to include the metropolitan railway (subway or metro)
- b) Those consumers whose annual electric power consumption exceeds a threshold defined by article 1 of Royal Decree 2820/1998, of 23 December, whose provisions establish system access tariffs.
- c) [All consumers whose supply is delivered at nominal voltages above 1,000 volts.](#)
- d) The auto-producers referred to in article 25.3 of the Electric Sector Act shall be treated as qualified consumers due to their effective electric power consumption, which is understood to mean both the consumption of the electric power supplied by third parties and power they produce themselves.
- e) Qualified consumers who had chosen to purchase electric power at regulated tariff rates shall be allowed to submit electric power purchase bids to the market operator for the surplus not covered by the corresponding tariff under the terms and conditions established in these Market Activity Rules.

5.1.1.5 Buyers in the electric power production market are required to adhere to the Electricity Market Activity Rules by signing the corresponding Contract of Adherence.

5.1.1.6 Buyers in the electric power production market shall give sufficient guarantees, whose acceptance is incumbent on the market operator, according to the terms established in these Rules, to ensure that the sellers will collect payment in full for the electric power supplied in the production market at its final price, with the limit of the amount covered by the said guarantees.

5.1.1.7 External agents shall be allowed to submit purchase bids once they have been authorized to purchase electric power. If they have been authorized both to sell and buy electric power, they must submit power purchase or sale bids.

5.1.2 MARKET OPERATOR

Purchase bids shall be submitted to the market operator.

5.1.3 REGISTRY IN THE MARKET OPERATOR'S INFORMATION SYSTEM

The market operator shall register the purchasing units in the market operator's information system, recording the data which the purchasing unit owner shall have registered in the

Administrative Register of Distributors, and Consumers of the [Ministry of the Economy](#), as well as the information provided by the said unit owner. The data to be recorded in the market operator's information system shall be:

- Purchasing unit code (defined by the market operator)
- Description of the purchasing unit
- Type of purchasing unit
- Type of bid (sale or purchase)
- Code of the electric system to which it belongs
- Minimum and maximum hourly power in MWh, expressed to no more than one decimal place.

The electric system code indicates whether the purchasing unit is in an external electric system or is for the sale of power to an external electric system, as well as the electric border it affects for the purchase or sale of electric power bid in the Spanish electric system. All external purchasing units shall state this code, as well as all the purchasing units belonging to Spanish electric system resellers whose power is going to be sold to an external purchasing unit. The Spanish electric system resellers shall, therefore, define an independent purchasing unit for those sales that affect each border with each of the electric systems that are connected to the Spanish system (France, Andorra, Portugal and Morocco).

[Authorization to use the market operator's electronic means of communication shall be conferred as a personal, untransferable concession to the specific individual who acts on behalf of the participant.](#)

[No one may be authorized to act simultaneously on behalf of more than one participant, nor to act on behalf of another, different participant from the one with which he maintains a dependent service relationship.](#)

[For these intents and purposes, those who intend to act on behalf of a market participant shall, before they are authorized and equipped to use the market operator's electronic means of communication, provide the participant in question with a statement in which they declare that they do not maintain a dependent service relationship with other participants.](#)

[The provisions of the above two paragraphs are understood not to affect situations in which the provisions in effect regarding the electric sector stipulate the intervention of a single participant or agent on behalf of several participants.](#)

5.2 CONTENTS OF PURCHASE BIDS

Buyers may submit purchase bids for each purchasing unit and for each hourly scheduling period. For this purpose, a purchasing unit is defined as the set of grid connection busses through which the buyer submits electric power purchase bids.

These bids shall state a quantity and a price (assuming they are not rigid purchase bids) of a power block. In each hourly scheduling period, there can be as many as 25 power purchasing blocks for the same purchasing unit, with different prices for each block; the prices must be decreasing.

5.3 PLACE AND TIME FOR SUBMITTING PURCHASE BIDS

The market operator's information servers must receive all purchase bids before the close of the bid acceptance period, through the electronic media the operator sets up for this purpose.

The electronic media available for the reception of bids as of January 1st, 1998 shall be one or more of the following:

- Access through Internet
- Access through Basic Network Telephone Lines (Spanish abbreviation: RTB)
- Access through Integrated Services Digital Network lines (Spanish abbreviation: RDSI)
- Access through leased lines, for those market participants requesting it.

The market operator shall be allowed to update its computer system communication media in order to add the technological advances that may emerge.

The market operator shall keep market participants informed at all times of any modifications it may make in its computer system.

Buyers shall transmit their electric power purchase bids to the market operator at their own cost, and shall assume the responsibility for contracting and maintaining the communication media services they deem necessary for conveying their sale bids.

The time of reception of information that buyers must convey to the market operator shall be the time indicated by the market operator's computer system at the moment the information is received.

The market operator shall inform the buyers of the result of the verifications of their bids and of the result of matching by placing the results at their disposal in the information servers of the market operator's information system. This information shall be accessible through the media indicated above.

The market operator shall use its message communication system, which generates a record of the message content and time of sending, to notify the sellers of the opening of the bid reception period for the first iteration.

5.4 FORMAT FOR SUBMITTING PURCHASE BIDS

In the electric power purchase bids they submit to the market operator, buyers shall include the data listed below for each purchasing unit and scheduling period.

- a) Purchasing unit code
- b) Description of the bid. Alphanumeric field which does not use the algorithm.
- c) Type of bid, which will obligatorily be a purchase bid
- d) Daily scheduling horizon date. This shall be the date for which the bid is submitted. This item shall be left blank if the bid is a default bid.

- e) Default bid. The valid data that can be included in the bid are:

YES, which indicates that the bid is a default bid, and that the market participant is keeping it in force for all the daily scheduling horizons, as from the moment the bid is received by the market operator. In this case, the daily scheduling horizon date is not used.

NO, to indicate that the bid is not a default bid, and that it is only valid for the daily scheduling horizon date indicated.

- f) "Default bid for" indicator, which indicates whether the default bid is for daily market matching execution or for the first iteration process. This indicator is only valid for default bids.
- g) Indicator telling whether the prices stated in the bid are expressed in pesetas or hundredths of a Euro.
- h) For each of the blocks (maximum of 25) into which a purchasing unit's purchase bid can be divided, and for each of the hourly scheduling periods, the following data shall be provided:
- h.1) Hourly scheduling period to which the electric power block for the purchasing unit corresponds
- h.2) Volume of electric power bid in the block by the purchasing unit for each hourly scheduling period, expressed in MWh to a maximum of one decimal place.
- h.3) Price at which the block is bid, expressed in pesetas or in hundredths of a Euro per kWh, to a maximum of three decimal places.

5.5 EFFECTS

5.5.1 VERIFICATION OF PURCHASE BIDS

Purchase bids submitted by buyers shall be verified by the market operator, as a prior condition for their acceptance, in accordance with the following:

5.5.1.1 VERIFICATION OF THE SESSION STATUS

At the moment it receives a purchase bid in its computer system, the market operator shall verify, according to the reception time available in its computer system, that this reception time falls before the close of the bid acceptance period.

5.5.1.2 VERIFICATION OF THE BUYER

The market operator shall verify:

- That the purchasing participant is registered in the market operator's information system

- That the purchasing participant is authorized to submit purchase bids for the purchasing unit at the time the bid is submitted. If a participant submits bids for purchasing units for which it is not authorized, those bids shall be rejected.
- That the purchasing participant has sufficient guarantees to ensure payment for the electric power corresponding to the bid it is submitting.

5.5.1.3 VERIFICATIONS OF THE AGREEMENT OF THE PURCHASE BID DATA WITH THE INFORMATION CONTAINED IN THE MARKET OPERATOR'S INFORMATION SYSTEM

- Maximum power to purchase in an hourly scheduling period, in MWh, expressed to no more than one decimal place
- The market operator shall verify, at the exact time the bid is submitted, [and before matching takes place](#), that the power demanded by the buyer is less than or equal to the power it could demand, in accordance with the maximum value recorded in the market operator's information system, and greater than or equal to the minimum value.

5.5.1.4 VERIFICATION OF THE CONTENT OF THE BID

Verification that, if the purchase order is divided into blocks, the prices are decreasing for the said blocks.

5.5.2 ACCEPTANCE OF PURCHASE BIDS

The last valid electric power purchase bid submitted by the buyers to the market operator for each of the purchasing units [to which they hold title](#) shall become firm at the moment when the bid acceptance period closes.

5.5.3 CONFIDENTIALITY

The market participants undertake to maintain the confidentiality of the data relative to access to the market operator's computer system, to guard the computer access codes and passwords, and to notify the said market operator of any incident regarding information security.

The market and system operators undertake to maintain the confidentiality of the information that the buyer has placed at their disposal in electric power purchase bids [according to the provisions of these rules](#).

5.5.4 INFORMATION

The market operator shall inform purchasers of the following:

- Automatic confirmation of the reception of the electric [power](#) purchase bid [by means of the procedures established in these Rules](#).
- [Verification, according to the terms established in these Rules](#), of the electric power purchase bid made by the buyer, and notification of the verification result.
- Acceptance of the electric power purchase bid if the result of the verification set out in the preceding section is positive, and inclusion of the said bid in the matching process.

- Inclusion or non-inclusion of the bid in the matching results, and, as appropriate, the reasons for excluding it according to the terms stated in these Rules when the participant requests this justification.

5.5.5 EFFECTS OF INCLUDING THE PURCHASE BID IN THE MATCHING PROCESS

The inclusion of the purchase bid in the matching process shall have the following effects:

- In the case of price accepting bids, that is, bids whose bid price is equal to the instrumental value of 30 PTA/kWh, the buyer shall obtain the supply of the electric power required, and the final price it shall pay for the allotted power shall include, as compensation in the hourly scheduling period in question, the price resulting from matching in the said hourly period. If the electric power purchase bid were to include, together with the quantity of power required and the hourly scheduling period to which the purchase bid refers, the price that the buyer is willing to pay for the power required, the buyer shall have the right to receive the supply of the electric power solicited in the purchase bid, as long as the said purchase bid is matched.
- The market operator shall inform the buyer, if the latter so requests, whether the electric power purchase bid containing the price of the power required was included in the matching process and, if it was excluded, the reasons for its exclusion.
- The electric power purchase bid shall remain valid as long as it is not replaced by another electric power purchase bid submitted by the same purchasing unit and for the same hourly scheduling period, or is withdrawn by the market participant, without affecting the participant's fulfillment of its legal obligations as well as its obligations to inform the market operator.
- The buyer shall accept the results of matching according to the terms derived from these Market Activity Rules.
- The buyer shall pay, according to the terms set out in these Rules, the price of the electric power, which must be supplied to him if the electric power purchase bid was matched and the supply took place according to the terms established in article 11.4 of the Electric Sector Act, without affecting any commitments made subsequently in other markets.
- The buyer's purchase bid shall include the power consumed by the transport and distribution losses that correspond to the buyer according to regulations.

RULE 6 MATCHING PROCESS

6.1 BASIC ELEMENTS OF THE MATCHING PROCESS

The market operator shall match the electric power purchase and sale bids by means of the simple matching process, which is the process that independently obtains the marginal price, as well as the volume of electric power that is accepted for each production and purchasing unit for each hourly scheduling period. The simple matching method shall be adapted by using the mathematical algorithms required to include in the process the possibility, for sellers, of submitting complex bids for each production unit.

Only the conditions included in the complex bids provided for in Rule 4.3.2 shall be included in the matching algorithm. For the intents and purposes of these Market Activity Rules, the term *matching algorithm* is defined as the ordered and finite set of mathematical operations that makes it possible to obtain, in each hourly scheduling period, the marginal price corresponding to the electric power sale bid made by the owner of the last production unit whose entry into the system was required to respond to the demand for electric power.

The electric power production that is the subject of physical bilateral contracts in which qualified consumers, external agents, power producers and special-regime power producers take part, in that part whose owners have not chosen to bid in the daily market, shall not be included in the matching process, nor be taken into account during the matching process to check technical production minimums and maximums, or of the load gradient of the production unit in question, **nor shall they be taken into account during the matching process in order to check the production maximums or the load gradient of the production unit in question.**

It shall be possible to perform matching by means of a simple process or a complex one when simple and complex bids coincide in the market, in accordance with the provisions of this rule. In any case, the criteria governing allotment of electric power production and demand and of marginal price setting shall be common for the simple and complex matching processes.

The price in each hourly scheduling period shall be equal to the price of the last block of the sale bid of the last production unit whose acceptance was necessary to satisfy the demand that has been matched.

6.2 SIMPLE MATCHING PROCEDURE

The market operator shall obtain the marginal prices for each of the hourly scheduling periods of the same scheduling horizon, and shall distribute the electric power bid in each hourly scheduling period among the sale and purchase bids by means of simple matching, which shall consist of the following operations:

6.2.1 ESTABLISHMENT OF THE ORDER OF FINANCIAL PRECEDENCE OF SALE BIDS AND DETERMINATION OF THE SUPPLY CURVE

The market operator shall establish, for each hourly scheduling period of the daily scheduling horizon, the order of financial precedence of the sale bids, starting from the cheapest and proceeding to the highest-priced bid required to cover the demand for electric power in the said hourly scheduling period. If there are power blocks at the same price, they shall be placed in order according to the following criteria:

- Date, hour, minute and second of insertion in the market operator's information system of the bid from lowest to highest (bids inserted previously in the information system shall be withdrawn after those that were inserted afterward, or the bids that were inserted in the information system earlier shall be included before those inserted later).
- Volume of power in the block, from lowest to highest. If the above-mentioned date, hour, minute and second also coincide in both bids, the bids shall be withdrawn in reverse order of power volume in the block (blocks which include greater amounts of power shall be withdrawn before those which include lesser amounts, or the blocks incorporating less power shall be included before those with more power, as appropriate).
- Alphabetical order from lowest to highest. If the quantity of power were also to coincide, the blocks shall be put in descending alphabetical order, and in decreasing numerical order if appropriate.

The market operator shall determine the aggregate electric power supply curve by adding, in ascending order, the price of the quantities of electric power bid, regardless of the production unit to which the quantities in question correspond.

6.2.2 DETERMINATION OF THE DEMAND CURVE

For each hourly scheduling period of the same daily scheduling horizon, the market operator shall establish the aggregate electric power demand curve, adding, in descending price order, as appropriate, the accepted purchase bids.

For this purpose, the market operator shall be able to include the following suppositions in the calculation of the aggregate demand curve:

- a) Purchase bids in which the buyer has established a maximum price and a quantity of electric power. This supposition shall result in a demand curve with descending prices.
- b) Purchase bids in which the buyer has not established a maximum price for the electric power it wishes to buy. Under this supposition, which is equivalent to a rigid requirement, the buyer accepts the marginal price resulting from matching for each of the hourly scheduling periods of the same daily scheduling horizon, without affecting the instrumental price used by the market operator's information system to process these bids.
- c) In the event that both of the above suppositions coincide, the market operator shall plot a demand curve in which the electric power purchase bids without maximum prices shall precede, in all cases, bids that do include maximum prices.

6.2.3 MATCHING PROCEDURE

The simple matching method entails performing the following operations:

- a) Determination of the crossing point of the supply and demand curves, and calculation of the marginal price for each hourly scheduling period in the same daily scheduling horizon. The marginal price corresponds to the priced sale bid made by the last production unit whose entry into the system was required to satisfy the demand for electric power.
- b) Assignment to each production unit, for each electric power sale bid submitted for the same hourly scheduling period, of the electric power being sold during that scheduling period, provided that the said bid price is lower than or equal to the marginal price in the period in question, and provided that there is sufficient electric power required at that price or above it.
- c) Assignment to the buyer, for each electric power purchase bid submitted for the same hourly scheduling period, of the electric power being demanded during that scheduling period, provided that the price of the said purchase bid is higher than or equal to the marginal price in the scheduling period in question, and provided that there is sufficient electric power for sale at that marginal price or below it.

6.2.4 CRITERIA GOVERNING THE ASSIGNMENT OF ELECTRIC POWER PRODUCTION AND DEMAND

The market operator shall obtain the marginal price for each of the hourly scheduling periods of the same daily scheduling horizon, and shall distribute the electric power bid in each hourly scheduling period among the sale and purchase bids, according to the following criteria:

- a) The market operator shall accept, at the marginal price, the total electric power offered in those sale bids whose prices are below the said marginal price.
- b) The market operator shall accept, at the marginal price, the total electric power demanded by buyers in all the electric power purchase bids whose maximum prices are above the marginal price, except in cases where there is not enough electric power at prices that are lower than or equal to the marginal price to satisfy the demand that incorporates prices that are higher than the said marginal price.
- c) Since the aggregate electric power production and demand curves are discrete stepped curves, their crossing point may give rise to indeterminacy in the assignment of electric power which requires the application of a distribution criterion in one or more hourly scheduling periods of the same daily scheduling horizon, which may correspond to certain electric power purchase or sale bids. If this situation arises, and when the crossing point of the aggregate electric power supply and demand curves occurs in a horizontal section of either or both curves, the market operator shall proceed as follows:
 - If there is a surplus supply of electric power for sale, this surplus shall be proportionally deducted from the quantities of electric power found in the block of sale bids from sellers representing those production units whose price is equal to the marginal price of the hourly scheduling period in question.
 - If there is excess purchase demand for electric power, this excess shall be proportionally deducted from the quantities of electric power included in the blocks of those purchase bids whose price is equal to the price of the last accepted purchase bid.
 - To avoid imbalances due to rounding off after the application of the power deductions when there is excess demand or supply at the marginal price, the following procedure shall be applied:
 1. Initially, the total power assigned after distribution which does not correspond to a whole value of the decimal place is cut off at the lower whole value of the said decimal place.
 2. Then the degree of imbalance (D) is evaluated. The imbalance may be caused by the difference between the total accepted demand, in case the distribution affects the sale bids, or between the total accepted demand and the total assigned supply, if the distribution affects the purchase bids. The value of D indicates the number of bids that must increase their assignment by 0.1 MWh during the hourly scheduling period in order to correct the imbalance.
 3. Finally, the power accepted for a number D of bids that were included in the distribution is increased by 0.1 MWh, choosing first the bids that ended up with a higher residual value after the cutoff of the lower whole value of the first decimal place. If this value comes out equal, the bids submitted previously shall be selected.

6.2.5 MARGINAL PRICE SETTING CRITERIA

In the event that indeterminacy arises in the setting of the marginal price of electric power for an hourly scheduling period corresponding to the same daily scheduling horizon, which causes the aggregate electric power supply and demand curves to coincide or cross in a vertical section of the supply curve, the price shall correspond to the price of the last block of electric power supply offered for sale submitted by the last production unit whose acceptance was necessary to satisfy the matched demand.

6.3 MATCHING PROCEDURE APPLIED WHEN SIMPLE AND COMPLEX BIDS COINCIDE

If simple and complex electric power sale bids coincide in the same scheduling period of the same daily scheduling horizon, the market operator shall include the conditions contained in the said complex bids in the matching process with simple bids, by performing the operations which are indicated below.

6.3.1 SEARCH FOR AN INITIAL VALID SOLUTION

The objective of this operation is to find a solution consisting of determining 24 marginal prices (23 or 25 on days when changing to and from Daylight Savings Time) corresponding to the 24 hourly scheduling periods (23 or 25 on days when changing to and from Daylight Savings Time) of the same daily scheduling horizon and an assignment of electric power to each of the production units whose owners have submitted electric power sale bids in the hourly scheduling period in question, which satisfies the conditions of indivisible bids, the restrictions derived from the load gradient of the production units, the conditions of planned stoppage and the minimum income conditions of the production units that are included in the solution.

To this end, the market operator shall initially apply the simple matching method described in the previous section, to which the operator shall add, as a condition, the obtaining of a solution which complies with the conditions derived from the complex bids, except the minimum income condition. This method shall be called simple conditioned matching.

Subsequently, so that the minimum income restriction is respected, the market operator shall use an iterative procedure which performs several simple conditioned matchings while successively eliminating all the sale bids corresponding to each production unit which does not comply with the minimum income condition, until all the sale bids corresponding to the production units considered in the solution satisfy that condition.

6.3.1.1 TREATMENT OF THE VERIFICATION OF THE LOAD GRADIENT CONDITION DURING SIMPLE CONDITIONED MATCHING

6.3.1.1.1 GENERAL CRITERIA

The purpose of the load gradient condition is to limit the assignment of the volume of power corresponding to a production unit's sale bid when the variation of power between two consecutive hourly scheduling periods exceeds the value stated in the bid.

For the purposes of this rule, the following terms are defined:

- Maximum power: the maximum power in the market operator's information system, or the maximum power available, whichever is less
- Minimum power: the minimum power in the market operator's information system.

As general criteria for checking the load gradient condition during the simple conditioned matching process, the following norms shall be applied:

- The gradient statement is optional. A gradient value equal to zero in the bid shall be interpreted as a renunciation of the use of this complex condition.
- Two sets of gradients may be used for each production unit—a start-up / rising gradient and a stop / descending gradient—when the unit increases / reduces its schedule in two consecutive periods.

- Increases or reductions of power during each hour shall always be considered linear.
- The condition shall be checked by analyzing each of the hourly periods directly (that is, by verifying each hourly period according to the data corresponding to the previous hourly scheduling period), and then inversely (that is, by verifying each hourly scheduling period according to the data corresponding to the following hourly scheduling period).
- The power shall be checked by considering the calculated power values at the beginning and end of each hour; these values shall be obtained from the data corresponding to the previous or subsequent hourly scheduling periods, and from the applicable gradient value.

If the calculated values surpass the maximum power values or reach values below the zero, these values shall be taken as the power limit at the beginning or the end of the hour, limiting, as appropriate, the power assigned to the purchase or sale bids.

In any case, when the owner of a production unit which includes the rising / start-up or descending / stop load gradient condition in an electric power sale bid, the market operator shall assign the producer a lower quantity of power than the latter would have received if it had not included the cited condition.

6.3.1.1.2 PROCEDURE

Once an initial marginal price has been obtained for the first hourly scheduling period, in accordance with a simple matching process without load gradient restrictions, the market operator shall check to see that the sale bids whose owners have included gradient conditions for the production units represented by those bids respect those conditions for the following hourly scheduling periods.

For this purpose, the market operator shall follow the procedure outlined below.

d) Verification of the rising or start-up load gradient conditions

To begin with, the rising gradients (start-up and rising) are checked.

- The matching done for the first hour of the day is initially considered valid without checking load gradient restrictions. The first hour's initial (P_o) and final (P_1) power values (in MW, to no more than one decimal place) are calculated as follows:
 - * If the power assigned in hour 1 (E_1) is below the indivisible block level declared for that hour, it is assumed that the unit is performing its start-up procedure, and the start-up load gradient is chosen. In any other case, the rising gradient would be selected.
 - * With gradient g selected, the power values at the beginning of hour 1 (P_o) and at the end of hour 1 (P_1) are obtained, assuming a maximum linear rise which will uphold the power value (E_1) obtained, that is:

$$P_o = E_1 - g * 30 \qquad P_1 = E_1 + g * 30$$

- * If P_o is less than zero or P_1 exceeds the production unit's maximum power value, the rise is reduced to the maximum that will enable both values to be feasible, and the value of P_1 is stored.

Likewise, the maximum acceptable power value for that hour (EM_i) is set at the value of E_1 .

- Before performing the matching for the next hour (h+1), the bids submitted by each unit in that hour are limited according to their declared gradients, in the following manner:
- The level of the indivisible block is calculated for hour h+1 as the value of power in the indivisible or non-withdrawable block declared in hour h+1.
 - * If the power level set for the end of hour h (P_h) is lower than the level of the indivisible block, it is assumed that the unit is starting up, and the start-up gradient shall be chosen.
 - * In any other case, the rising gradient declared by the unit is chosen.
- Once the gradient is selected, with the value g , the value of the maximum possible power for the end of hour h+1 is obtained, as $PM_{h+1} = P_h + g * 60$. If this value exceeds the unit's maximum, the maximum is taken as the new value of PM_{h+1} . The maximum biddable power value for the unit in hour $h + 1$ (EM_{h+1}) is obtained as the average value between P_h and PM_{h+1} . In those cases in which the first decimal place in the value of EM_{h+1} is not a whole number, the number is rounded off to the highest tenth.
- Then the matching for hour h+1 is done with the bids that have not exceeded the limit. This ensures that the dispatch for each unit will respect the rising gradients (start-up and rising). After applying the possible splitting rules, the value of power dispatched to each unit in hour h+1 (E_{h+1}) is obtained.
- The next step is to calculate the power level assigned at the end of hour (P_{h+1}). The computation of this value is different for the second hour of the day, and for the rest of the hours:
 - * For the second hour of the day, the market operator shall try to assign a power value that assumes an even linear regime during hours 1 and 2.
 - > If E_2 is greater than E_1 , $P_2 = E_1 + 3/2 * (E_2 - E_1)$ is obtained. If P_2 exceeds the unit's maximum, then P_2 is given the value of the said maximum.
 - > In any other case, the power level P_2 is set at the value E_2 .
 - * For the rest of the hours of the day, the power at the end of hour $h+1$ shall be calculated in the following manner:
 - > If E_h is greater than P_h , $P_{h+1} = P_h + 2 * (E_{h+1} - P_h)$ is obtained.
 - > In any other case, the power level P_{h+1} is set at the value of E_{h+1} .

This is done in this way because, in order to obtain the calculated power level, the power curve should be descending, which will be seen as a stop or descending gradient in the process which is described further on.

- The same process is repeated until the last hour of the day, thus obtaining a dispatch that complies with the rising gradients. For each hour, the value of the calculated admissible maximum power value (EM_h) is retained.

The market operator shall keep in its records the power value that corresponds to each production unit at the end of that hourly scheduling period, so that it can use that value to check the rising load gradients associated with later hourly scheduling periods, as well as the descending load gradients referred to in paragraph b) of this numbered section.

b) Verification of the descending or stop load gradient conditions

To check compliance with the descending load gradient conditions, the market operator shall repeat the operations described in the previous subsections of this numbered section. However, it shall start from the last hourly scheduling period and continue in the opposite direction from the one established for checking compliance with the rising load gradient conditions. It shall, nevertheless, use the parameter that defines the descending load gradient. The value of the load gradient shall correspond to the stop gradient when the power at the beginning of the next scheduling period is lower than the indivisible block declared in the scheduling period.

- The matching performed for the last hour of the day is definitively considered valid. The initial (P_{23}) and final (P_{24}) power values in that hour (in MW, to no more than one decimal place) are calculated as follows:

- * If the power assigned in hour 24 (E_{24}) is lower than the level of the indivisible block declared for that hour, it is assumed that the unit is stopping, and the stop gradient is selected. In any other case, the descending gradient is selected.

- * With gradient g selected, the power values at the beginning (P_{23}) and at the end (P_{24}) of hour 24 are obtained, assuming a maximum descending linear curve that will uphold the value of power E_{24} obtained, that is:

$$P_{23} = E_{24} + g * 30 \qquad P_{24} = E_{24} - g * 30$$

- * If P_{24} turns out to be less than zero or P_{23} exceeds the unit's maximum power value, the curve is reduced to the maximum that will allow both values to be feasible, and the value of P_{23} is stored.

- Before repeating the previous hour's (h) matching, the bids submitted by each unit in that hour are limited according to their stated gradients, in the following manner:

- * If the power level set for the end of hour h (P_h) is below the level of the indivisible block declared in hour h , the stop gradient declared by the unit is declared.

- * In any other case, the stop gradient declared by the unit is chosen.

- Once the gradient is selected, with value g , the maximum possible power value is obtained for the beginning of hour h , as $PM_{h-1} = P_h + g * 60$. If this value exceeds the unit's maximum, the maximum is taken as the new value of PM_{h-1} . The unit's maximum biddable power value in hour h (EM_h) is obtained as the average value between P_h and PM_{h-1} . In those cases in which the first decimal place of the value of EM_h is not a whole number, the figure is rounded off to the next higher

value. If this value surpasses the limit calculated in the direct process for hour h , the previous value of EM_h is taken, which ensures compliance with the previous rising gradient.

- Then the matching for hour h is done with the bids that have not exceeded the limit. This ensures that the dispatch for each unit will respect the descending gradients (stop and descending). After applying the possible splitting rules, the value of power dispatched to each unit in hour h (E_h) is obtained.
- The next step is to calculate the power level assigned at the beginning of hour P_{h-1} . The computation of this value is different from the calculation for the penultimate hour of the day, and for the rest of the hours:
 - * For the penultimate hour of the day (23), the market operator shall try to assign a power value that assumes an even linear regime during hours 23 and 24.
 - > If E_{23} is greater than E_{24} , $P_{22} = E_{24} + 3/2 * (E_{23} - E_{24})$ is obtained. If P_{22} exceeds the unit's maximum, then P_{22} is given the value of the said maximum.
 - > In any other case, the power level P_{22} is set at the value of E_{22} .
 - * For the rest of the hours of the day, the power at the beginning of hour h shall be calculated in the following manner:
 - > If E_{h+1} is greater than P_h , $P_{h-1} = P_h + 2 * (E_{h+1} - P_h)$ is obtained.
 - > In any other case, the power level P_{h-1} is set at the value of E_h .
- This process is repeated until the first hour of the day.

In the reverse process, the most restrictive value between the value calculated in this process and the value recorded in the rising or start-up load gradient checking process shall be taken as the maximum power at the beginning of the hour in each scheduling period.

6.3.1.2 TREATMENT GIVEN TO THE MINIMUM INCOME CONDITION

The market operator shall take this condition into account in the matching process in the final phase of the search for the first valid solution by performing the following operations:

1. The market operator shall determine, based on the results obtained from a simple matching including the rest of the complex conditions, if there are electric power production units for which their owners have declared the minimum income condition in their electric power sale bids and do not satisfy that condition.

If there are no production units in this situation, the solution obtained shall be the result of the matching process.
2. If there are production units whose owners have submitted electric power sale bids and which do not satisfy the cited condition, the market operator shall calculate, for each of them, the average price per kWh derived from their

minimum income condition and the average price per kWh they will collect as the result of simple conditioned matching.

3. The electric power sale bid corresponding to the production unit which shows the greatest difference between the two prices indicated in the previous paragraph shall be eliminated in all the blocks of the sale bid made by the bidder in the daily scheduling horizon, except those blocks for which the production unit owner in question declared the scheduled stop condition.
4. Once the sale bid corresponding to the above-mentioned production unit has been eliminated, the market operator shall repeat, for all the sale bids which were not eliminated, the simple matching process, in which it shall include the rest of the complex conditions except the minimum income one.
5. The market operator shall repeat the process of eliminating sale bids until a solution is reached in which all the matched sale bids respect the minimum income condition. This shall be the first valid solution.

6.3.2 SUCCESSIVE IMPROVEMENT OF THE FIRST VALID SOLUTION

Once a first valid solution has been found in which the electric power sale bids included in the solution respect all the conditions incorporated, a process is begun of seeking the financial precedence of the production units included in the matching process corresponding to each daily scheduling period in question. This search shall be based on a condition: the sum of the differences between the income corresponding to the marginal price and the minimum income requested for the unaccepted production units for which the difference is positive, minimal or zero, according to the following formula:

$$\sum_{t=1}^{t=N} \sum_{h=1}^{24} E(up, t, h) * PM(h) - IMIN(up) = MI(up)$$

where:

E(up,t,h): Power of block t of the production unit that was matched in hour h at the price resulting from matching PM (h)

IMIN(up): Minimum income requested for the production unit in the bid, according to the power matched at the price resulting from matching PM (h).

MI(up): Production unit's income margin.

For all the production units whose income margin MI(up) is positive, the following shall be calculated:

$$TMI = \sum_{up=1}^u MI(up)$$

The final target solution sought by the algorithm shall be the one that obtains a TMI value equal to zero. It may be that there is no solution that satisfies this condition. If this is the case, the algorithm will give a result with a lower TMI.

Each time the market operator matches a combination of electric power sale bids which turns out to be valid, the operator shall verify whether the TMI of the valid

combination is lower than, higher than or equal to the TMI which exists for the best known combination of electric power sale bids.

- If the TMI is higher, the market operator shall record the combination of electric power sale bids as tested and valid.
- If the TMI is lower, the market operator shall select the new combination of electric power sale bids as the best up to that moment, and shall mark it tested and valid.
- If the TMI is equal, the market operator shall select, from the two combinations of electric power sale bids (the one involving the lower TMI up to that point and the current one) the combination which offers the lowest average power price. If the equality between the two combinations were to persist, the market operator would choose the combination that would give rise to a higher average margin for the production units.

If, in this process, no solution is found which satisfies the condition of being the final solution sought, the program will present as the solution the one obtaining the lowest sum of the differences between the income corresponding to the marginal price and the minimum incomes solicited for the non-accepted production units, provided that those differences are positive.

This process of seeking the final solution shall be limited in time to thirty (30) minutes, and in number of iterations to three thousand (3,000). The market operator shall file the number of iterations effected in its computer system.

6.4 MATCHING PROCESS WHEN THE NET REFERENCE EXCHANGE CAPACITY IS EXCEEDED IN INTERNATIONAL TIE-LINES

6.4.1 APPLICATION ASSUMPTION

The market operator shall calculate the final solution, which it shall consider provisional, when the following conditions occur:

- The system operator has published a maximum or reference capacity, by period, to take into consideration in the exchanges which may occur in international tie-lines in all flow directions, for the purpose of these rules.
- The balance of the flow of power resulting from the bids included in the provisional final solution and from bilateral contracts surpasses, for one or more of the international tie-lines, during one of the scheduling periods, the maximum or reference capacity established by the system operator.

6.4.2 PREDETERMINATION OF THE DATA TO BE CONSIDERED

- 1) The market operator shall obtain a first solution in the matching process, called the **provisional final solution**, assuming an unlimited exchange capacity in the tie-lines.
- 2) If the conditions established in point 6.4.1 occur in the daily time schedule, the market operator shall determine, in each of the international tie-lines, the balance for each scheduling period, of the notifications of executions of physical bilateral contracts and of bilateral contracts carried out by virtue of article 21 of Royal Decree-law 6/2000 for the power purchased from European Union or non-Union countries destined to be sold to their qualified customers, who shall be considered, for the intents and purposes of this rule, as

the physical bilateral contracts, as well as the balance of the purchase and sale bids matched in the provisional final solution by the production or purchasing units, to include reselling production units by virtue of article 21 of Royal Decree-law 6/2000 which the resellers use to bring the contracted power into the market, which were matched in the provisional final solution.

- 3) For the international tie-line and scheduling period in which an excess exists, and for the direction of the excess, the market operator shall determine the maximum capacity to be taken up by each of the balances determined in section 2. If these balances arise in the same direction, the market operator shall determine the maximum of each balance in proportion to the balance of the bilateral contracts and to the balance of the purchase and sale bids. If these balances arise in opposite directions, the maximum shall be, for the balance on the excess side, the sum of the maximum value on that side as published by the system operator plus the balance in the opposite direction. For the balance on the opposite side, the maximum balance on the excess side shall take the value of zero.
- 4) For the rest of the hourly periods, directions and tie-lines, the maximum balance of the flow of bids into the market shall be equal to the maximum capacity published by the system operator in each direction and tie-line, after taking the physical bilateral contracts into account.

6.4.3 PROCEDURE FOR DETERMINING THE FINAL SOLUTION

The market operator shall calculate a new final solution, which the operator shall consider definitive, in such a way as to satisfy the conditions established for seeking the final solution described in the preceding sections of this rule, and without exceeding, in any of the scheduling periods, the maximum values described in paragraph 6.4.2. To achieve the objective of not surpassing the maximum capacity, the market operator shall withdraw from the market those sale or purchase bids which increase the excess flow in the direction in which the cited limit is exceeded, in decreasing order of price for sale bids, and in increasing price order for purchase bids.

6.4.4 COMMUNICATIONS

- 1) According to the process described above, and in order to enable compliance with article 9 of the Ministerial Order of the Ministry of the Economy of 14 July 1998, which establishes the legal regime applicable to external agents for effecting international exchanges of electric power both within and outside the European Union, the market operator shall advise the system operator of the assignment of the maximum international tie-line capacity corresponding to physical bilateral contracts for their subsequent use in the restriction analysis process.
- 2) At 11:00 AM, the market operator shall send the system operator the Base Operating Schedule.

RULE 7 FIRST ITERATION OF THE BID SUBMITTAL PROCESS AND SOLUTION OF SITUATIONS OF INDETERMINACY OF THE MATCHING ALGORITHM

7.1 FIRST ITERATION

The market operator shall make a second request for bids, called the first iteration, in the following situations:

- a) When the owners of several production units who include the condition of indivisibility in their electric power sale bids have submitted bids priced at zero, provided that a situation arises of surplus supply of electric power for sale in one or more of the final solution scheduling periods and that situation occurs at the price of zero.
- b) When, because some production unit owners have included the minimum income condition in some of their electric power sale bids, and the market operator is unable to obtain a first valid solution in the matching process.
- c) When, due to other situations derived from the complexity of the technical and financial conditions added to electric power sale bids, and because of the very design of the market operator's computer system, the matching process cannot give a valid result.

7.2 CHARACTERISTICS OF ELECTRIC POWER SALE BIDS SUBMITTED IN THE FIRST ITERATION

The sale bids referred to in this section have the same characteristics as the sale bids described in Rule 4, except for the following qualifications:

- a) The inclusion of the minimum income condition is not permitted.
- b) The inclusion of indivisible blocks priced at zero is not allowed.

7.3 CHARACTERISTICS OF ELECTRIC POWER PURCHASE BIDS SUBMITTED IN THE FIRST ITERATION

Valid purchase bids sent for matching in the daily market shall be recorded as valid for the first iteration process, in case it becomes necessary to execute this process.

RULE 8 TREATMENT OF INDIVISIBLE BLOCKS

If, in the matching or first iteration process, an instance of indeterminacy were to arise as the result of the added bid's surpassing the aggregate demand at the marginal price, due to the existence of one or more indivisible blocks, the market operator shall resolve the indeterminacy as described in the following scenarios:

- a) If all the sale blocks whose price is equal to the hour's marginal price are divisible, each one of them is assigned a proportional part of its power supply in such a way as to ensure that the sum of all the aggregate sale bids is equal to the sum of the aggregate purchase bids. The ratio applied is the ratio of the power that has been bid in the block to the sum of the power bid in the blocks that set the marginal price. This ratio is independent of the value of the marginal price.
- b) If the aggregate sum of sale bids priced below the hour's marginal price, plus the sum of the indivisible blocks at marginal price, is less than the aggregate sum of power demanded at prices above or equal to the marginal price, two procedures are possible:

- b.1 If the hour's marginal price is other than zero, the procedure described in point a) above is followed, considering all the blocks at marginal price as indivisible.
 - b.2 If the hour's marginal price is zero, the total of the bids in the indivisible blocks, and a ratio of the bids in the divisible blocks is assigned so that the aggregate sum of sale bids priced at zero is equal to the sum of purchase bids at prices above the marginal price. The ratio applied is the ratio of the power that was bid in the divisible block to the sum of the power bid in the divisible blocks that set the marginal price.
- c) If the aggregate sum of the sale bids whose price is below the hour's marginal price, plus the sum of the indivisible blocks at the marginal price, is greater than the aggregate sum of demands at prices that are higher than or equal to the marginal price, there are three possible courses of action:
- c.1 If the matching process is under way, and the marginal price is zero, the process shall continue until matching is complete. If the situation persists when the matching process has finished, the need to execute the first iteration is notified according to the terms described in the first iteration of the bid submittal process and the solution of situations of indeterminacy of the matching algorithm.
 - c.2 If matching is under way and the marginal price is other than zero, a ratio of all the blocks that have been bid at the marginal price is assigned in such a way as to make the aggregate sum of the sale bids priced below marginal price, plus the sum of the assigned ratio of all the blocks at the marginal price, equal to the sum of purchase bids at prices above or equal to the marginal price. The ratio applied is the ratio of the power bid in the block at the marginal price to the sum of all the power bid at that price.
 - c.3 If the first iteration is under way, a ratio shall be assigned to the bids so that the sum of the assigned ratio equals the aggregate sum of the purchase bids at prices above or equal to the marginal price. The ratio applied is the ratio of the power that has been bid in the block to the sum of the power bid in the blocks that set the marginal price. This ratio is independent of the value of the marginal price.

RULE 9 EXCEPTIONAL SITUATIONS

9.1 For the purposes of the provisions of these Market Activity Rules, exceptional situations are those which make it impossible to perform the bid submittal and acceptance process or the matching process.

9.2 The situations referred to by the preceding paragraph can be the result of one or more of the following circumstances:

- a) Insufficient supply of electric power for sale to satisfy the demand which utilizes the system's instrumental price

In this case the market operator shall establish the order of financial precedence of the available sale bids, and shall send the said order to the system operator with a deficit for the hourly scheduling periods in which the said insufficient demand occurs.

- b) Impossibility of executing the process of successive improvement of the first valid solution

If it is not possible to execute the process of successive improvement of the first valid solution, the first valid solution shall be taken as the result of the matching process.

- c) Force majeure

- c.1 If a situation of force majeure were foreseeable, but inevitable, the market operator would perform advance matchings, expanding, for this purpose, the daily scheduling horizon so that it would include the hourly scheduling periods during which the exceptional situation continued. If the force majeure situation were impossible to predict, the market operator could determine matching on the basis of historical data.
- c.2 If the force majeure situation were due to serious breakdowns affecting the market operator's computer equipment or communications equipment which impede their proper functioning, the market operator could introduce measures equivalent in content to those discussed in point c.1) above.
- d) Impossibility of determining matching as a result of the technical and financial conditions of complex bids

If the impossibility of determining matching persists, even in the planned response of requesting the first iteration, the market operator shall determine matching on the basis of historical data.

RULE 10 BASE DAILY OPERATING SCHEDULE

The base daily operating schedule is [determined on the basis of the results of matching, of the schedules of special-regime producers who transfer power to distributors](#), of the notification of physical bilateral contracts that are going to be executed and the productions and supplies in each of the grid connection busses, taking into account the following elements:

1. The marginal price of electric power for each hourly scheduling period of the same daily scheduling horizon.
2. The electric power that corresponds, by blocks, to each production unit whose electric power sale bid has been matched, and the electric power corresponding, by blocks, to each purchasing unit whose electric power purchase bid has been matched.
3. The order of financial precedence corresponding to each block of electric power sale bids from production units that have been completely or partially matched through the application of [Rules 6 and 8](#).
4. The electric power corresponding, by blocks, to production units whose electric power sale bids have not been matched, either completely or partially, through the application of [Rules 6 and 8](#), as well as their order of financial precedence.
5. If applicable, the electric power scheduled by the available special-regime production units [when the transfer of that power by these units to distributors is planned](#).
6. [The amount of power notified in the execution of bilateral contracts between market participants, whether the contracts are concluded between qualified consumers and producers, to include external agents \(physical bilateral\), or are concluded between resellers for supply to their qualified customers with an external agent or special-regime producer, with the additional cost information in PTA/kWh for the purchase of the capacity available in the tie-line, in cases where restrictions arise in the tie-line.](#)

7. The amount of power exchanged in the execution of bilateral contracts between a market participant and an individual who is not a participant. This mode can be used by holders of contracts who, whereas they are market participants, declare the execution of the contracts as non-participants. For this purpose, the following contracts or transactions shall be considered:
- Between a producer and a Spanish national consumer who is not a market participant (physical bilateral);
 - Between a producer and an external consumer who is not a market participant (physical bilateral);
 - Between a producer or set of producers operating under special regime, or external sellers and a reseller, and between the reseller and a qualified consumer or a set of qualified consumers.
8. The production amounts projected for each production unit or plant and the consumables that must be supplied at each of the grid connection busses to satisfy the demands accepted by each of the purchasing units, both notified by the market operator's agents, in the light of matching results and the execution of bilateral contracts.

10.1 MATCHING RESULTS

The base matching schedule is the result of the matching process referred to in article 10 of Royal Decree 2019/1997. For the purposes of these Market Activity Rules, the base matching schedule is defined as the scheduling of entry into the system established by the market operator based on the matching of the electric power production and purchase bids. In the base matching schedule, the volume of electric power is determined for each hourly period of the same daily scheduling horizon, as well as the volume of electric power that needs to be produced in order to cover the demand.

The market operator shall notify the system operator of the contents of the base matching schedule, and shall inform the market participants of the schedule that corresponds to their production or purchasing units, according to the terms established in these Rules.

10.2 BILATERAL CONTRACTS

For the preparation of the base daily operating schedule, as it affects physical bilateral contracts cited in point 6 above, the market operator shall adapt its processes in the manner provided in section 10.2.1, thereby putting the bilateral contracts defined in article 17 or 21 of Royal Decree-law 6/2000, between a special-regime producer who is a market participant or external agent, and a reseller, on an equal footing with the physical bilateral contracts described in article 19 of Royal Decree 2019/1997.

For the preparation of the base daily operating schedule, as it affects the bilateral contracts cited in point 7 above, the market operator shall adapt its processes in the manner stated in section 10.2.2, with the following considerations:

The reseller who enters into bilateral contracts with external undertakings to add power from European Union or non-Union countries, or concludes contracts to incorporate power under the special regime, according to the terms established in articles 17 and 21 of Royal Decree-law 6/2000, shall declare the said contracts to the market operator.

- For that part of the power that the reseller purchases to bring into the market through sale bids, the contract shall be executed in compliance with rule 10.4.

- The power issuing from these contracts that the reseller allocates to supplying its qualified customers shall be declared through a double bilateral contract according to the terms described in section 10.2.2. The value of the execution of the two contracts shall be the same for each contract. These contracts shall be concluded between the reseller's production unit and its qualified customers' instrumental purchasing unit, and between the instrumental selling unit of the undertakings from which it purchases power and the reseller's purchasing unit. There shall be a reseller's production unit for each international tie-line and another such unit for the special regime. There shall be a reseller's instrumental purchasing unit for each international tie-line in which the power is delivered, and another such unit for sales to the reseller's domestic customers.

Bilateral reseller contract instrumental unit power volumes will not be included in the base operating program, because said power volumes will be included in the non-instrumental units of the resellers linked to such contracts.

The execution of all of the contracts concluded for each international tie-line with external undertakings in order to bring in power from European Union or non-Union countries shall be declared as the sum of all the bids matched in the market, and of the bilateral contracts executed, of the production unit defined for bringing in the power issuing from the said contracts.

The execution of all of the contracts with special-regime producers shall be understood to have been accomplished by breaking down into units or installations the set of bids matched in the market and of the executed bilateral contract, of the production defined for adding the energy issuing from the said contracts.

10.2.1 CHARACTERISTICS OF THE PHYSICAL BILATERAL CONTRACT BETWEEN MARKET PARTICIPANTS

Whenever a physical bilateral contract is established between two market participants, the contract shall have the following characteristics:

- Bilateral contracts shall have the minimum duration established by the relevant administrative authorization and any other applicable regulations, or by the notification of the non-economic terms by the participants.
- At least three work days before the notification of the execution of the bilateral contract, the market participants shall transmit the following information to the market operator's information system:
 - The existence of the bilateral contract, giving detailed information on the time periods in which the contract is to be executed and the supply and consumption points, so that these terms can be taken into consideration in the determination of the daily schedules;
 - The production unit or units involved in the bilateral contract, as well as the purchasing unit or units which are to be supplied;
 - The particular terms governing the delivery of power in international contracts.
- Upon transmittal of the execution of the contract, the market operator shall check the following:
 - That the production units or their holder, the external agent making the purchases, are registered in the Administrative Registers maintained by the Ministry of the Economy;

- That all the production units belong to or are represented by the same market participant, and that all the purchasing units also belong to or are represented by a single participant.
- All the market participants involved in physical bilateral contracts shall be allowed to enter the intra-day market to negotiate the purchase and sale of electric power with the units involved in the notification of the execution of the physical bilateral contract.
- The market operator shall include, in its information system, the following data provided by the participants who sign physical bilateral contracts:
 - Production units involved, maximum hourly power, and minimum hourly power if appropriate, of each of the production units participating in the physical bilateral contract. This value must be lower than the maximum recorded in the market operator's information system. The value shall be expressed in MWh to no more than one decimal place.
 - Purchasing units involved and maximum hourly power, as well as minimum hourly power, if appropriate, of each one of the purchasing units participating in the bilateral contract. This value must be lower than the maximum recorded in the market operator's information system. The value shall be expressed in MWh to no more than one decimal place.
 - Maximum and minimum hourly power to be exchanged in the bilateral contract, in MWh to no more than one decimal place.
 - Contract commencement and termination dates.
 - Market participant responsible for notifying the execution of the contract.
 - The contracting party (**owner of the production or purchasing units**) who assumes the costs incurred due to restrictions, the fixed costs of secondary regulation, the costs generated by scheduling deviations in the production units and of the purchasing units, and, in general, all those costs derived from the application of these rules. **Together with the declaration, an indication shall be given of which of the following options is chosen by the contracting parties:**
 - **Each of the contracting parties assumes the costs that correspond to it according to the rules governing settlements.**
 - **Which contracting party assumes all of the costs of both contracting parties. In this option, all of both parties' costs derived from participating in the production market shall also be assumed by the chosen contracting party.**
 - Consumption and supply points, busbars where the bilateral contract will be executed.

10.2.2 CHARACTERISTICS OF THE BILATERAL CONTRACT BETWEEN A MARKET PARTICIPANT AND A BUYER WHO IS NOT A MARKET PARTICIPANT

Whenever a physical bilateral contract is established between a market participant and an individual who is not a market participant, the contract shall have the following characteristics:

- Bilateral contracts shall have the minimum duration established by the relevant administrative authorization and any other regulations that may be applicable to the contract in question, or by the market participant's notification of the non-economic terms governing the contract.
- At least three work days before the notification of the execution of the physical bilateral contract, the market participants shall transmit the following information to the market operator's information system:
 - The existence of the physical bilateral contract, giving detailed information on the time periods in which the contract is to be executed and the supply and consumption points, so that these terms can be taken into consideration in the determination of the daily schedules.
 - The production unit or units that are acting as sellers, as well as the purchasing unit or units that are acting as buyers.
- When the execution of the contract is notified, the market operator shall verify the following:
 - That the production units, or their holder, are registered in the appropriate Administrative Registers of the Ministry of the Economy.
 - That all the production units belong to the same agent.
- The market participant that owns or holds the production units may enter the intra-day market to negotiate the purchase and sale of power with the units involved in the notification of the execution of the bilateral contract. There shall be no right to enter the intra-day market to negotiate the purchase or sale of power with the instrumental units. The market participant assumes the costs generated by restrictions, the fixed costs derived from the ancillary service of secondary regulation, the costs of scheduling deviations in the production units and of the purchasing unit, as well as all those costs which are derived from the application of these rules. These costs shall be proportionally attributed to the power assigned to the units in the notification of the execution of the physical bilateral contract.
- The participant responsible for notifying the execution of the bilateral contract shall be the owner of the production units or non-instrumental purchasing units.
- The market operator shall include, in its information system, the following data provided by the participants who sign physical bilateral contracts:
 - Production units involved, and maximum hourly power, and minimum hourly power if appropriate, of each of the production or purchasing units participating in the bilateral contract. This value must be lower than the maximum recorded in the market operator's information system. The value shall be expressed in MWh to no more than one decimal place.
 - Maximum and minimum hourly power to be exchanged in the bilateral contract, expressed in MWh to no more than one decimal place.
 - Contract commencement and termination dates.
 - Consumption and supply points, busbars where the bilateral contract will be executed.

10.2.3 NOTIFICATION OF THE EXECUTION OF THE PHYSICAL BILATERAL CONTRACT

The participant who is responsible for notifying the execution of the physical bilateral contract shall send this notification before the close of the daily market session if flows through international tie-lines are involved, and within an hour after the close of the corresponding daily market session if the said tie-lines are not involved. The data that must be transmitted by the responsible participant are the following:

- Code of the physical bilateral contract to which the notification of the daily execution of the physical bilateral contract makes reference
- Hourly production schedule of the production units, in MWh with no more than one decimal place
- Hourly purchasing schedule of the purchasing units, in MWh to a maximum of one decimal place
- Date on which the daily execution of the physical bilateral contract comes into effect
- Code defining default execution (S/N).

10.2.4 VALIDATIONS OF THE NOTIFICATION OF THE EXECUTION OF A PHYSICAL BILATERAL CONTRACT

When the notification of the daily execution of a physical bilateral contract is received, whether or not the execution is to be by default, the following validations shall be performed:

- The agent who sends the notification of the execution of the physical bilateral contract is the agent authorized in the contract to carry out its terms.
- For each production unit or purchasing units, the declared value in the notification of contract execution in each scheduling period must be lower than the maximum declared in the physical bilateral contract, and higher than the minimum. The sum for each sales scheduling period stated in the notification of daily execution of the physical bilateral contract shall be lower than the maximum stated in the contract and greater than the minimum.
- The sum for each sales scheduling period indicated in the notice of daily execution of the physical bilateral contract must be equal to the sum of the purchases in the notification of the daily execution of the physical bilateral contract, in the same scheduling period.
- The declared production and purchasing units are defined in the physical bilateral contract.

Further, upon receipt of the notification of daily execution of the non-default physical bilateral contract, the following must be validated:

- The time of reception of the notification of daily execution of the physical bilateral contract is before the close of the daily market session if international tie-lines are involved, and within an hour after the close of the corresponding daily market session if the international tie-lines are not involved.
- For each production unit, the sum for each scheduling period in the notification of the daily execution of a declared international bilateral contract, plus the power bid for that scheduling period that is not default power for the said production unit, must be equal to

or less than the maximum available or authorized value. Purchasing units must also comply with this validation. Once the period for receiving bids for the daily market session has closed, the bids, whether or not they are bids by default, involved in international bilateral contracts, with the notification of the execution of international bilateral contracts, whether or not they are by default, shall be validated in reverse reception order. The purchasing units must also comply with these validations.

- For each production unit, the sum for each scheduling period of the notification of the daily execution of the declared physical bilateral contract, plus the production unit's base matching schedule (assuming that the matching was performed, this will be the value resulting from matching; if matching was not done, a value of zero shall be taken), must be lower than the available value. This validation must also be done for the purchasing units.

10.2.5 INCLUSION IN THE BASE OPERATING SCHEDULE

There shall only be one notification of the daily execution of a physical bilateral contract for the scheduling period, either to have a notification of the valid daily execution of the contract or, if there is no valid notification or the notification has been canceled, to have a notification of the valid daily default execution of the physical bilateral contract.

Before the base daily operating schedule is published, a new validation of the notifications of the daily executions of the **domestic** bilateral contracts received shall be performed, for the different notifications of the valid daily executions of the **domestic** bilateral contracts, and for all the scheduling periods of the following day. The order of processing of the notifications of the daily executions of the **domestic** bilateral contracts shall be established as follows: first the notifications of the valid daily executions of the **domestic** bilateral contracts; within these notifications, checking shall start with the most recent ones (received later in time) and, in case more than one such notification was received simultaneously (in the same file), they shall be processed in reverse order of arrival (the notification that appears last in the file shall be processed first). The next group shall be the notifications of the valid daily executions of the physical bilateral contracts by default, which shall be sequenced according to the same criteria set out above for the daily executions. The validations to be performed are the following:

- The first daily execution notification, put in order according to the criteria described in the preceding paragraph, is selected. From this notification the production unit is selected which was received first in the daily execution notification. For this production unit, the market operator verifies that the daily execution notification in each scheduling period is lower than the maximum declared by that unit in the physical bilateral contract. If it is higher, the notification of the daily execution of the physical bilateral contract is withdrawn. Then the market operator checks to ensure that, for each scheduling period, the sum of the daily declared execution notification plus the base matching schedule **plus the executions of valid international bilateral contracts** is lower than the maximum available value. If this sum is higher, the daily execution notification is withdrawn. This process is repeated with all the production units. Once this validation is complete, the same process is applied to the purchasing units' execution notifications, complying with the same conditions.
- When the process has been completed with the first daily execution notification, the second one is selected. In this notification the first production unit received in the daily execution notification is selected. For this production unit, the market operator verifies that the daily execution notification in each scheduling period is lower than the maximum declared by that unit in the physical bilateral contract. If it is higher, the daily execution notification is withdrawn. Then it checks to ensure that, for each scheduling period, the sum of the daily execution notification **plus the previous daily execution notifications from the same production unit (daily execution notification regarding previously validated**

bilateral contracts), plus the base matching schedule plus the executions of valid international bilateral contracts is lower than the maximum available value. If this sum is higher, the daily execution notification is withdrawn. This process is repeated with all the production units. Once this validation is complete, the same process is applied to the purchasing units' execution notifications, complying with the same conditions.

- This process is repeated for all the notifications of daily executions of physical bilateral contracts.
- When the process has been finalized for the valid daily execution notifications, the same procedure is applied to the daily execution notifications by default that have not been replaced by a notification of the valid daily execution of that physical bilateral contract. The order of validation shall be established according to the same criteria described for the daily execution notifications.

10.3 PRODUCERS OPERATING UNDER SPECIAL REGIMES

Distributors shall be required to submit, within one hour of the close of the daily market session, the hourly electric power schedules they are obligated to purchase from producers operating under special regimes for all the following day's scheduling periods. The electric power purchase bid submitted to the daily market by the distributor shall have reduced the distributor's demand by this value, assuming it was included in its demand forecast.

10.3.1 DEFINITION OF THE SCHEDULE

Distributors shall send data through the market operator's information system, either via screen or file transfer. The data to send for a scheduling period are the following:

- Special-regime producer's code
- Date when the data will come into effect (effective date)
- Description of the information
- Hourly values of surplus forecasts, in MWh to no more than one decimal place.

There shall only be one schedule for each special-regime producer and effective date. If a new schedule for the same special-regime producer is received with the same date, it shall be recorded as the next version, and the validations described in the following section shall be made. If it is a valid schedule for an effective date, it shall replace any other valid schedule for that effective date. If the schedule is not valid, the special-regime producer shall take the last valid schedule received for the effective date or, in its absence, the same hourly values from a previous equivalent day.

10.3.2 SCHEDULE VALIDATIONS

When a schedule is received, the following validations shall be performed:

- The market operator shall check its information system to see whether the distributor who has sent the data regarding the special-regime production unit is the owner of the production unit cited, according to the market operator's information system. If this verification produces a negative result, the schedule shall not be valid. In that case, the last valid schedule received for the production unit in question shall remain in effect.

- The market operator shall validate whether the time of reception is before the deadline time for receiving schedules, which is one hour after the close of the daily market session.

10.3.3 INCLUSION IN THE BASE OPERATING SCHEDULE

One hour after the close of the daily market, the special-regime producer's valid daily schedule for each scheduling period shall be included in the base operating schedule as a production schedule. Correspondingly, for each scheduling period a purchasing schedule shall be included in the distributor's purchasing unit, defined in the market operator's information system as the unit that has the obligation to purchase the electric power in question from the special-regime producer.

If no valid daily schedule exists, or the valid daily schedule has been canceled by the special-regime producer, the same value from each daily market scheduling period of an equivalent previous day shall be taken as the schedule value for each scheduling period.

10.4 NOTIFICATION OF THE PRODUCTION FORECAST FOR EACH PRODUCTION UNIT

Market participants shall send the market operator the production forecast for each of the production units that is matched in the matching results, in accordance with article 11 of Royal Decree 2019/1997.

Breakdowns shall be given for the hydroelectric management units (Spanish abbreviation: UGH) which are matched in the base daily schedule, in the physical units included. Market participants shall also send breakdowns of sales transacted by resellers and selling participants of volumes of power sold through intermediaries or purchased respectively in compliance with articles 17 and 21 of Royal Decree-law 6/2000, in special-regime producers' installations.

1. In view of the results of the matching process, each market participant shall send the market operator a file containing the production forecasts for each production unit within two hours after the close of the daily market session.
2. The production forecast files shall contain, for each hydroelectric management unit or each special-regime plant involved in the sales established in accordance with articles 17 and 21 of Royal Decree-law 6/2000, the production in MWh expressed to no more than one decimal place, of each physical unit of the corresponding unit or plant.
3. The production forecasts must be received before the deadline time established above in point 1. Those forecasts that are not received before that deadline time shall be processed with split factors whose calculation shall be based on an equivalent previous day.
4. The market operator shall inform the system operator of the production figures for the hydroelectric management units and for special-regime installations involved in the sales established in accordance with articles 17 and 21 of Royal Decree-law 6/2000 breaking the statistics out by physical units in MWh, expressed to no more than one decimal place. Further, the market operator shall indicate whether the data were sent by the corresponding market participant or were calculated based on a previous equivalent day.

10.5 REPORTING SUPPLIES BY GRID CONNECTION BUSBAR TO THE PURCHASING UNITS

Market participants shall send the market operator the supplies that are to be made in each of the grid connection busbars to satisfy the demands accepted in the matching result, in compliance with article 11 of Royal Decree 2019/1997.

The purchasing units shall be itemized according to the network model managed by the system operator, by busbar.

1. Each market participant shall send the market operator a file containing each purchasing unit's supplies within two hours of the close of the daily market session.
2. The supply files shall contain, for each purchasing unit **or set of resellers' units**, the split factors expressed as percentages with a maximum of four decimal places.
3. The supplies must be received before the deadline hour established in point 1 above. Those not received before the deadline shall be processed based on factors deduced from an equivalent previous day.
4. If errors are found in a purchasing unit's split factors (if they do not add up to 100), they shall be modified by standardizing them.
5. The market operator shall inform the system operator of the purchasing units' supplies by busbar in MWh with no more than one decimal place, and shall indicate whether the supplies were sent by the corresponding participant or were calculated based on an equivalent previous day.

RULE 11 SOLUTION OF TECHNICAL CONSTRAINTS AFFECTING THE BASE DAILY OPERATING SCHEDULE. DAILY VIABLE SCHEDULE

The daily viable schedule is obtained by withdrawing from and adding to the base daily operating schedule the electric power that the system and market operators agree to in order to resolve technical constraints, without detriment to the assignment of ancillary services, as provided in article 12.3 of Royal Decree 2019/1997.

The process of solving technical constraints shall include both the technical constraints in the Spanish electric system and those found in the international tie-lines with the electric systems to which Spain is interconnected, which shall be solved in the same process, although the technical constraints in the international tie-lines must be resolved first.

- 11.1 Because the solution of technical constraints constitutes an undesirable alteration of the market, the criteria applied by the system and market operators shall be oriented toward minimizing the impact of the solution on the matching results and the overage derived from the solution.
- 11.2 For information purposes, the system operator shall place at **each of the market participants' disposal, in continuously updated form, and in any case before the daily market matching takes place**, information on the state of the generation-transport system, indicating any situations which may give rise to restrictions, in compliance with the applicable operating standards and procedures. **All of this information on the situation of the generating-transport system shall be simultaneously placed at the market operator's disposal.** Similarly, the system operator shall place at the market participants' and market operator's disposal, in continuously updated form, information on the maximum power exchange capacity in each direction with each of the electric systems with which there are international tie-lines.

11.3 The system and market operators shall prepare periodic reports on technical constraints, their causes and circumstances, for whatever purpose may be considered appropriate, which they shall send to the Ministry of the Economy and to the [National Energy Commission](#).

11.4 In compliance with the stipulations of article 12.2 of Royal Decree 2019/1997, the procedure agreed to by the system and market operators for withdrawing and adding bids, the withdrawal of productions and consumptions subject to bilateral contracts, on the base operating schedule, shall be carried out on the basis of the bids submitted to the daily market and the application of the principle of proportionality between the physical bilateral contracts and the market. The procedure, described in the following points, is divided into two basic phases, in which the market and system operators have the following responsibilities:

- Determination by the system operator of the modifications that need to be made to the base operating schedule so that the supply can take place under the established conditions of safety, quality and reliability.
- Subsequent adjustment process to be effected by the market operator with the dual objective of keeping the power exchanges through the international tie-lines below the established limits and verifying the production-demand balance in the daily viable schedule.

11.5 The units that participate in the solution of technical constraints shall be the production units, as well as the purchasing units when their final purpose is to be supplied outside the Spanish electric system and they are the cause of restrictions in the international tie-lines.

The productions subject to physical bilateral contracts shall be treated as functioning at full load.

11.6 **PROCESS TO BE EXECUTED BY THE SYSTEM OPERATOR TO DETERMINE THE MODIFICATIONS TO BE MADE IN THE BASE OPERATING SCHEDULE, SO THAT POWER TRANSIT THROUGH THE SET OF INTERNATIONAL TIE-LINES WITH EACH OF THE ELECTRIC SYSTEMS WITH WHICH THESE TIE-LINES EXIST, IS BELOW THE LIMITS ESTABLISHED AT ALL TIMES BY THE SYSTEM OPERATOR**

For the set of international tie-lines that exist with each of the electrical systems adjoining the Spanish system, the system operator shall proceed in accordance with the following points:

11.6.1 The system operator, basing himself on the base operating schedule, bids submitted to the daily market by market participants and information on physical bilateral contracts, together with their splitting in system-connection busses and physical production units, shall determine the power that must be withdrawn or added so that the power transit through the set of international tie-lines with the electric system in question is below the limits established at all times by the system operator, without considering any complex condition contained in the production units' bids when power is to be added, but respecting the technical minimum indicated in those bids, as well as the production and consumption that need to be withdrawn and which are subject to physical bilateral contracts. The result shall also provide for maintaining each of the individual tie-lines below the established limits. The procedure to be applied involves the following steps:

- First, the system operator shall determine the quantity and direction of the power transits that must be withdrawn in each scheduling period. To this end, it shall determine the base operating schedule transactions that influence power transits in each direction, and shall then check the corresponding limits.

- The system operator shall distribute the power to be withdrawn among the power transactions in two parts, in a way that is proportional to the sum of the transactions included in the matching results (productions or consumptions, depending on whether the restrictions affect imports or exports), and the value previously calculated by the market operator and reported to the system operator in compliance with Rule 6.4, as the maximum limit of the sum of the productions or consumptions of bilateral contracts.
- The system operator shall then assign the power to be withdrawn from the physical bilateral contracts (the amount of power needed to adjust them to the value previously calculated by the market operator and reported to the system operator in compliance with Rule 6.4, and the quantity of power that was modified as a result of the previous point) among those contracts, following the order of the bids to keep themselves occupying the tie-line capacity, which the owners of physical bilateral contracts may have submitted to the market operator together with the execution of the bilateral contract, to be sent to the system operator.

11.6.2 As a result of this process, the system operator shall place [the following information](#), for each hourly period of the scheduling horizon, at the market operator's disposal, [and shall place at the market participants' disposal the information relative to their production and purchasing units](#).

- Production or purchasing units whose capacity to be modified is limited, from the base operating schedule, in the process of being withdrawn from production or demand as accomplished by the market operator, so that the transit of power through the set of international tie-lines with each of the electric systems connected thereby remains below the limits established at all times by the system operator. These limitations shall be formulated by the system operator, taking into account the order of financial precedence to be used by the market operator when withdrawing power, referred to in Rule 11.10, which the latter shall convey to the system operator.
- Quantity of power to withdraw from the matching results in order to solve technical constraints with each of the electric systems.
- Productions or consumptions that are subject to physical bilateral contracts which have to be eliminated from the base operating schedule in order to adapt the volume of imported or exported power to the established limits.

11.7 PROCESS TO BE PERFORMED BY THE SYSTEM OPERATOR TO DETERMINE THE MODIFICATIONS REQUIRED BY THE BASE OPERATING SCHEDULE SO THAT SUPPLY, IN THE SPANISH ELECTRIC SYSTEM, CAN TAKE PLACE UNDER THE ESTABLISHED CONDITIONS OF SAFETY, QUALITY AND RELIABILITY

Once the transits through the international tie-lines with each of Spain's neighboring countries are in acceptable condition, the system operator shall proceed as follows:

11.7.1 The system operator, basing himself on the base operating schedule, bids submitted to the daily market by market participants and information on physical bilateral contracts, together with their splitting in grid connection busses and physical production units, shall determine the power that must be withdrawn or added in order to solve technical constraints in the Spanish electric system, without considering any complex condition contained in the production units' bids when power is to be added, but respecting the technical minimum indicated in those bids, as well as the production

and consumption that need to be withdrawn and which are subject to physical bilateral contracts.

11.7.2 As a result of this technical analysis process, the system operator shall place the following information at the market participants' and market operator's disposal:

- Production units whose productions have to be added to or withdrawn from the matching results in order to solve technical constraints in the Spanish electric system.
- * Production units whose capacity to be modified is limited, from the base operating schedule, in order to prevent technical constraints from arising in the process of adjusting production and demand, to be accomplished by the market operator, these limitations shall be formulated by the system operator, who shall take the following into account:
 - The financial order of precedence to be used by the market operator to withdraw the amount of power required to adjust the power exchanges with other electric systems, and to re-establish the production-demand balance referred to in Rule 11.10, which is conveyed to the market operator.
 - The order that the market operator sends to the power blocks containing unmatched bids, which shall be included according to the provisions of this rule 11, for situations in which the necessary power is added to re-establish the production-demand balance.

11.8 PROCESS TO BE EXECUTED BY THE MARKET OPERATOR TO DETERMINE THE MODIFICATIONS THAT MUST BE MADE IN THE BASE OPERATING SCHEDULE SO THAT THE LIMITS ON EXCHANGES WITH ELECTRIC SYSTEMS WITH WHICH THERE ARE TIE-LINES ARE RESPECTED, AND THE PRODUCTION-DEMAND BALANCE IN THE PROVISIONAL DAILY VIABLE SCHEDULE IS VERIFIED

Once the market operator has received the information indicated in the previous points, it shall modify the basic operating schedule by adding or withdrawing the productions or consumptions that are indicated by the system operator. The market operator shall then readjust, hour by hour, the basic operating schedule so that the limits on exchanges with electric systems with which there are connections are respected, and so that the production-demand balance is verified in each of the hours, in accordance with the information sent by the system operator. The market operator shall then proceed in the following manner:

11.8.1 The market operator shall first withdraw production or purchase bids, with the objective of making the viable provisional schedule respect the limits on exchanges with each of the electric systems with which Spain has tie-lines in each hourly scheduling period. In the process of withdrawal of power indicated by the system operator on the basis of the matching results, in order to solve the technical constraints of the tie-lines with each of the electric systems, the market operator shall use the order of precedence described in rule 11.10, respecting the limitations sent by the system operator on the capacity of modifying the power volumes assigned to the production or purchasing units during this process.

11.8.2 Once the process described in the previous point is complete, the market operator shall calculate, for each hourly scheduling period, whether it is necessary to add or withdraw power to verify the production-demand balance in the provisional daily viable schedule.

- 11.8.2.1** If, in the corresponding hour, power must be withdrawn, the market operator shall withdraw it, all the while following the order of financial precedence governing the withdrawal of power in the process of balancing production and consumption subsequent to the analysis performed by the system operator, described in Rule 11.10, until the production-demand balance is verified in that hour, as well as the limits on power exchanges with each of the electric systems with which tie-lines exist. The power blocks shall be treated as simple bids, without any type of complex conditions, and the highest-priced blocks shall be withdrawn first.
- 11.8.2.2** If power must be added in the corresponding hour, the market operator shall add it, following the order of precedence of the unmatched or partially matched bids, derived from the price expressed in their bid blocks, until the production-demand balance is confirmed in that hour. The power blocks shall be treated as simple bids, without any type of financial or technical complex conditions.
- 11.8.2.3** When all of the hours have been readjusted, the market operator shall check the minimum income condition of those production units to which power was only added during this readjustment process performed by the market operator (those production units to which the market operator has already added power shall not be checked), eliminating the assignment to the production unit if the minimum income requirement requested in the bid submitted to the daily market is not satisfied.
- 11.8.2.4** If, as a result of the previous point, some production unit's bids had to be eliminated, the readjustment process must be repeated for those hours in which this repetition is necessary, once again checking the minimum income condition, iterating in this way until the production-demand balance is confirmed in all of the hourly periods. Only one production unit shall be eliminated in each iteration, and the unit eliminated shall be the one for which the difference between the income it would receive if it were assigned, and the income it requested, is the highest.

The market operator shall send the system operator the result of withdrawing or adding bids to the base operating schedule so that the latter can prepare the provisional daily viable schedule which, when the ancillary services have been added, shall constitute the daily viable schedule.

11.9 IN ORDER TO TREAT THE PRODUCTION UNITS EXPRESSLY BOUND BY PHYSICAL BILATERAL CONTRACTS, THE MARKET OPERATOR, IN THE SUBSEQUENT READJUSTMENT PROCESS, SHALL PROCEED AS FOLLOWS

- 11.9.1** If power must be withdrawn in a given hour, the market operator shall distribute the withdrawn power proportionally among the power of all the production units whose capacity to reduce production is not limited by the operating system. The withdrawn power shall be distributed among the power of the production units which are expressly bound to physical bilateral contracts, and the power represented in the sale bids matched in the daily market matching results. For this distribution, the market operator shall only take into account the production units whose capacity to reduce production is not limited by the system operator, and, in the case of units subject to partial limits in this sense, the part of the unit which is not limited.
- 11.9.2** Once the market operator has determined the quantity of power to withdraw in an hour from the set of production units expressly bound by physical bilateral contracts and not limited by the system operator in their capacity to reduce production, the withdrawn

power shall be distributed in proportion to the magnitude of their non-limited production.

11.9.3 The quantity of power to be withdrawn by matched sale bids in the daily market matching results shall be assigned as described in the previous point of this rule.

11.10 ESTABLISHMENT OF THE FINANCIAL ORDER OF PRECEDENCE OF THE BIDS MATCHED IN THE MATCHING RESULTS, IN ORDER TO ADJUST THE EXCHANGES OF POWER WITH OTHER ELECTRIC SYSTEMS, AND TO WITHDRAW THE QUANTITY OF POWER REQUIRED TO RE-ESTABLISH THE PRODUCTION-DEMAND BALANCE

The market operator shall establish the order of precedence by calculating the price for a power block “b” of a bid “o” assigned in an hour “h”, as follows:

$$PPE(o,b,h) = \text{MAX} [Pof(o,b,h), (Pm(h) * (IMIN(o)/IMER(o)))]$$

where:

Pof(o,b,h) is the bid price, where the bid is considered simple, of block b of bid o in hour h.

Pm(h) is the marginal price in hour h.

IMIN(o) is the value of the minimum income requested in bid o, whose value is equal to:

$$\left[Tf + \sum_h Tv * Power(h) \right]$$

IMER(o) is the income value of the bid or at market prices, whose value is equal to:

$$\left[\sum_h Pm(h) * Power(h) \right]$$

If the two blocks of the bid have the same price, the blocks shall be arranged by descending order of date, hour and second of insertion in the market operator’s information system (the bids that were inserted beforehand shall be withdrawn after those that were inserted later). If the cited date, hour and second also coincide in both bids, the bids shall be withdrawn in reverse order of the amount of power in the block (the blocks which include a greater quantity of power shall be withdrawn before those containing a lesser quantity). If the power volumes also coincide, they shall be withdrawn in alphabetical order, or in numerical order if necessary, in descending order in either case.

RULE 12 DAILY MARKET MATCHING RESULTS AND CONTRACT IMPROVEMENT

Through matching, electric power trading is formalized between sellers and buyers.

The lack of improvement of the contracts due to causes derived from the application of the legislation affecting this subject, these Market Activity Rules and the System Operation Standards and Procedures, shall have the consequences and effects determined in the standards and rules indicated for each case, including the area of settlements.

CHAPTER THREE

INTRA-DAY MARKET

RULE 13 CONCEPT, PURPOSE AND APPLICATION TIME FRAME

13.1 The purpose of the intra-day market, regulated under the provisions of article 15 of Royal Decree 2019 as an integral part of the electric power production market, is to ensure, through the submittal of electric power sale and purchase bids to the market operator, whatever adjustments may be necessary in the daily viable schedule.

13.2 The intra-day market is divided into sessions according to the following rules:

13.2.1 Once a daily viable schedule has been determined, intra-day market sessions shall be opened for the hourly scheduling periods included in the daily viable schedule and, when applicable, in the previous daily schedule in the process of execution.

13.2.2 Each intra-day market session may target one or more hourly scheduling sessions, provided that the sessions targeted have a published daily viable schedule.

13.2.3 Each hourly scheduling period may be the target of successive intra-day market sessions.

13.2.4 Hourly scheduling periods for which there is no published daily viable schedule cannot be included in intra-day market sessions.

13.2.5 The start time and deadline for placing sale and purchase bids in the intra-day market shall be determined in these Market Activity Rules, and shall ensure that any hourly scheduling period having a published daily viable program is the subject of at least one intra-day market session.

13.3 Intra-day sessions are established in the following manner:

At least six sessions of the intra-day market shall be held each day. The market operator shall be able to establish and modify the timetable of the sessions and each session's internal time distribution, if this were advisable, after consulting the Market Participants' Committee and the system operator.

After making a report to the system operator, the Market Participants' Committee and the [National Energy Commission](#), and obtaining authorization from the [Ministry of the Economy](#), the market operator may decide to increase the number of intra-day market sessions to as many as one per hour.

RULE 14 SALE BIDS

14.1 SUBJECTS

14.1.1 SELLERS

All market participants who are authorized to place electric power sale bids in the daily market, and those participants, among the ones authorized to issue purchase bids in the daily market—distributors, resellers, qualified consumers and, when applicable, external agents—who have participated in the corresponding daily market session for which the intra-day market session is

opened, as well as those participants who have purchased power through a physical bilateral contract, can submit electric power sale bids in the intra-day market. The cited purchasing bidders in the daily market, and those who have purchased power through a physical bilateral contract, shall only be allowed to participate with respect to the hourly scheduling periods included in the intra-day market session if they participated in the corresponding daily market session, or, if they have bought power through physical bilateral contract, they did so on the day targeted for the intra-day market session.

14.1.2 MARKET OPERATOR

Sale bids shall be submitted to the market operator.

14.2 BID TYPES

Sale bids can be simple or complex, depending on their content.

14.3 PURPOSE AND CONTENT

14.3.1 SIMPLE BIDS

Simple bids are those which are placed for one or more hourly scheduling periods, which state a price (which may even be zero) and a quantity of power. In each hourly scheduling period targeted by the bid there may be as many as five power blocks from the same bid from a production or purchasing unit, with a different price for each block. Simple bids include no additional condition to be taken into account in matching.

14.3.2 COMPLEX BIDS

Complex bids comply with the requirements governing simple bids, but also include at least one of the conditions which are listed in the following sections.

The limitations derived from the processing of complex bids placed in the intra-day market only affect the power volumes they include, and thus do not affect power assigned previously in the definitive viable schedule and in the previous sessions of the intra-day market.

14.3.2.1 PRODUCTION CAPACITY VARIATION OR LOAD GRADIENT CONDITION

Sellers may include this condition in all the bids submitted by production or purchasing units for each of them. The production capacity variation condition consists of establishing a maximum variation in power production capability or of purchased power capacity between two consecutive hourly scheduling periods.

This condition shall be expressed in MW/minute as a rising, descending, start-up or stop gradient, and its inclusion in the matching process shall be accomplished in accordance with the provisions of the rule on the verification of the load gradient condition. As a value to be taken into account in matching, the value entered in the bid having the lowest unit identifying number shall be used.

The matching result shall be, in any case, limited by the production unit's maximum and minimum energy capabilities, or by the total power previously assigned to the production unit in the definitive daily viable schedule or to the purchasing unit in the sessions prior to the intra-day market. This condition must at all times respect the continuous linear variation of the production unit, or of the power purchased by the purchasing unit, in each hourly scheduling period.

14.3.2.2 CONDITION OF COMPLETE ACCEPTANCE IN THE MATCHING OF THE FIRST BLOCK OF THE SALE BID

In bids they submit for each production or purchasing unit, sellers may include the condition that a bid must be eliminated if its first block is not completely matched.

14.3.2.3 CONDITION OF COMPLETE ACCEPTANCE IN EACH HOUR IN THE MATCHING OF THE FIRST BLOCK OF THE SALE BID

In bids they submit for each production or purchasing unit, sellers may include the condition that, if the first block of a given bid is not completely matched in an hour, all the blocks of the bid for that hour shall be eliminated from matching, while the rest of the bid shall remain valid.

14.3.2.4 CONDITION OF MINIMUM NUMBER OF CONSECUTIVE HOURS OF COMPLETE ACCEPTANCE OF THE FIRST BLOCK OF THE SALE BID

In the sale bids they submit for each production or purchasing unit, sellers may include the condition that, if the first block of a bid is not completely matched in some hourly scheduling period of the matching scheduling horizon during the number of consecutive hours specified in the bid, the bid shall be eliminated.

14.3.2.5 MAXIMUM POWER CONDITION

By virtue of the maximum power condition, the market operator's acceptance of a sale bid for the scheduling horizon determines, if the bid is matched, that it will be matched for a total volume of power or one that is lesser than or equal to the volume indicated by the seller in its bid, and never for a greater volume. A value of zero indicates that this condition is not to be taken into account.

14.3.2.6 MINIMUM INCOME CONDITION

Sellers may include, as a condition governing each sale bid they submit for a production or purchasing unit, that the bid in question is only to be considered submitted for matching purposes if the seller obtains a minimum income, which shall be expressed as a fixed amount in pesetas or in hundredths of a Euro, without decimal places, and as a variable amount expressed in pesetas or hundredths of a Euro per kWh, with as many as three decimal places.

The minimum income condition may not be used in sale bids in which more than 50% of the power is bid at the price of zero.

- 14.3.3** Several sale bids may be placed for the same hourly scheduling period and the same production or purchasing unit to be treated independently of each other.

14.4 PLACE

Sale bids must be submitted in the market operator's information system servers via the electronic media set up for this purpose.

The electronic media available shall be one or more of the following:

- Access through Internet
- Access through Basic Network Telephone Lines (Spanish abbreviation: RTB)

- Access through Integrated Services Digital Network lines (Spanish abbreviation: RDSI)
- Access through leased lines, for those market participants requesting it.

The market operator shall be permitted to update its computer system communication media in order to add the technological advances that may emerge.

The market operator shall keep market participants informed at all times of any modifications it may make in its computer system.

Sellers shall transmit their sale bids to the market operator at their own expense, and shall assume the costs and the responsibility for hiring and maintaining the communication media services they deem necessary for conveying their sale bids.

14.5 TIME

The market operator shall determine the start time for the bid submittal and acceptance period, and shall advise the market participants of this time.

Bids must be submitted and received before the close of the bid acceptance period. The time of reception shall be the time indicated by the market operator's computer system at the moment the information is received.

14.6 FORMAT

Bids shall be submitted in the form shown below, with the data described in the order indicated.

- a) Production or purchasing unit code.
- b) Description of the bid. Alphanumeric field which does not use the algorithm.
- c) Monetary unit: Pesetas or hundredths of a Euro.
- d) Type of adjustment, according to the codes defined in the market operator's information system.
- e) Minimum income condition for the production or purchasing unit, which shall be expressed by means of the following two values:
 - Fixed term (TF) for a single daily scheduling horizon, set in pesetas or hundredths of a Euro; no decimal places may be included.
 - Variable term (TV), which shall remain invariable for a single daily scheduling horizon, set in pesetas or hundredths of a Euro per kWh; in this case, as many as three decimal places may be included.
- f) Stop, start-up, rising and descending gradient (MW/minute).
- g) Technical minimum, expressed to no more than one decimal place.
- h) Indicator of the requirement of complete acceptance of the first block of the sale bid (S/N).

- i) Maximum admissible power for the sale bid in MWh with a maximum of one decimal place.
- j) Number of consecutive hours required in which the first block of the bid is completely matched.
- k) Indicator of the requirement of complete acceptance of the first block of the sale bid in each hour

For each block and hourly scheduling period:

- Date covered by the bid
- Hour covered by the bid
- Bid block number
- Quantity of power in MWh, with no more than one decimal place
- Price bid in PTA/kWh or in hundredths of a Euro/kWh, expressed in no more than three decimal places.

14.7 LIMITATIONS ON THE BID

The submittal of bids is subject to the following limitations:

- 14.7.1** The sum of the power volumes assigned in the last final hourly schedule or daily viable schedule if the first intra-day market session is involved, added to the power being bid, must fall between the upper and lower power limits recorded in the market operator's information system.

Without disallowing the previous paragraph, subsequent information sent by the system operator to the market operator's information system regarding instances of unavailability of production units, received in the market operator's information system before the close of the bid reception period for the session, shall cause the corresponding sale bids not to be considered valid and, as a result, not to be included in the matching process.

14.7.1.1 DEFINITION AND INCLUSION OF THE INFORMATION ON UNAVAILABILITY INSTANCES AND LIMITATIONS SENT BY THE SYSTEM OPERATOR TO THE MARKET OPERATOR'S INFORMATION SYSTEM

The information on unavailability shall be sent by the system operator to the market operator's information system and shall always contain all the instances of unavailability that the system operator has recorded and confirmed from any of the physical units at the time it is sent. The unavailability data shall be sent by physical unit, although in the case of hydroelectric management units, the system operator may indicate, in the record of the transmission of the unavailability of a physical unit, that the hydroelectric management unit to which it belongs is completely unavailable.

The information on unavailability shall be included in the market operator's information system at the time of its reception. The latest permissible time of inclusion for matching purposes shall be the session closing time.

The information on limitations sent by the system operator to the market operator shall always contain all the limitations that the system operator imposes on the possibility of bidding in the intra-day market by any of the production or purchasing units. The data on limitations may be received by production unit or by physical unit, although the limitation on the possibility of bidding shall always be placed on the production unit.

The information on limitations shall be added to the market operator's information system immediately, except during intra-day market sessions, in which these data shall not be included; rather, they shall be added when the session's final hourly schedule is firm. Only the limitations on the possibility of bidding that are within the scheduling horizon of the following intra-day market session.

14.7.1.2 VERIFICATION OF BIDS

The market operator shall verify that the power bid per hour by the production unit is within the margins allowed by the following formulas:

The hourly volume of power assigned to the production unit in the most recent final hourly schedule, or daily viable schedule if the first session of the intra-day market is involved, **plus the power volume corresponding to the bid, shall be lower in each scheduling period than the lowest of the following values:**

- * PMAX
- * PDISP
- * PLIMITSUB,

and shall, in turn, be higher than the greater of the following values:

- * PMIN
- * PLIMITBAJ.

Moreover, the following must be complied with:

$$PMAX \geq PDISP \geq PLIMITSUB$$

$$PMIN \leq PLIMITBAJ.$$

Further, any of the values PMAX, PDISP, PLIMITSUB must be greater than either of the values PMIN, PLIMITBAJ.

In the situation in which the sum of the power volumes of the previous schedule plus the bid power volume does not comply with the conditions indicated above but contributes to approaching compliance with the required condition, although it does not satisfy the condition. The formulas are the same, except that the difference between two values is compared, before and after adding the bid to it, and the bid is valid if this difference (the degree of non-compliance with the condition) decreases when the bid is added to the matched schedule.

Where:

PMAX: Maximum power defined in the market operator's information system for the production unit (sum of the maximum powers of the physical units)

PMIN:	Minimum power defined in the information system for the production unit (sum of the minimum powers of the physical units)
PDISP:	The production unit's maximum power, after discounting the unavailable power of its physical units.
PLIMITSUB:	Maximum power of the production unit that the system operator has stated in the limitations file as the maximum value.
PLIMITBAJ:	Minimum power of the production unit that the system operator has stated in the limitations file as the minimum value.

If new information is received on unavailability during the bid reception process of a session, from a physical unit corresponding to a production unit that is limited by the system operator, the following situation may arise:

$$PDISP < PLIMITBAJ.$$

In this case, the minimum limit power shall be modified so that it is made equal to the maximum available power:

$$PLIMITBAJ = PDISP.$$

- 14.7.2** The hours bid must remain within the matching horizon of the intra-day market session for which the bids are validated.
- 14.7.3** The blocks included in sale bids in each hour must have prices that rise strictly with the block numbers. In each hour intermediate empty blocks (i.e., without prices or power) are permitted, but not with zero power.
- 14.7.4** The sum of the power volumes assigned for each scheduling period in the latest final hourly schedule or daily viable schedule, if the first intra-day market session is involved, to the purchasing units, minus the power volumes corresponding to each sale bid placed by that same unit, must give a positive result or a value of zero.

14.8 EFFECTS

The submittal of a bid produces the following effects, without detriment to other effects included elsewhere in these rules.

14.8.1 VERIFICATION OF THE BID

The market operator shall verify the sale bids submitted by the sellers, as a prior requirement for their acceptance, in accordance with the following:

14.8.1.1 VERIFICATION OF THE SESSION STATUS

At the moment it receives a sale bid in its computer system, the market operator shall verify, according to the reception time available in its computer system, that this reception time falls before the close of the bid acceptance period.

14.8.1.2 VERIFICATION OF THE MARKET PARTICIPANT SUBMITTING THE SALE BID

- That the market participant is registered in the market operator's information system
- That the participant is authorized to submit bids
- That the participant is authorized to submit sale bids for the production or purchasing unit. If a participant submits bids for production or purchasing units for which it is not authorized, those bids shall be rejected.
- That the participant, if it is a qualified consumer, reseller, distributor or external agent, participated in the corresponding daily market session, in which matching was performed for the hourly scheduling periods for which it is submitting a bid or bids in the intra-day market.

14.8.1.3 VERIFICATION OF THE PRODUCTION OR PURCHASING UNIT

At the moment the sale bid is submitted, the market operator shall verify whether the installations or supply points that make up the production or purchasing unit, respectively, for which the bid is being submitted are registered in the Administrative Register for Electrical Power Generating Units [maintained by the Ministry of the Economy](#) or, if applicable, are compliant with the provisions of the First Temporary Provision of Royal Decree 2019/1997.

14.8.1.4 VERIFICATIONS OF THE AGREEMENT OF THE SALE BID DATA WITH THE INFORMATION CONTAINED IN THE ADMINISTRATIVE REGISTER FOR ELECTRICAL POWER GENERATING UNITS OR IN THE MARKET OPERATOR'S INFORMATION SYSTEM

Maximum power to bid in a scheduling period:

The market operator shall verify, at the exact time the bid is submitted, that the power bid by the seller for the production unit, added to the power volumes already assigned in the daily viable schedule and in the previous intra-day markets, is less than or equal to the power the unit could supply as the production unit maximum, in accordance with the data recorded in the Administrative Register for Electrical Power Generating Units.

Condition of production capacity variation:

The market operator shall verify, at the exact time the bid is submitted, that the maximum difference between the electric power production that can be accepted for the unit in question in the intra-day market matching process in two consecutive hours is less than or equal to the maximum power that the unit could supply, in accordance with the information registered in the market operator's information system.

14.8.1.5 VERIFICATION OF THE AGREEMENT OF THE SALE BID DATA WITH THE INFORMATION SENT TO THE MARKET OPERATOR BY THE SYSTEM OPERATOR

The market operator shall verify, before accepting a sale bid, that the electric power bid by the seller respects the limitations placed at the disposal of the market operator by the system operator at the beginning of the session, in compliance with rule 14.7.

14.8.1.6 VERIFICATION OF THE CORRECTNESS OF THE PRICES

It shall be confirmed that the prices of the power volumes stated in the bids are neither below the minimum nor above the maximum prices adopted for this purpose and recorded in the market operator's information system.

14.8.1.7 VERIFICATION OF THE CORRECTNESS OF MINIMUM INCOME DATA

It shall be confirmed that the sale bid does not include the minimum income condition if more than 50% of the power has been bid at the price of zero.

14.8.1.8 VERIFICATION OF THE CORRECTNESS OF GRADIENTS

It shall be confirmed that the gradients stated in the bid cannot exceed the gradients recorded for the production unit in the market operator's information system.

14.8.1.9 VERIFICATION OF THE AGREEMENT OF THE BID WITH THE MAXIMUM POWER CONDITION

- Verify that the bid including the maximum power condition does not also include the load gradient condition.
- Verify that the bid specifying the maximum power condition is the only bid submitted for the production or purchasing unit.

14.8.2 ACCEPTANCE OF THE BID

The valid sale bids submitted by each production or purchasing unit shall become firm at the moment the bid acceptance period ends.

14.8.3 CONFIDENTIALITY

The market participants undertake to maintain the confidentiality of the data relative to access to the market operator's computer system, to guard the computer access codes and passwords, and to notify the said market operator of any incident regarding information security.

The market and system operators undertake to maintain the confidentiality of the information that the seller has placed at their disposal in the electric power sale quotation in compliance with the provisions of these rules.

14.8.4 INFORMATION

The market operator shall inform purchasers of the following:

- Automatic confirmation of the reception of the electric power sale bid by [means of the procedures established in these Rules](#).
- [Verification, according to the terms established in these Rules, of the electric power sale bid](#) made by the seller, and automatic notification of the verification result.
- Acceptance of the electric power sale bid if the result of the verification set out in the preceding section is positive, and inclusion of the said bid in the matching process.

14.8.5 INCLUSION IN THE MATCHING PROCESS

The seller must accept the matching results according to the terms established in these rules.

RULE 15 PURCHASE BIDS

15.1 SUBJECTS

15.1.1 BUYERS

Electric power purchase bids may be submitted to the intra-day market by all market participants authorized to submit electric power sale bids in the daily market, and those participants, among the authorized ones—distributors, resellers and qualified consumers and, when applicable, external agents—to place purchase bids in the daily market, who participated in the daily market session regarding which the intra-day market session is opened, as well as those market participants who have bought power under a physical bilateral contract. The above-mentioned issuers of purchase bids in the daily market, and those who have purchased power under a physical bilateral contract, shall only be able to participate with respect to the hourly scheduling periods included in the intra-day market session if they participated in the corresponding daily market session, or if they have bought power through physical bilateral contract, they did so on the day targeted for the intra-day market session.

15.1.2 MARKET OPERATOR

Purchase bids shall be submitted to the market operator.

15.2 TYPES

Purchase bids can be simple or complex, depending on their content.

15.3 PURPOSE AND CONTENT

15.3.1 SIMPLE BIDS

Simple bids are those which are placed for one or more hourly scheduling periods, which state a price (which may even be zero) of a power block. In each hourly scheduling period targeted by the bid there may be as many as five power purchase blocks for the same production or purchasing unit in the intra-day market.

15.3.2 COMPLEX BIDS

Complex bids comply with the requirements governing simple bids, but also include at least one of the conditions which are listed in the following sections.

The limitations derived from the processing of complex bids placed in the intra-day market only affect the power volumes they include, and thus do not affect power assigned previously in the definitive viable schedule and in the previous sessions of the intra-day market.

15.3.2.1 PRODUCTION CAPACITY VARIATION OR PREVIOUSLY PURCHASED POWER VARIATION, OR LOAD GRADIENT CONDITION

Sellers may include this condition in all the bids submitted by production or purchasing units for each of them. The load gradient condition consists of establishing, for each production or purchasing unit, a maximum variation in energy production capability or of reduction of the assigned power, between two consecutive hourly scheduling periods.

This condition shall be expressed in MW/minute as a rising, descending, start-up or stop gradient, and its inclusion in the matching process shall be accomplished in

accordance with the provisions of rule 16.3.3.1. As a value to be taken into account in matching, the value entered in the bid having the lowest unit identifying number shall be used.

The matching result shall be, in any case, limited by the production unit's maximum and minimum energy capabilities, or by the total power previously assigned to the production unit in the daily viable schedule or to the purchasing unit in the sessions prior to the intra-day market. This condition must at all times respect the continuous linear variation of the production unit, or of the power purchased by the purchasing unit, in each hourly scheduling period.

15.3.2.2 CONDITION OF COMPLETE ACCEPTANCE IN THE MATCHING OF THE FIRST BLOCK OF THE PURCHASE BID

In bids they submit for each production or purchasing unit, buyers may include the condition that a bid must be eliminated if its first block is not completely matched.

15.3.2.3 CONDITION OF COMPLETE ACCEPTANCE IN EACH HOUR IN THE MATCHING OF THE FIRST BLOCK OF THE PURCHASE BID

In bids they submit for each production or purchasing unit, buyers may include the condition that, if the first block of a given bid is not completely matched in an hour, all the blocks of the bid for that hour shall be eliminated from matching, while the rest of the bid shall remain valid.

15.3.2.4 CONDITION OF MINIMUM NUMBER OF CONSECUTIVE HOURS OF COMPLETE ACCEPTANCE OF THE FIRST BLOCK OF THE BID

In the purchase bids they submit for each production or purchasing unit, buyers may include the condition that, if the first block of a bid—as defined therein—is not completely matched in part of the matching horizon during the number of consecutive hours specified in the purchase bid, the bid shall be eliminated.

15.3.2.5 MAXIMUM POWER CONDITION

By virtue of the maximum power condition, the market operator's acceptance of a purchase bid for the scheduling horizon targeted by the buyer determines, if the bid is matched, that it will be matched for a total volume of power or one that is lesser than or equal to the volume indicated by the buyer in its bid, and never for a greater volume. A value of zero indicates that this condition is not to be taken into account.

15.3.2.6 MAXIMUM PAYMENTS CONDITION

Buyers may include, as a condition governing each purchase bid they submit for a production or purchasing unit, that the bid in question is only to be considered submitted for matching purposes if it produces, as a result of its acceptance, payments that are lower than the maximum, which shall be expressed as a fixed amount in pesetas or hundredths of a Euro, without decimal places, and as a variable amount expressed in pesetas or hundredths of a Euro per kWh, with as many as three decimal places.

The maximum payments condition may not be used in purchase bids that include more than 50% of the power at the instrumental price of purchase bids (30 PTA/kWh).

- 15.3.3** Several purchase bids may be placed for the same hourly scheduling period and the same production or purchasing unit to be treated independently of each other.

15.4 PLACE

Purchase bids must be submitted in the market operator's information system servers via the electronic media set up for this purpose.

The electronic media available shall be one or more of the following:

- Access through Internet
- Access through Basic Network Telephone Lines (Spanish abbreviation: RTB)
- Access through Integrated Services Digital Network lines (Spanish abbreviation: RDSI)
- Access through leased lines, for those market participants who install them.

The market operator shall be permitted to update its computer system communication media in order to add the technological advances that may emerge.

The market operator shall keep market participants informed at all times of any modifications it may make in its computer system.

Buyers shall transmit their purchase bids to the market operator at their own expense, and shall assume the costs and the responsibility for hiring and maintaining the communication media services they deem necessary for conveying their purchase bids.

15.5 TIME

The market operator shall determine the start time for the bid submittal and acceptance period, and shall advise the market participants of this time. Bids must be submitted and received before the close of the bid acceptance period. The time of reception shall be the time indicated by the market operator's computer system at the moment the information is received.

15.6 FORMAT

Bids shall be submitted in the format shown below, with the data described in the order indicated.

- a) Production or purchasing unit code.
- b) Description of the bid. Alphanumeric field which does not use the algorithm.
- c) Monetary unit: Pesetas or hundredths of a Euro.
- d) Type of adjustment, according to the codes defined in the market operator's information system.
- e) Maximum payment condition for this bid for the production or purchasing unit, which shall be expressed by means of the following two values:
 - Fixed term (TF) for a single daily scheduling horizon, set in pesetas or hundredths of a Euro; no decimal places may be included.

- Variable term (TV), which shall remain invariable for the same daily scheduling horizon, set in pesetas or hundredths of a Euro per kWh; in this case, as many as three decimal places may be included.
- f) Stop, start-up, rising and descending gradient (MW/minute).
- g) Technical minimum, expressed to no more than one decimal place.
- h) Indicator of the requirement of complete acceptance of the first block of the purchase bid (S/N).
- i) Maximum admissible power for the purchase bid in MWh with a maximum of one decimal place.
- j) Indicator of the requirement of complete acceptance in each hour of the first block of the purchase bid (S/N).
- k) Number of consecutive hours required in which the first block of the bid is completely matched.

For each block and hourly scheduling period:

- Date covered by the bid
- Hour covered by the bid
- Bid block number
- Quantity of power in MWh, with no more than one decimal place
- Price bid in PTA/kWh or in hundredths of a Euro/kWh, expressed in no more than three decimal places.

15.7 LIMITATIONS ON THE BID

The submittal of bids is subject to the following limitations:

- 15.7.1** The sum of the power volumes assigned in the last final hourly schedule, or daily viable schedule if the first intra-day market session is involved, added to the power being bid, must fall between the upper and lower power limits recorded in the market operator's information system.

Without disallowing the previous paragraph, subsequent information sent by the system operator to the market operator's information system regarding instances of unavailability of production units, received in the market operator's information system before the close of the bid reception period for the session, shall cause the corresponding purchase bids not to be considered valid and, as a result, not to be included in the matching process.

15.7.1.1 DEFINITION AND INCLUSION OF THE INFORMATION ON UNAVAILABILITY INSTANCES AND LIMITATIONS SENT BY THE

SYSTEM OPERATOR TO THE MARKET OPERATOR'S INFORMATION SYSTEM

The information on unavailability shall be sent by the system operator to the market operator's information system and shall always contain all the instances of unavailability that the system operator has recorded and confirmed from any of the physical units at the time it is sent. The unavailability data shall be sent by physical unit, although in the case of hydroelectric management units, the system operator may indicate, in the record of the transmission of the unavailability of a physical unit, that the hydroelectric management unit to which it belongs is completely unavailable.

The information on unavailability shall be included in the market operator's information system at the time of its reception. The latest permissible time of inclusion for matching purposes shall be the session closing time.

The information on limitations sent by the system operator to the market operator shall always contain all the limitations that the system operator imposes on the possibility of bidding in the production capacity or purchasing units. The data on limitations may be received by production unit or by physical unit, although the limitation on the possibility of bidding shall always be placed on the production unit.

The information on limitations shall be added to the market operator's information system immediately, except during intra-day market sessions, in which these data shall not be included; rather, they shall be added when the session's final hourly schedule is firm. Only the limitations on the possibility of bidding that are within the scheduling horizon of the following intra-day market session.

15.7.1.2 VERIFICATION OF BIDS

The market operator shall verify that the power bid per hour by the production unit is within the margins allowed by the following formulas:

The hourly volume of power assigned to the production unit in the most recent final hourly schedule, or daily viable schedule if the first session of the intra-day market is involved, shall be lower than the lowest of the following values:

- * PMAX
- * PDISP
- * PLIMITSUB,

and shall, in turn, be higher than the greater of the following values:

- * PMIN
- * PLIMITBAJ.

Moreover, the following must be complied with:

$$PMAX \geq PDISP \geq PLIMITSUB$$

$$PMIN \leq PLIMITBAJ.$$

Further, any of the values PMAX, PDISP, PLIMITSUB must be greater than either of the values PMIN, PLIMITBAJ.

In the situation the sum of the power volumes of the previous schedule plus the bid is not compliant with the conditions indicated above. It contributes to approaching compliance with the required condition, although it does not satisfy the condition. The formulas are the same, except that the difference between two values is compared, before and after adding the bid to it, and the bid is valid if this difference (the degree of non-compliance with the condition) decreases when the bid is added to the matched schedule.

Where:

PMAX:	Maximum power defined in the market operator's information system for the production unit (sum of the maximum powers of the physical units)
PMIN:	Minimum power defined in the information system for the production unit (sum of the minimum powers of the physical units)
PDISP:	The production unit's maximum power, after discounting the unavailable power of its physical units.
PLIMITSUB:	Maximum power of the production unit that the system operator has stated in the limitations file as the maximum value.
PLIMITBAJ:	Minimum power of the production unit that the system operator has stated in the limitations file as the minimum value.

If new information is received on unavailability during the bid reception process of a session, from a physical unit corresponding to a production unit that is limited by the system operator, the following situation may arise:

$$PDISP < PLIMITBAJ.$$

In this case, the minimum limit power shall be modified so that it is made equal to the maximum available power:

$$PLIMITBAJ = PDISP.$$

- 15.7.2** The hours bid must remain within the matching horizon of the intra-day market session for which the bids are validated.
- 15.7.3** The blocks included in purchase bids in each hour must have prices that decrease strictly with the block numbers. In each hour intermediate empty blocks (i.e., without prices or power) are permitted, but not with zero power.
- 15.7.4** The sum of the power volumes assigned for each scheduling period in the final hourly schedule or definitive viable schedule, if the first intra-day market session is involved, to the production units, minus the power volumes corresponding to each purchase bid placed, must give a result that is greater than or equal to the following:
- Limitation of the group due to restrictions
 - Limitation of the group due to unavailability.

In any case the value shall be greater than zero.

After the matching process, and if the production unit has declared gradients, the limit can be more restrictive, since the power at the beginning or end of the hour cannot be less than the previously defined limit and, therefore, the minimum hourly power shall be greater than or equal to that limit.

15.8 EFFECTS

The submittal of a bid produces the following effects, without detriment to other effects included elsewhere in these rules.

15.8.1 VERIFICATION OF THE BID

The market operator shall verify the purchase bids submitted as a prior requirement for their acceptance, in accordance with the following:

15.8.1.1 VERIFICATION OF THE SESSION STATUS

At the moment it receives a purchase bid in its computer system, the market operator shall verify, according to the reception time available in its computer system, that this reception time falls before the close of the bid acceptance period.

15.8.1.2 VERIFICATION OF THE MARKET PARTICIPANT SUBMITTING THE PURCHASE BID

- That the market participant is registered in the market operator's information system
- That the participant is authorized to submit bids
- That the participant is authorized to submit purchase bids for the production or purchasing unit. If a participant submits bids for production or purchasing units for which it is not authorized, those bids shall be rejected.
- That the participant, if it is a qualified consumer, reseller, distributor or external agent, participated in the corresponding daily market session where matching was performed for the hourly scheduling periods for which it is submitting a bid or bids in the intra-day market.

15.8.1.3 VERIFICATION OF THE PRODUCTION OR PURCHASING UNIT

At the moment the purchase bid is submitted, the market operator shall verify that the installations or supply points that make up the production or purchasing unit, respectively, for which the bid is being submitted are registered in the [Ministry of the Economy's](#) Administrative Register for Electrical Power Generating Units or, if applicable, are compliant with the provisions of the First Temporary Provision of Royal Decree 2019/1997.

15.8.1.4 VERIFICATIONS OF THE AGREEMENT OF THE PURCHASE BID DATA WITH THE INFORMATION CONTAINED IN THE MARKET OPERATOR'S INFORMATION SYSTEM REGARDING THE MAXIMUM POWER TO PURCHASE IN AN HOURLY SCHEDULING PERIOD

The market operator shall verify, at the exact time the bid is submitted, that the power volume demanded is less than or equal to the power the buyer could demand, according to the data recorded in the market operator's information system. For this purpose, the maximum power shall be calculated as the sum of all the power volumes assigned in the viable daily schedule and in the previous intra-day market sessions.

15.8.1.5 VERIFICATION OF THE AGREEMENT OF THE PURCHASE BID DATA WITH THE INFORMATION CONTAINED IN THE MARKET OPERATOR'S INFORMATION SYSTEM REGARDING THE CONDITION OF PRODUCTION CAPACITY VARIATION

At the moment the bid is submitted, the market operator shall verify that the maximum difference between the power production that the intra-day market matching process can accept from the production unit, in two consecutive hours, is less than or equal to the maximum amount of power the unit could supply with respect to the data recorded in the market operator's information system.

15.8.1.6 VERIFICATION OF THE AGREEMENT OF THE PURCHASE BID DATA WITH THE INFORMATION AVAILABLE TO THE MARKET OPERATOR SENT BY THE SYSTEM OPERATOR

The market operator shall verify, before its possible subsequent acceptance, that the electric power bid by the buyer respects the limitations placed at the disposal of the market operator by the system operator at the beginning of the session, in compliance with rule 15.7.

15.8.1.7 VERIFICATION OF THE CORRECTNESS OF THE PRICES

It shall be confirmed that the prices of the power volumes stated in the bids are neither below the minimum nor above the maximum prices adopted for this purpose and recorded in the market operator's information system.

15.8.1.8 VERIFICATION OF THE CORRECTNESS OF MAXIMUM PAYMENT DATA

It shall be confirmed that the purchase bid does not include the maximum payments condition if more than 50% of the power has been bid at the instrumental price of 30 PTA/kWh.

15.8.1.9 VERIFICATION OF THE CORRECTNESS OF GRADIENTS

It shall be confirmed that the gradients stated in the bid cannot exceed the gradients recorded for the production or purchasing unit in the market operator's information system.

15.8.1.10 VERIFICATION OF THE AGREEMENT OF THE BID WITH THE MAXIMUM POWER CONDITION

- Verify that the bid including the maximum power condition does not also include the load gradient condition.
- Verify that the bid specifying the maximum power condition is the only bid submitted for the production or purchasing unit.

15.8.2 ACCEPTANCE OF THE BID

The valid sale bids submitted by each production or purchasing unit shall become firm at the moment the bid acceptance period ends.

15.8.3 CONFIDENTIALITY

The market participants undertake to maintain the confidentiality of the data relative to access to the market operator's computer system, to guard the computer access codes and passwords, and to notify the said market operator of any incident regarding information security.

The market and system operators undertake to maintain the confidentiality of the information that the seller has placed at their disposal in electric power sale quotations in compliance with the provisions of these rules.

15.8.4 INFORMATION

The market operator shall inform sellers of the following:

- Automatic confirmation of the reception of the electric power purchase bid [by means of the procedures established in these Rules](#).
- [Verification, according to the terms established in these Rules, of the electric power purchase bid](#) made by the buyer, and automatic notification of the verification result.
- Acceptance of the electric power purchase bid if the result of the verification set out in the preceding section is positive, and inclusion of the said bid in the matching process.

15.8.5 INCLUSION IN THE MATCHING PROCESS

The buyer must accept the matching results according to the terms established in these rules, as well as the supply of the power purchased and payment for that supply.

RULE 16 MATCHING PROCEDURE

16.1 BASIC ELEMENTS OF THE MATCHING PROCEDURE IN THE INTRA-DAY MARKET

The market operator shall match the electric power purchase and sale bids by means of the simple matching process, which is the process that independently obtains the marginal price, as well as the volume of electric power that is accepted for each production and purchasing unit for each hourly scheduling period. The simple matching method shall be adapted by using the mathematical algorithms required to include in the process the possibility of submitting complex bids.

Only the conditions included in the complex bids provided for in these rules shall be included in the matching algorithm. For the intents and purposes of these Market Activity Rules, the term *matching algorithm* is defined as the ordered and finite set of mathematical operations that makes it possible to obtain the marginal price in each hourly scheduling period. The marginal price shall correspond to the last sale bid.

It shall be possible to perform matching by means of a simple process or a complex one when simple and complex bids coincide in the market, in accordance with the provisions of this rule. In any case, the criteria governing allotment of electric power production and demand and of marginal price setting, in cases of indeterminacy, shall be common for the simple and complex matching processes.

16.2 SIMPLE MATCHING PROCEDURE

The market operator shall obtain the marginal prices for each of the hourly scheduling periods of the same scheduling horizon, and shall distribute the electric power bid in each hourly scheduling period among the sale and purchase bids by means of simple matching, which shall consist of the following operations:

- 16.2.1** Determination of the aggregate electric power supply curve by adding, in ascending price order, the quantities of electric power corresponding to the power sale bids, regardless of the production unit to which the quantities in question correspond.
- 16.2.2** Determination of the aggregate electric power demand curve by adding, in descending price order, the volumes of electric power corresponding to the power purchase bids, regardless of the production unit to which the volumes in question correspond.
- 16.2.3** Determination of the crossing point of the aggregate supply and demand curves, and calculation of the marginal price for each hourly scheduling period. The marginal price shall correspond to the price of the last sale bid.
- 16.2.4** Assignment to each seller, for each electric power sale bid it has submitted for the same hourly scheduling period, of the electric power bided in its bid, provided that the price of the said bid is lower than or equal to the marginal price in the hourly scheduling period in question, and provided that there is sufficient electric power required at that price.
- 16.2.5** Assignment to each buyer, for each electric power purchase bid submitted for the same scheduling period, of the electric power being demanded during that hourly scheduling period, provided that the price of the said purchase bid is higher than or equal to the marginal price in the scheduling period in question, and provided that there is sufficient electric power for sale at that marginal price.
- 16.2.6** Since the aggregate electric power production and demand curves are discrete stepped curves, their crossing point may give rise, in one or more hourly scheduling periods in the same scheduling horizon, to indeterminacy in the assignment of electric power, which may correspond to certain electric power purchase or sale bids. If this situation arises, and when the crossing point of the aggregate electric power supply and demand curves occurs in a horizontal section of either or both curves, the market operator shall proceed as follows:
 - If there is a surplus supply of electric power for sale, this surplus shall be proportionally deducted from the quantities of electric power found in the block of sale bids from sellers representing those production units whose price is equal to the marginal price of the hourly scheduling period in question. If there are any indivisible marginal-priced sale blocks, they shall be eliminated.
 - If there is excess purchase demand for electric power, this excess shall be proportionally deducted from the quantities of electric power included in the blocks of those purchase bids whose price is equal to the price of the last accepted purchase bid. If there are any indivisible purchase blocks at the price of the last matched purchase bid, they shall all be eliminated.
 - To avoid imbalances due to rounding off after the application of the power deductions when there is excess demand or supply at the marginal price, the following procedure shall be applied:
 1. Initially, the total power assigned after distribution that does not correspond to a whole value of the decimal place is cut off at the lower whole value of the said decimal place.

2. Then the degree of imbalance (D) is evaluated. The imbalance may be caused by the difference between the total accepted demand, in case the distribution affects the sale bids, or between the total accepted demand and the total assigned supply, if the distribution affects the purchase bids. The value of D indicates the number of bids that must increase their assignment by 0.1 MWh during the hourly scheduling period in order to correct the imbalance.
3. Finally, the power accepted for a number D of bids which were included in the distribution is increased by 0.1 MWh, choosing first the bids which ended up with a higher residual value after the cutoff of the lower whole value of the first decimal place. If this value comes out equal, the bids submitted previously shall be selected.

16.2.7 If, at the point of intersection of the aggregate demand and supply curves, the prices of the last accepted sale and purchase power unit fail to coincide (which is equivalent to the aggregate electric power supply and demand curves' coinciding or crossing in a vertical block of the supply curve), the market operator shall apply the same criterion that is used in the daily market, although a different criterion could be eventually be adopted for the intra-day market if experience recommends it.

16.3 MATCHING PROCEDURE WHEN SIMPLE AND COMPLEX SALE BIDS COINCIDE IN THE MARKET

If simple and complex electric power purchase and sale bids coincide in the same daily scheduling horizon, the market operator shall include the conditions contained in the said complex bids in the matching process with simple bids as indicated in the following sections.

16.3.1 SEARCH FOR AN INITIAL VALID SOLUTION

The objective of this operation is to find a solution which will determine the marginal prices corresponding to the hourly scheduling periods of the scheduling horizon and an assignment of electric power to each of the production and purchasing units which has submitted electric power purchase and sale bids during the hourly scheduling period in question, and which satisfies the conditions derived from complex bids for the intra-day market.

To this end, the market operator shall initially apply the simple matching method described in the previous clause, to which the operator shall add, as a condition, the obtaining of a solution that complies with the load gradient condition. This method shall be called simple conditioned matching.

To include the treatment of conditions derived from complex bids in the search for the first valid solution, the process shall comprise the following steps:

- 1) All the bids presented in the intra-day market session are selected.
- 2) Simple matching is performed with all the selected bids, incorporating the load gradient restriction and the condition of complete acceptance of the first block in each hour.
- 3) A check is made to ensure that no self-matchings occur. The existence of self-matched power for the same production or purchase unit, which would cause an alteration of the price, (which sets the marginal price), is not allowed. If self-matching occurs, the power represented by those bids is eliminated from the matching process in the period in question.

If two or more production or purchasing units are self-matched at the marginal price, all the self-matchings shall be withdrawn from the solution.

In case indeterminacy arises, the order of withdrawal of self-matched power shall be:

- * Price (the lower-priced ones shall be eliminated first)
 - * Date, hour, minute and second of the reception of the bid (in the event of equal prices, the power corresponding to bids which were inserted in the market operator's information system later shall be withdrawn)
 - * Order number of the bid (in case of coinciding prices, dates and times of insertion into the market operator's information system, the power volumes corresponding to bids having a higher sequence number within the unit's bids shall be withdrawn)
- 4) A check is made to see that all the bids assigned in the simple matching satisfy the condition of complete acceptance of the first block.
 - 5) All the bids that do not satisfy the above-cited condition are selected and put in order as provided in point 16.3.3.2, and the last bid is withdrawn from matching. Step 2 is then repeated with all of the remaining bids.
 - 6) When it has been verified that all the accepted bids satisfy the condition of complete acceptance of the first block, steps 2 and 4 of the process are repeated with the conditions of minimum number of consecutive hours of complete acceptance of the first block, maximum power and minimum income / maximum payments, consecutively.

16.3.2 SELF-MATCHING

Once a solution has been reached which satisfies the gradient and maximum power restrictions, the algorithm shall proceed with the self-matching processes when a unit that was self-matched in an hour has set the price in that same hour. The process is as follows:

- For each hour of the session horizon, a check is performed to determine whether any of the units that has set the price in that hour has also had a purchase or repurchase bid accepted (completely or partially). For all the units meeting this description, the following values are obtained:
 - * E_{vm} : Accepted power in the unit's sale or resale bids in that hour, at the marginal price
 - * E_c : Total accepted power in the unit's sale or resale bids in that hour
- Then the self-matched bid blocks are completely or partially canceled in the following manner:
 - * If E_{vm} is greater than E_c , all the unit's accepted purchase or repurchase blocks in that hour are canceled, and the accepted sale or resale blocks accepted at the marginal price are limited to a value $E = E_{vm} - E_c$. If the power represented by E_{vm} corresponds to several blocks, those which correspond to global bids which were submitted later are eliminated first, and, in cases of equality, those corresponding to bids having a higher sequence number, within the unit's bids, are eliminated first.
 - * If E_{vm} is greater than E_c , all the unit's sale or resale blocks that were accepted in that hour at the marginal price are canceled, and the accepted purchase or repurchase blocks are limited to a value $E = E_c - E_{vm}$. If the power represented by E_c

corresponds to several blocks, the lowest-priced ones are eliminated first. In case of equality, the ones corresponding to global bids that were submitted later are eliminated first, and, if equality persists, those which correspond to bids having a higher sequence number, within the unit's bids, are eliminated first.

- * If E_{vm} is equal to E_c , all the sale or resale blocks accepted at marginal price, and all the accepted purchase or repurchase blocks, are cancelled.
- If the limitation or cancellation of sale or resale bids causes the disappearance of all price-setting bids, the algorithm shall modify the hour's marginal price and repeat the previous process of checking the self-matchings with the new price.

The method described here maintains compliance with the gradient condition (since the same power value is eliminated both in a unit's purchase or repurchase bids and in its sale or resale bids) and the maximum power condition (since the accepted power in each global bid can only be reduced, not increased).

16.3.3 VERIFICATION OF THE CONDITIONS INCORPORATED IN THE BIDS IN ORDER TO OBTAIN THE FIRST VALID SOLUTION

16.3.3.1 LOAD GRADIENT CONDITION

16.3.3.1.1 GENERAL CRITERIA

The purpose of the load gradient condition is to limit the assignment of the load volume corresponding to a production or purchasing unit's sale or purchase bid when the variation of power between two consecutive hourly scheduling periods exceeds the value stated in the bid.

For the purposes of this rule, a production or purchase unit's aggregate power is defined as the sum of the power volumes assigned by virtue of the viable daily schedule and intra-day markets previous to the current session plus the power assigned in the matching process that takes place in the said current intra-day market session.

Also for the purpose of this rule, the following are defined:

- Maximum power: the maximum power in the market operator's information system, the available maximum power or the maximum power limited by the system operator for safety reasons, whichever is the least.
- Minimum power: the minimum power in the market operator's information system, or the minimum power limited by the system operator, whichever is less.

The basic criteria applied to checking the load gradient condition are the following:

- The gradient statement is optional. A gradient value equal to zero in the bid shall be interpreted as a renunciation of the use of this complex condition.
- Two sets of gradients may be used for each production unit—a start-up / rising gradient and a stop / descending gradient—when the unit increases / reduces its schedule in two consecutive periods.
- Increases or reductions of power during each hour shall always be considered linear.

- The condition shall be checked by first analyzing each of the hourly periods directly (that is, by verifying each hourly period according to the data corresponding to the previous hourly scheduling period), and then inversely (that is, by verifying each hourly scheduling period according to the data pertaining to the following hourly scheduling period).
- During the checking of the gradient condition, no power assignment made previously in the daily market shall be modified; only the bids that are submitted in the intra-day market session can be modified.
- In any case, the market operator shall assign, to a production unit's owner whose sale or purchase bids include the gradient condition, a lesser quantity of power than the amount expressed in a purchase or sale bid. The volume assigned shall be less than what would have been assigned to the unit if the bid had not included the gradient condition.

16.3.1.1.2 PROCEDURE

Following the criteria set out in the preceding paragraphs, to check the gradient condition, the market operator shall perform the following procedure:

- a) Hour-by-hour verification of the gradient condition proceeding forward in time. (Direct)
 - First, matching is done for the first hour of the horizon using all the bids submitted by each unit. This matching produces the total hourly power values for each unit in hour 1 (E_1). These values already include the power assigned in the previous dispatch.
 - Then the maximum (EM_1) and minimum (EN_1) power values are calculated for each unit in hour 1. For this first hour, EM_1 takes the value of the maximum power for the unit in hour 1, and EN_1 takes the value of the minimum power.
 - A check is made to determine whether E_1 is among the values obtained for EM_1 and EN_1 for each unit. If not, a verification is performed to see whether this problem can be solved based on limiting the bids matched for the unit. That is:
 - * If E_1 is greater than EM_1 , the operator checks to see whether bids "to raise" (either purchase or sale bids) have been accepted from the unit. If this is the case, these bids are limited so that, considering that the same bids are going to end up matched "to lower" (repurchase or resale) in that hour, the new value of E_1 cannot exceed EM_1 .
 - * If E_1 is less than EN_1 , the operator checks to determine whether, due to the operation of the algorithm, sale or purchase bids have been accepted for purchase or production units, respectively. If this is the case, these bids are limited so that, considering that the same sale or purchase bids will end up matched for production or purchase units, respectively, in that hour, the new value of E_1 cannot be less than EN_1 .

The way to apply these limitations to a unit's bids shall be starting with the highest-priced ones, when dealing with sale bids, and beginning with the lowest-priced ones in the case of purchase bids.

If limitations have been applied to any unit, the matching is repeated in that hour and the previous restrictions are checked again. If new limitations on the unit are

necessary, these are added to the ones already applied in previous matchings for the same hour.

If no limitations have been imposed (either because all units are compliant with gradient restrictions or because the non-compliance cannot be obviated), the matching for the hour is temporarily designated valid.

- When the procedure has reached this point, the maximum and minimum power values at the end of hour 1 are calculated for all the units that have declared gradients. This is done as follows:
 - * If the power assigned in hour 1 (E_1) is below the technical minimum, it is assumed that the unit is performing its start-up, and the start-up gradient is selected as the rising gradient (g_a); the stop gradient is chosen for the descending gradient (g_d). In any other case, the rising gradient is chosen as g_a and the descending gradient as g_d .
 - * With the gradients selected, the maximum and minimum power values at the beginning of hour 1 (PM_o and PN_o) and at the end of hour 1 (PM_1 and PN_1) are obtained, assuming maximum linear rises which will uphold the power value E_1 obtained, that is:

$$PN_o = E_1 - g_a * 30 \qquad PM_1 = E_1 + g_a * 30$$

$$PM_o = E_1 + g_d * 30 \qquad PN_1 = E_1 - g_d * 30$$

- * If PN_o comes out to be less than the minimum or PM_1 exceeds the production unit's maximum power value in hour 1, the rise is reduced to the maximum which allows both values to be feasible. In analogous fashion, the values of PM_o and PN_1 are checked and recalculated, if necessary. The maximum and minimum values at the end of hour 1 (PM_1 and PN_1) are stored for later use.
- The next step is to perform matching for hour 2, obtaining a final power value E_1 assigned in hour 2.
- Then the maximum (EM_2) and minimum (EN_2) admissible power values for each unit in hour 2 and EN_2 are computed, in the following manner:
 - * If the unit has not declared gradients, EM_2 takes the value of the maximum power for the unit in hour 2, and EN_2 takes the value of the minimum power.
 - * If the unit has declared gradients, the maximum and minimum power values at the end of hour 2 (PM_2 and PN_2) are obtained as follows:
 - To calculate PM_2 , the rising gradient value (g_a) to be used is selected. If the maximum power value at the end of hour 1 (PM_1) is strictly lower than the technical minimum declared for the unit, the declared start-up gradient is selected. In any other case, the rising gradient would be chosen.

- With the gradient value (g_a) selected, $PM_2 = PM_1 + g_a * 60$ is calculated. If PM_2 surpasses the maximum power for the unit in hour 2, that maximum is taken as the new value of PM_2 .
- Similarly, to calculate PN_2 , a descending gradient value (g_d) is selected. If, starting from the value of PN_1 , a value below the technical minimum can be reached at the end of hour 2 with the descending gradient (that is, if $PN_1 - g_d * 60 < MT$), then the stop gradient is chosen. Otherwise, the descending gradient is selected.
- With the gradient value selected, $PN_2 = PN_1 - g_d * 60$ is calculated. If PN_2 is less than the minimum power value for that unit in hour 2, the said value is taken as the new value of PN_2 .

Once PM_2 and PN_2 are obtained, EM_2 is calculated as the average value of PM_1 and PM_2 , and EN_2 is computed as the average value of PN_1 and PN_2 .

- A check is made for each unit to determine whether E_2 is among the values obtained for EM_2 and EN_2 . If the result is negative, an attempt is made to solve this problem based on limiting the unit's matched bids, in the same way indicated above for hour 1. Whatever limitations are needed are applied, and hour 2 is matched again until it is no longer necessary to add more limitations.
- With the values E_1 and E_2 obtained for each unit that has declared gradients, a single power value is calculated at the end of hour 2 (P_2).
 - If the restriction of gradients has been complied with (that is, E_1 is between EM_2 and EN_2), an attempt shall be made to assign a continuous rising or descending load for the two hours. The formula for P_2 shall be:

$$P_2 = E_1 + (E_2 - E_1) * 3/2$$

If the value obtained for P_2 exceeds the unit's maximum for hour 2, P_2 takes the value of this maximum. In the same way, if P_2 is less than the unit's minimum in hour 2, P_2 is given the value of that minimum.

- Otherwise, if E_2 is greater than EM_2 , the maximum value between E_2 and PM_2 shall be taken as P_2 , and if E_2 is less than EN_2 , P_2 shall take the minimum value between E_2 and PN_2 .
- At this point the matching for the following hour (h) is performed in the same way, without taking the gradient restrictions into account for the time being. With the power values obtained (E_h), the market operator verifies whether each unit has complied with the gradient restrictions since the previous hour. To this end, the upper (EM_h) and lower (EN_h) power limits within which each unit can comply with its limits are verified. These values are calculated as follows:
 - * If the unit has not declared gradients, EM_h takes the value of the maximum power for the unit in hour h , and EN_h takes the value of the minimum power.
 - * If the unit has declared gradients, the values of the maximum (PM_h) and minimum (PN_h) power at the end of hour h are calculated in the following manner:
 - To calculate PM_h , the rising gradient (g) value to be used is selected. If the power value at the end of the previous hour (P_{h-1}) is strictly lower

than the technical minimum declared for the unit, the unit's declared start-up gradient is selected. Otherwise, the rising gradient is selected.

- With the gradient value (g) selected, $PM_h = P_{h-1} + g * 60$ is calculated. If PM_h exceeds the maximum power for the unit in hour h , that maximum is taken as the new value of PM_h .
- Similarly, to calculate PN_h , a descending gradient value (g) is selected. If, by starting from the value of P_{h-1} , a value below the technical minimum at the end of hour h can be reached with the descending gradient (that is, if $PM_{h-1} - g_b * 60 < MT$), then the stop gradient is chosen. Otherwise, the descending gradient is selected.
- With the gradient value selected, $PN_h = P_{h-1} - g * 60$ is calculated. If PN_h is lower than the minimum power value for that unit in hour h , the said value is taken as the new value of PN_h .

When PM_h and PN_h have been obtained, EM_h is calculated as the average value of P_{h-1} and PM_h , and EN_h is computed as the average value of P_{h-1} and PN_h .

- With the values EM_h and EN_h , compliance with the gradient restrictions in that hour is checked in a manner analogous to the procedure explained above for the first hour. If necessary (if a new limitation has been placed on some unit), matching is done again and the verifications are repeated.
 - When a matching has been obtained for hour h which does not require the application of new limitations on bids, the new hour h power values are obtained for each unit (E_h). The power value at the end of hour h (P_h) is obtained in the following way:
 - * If P_{h-1} is greater than or equal to E_{h-1} and E_h is greater than P_{h-1} , (that is, a rising trend can be seen from the previous hour), the following is obtained: $P_h = P_{h-1} + 2 * (E_h - P_{h-1})$.
 - * If P_{h-1} is less than or equal to E_{h-1} and E_h is less than P_{h-1} , (that is, a descending trend can be seen from the previous hour), the following is obtained: $P_h = P_{h-1} - 2 * (P_{h-1} - E_h)$.
 - * Otherwise, the power level P_h is set at the value E_h .
 - * In those cases where it has not been possible to ensure compliance with the gradient restriction due to the impossibility of reaching the power value E_h from P_{h-1} , if E_h is greater than EM_h , the maximum value between E_h and PM_h shall be taken as P_h , and if E_h is less than EN_h , P_h shall take the minimum between E_h and PN_h .
 - This process continues until the last hour of the session horizon.
- b) Hour-by-hour verification of gradient conditions proceeding backward in time. (Reverse)

The gradient conditions are then checked hour by hour, starting from the last hour of the horizon and working backwards to the first, applying a similar procedure to the one used for forward checking:

- The power values (E_n) obtained for the last hour of horizon (n) are treated as definitively valid.
- For all units that have declared gradients, the maximum and minimum power values at the beginning of hour n are calculated in the following manner:
 - * If E_n is below the technical minimum, the start-up gradient is selected as the rising gradient (g_a) and the stop gradient is chosen for the descending gradient (g_d). In any other case, the rising gradient is chosen as g_a and the descending gradient as g_d .
 - * With the gradients selected, the maximum and minimum power values at the beginning of hour n (PM_{n-1} and PN_{n-1}) and at the end of hour n (PM_n and PN_n) are obtained, assuming maximum linear rises which will uphold the power value E_n obtained, that is:

$$PN_{n-1} = E_n - g_a * 30 \qquad PM_n = E_n + g_a * 30$$

$$PM_{n-1} = E_n + g_d * 30 \qquad PN_n = E_n - g_d * 30$$

- * If PN_{n-1} comes out to be less than the minimum or PM_n exceeds the production unit's maximum power value in hour n , the rise is reduced to the maximum which allows both values to be feasible. In analogous fashion, the values of PM_{n-1} and PN_n are checked and recalculated, if necessary. The maximum and minimum values at the end of hour n (PM_{n-1} and PN_{n-1}) are stored for later use.
- The next step is to perform matching for the penultimate hour ($n-1$), obtaining a final power value E_{n-1} assigned in that hour for each unit.
- Then the maximum (EM_{n-1}) and minimum (EN_{n-1}) admissible power values for each unit in hour $n-1$ are computed in the following manner:
 - * If the unit has not declared gradients, EM_{n-1} takes the value of the maximum power for the unit in hour $n-1$, and EN_{n-1} takes the value of the minimum power.
 - * If the unit has declared gradients, the maximum (PM_{n-2}) and minimum (PN_{n-2}) power values at the beginning of hour $n-1$ are obtained as follows
 - To calculate PM_{n-2} , the descending gradient value (g_d) to be used is selected. If the maximum power value at the end of hour $n-1$ (PM_{n-1}) is strictly lower than the technical minimum declared for the unit, the declared stop gradient is selected. In any other case, the descending gradient would be chosen.
 - With the gradient value (g_d) selected, $PM_{n-2} = PM_{n-1} + g_d * 60$ is calculated. If PM_{n-2} surpasses the maximum power for the unit in hour $n-1$, that maximum is taken as the new value of PM_{n-2} .

- Similarly, to calculate PN_{n-2} , an ascending gradient value (g_a) is selected. If, starting from the value of PN_{n-1} , a value below the technical minimum can be reached at the beginning of hour $n-1$ with the start-up gradient (that is, if $PN_{n-2} - g_a * 60 < MT$), then the start-up gradient is chosen. Otherwise, the rising gradient is selected.
- With the gradient value selected, $PN_{n-2} = PN_{n-1} - g_a * 60$ is calculated. If PN_{n-2} is less than the minimum power value for that unit in hour $n-1$, the said value is taken as the new value of PN_{n-2} .

Once PM_{n-2} and PN_{n-2} are obtained, EM_{n-1} is calculated as the average value of PM_{n-1} and PM_{n-2} , and EN_{n-1} is computed as the average value of PN_{n-1} and PN_{n-2} . If EM_{n-1} surpasses the value obtained in the direct process, the old value of EM_{n-1} is taken, and if EN_{n-1} is lower than the value obtained in the direct process, the old value of EN_{n-1} is taken.

- A check is made for each unit to determine whether E_{n-1} is among the values obtained for EM_{n-1} and EN_{n-1} . If the result is negative, an attempt is made to solve this problem based on limiting the unit's matched bids, in the same way indicated above for hour 1. Whatever limitations are needed are applied, and hour $n-1$ is matched again until it is no longer necessary to add more limitations.
- With the values E_n and E_{n-1} obtained for each unit that has declared gradients, a single power value is calculated at the beginning of hour $n-1$ (P_{n-2}).
- If the restriction of gradients has been complied with (that is, E_{n-1} is between EM_{n-1} and EN_{n-1}), an attempt shall be made to assign a continuous rising or descending load for the two hours. The formula for P_{n-2} shall be:

$$P_{n-2} = E_n + (E_{n-1} - E_n) * 3/2$$

If the value obtained for P_{n-2} exceeds the unit's maximum for hour $n-1$, P_{n-2} takes the value of this maximum. In the same way, if P_{n-2} is less than the unit's minimum in hour $n-1$, P_{n-2} is given the value of that minimum.

- Otherwise, if E_{n-1} is greater than EM_{n-1} , the maximum value between E_{n-1} and PM_{n-1} shall be taken as P_{n-2} , and if E_{n-1} is less than EN_{n-1} , P_{n-2} shall take the minimum value between E_{n-1} and PN_{n-1} .
- At this point, checking and, if necessary, an additional matching for the two previous hours are performed. For each of those two hours (h), the upper (EM_h) and lower (EN_h) power limits within which each unit can comply with its limits are verified in hour h , starting from the value assigned in hour $h+1$. These values are calculated as follows:
 - * If the unit has not declared gradients, EM_h takes the value of the maximum power for the unit in hour h , and EN_h takes the value of the minimum power.
 - * If the unit has declared gradients, the values of the maximum (PM_{h-1}) and minimum (PN_{h-1}) power at the start of hour h are calculated in the following manner:
 - To calculate PM_{h-1} , the descending gradient (g) value to be used is selected. If the power value at the end of hour h (P_h) is strictly lower than the technical minimum declared by the unit, the unit's declared

stop gradient is selected. Otherwise, the descending gradient is selected.

- With the gradient value (g) selected, $PM_{h-1} = P_h + g * 60$ is calculated. If PM_{h-1} exceeds the maximum power for the unit in hour h , that maximum is taken as the new value of PM_{h-1} .
- Similarly, to calculate PN_{h-1} , an ascending gradient value (g) is selected. If, by starting from the value of P_h , a value below the technical minimum at the end of hour $h-1$ can be reached with the start-up gradient (that is, if $PM_{h-1} - g_a * 60 < MT$), then the start-up gradient is chosen. Otherwise, the rising gradient is selected.
- With the gradient value selected, $PN_{h-1} = P_h - g * 60$ is calculated. If PN_{h-1} is lower than the minimum power value for that unit in hour h , the said value is taken as the new value of PN_{h-1} .

When PM_{h-1} and PN_{h-1} have been obtained, EM_h is calculated as the average value of P_h and PN_{h-1} . If EM_h surpasses the value obtained in the direct process, the old value of EM_h is taken, and if EN_h is lower than the value obtained in the direct process, the old value of EN_h is taken.

- With the values EM_h and EN_h , compliance with the gradient restrictions in that hour is checked in a manner analogous to the procedure explained above for the direct process. If necessary (if a new limitation has been placed on some unit), matching is done again and the verifications are repeated.
- When a matching has been obtained for hour h which does not require the application of new limitations on bids, the new hour h power values are obtained for each unit (E_h). The power value at the beginning of hour h (P_{h-1}) is obtained in the following way:
 - * If P_h is greater than or equal to E_{h+1} and E_h is greater than P_h , (that is, a descending trend can be seen toward the following hour), $P_{h-1} = P_h + 2 * (E_h - P_h)$ is obtained.
 - * If P_h is less than or equal to E_{h+1} and E_h is less than P_h , (that is, an ascending trend can be seen from the previous hour), $P_{h-1} = P_h - 2 * (P_h - E_h)$ is obtained.
 - * Otherwise, the power level P_{h-1} is set at the value E_h .
 - * In those cases where it has not been possible to ensure compliance with the gradient restriction due to the impossibility of reaching the power value E_h from P_h , if E_h is greater than EM_h , the maximum value between E_h and PM_h shall be taken as P_{h-1} , and if E_h is less than EN_h , P_{h-1} shall take the minimum between E_h and PN_h .
- This process continues until the first hour of the session horizon.

16.3.3.2 CONDITION OF COMPLETE ACCEPTANCE OF THE FIRST BLOCK

For each bid that includes this condition, a check shall be performed to ensure that the matching result includes the assignment of all the power in the first block of the bid.

In the process of seeking the first valid solution, the bids that do not satisfy this condition shall be arranged from highest to lowest according to the percentage of total power accepted for the entire scheduling horizon over the total power corresponding to the first block of the rising bid. In case of equality of this percentage, the bids having a greater amount of power assigned shall have priority. In case of equality of this value, the bids received first in the market operator's information system shall take precedence.

Following the order indicated above and starting with the offer having the lowest percentage, the bids that do not satisfy the condition shall be withdrawn until all of the bids contained in the solution comply with it.

16.3.3.3 CONDITION OF MINIMUM NUMBER OF CONSECUTIVE HOURS WITH ALL THE FIRST-BLOCK POWER MATCHED

For each bid that has included this condition, a verification shall be performed to ensure that the result of matching at the time the verification is done includes consecutive series of hours with all the power accepted in the first block of the bid, with a length greater than or equal to the specified minimum value of consecutive hours.

In the process of seeking the first valid solution, the bids that do not satisfy this condition shall be arranged from lowest to highest according to the number of consecutive hours specified in each bid. In case of equality of this number of hours, the bids having a greater amount of power assigned shall have priority. In case of equality of this value, the bids received first in the market operator's information system shall take precedence.

Following the order indicated above and beginning with the bid with the greatest number of hours, the bids that do not comply with the condition shall be successively withdrawn until all the bids in the solution are compliant.

16.3.3.4 CONDITION OF MAXIMUM POWER ADMISSIBLE PER BID

16.3.3.4.1 GENERAL CRITERIA

For each bid incorporating this condition, the algorithm shall ensure that total power assigned to the production or purchasing unit in the bid in question in no way exceeds the maximum power limit applied by the market participant.

The algorithm shall assign power to the production or purchasing unit according to its bid, period by period, beginning with the first period of the matching horizon. At the moment when the power assigned in any period, added to the power assigned to the previous periods, surpasses the maximum quantity indicated, the power assigned in the period in question shall remain limited to the quantity which makes the total value of the power assigned to the bid in the periods analyzed up to the moment equal to the admissible maximum.

16.3.3.4.2 PROCEDURE

At the beginning of the matching method, each bid shall be given a total assigned value of zero ($E_{tot} = 0$).

During the process of direct hour-by-hour matching (proceeding forward in time), before matching hour h , a check shall be made to ascertain whether the total power bid for that hour (E_{0h}), added to E_{tot} , surpasses the maximum power specified for the bid (EM). That is, if $E_{tot} + E_{0h} > EM$, the unit's bid shall be limited in hour h to a

maximum of $EM - E_{tot}$. Then matching is done in hour h to obtain a value E_h of accepted power for the unit in the said hour. The value of E_{tot} is updated by adding the new E_h value to it.

During the process of reverse hour-by-hour matching (proceeding backwards in time), before matching hour h , a check shall be made to ascertain whether the total power bid for that hour (E_{0h}), added to the total assigned in the rest of the hours ($E_{tot} - E_h$), surpasses the maximum power specified for the bid (EM). That is, if $E_{tot} + E_{0h} > EM$, the unit's bid shall be limited in hour h to a maximum of $EM - E_{tot} + E_h$. Then matching is done in hour h to obtain a new E_h value of accepted power for the unit in the said hour. The value of E_{tot} is updated by subtracting the previous E_h value from it and adding the new E_h value.

16.3.3.5 JOINT TREATMENT OF THE MINIMUM INCOME AND MAXIMUM PAYMENTS CONDITIONS

For each bid a check shall be performed to ascertain that the matching result, at the time the minimum income and maximum payments conditions are verified, does not include sale bids that fail to satisfy the minimum income condition, nor purchase bids that do not satisfy the maximum payments condition.

It is considered that a sale bid does not satisfy its minimum income condition if the value of the expression $TFI + TVI * E_{tot}$, which represents the minimum income requested in the bid (where TFI and TVI are, respectively, the fixed and variable terms of its minimum income condition and E_{tot} is the sum of the accepted power volumes for the sale bid throughout the scheduling horizon) surpasses the sum of the terms $E_h * P_h$ for all the hours of the scheduling horizon (where E_h is the unit's accepted power for hour h , and P_h the marginal price at that hour) which represents the income obtained by the sale of power assigned throughout the said scheduling horizon.

It is considered that a purchase bid does not satisfy its maximum payments condition if the value of the expression $TFP + TVP * E_{tot}$, which represents the maximum payments requested in the bid (where TFP and TVP are, respectively, the fixed and variable terms of its maximum payments condition and E_{tot} is the sum of the accepted power volumes for the bid throughout the scheduling horizon) is less than the sum of the terms $E_h * P_h$ for all the hours of the scheduling horizon (where E_h is the unit's accepted power for hour h , and P_h the marginal price at that hour) which represents the payments to be made for the purchase of power assigned throughout the said scheduling horizon.

Sale bids that do not comply with the minimum income condition shall be withdrawn from the group of bids included in the solution.

Likewise, purchase bids that do not comply with the maximum payments condition shall be withdrawn from the group of bids included in the solution.

16.3.3.6 CONDITION OF COMPLETE ACCEPTANCE OF THE FIRST BLOCK IN EACH HOUR

Before beginning the processing of the condition of complete acceptance of the first block in each hour, the system has a solution which allows the existence of blocks containing partially accepted bids, due either to splitting rules, limitation by gradient, maximum power or the self-matching processing procedure.

The procedure for checking the complete acceptance of the first block in each hour shall consist of verifying whether there is any partially accepted bid which is marked as first block, and in which the checking of the mentioned condition has been specified.

If any bid block having these characteristics exists, the algorithm shall cancel those blocks and repeat all the steps of simple matching, distribution, verification of gradients and maximum power, and processing of self-matching.

The process shall continue until no partially accepted first bid block remains whose overall bid specified the condition of complete acceptance of the first block in every hour.

16.3.3 PROGRESSIVE IMPROVEMENT OF THE FIRST VALID SOLUTION

Once a first valid solution has been found in which the bids included respect all the conditions attached, a process of seeking the final solution begins. The final solution is defined as the resolution for which all the bids included in matching satisfy their complex conditions at the prices resulting from the matching, where there is no bid, among those excluded from matching, that satisfies its complex conditions at the said prices. This process is called *expansion*.

The objective of this search process is to obtain a minimal or zero result for the sum of the margins of the unaccepted purchase and sale bids, and for which the said margin is positive, according to the formulation shown below. The margin of a sale bid is the difference between the income it would obtain corresponding to the marginal price and the income declared / requested in the bid, either through the prices introduced (bid without the minimum income condition) or through the minimum income condition (otherwise). The margin of a purchase bid is the difference between the maximum quantity to deliver stated in the bid—either through the prices introduced (bid without the maximum payments condition) or through the maximum payments condition (otherwise)—and the corresponding payments at the marginal price.

$$M(of) = \sum_{h=1}^H \sum_{t=1}^T [E(of, t, h) * PM(h)] - IMIN(of)$$

for sale bids and

$$M(of) = PMAX(of) - \sum_{h=1}^H \sum_{t=1}^T [E(of, t, h) * PM(h)]$$

for purchase bids, where:

E (of,t,h): Power of block t of the bid that would have been matched in hour h at the price resulting from matching PM (h)

IMIN (of): One of two alternatives:

- Minimum income solicited in the bid, according to the power volumes that would have been matched at the price resulting from matching PM (h), for bids stating the minimum income condition.
- Income that the bid would have received, according to the power volumes that would have been matched at the price resulting from the matching PM (h), at the prices included in the bid, otherwise.

PMAX (of): Maximum payment stated in the bid, according to the power volumes that would have been matched at the price resulting from matching PM (h), for bids that have declared the maximum payments condition.

Payment that the bid would have made, according to the power volumes that would have been matched at the price resulting from matching PM (h); otherwise, at the prices included in the bid.

M (of): Margin of the bid.

For all the bids whose income margin M(of) is positive, the variable TMI shall be calculated:

$$TMI = \sum_{OF=1}^u M(of)$$

Each time the market operator matches a combination of bids and the combination comes out valid, it shall verify whether the TMI of the said combination is less than, greater than or equal to the TMI corresponding to the best known combination of electric power sale bids.

- If the TMI is higher, the market operator shall record the combination of bids as tested and valid.
- If the TMI is lower, the market operator shall select the new bid combination as the best identified up to that moment.
- If the TMI is equal, the market operator shall select the combination that has a lower weighted power price. If the equality persists, the market operator shall select the combination that contributes a higher average margin to the production units.

The process of seeking a final solution shall be limited in time to thirty (30) minutes, and in number of iterations to three thousand (3,000), which the market operator shall store in its computer systems.

If the search process does not turn up any solution that satisfies the condition of being the final solution sought, the program shall give as a solution the one that obtains a lower TM. In this latter case, the market operator shall store the number of iterations effected in its computer system.

16.4 MATCHING PROCESS WHEN THE NET REFERENCE EXCHANGE CAPACITY IN THE INTERNATIONAL TIE-LINES IS EXCEEDED

16.4.1 APPLICATION SCENARIO

The market operator shall perform [the calculation of the final solution](#), which shall be considered provisional, when the following conditions coincide:

- The system operator has published a maximum or reference capacity, by period, to be taken into consideration in the exchanges which can take place in the international tie-lines in each flow direction, for the purposes of these rules.
- [The balance of power resulting from the bids included in the provisional final solution and the one committed to in previous processes](#) surpasses, for one of the international tie-

lines, in one of the scheduling periods, the maximum or reference capacity established by the system operator in one of the flow directions.

- The proportion of power of the above-cited excess flow corresponding to the balance of the bids included in the first provisional final solution is greater than ten (10) per cent of the maximum or reference capacity.

16.4.2 PREDETERMINATION OF THE DATA TO CONSIDER

- 1) The market operator shall obtain a solution in the matching process, called the first provisional final solution, assuming an unlimited exchange capacity in the tie-lines.
- 2) If the conditions established in point 16.4.1 arise in the scheduling horizon, the market operator shall calculate, for each of the international tie-lines and scheduling periods, the balance of power flows of the purchase and sale bids included in the provisional final solution.
- 3) The market operator shall calculate the maximum capacity to be taken up by the balance determined in paragraph 2) above, in all the international tie-lines and in all the scheduling periods. This maximum shall be equal to the maximum capacity published by the system operator, considering the schedules committed to in previous processes that affect the international tie-line.

16.4.3 PROCEDURE FOR DETERMINING THE FINAL SOLUTION

The market operator shall calculate a new final solution, which it shall consider definitive, in such a way as to satisfy the conditions established for seeking the final solution described in the previous sections of this rule. This solution shall not exceed, in any of the scheduling periods, the maximum value described in paragraph 3 of point 16.4.2; if it does exceed that value, it shall not worsen the situation existing before matching was performed. To attain the objective of not surpassing the maximum capacity, the market operator shall withdraw from the matching process sale or purchase bids which increase the excess flow in the sense that they exceed that limit, in descending price order of sale bids, and in increasing price order of purchase bids.

RULE 17 RESULT OF INTRA-DAY MARKET MATCHING

- 17.1** The market operator shall notify the system operator of the results of intra-day market matching, as well as of the financial order of precedence of the totally or partially matched, as well as the unmatched, sale and purchase units, for purposes of whatever system security analyses may be pertinent.

For each hourly scheduling period of the intra-day market session scheduling horizon, the market operator shall establish the order of financial precedence of the sale bids, starting with the cheapest and proceeding to the highest-priced bid needed to cover the demand for electric power in the said hourly scheduling period.

For each hourly scheduling period of the scheduling horizon of the intra-day market session, the market operator shall establish the order of financial precedence of the bids by adding, in ascending price order, the quantities of power bid, independently of the production unit to which those quantities correspond.

If, as a result of the system security analyses cited above, it becomes necessary to apply the procedure referred to in Rule 18, the market operator shall include the result of the procedure for the solution of technical constraints in the matching process, and shall send the system operator

the definitive intra-day market matching and the relevant final hourly schedule; to the market participants it shall send the data that correspond to their production or purchasing units.

The price in each hourly scheduling period shall be equal to the price of the last block of the bid whose acceptance was necessary to satisfy the demand that was matched. When one month has elapsed from the acceptance of these Rules, this criterion may be revised.

17.2 REPORTING PRODUCTION FORECASTS FOR EACH PRODUCTION UNIT

Market participants shall send the market operator their production forecasts for each production and pumping purchase unit that is matched in the schedule resulting from the intra-day market matching, in accordance with article 11 of Royal Decree 2019/1997.

The participants shall have fifteen (15) minutes from the publication of the matching results to send their files indicating the splitting of the power accumulated in the session to each one of the production units. The projected production figures which are not received before the deadline time shall be processed with the default factors. The treatment given to the files shall be the same as in the daily market process.

17.3 REPORTING SUPPLIES THROUGH PURCHASING UNIT CONNECTING BUSES

Market participants shall notify the market operator of the supplies that must be effected in each of the grid connection busses to satisfy the accepted demand in the schedule resulting from intra-day market matching, in accordance with article 11 of Royal Decree 2019/1997.

Purchasing units, except for pumping consumption units, shall split the power assigned by busbar, according to the system model managed by the market operator.

The participants shall have fifteen (15) minutes from the publication of the matching result to send their supplies of power accumulated in the session for each of the purchasing units. The supplies that are not received within this period shall be effected with the default factors. The processing of the files shall follow the same treatment used in the daily market process.

RULE 18 TECHNICAL CONSTRAINTS IN THE INTRA-DAY MARKET

18.1 If a restriction were to be identified that prevented the execution of the final hourly schedule which would be applicable as a result of the intra-day market matching process, while maintaining the pertinent criteria of quality, safety and reliability, the system operator would solve the restriction by selecting the withdrawal of all the bids whose exclusion would solve the restriction, based on the intra-day market financial precedence reported to the system operator by the market operator. With the information received from the system operator, the market operator would proceed to restore the generation-demand balance by following the order of financial precedence, without taking into consideration any complex condition attached to the bids, and would then place the final hourly schedule at the system operator's disposal, informing the market participants of the data corresponding to their production and purchasing units.

18.2 The market operator shall set up the order of financial precedence of the completely or partially matched bids on the basis of the power blocks and their prices, without taking into consideration any complex condition attached to the bids.

RULE 19 FINAL HOURLY SCHEDULE

19.1 For the intents and purposes of these Market Activity Rules, the term *final hourly schedule* is understood to mean the scheduling established by the market operator based on the matching of electric power sale and purchase bids formalized for each scheduling period as a result of the daily viable schedule and the matching of the successive intra-day markets.

19.2 The final hourly schedule shall include, for each hourly scheduling period, the following components:

- 1) The marginal price of the electric power matched in each of the daily market and intra-day market sessions in which the hourly scheduling period was included in the programming horizon.
- 2) The electric power that corresponds, by blocks, to each production unit whose electric power sale and purchase bids were included as the result of matching processes, after those bids have been modified, if necessary, to avoid the existence of technical constraints.
- 3) The power associated with physical bilateral contracts.
- 4) The quantity of electric power demanded in each hourly scheduling period as a result of the electric power sale and purchase bids.

The market operator shall transmit the contents of the final hourly schedule to the system operator, and shall send the market participants the data corresponding to their production and purchasing units. To the distributors it shall send the only the data regarding their distribution system; these data shall be aggregated for each of their electric busbars as defined and notified by the system operator.

The market operator shall transmit the content of the final hourly schedule to the market participants and the system operator.

RULE 20 EXCEPTIONAL SITUATIONS

20.1 Exceptional situations are defined as those which make it impossible to execute the process of submittal and acceptance of bids, or the matching process.

20.2 The situations the preceding paragraph refers to can be the consequence of one or more of the following situations:

- a) Impossibility of performing the process of progressive improvement of the first valid solution. In this case, the first valid solution shall be taken as the result of matching.
- b) Force majeure
 - b.1 If the force majeure situation were foreseeable, the market operator would suspend the corresponding intra-day market session. From that moment on, and until the convening of the next intra-day market session, the system operator would resolve the situation by applying the system operation procedures to the hourly periods of the intra-day market session that has been suspended, until the beginning of the horizon corresponding to the next intra-day market session.
 - b.2 If, once the intra-day market session had begun, serious malfunctions were to occur in the market operator's computer or communications equipment which impeded their normal operation, the market operator would have the option of suspending the session and transmitting the available information to the system operator so that the

latter could solve the problem in accordance with the applicable system operation procedures.

- c) Impossibility of determining matching as a result of the technical and financial conditions of complex bids.

When, as the result of the technical and financial conditions of complex bids, there is no possibility of finding a solution, the market operator shall bring the session to an end without assigning any volume of power to any of the sale or purchase bids submitted.

20.3 UNAVAILABILITY OF THE DAILY VIABLE SCHEDULE

If the system operator fails to publish the definitive daily viable schedule, the market operator shall be allowed to make the decision to suspend the intra-day market session, modify the session scheduling horizon or perform the matching of the complete scheduling horizon corresponding to the said session, but shall treat the result, for all intents and purposes, as invalid for one or more of the hours of the horizon due to force majeure.

CHAPTER FOUR

SETTLEMENTS

RULE 21 SETTLEMENT PROCEDURE

21.1 GENERAL SETTLEMENT CHARACTERISTICS

21.1.1 ELEMENTS OF FINAL PRICE DETERMINATION

The following are operations performed to determine the final price of electric power:

- a) The establishment of schedules of electric power assigned to the sellers and buyers indicated below:
 - Result of daily market matching (PBC).
 - Base daily operating schedule (PBF).
 - Provisional daily viable schedule resulting from the application of the technical constraint solution procedure (PVP).
 - Definitive daily viable schedule resulting from the application of the ancillary services assignment procedure (PVD).
 - Result of intra-day market matching.
 - Final hourly schedule, which is the result of the aggregation of all the firm transactions made for each scheduling period as the result of the daily viable schedule and the intra-day market matching, which includes the solution of technical constraints.
 - Schedules which are the result of the application of deviation management mechanisms and the delivery of ancillary services.
- b) The determination of the prices or monetary valuations of the electric power assigned to the sellers and buyers in the daily and intra-day markets, or as a result of the application of deviation management mechanisms and, when applicable, as the consequence of the application of the procedures for solving restrictions as well as ancillary service market procedures, and, finally, the final price of power, in accordance with article 23 of Royal Decree 2019/1997.
- c) The measurement of electric power in each connecting point, according to the stipulations of Royal Decree 2018/1997, of 26 December, entitled "Measuring Points."
- d) The measurement of the response of each of the market participants to the system operator's requirements as the result of the secondary regulation ancillary service obtained in the system in real time.
- e) The information regarding real unavailability of production units for purposes of compensation under power guarantee.
- f) The calculation by the system operator of the marginal loss coefficients per busbar.

21.1.2 DETERMINATION OF THE COMPENSATION CORRESPONDING TO SELLERS AS THE RESULT OF SETTLEMENT

The sellers who operate in the electric power market shall receive, for the power that is not included in a physical bilateral contract, for each production unit and for each hourly scheduling period, a compensation or final price which shall include, as appropriate, the following elements:

- a) The daily market marginal price in each hourly scheduling period.
- b) The compensation for required ancillary services in the hourly scheduling period in question.
- c) The intra-day market marginal price in each hourly scheduling period.
- d) The cost of alterations in the normal operating conditions of the bidding system.
- e) The compensation for the power guarantee effectively given to the system in the hourly scheduling period in question.

The market operator shall effect the settlement of the final price of electric power for each seller who participates in the electric power production market for each production unit which has been matched and dispatched in each hourly scheduling period.

Likewise, the market operator shall make a daily settlement for each vendor by aggregation of the settlements corresponding to the same daily scheduling horizon.

In order to perform the settlements mentioned above, the market operator shall make the corresponding account entries in the record it shall maintain for this purpose for each production unit and, as applicable, for each secondary regulation area.

Until the corresponding measurement has been effected according to the provisions of Royal Decree on Measuring Points, the settlement shall be considered provisional, unless the market participant has requested definitive settlement under the terms established in Rule 21.14.

21.1.3 PRICES AND COSTS TO CONSIDER WHEN DETERMINING THE PURCHASE PRICE OF ELECTRIC POWER

Buyers who operate in the electric power production market shall pay, for the electric power they have actually consumed which is not the subject of a physical bilateral contract, a final price which may include the following elements:

- a) The price obtained from matching the purchase and sale bids in the daily market, the price of deviations derived from the technical constraints included in the daily viable schedule, and the price obtained from intra-day market matching.
- b) The price obtained from matching the bids in the ancillary services market.
- c) Whatever corrections may be appropriate as the consequence of deviations or alterations of the final hourly schedule.
- d) For purposes of the costs derived from losses in the grid, the provisions of Royal Decree 2016/1997, of 26 December, which sets the electric tariff for 1998.
- e) The cost of the power guarantee.

The market operator shall keep a record in which it shall enter all the purchases of electric power made by each of the buyers who operate in the electric power production market in each settlement period, and the amounts they are obligated to pay for their purchases.

The market operator shall calculate the final electric power price which, in compliance with article 23 of Royal Decree 2019/1997, which each buyer must pay by aggregating the prices corresponding to the electric power purchases made. The result of this aggregation shall be the subject of final settlement for each buyer. This settlement shall remain provisional until the corresponding measurement has been effected, according to the terms of Royal Decree 2018/1997 on Measuring Points, unless the market participant requests final settlement under the conditions established in Rule 21.14.

The criteria regarding signs applied in the formulas of this rule are the following:

- Power sales shall have a positive sign.
- Purchases shall have a negative sign.
- Rights to collect have a positive sign.
- Obligations to pay have a negative sign.

21.1.4 SETTLEMENT OF BILATERAL CONTRACTS

Bilateral contracts shall be settled according to the following criteria:

1. Bilateral contract between a market participant and a non-participant

When one of the contracting parties entering into bilateral contracts is not a market participant, the market operator shall effect a settlement that corresponds to the associated instrumental unit, and shall invoice the result of the said settlement to the contracting party that is a market participant.

In this case, the settlement shall be made for each party in the same way that any market transaction is done, with no specificity, but all the items shall be charged to the contracting party that is a market participant.

If several bilateral contracts have been concluded with the instrumental unit for the same hour, each contracting market participant shall be invoiced for the costs associated with the contract that correspond to the cited instrumental unit. For the purpose of this calculation, the costs associated with the instrumental unit shall be proportionally distributed among the bilateral contracts; once the unit measurement has been obtained, this proportional criterion shall likewise be applied.

Alternatively, when the regulations so dictate, the party that is not a market participant shall have the option of notifying the breakdown of its measurement to the market operator, which shall carry out the settlement in accordance with this notification, respecting, in any case, whatever limits on the contracts that may have been notified. However, if the measurement were to exceed the limit of the entire set of contracts, the excess shall be distributed proportionally among the contracts.

The market participant shall pay all the quotas and taxes that are incumbent on it with respect to the total payments.

2. Bilateral contract between two market participants

In the contract declaration that is dealt with in rule 10.2.1, the participant shall have indicated which of the two methods of settlement described below is to be applied to the contract cited.

- 2.1 If each of the contracting parties is responsible for the associated costs incumbent on it under the physical bilateral contract, for its production units or purchasing units, the settlement shall be effected for the said purchasing or production units, also taking into consideration the costs associated with the bilateral contract, all its participations in markets or processes that are subsequent to the provisional viable schedule and of whatever deviations may affect it.

Therefore, the settlement shall be made as if it were a matter of any transaction carried out by two participants in the market. Each participant shall be invoiced for its total settlement.

Each market participant shall pay all the quotas and taxes that are incumbent on it with respect to its total payments.

- 2.2 If only one of the contracting parties is responsible for the costs associated with the physical bilateral contract, and by the relevant production and purchasing units, the settlement shall be effected for the said purchasing or production units, also taking into consideration the costs associated with the bilateral contract, all its participations in markets or processes subsequent to the provisional viable schedule.

The settlement shall be made without any particularity with respect to the ordinary settlement, but shall be invoiced in its entirety to only one of the participants.

The said participant shall pay all the quotas and taxes incumbent on it with respect to the total payments.

If several bilateral contracts have been executed for the same hour with a production or purchasing unit, each contracting participant's settlement shall include the costs associated with the said production or purchasing unit. For the purpose of this calculation, the costs associated with the cited production or purchasing units shall be distributed proportionally among the bilateral contracts; once the unit measurement has been obtained, this proportional criterion shall likewise be applied.

Alternatively, when the regulations so dictate, the market participants shall have the option of notifying the breakdown of their measurements to the market operator, which shall carry out the settlement in accordance with this notification, respecting, in any case, whatever limits that may have been notified regarding the contracts. However, if the measurement were to exceed the limit of the entire set of contracts, the excess shall be distributed proportionally among the contracts.

21.2 DAILY MARKET

In compliance with the general standards on confidentiality established in these rules, the market operator shall place at the market participants' disposal the information on collection rights and payment obligations derived from the daily market, for the daily scheduling horizon, corresponding to each trading session:

21.2.1 COLLECTION RIGHTS

The seller whose sale bids have been matched in the daily market trading session shall have a collection right which shall be calculated as the product of the electric power whose production is assigned in each hourly scheduling period to the production unit owned or controlled by the seller, multiplied by the marginal price of that power.

The seller's collection right shall be:

$$DCPBC(up, h) = EPBC(up, h) * PMH(h)$$

Where:

DCPBC (up, h): Seller's collection right for the power corresponding to production unit up in hour h.

EPBC (up, h): Power assigned to production unit up in hour h in the daily market (PBC).

PMH (h): Hourly marginal price corresponding to hour h in the daily market (PBC).

21.2.2 PAYMENT OBLIGATIONS

The buyer whose purchase bids were matched in the daily market trading session shall have a payment obligation which shall be calculated as the product of the electric power whose purchase is assigned in each hourly scheduling period to the purchasing unit it owns or controls, multiplied by the marginal price set for the power acquired.

The buyer's payment obligation for each purchase bid in hour h shall be:

$$OPPBC(ua, h) = EPBC(ua, h) * PMH(h)$$

Where:

OPPBC (ua, h): Buyer's obligation to pay for the power corresponding to purchasing unit ua in hour h.

EPBC (ua, h): Power assigned to purchase bid unit ua in hour h in the daily market (PBC).

21.2.3 PROVISIONALITY

These computations shall remain provisional until the results of the measurement which the system operator transmits to the market operator are included, and shall be calculated without affecting the rest of the components of the final power price.

21.3 PROCEDURE FOR SOLVING TECHNICAL CONSTRAINTS

The technical constraints that could affect the execution of the base daily operating schedule shall be solved by the system operator, with the market operator's agreement, in compliance with the procedure set out in Rule 11, established by both in compliance with the provisions of article 12 of Royal Decree 2019/1997, of 26 December, according to which the electric power production market is organized and regulated.

21.3.1 PRODUCTION UNITS THAT INCREASE THEIR PRODUCTION IN THE PVP, WITH RESPECT TO PBF, IN ORDER TO SOLVE TECHNICAL CONSTRAINTS

The market operator shall determine the compensation to be given to those production unit owners who increase their production in order to obviate technical constraints.

21.3.1.1 CALCULATION OF THE BID PRICE FOR TECHNICAL CONSTRAINTS

Based on the valid bids received in the daily market, the market operator shall calculate the price to be paid in compensation for the power volumes corresponding to production units who have solved technical constraints.

For the calculations set out below, the following are defined:

EBC (up,b,h): Power corresponding to the simple bid made by production unit up, in block b, in hour h in the daily market.

EPBC (up, h): Power assigned to production unit up in hour h in the daily market, which makes the following true:

$$EPBC(up, h) = \sum_{b=1}^{b_1(h)} EBC(up, b, h)$$

Where:

$b_1(h)$: Number of blocks assigned in the PBC to production unit up in hour h.

EBC(up, $b_1(h)$,h): Power in block $b_1(h)$ assigned in the PBC to production unit up in hour h.

EBIL(up,h): Power assigned to production unit up in hour h for execution of physical bilateral contracts.

EPBF(up,h): Power assigned in the daily base operating program to production unit up in hour h, making the following true:

EPVP(up,h): Power assigned in the provisional daily operating schedule to production unit up in hour h, making the following true:

$$EPVP(up, h) = \sum_{b=1}^{b_2(h)} EBC(up, b, h) + EBIL(up, h)$$

Where:

$b_2(h)$: Number of blocks assigned in the PVP to production unit up in hour h, after excluding the power governed by physical bilateral contracts.

EBC(up, $b_2(h)$,h): Power in block $b_2(h)$ assigned in the PVP to production unit up in hour h, excluding physical bilateral contracts.

TS(up,b,h): Price of the bid considered as simple, submitted to the daily market by production unit up in block b in hour h.

TF(up):	Fixed term of the minimum income condition of the complex bid of production unit up, submitted to the daily market.
TV(up):	Variable term of the minimum income condition of the complex bid of production unit up, submitted to the daily market.
NPVP(up):	Number of start-ups made during the day by production unit up planned in the solution of technical constraints.

It is considered that, in an hour h, a start-up arises due to the solution of technical constraints in the PBF if all the following conditions are met:

Condition 1:	EPBF(up,h)	= 0
Condition 2:	EPVP(up,h)	> 0
Condition 3:	EPVP(up,h-1)	= 0

The last hour of the previous day shall be considered to identify the possible start-up of the beginning of the day.

POS(up,h):	Average price, according to the unmatched simple bid, of the power raised in order to solve technical constraints of production unit up in hour h.
POC(up,h):	Hourly average price of the power raised for the solution of technical constraints, with the inclusion of the complex bid minimum income condition from production unit up in hour h.
IOS (up):	Daily amount of the power raised for the solution of technical constraints according to unmatched simple hourly bids submitted by production unit up.
IOC(up):	Daily amount, according the minimum income condition of the complex bid, of the power raised by production unit up in order to solve technical constraints.
POMD(up,h):	Applicable hourly average price of the power raised by production unit up to solve technical constraints in hour h.

For the subsequent determination of collection rights, the market operator shall calculate the following prices and amounts:

21.3.1.1.a CALCULATION OF THE PRICE ACCORDING TO THE UNMATCHED SIMPLE BID

$$POS(up, h) = \frac{\sum_{b=b_1(h)}^{b_2(h)} EBC(up, b, h) * TS(up, b, h)}{\sum_{b=b_1(h)}^{b_2(h)} EBC(up, b, h)}$$

Where:

$EBC(up, b_1(h), h)$: Power in block $b_1(h)$ which is not assigned in the PBC to production unit up in hour h ; if block $b_1(h)$ were entirely assigned in the PBC, this variable would take the value of 0.

The daily amount for application of the simple bid is calculated as follows:

$$IOS(up) = \sum_h \sum_{b=b_1(h)}^{b_2(h)} EBC(up, b, h) * TS(up, b, h)$$

21.3.1.1.b CALCULATION OF THE PRICE ACCORDING TO THE MINIMUM INCOME CONDITION OF THE COMPLEX BID

The daily amount for the minimum income condition of the complex bid is calculated as:

$$IOC(up) = NPVP(up) * TF(up) + \sum_h [EPVP(up, h) - EPBF(up, h)] * TV(up)$$

The hourly average price for the minimum income condition of the complex bid is the same for all hours:

$$POC(up, h) = \frac{IOC(up)}{\sum_h [EPVP(up, h) - EPBF(up, h)]}$$

21.3.1.1.c CALCULATION OF THE APPLICABLE PRICE

If $IOC(up) > IOS(up)$, then each hour's applicable price is:

$$POMD(up, h) = POS(up, h)$$

If $IOS(up) > IOC(up)$, each hour's applicable price is:

$$POMD(up, h) = POS(up, h).$$

In those cases where $IOC(up) = IOS(up)$, an indeterminacy occurs which is solved by applying the same bid, simple or complex, which results from the application of section 21.3.2; however, if rule 21.3.2 is not applicable, the following shall be applied:

$$POMD(up, h) = POS(up, h)$$

In cases where a production unit starts operating or increases production in order to solve technical constraints of the PBF when there is no valid simple bid from the daily market, the price $POS(up, h)$ shall be calculated by multiplying the daily market's hourly marginal price by 1.15.

$$POMD(up, h) = 1.15 * PMH(h)$$

21.3.1.2 CALCULATION OF COLLECTION RIGHTS

The right to collect of the production unit owners who start operating or increase their production to obviate technical constraints shall be calculated as follows:

$$DCPVP(up, h) = [EPVP(up, h) - EPBF(up, h)] * POMD(up, h)$$

Where:

DCPVP (up,h): Collection right of production unit up in hour h, in the procedure for solving technical constraints.

21.3.2 PRODUCTION UNITS WHO FAIL TO COMPLY WITH THE INCREASE OF THEIR PRODUCTION IN ORDER TO OBVIATE TECHNICAL CONSTRAINTS, OR WHO DO NOT PERFORM THE PLANNED START-UPS FOR TECHNICAL CONSTRAINTS

This rule shall be applicable if one of the two conditions below is met:

- a) The production unit does not entirely adhere to the power schedule assigned to it for the solution of technical constraints. The market operator shall calculate the following account entries by using the formulas given below.

This condition is considered to be met if the following is true:

$$EMBC(up,h) < EPVP(up,h)$$

where:

EMBC(up,h): Real power measured in generating station busbars corresponding to production unit up in hour h.

- b) $IOC(up) \geq IOS(up)$ and production unit up has not actually performed the number of start-ups planned in the solution of technical constraints.

This condition is considered to be met if the following is true:

$$IOC(up) \geq IOS(up) \text{ and } NPVP'(up) < NPVP(up)$$

where:

NPVP'up: Number of start-ups performed during the day by production unit up, planned in the solution of technical constraints, and which were actually performed. The start-up planned in an hour h in order to solve technical constraints in the PBF shall really have been done if the condition of anticipation or persistence of the start-up, or if the condition of delay of the start-up.

- b₁) The condition of anticipation or persistence of start-up in hour h is met if the following conditions are met:

Condition a.1 $EMBC(up,h) > 0$

Condition a.2 $EMBC(up,h'_{prev}) \geq 0$ for an hour h'_{prev} , where h'_{prev} is an hour in the h_{prev} block of hours which is previous to and contiguous to the hour h start-up, where the block is made up of hours that are contiguous to each other, and each of those hours has $EVPV(up,h_{prev}) = 0$.

- b₂) The condition of delay of start-up in hour h is satisfied if the following conditions are met:

Condition b.1 $EMBC(up,h) \leq 0$

Condition b.2 $EMBC(up,h'_{subseq}) > 0$ for an hour h'_{subseq} , where h'_{subseq} is an hour in the h_{subseq} block of hours which is subsequent to and contiguous to the hour h start-up. The h_{subseq} block is composed of hours that are contiguous to each other, and all of those hours have $EVPV(up,h_{subseq}) > 0$ and $EPBF(up,h_{subseq}) = 0$.

In cases where no measurements are available, the non-compliance shall refer to the last schedule recorded for settlement purposes.

21.3.2.1 RECTIFICATION OF THE ACCOUNT ENTRY FOR SOLUTION OF TECHNICAL CONSTRAINTS

If the production unit fails to comply in some hour with the production increase assigned in the PVP, the account entry relative to the solution of restrictions shall be rectified in all hours if it was $IOC(up) \geq IOS(up)$; if it was $IOS(up) > IOC(up)$, the entry shall be rectified only in those hours in which the non-compliance occurred.

$$OPPVPREC(up,h) = - DCPVP(up,h)$$

Where:

OPPVPREC(up,h): Rectification of the entry in the account reflecting the collection right of production unit up in hour h, corresponding to the solution of technical constraints.

21.3.2.2 CALCULATION OF THE BID PRICE CORRESPONDING TO THE REAL POWER MEASURED AND RECOGNIZED FOR THE PURPOSE OF SOLVING TECHNICAL CONSTRAINTS

For the calculations given below, the following are defined:

ERVP (up,h): Power recognized as having been contributed by production unit up, in hour h, for the purpose of computing the unit's right to collect for technical constraints. This is calculated as follows:

- If $EMBC(up,h) \leq EPBF(up,h)$:

$$ERVP(up,h) = EPBF(up,h)$$

- If $EPBF(up,h) < EMBC(up,h) < EPVP(up,h)$:

$$ERVP(up,h) = EMBC(up,h)$$

- If $EMBC(up,h) \geq EPVP(up,h)$:

$$ERVP(up,h) = EPVP(up,h)$$

Thus satisfying:

$$ERVP(up,h) = \sum_{b=1}^{b_3(h)} EBC(up,b,h) + EBIL(up,h)$$

where:

- $b_3(h)$: Number of blocks corresponding to real measured power which has been recognized as having been contributed by production unit up in hour h, for the purpose of calculating the said unit's collection rights for technical constraints in the cited hour h, after excluding the power covered by physical bilateral contracts.
- $EBC(up, b_3(h), h)$: Power associated with block $b_3(h)$, recognized as having been contributed by production unit up in hour h, for the purpose of calculating the said unit's collection rights for technical constraints.
- $POS'(up, h)$: Average price, according to the unmatched simple bid, of $ERVP(up, h)$, from production unit up in hour h.
- $POC'(up, h)$: Average hourly price of $ERVP(up, h)$, taking into account the minimum income condition declared in the complex bid submitted by production unit up in hour h.
- $IOS'(up)$: Daily amount of $ERVP(up, h)$ for each hour, according to the simple unmatched hourly bids submitted by production unit up.
- $IOC'(up)$: Daily amount of $ERVP(up, h)$ for each hour, in accordance with the minimum income condition declared in the complex bid submitted by production unit up.
- $POMD'(up, h)$: Average daily price applicable to $ERVP(up, h)$, of the production unit up in hour h.

For the subsequent determination of collection rights, the market operator shall calculate the following prices and amounts:

21.3.2.2.a CALCULATION OF THE PRICE ACCORDING TO THE SIMPLE UNMATCHED BID

If, in the computations set out in section 21.3.1.1, the result was $IOS(up) \geq IOC(up)$, the following is calculated:

$$POS'(up, h) = \frac{\sum_{b=b_1(h)}^{b_2(h)} EBC(up, b, h) * TS(up, b, h)}{\sum_{b=b_1(h)}^{b_2(h)} EBC(up, b, h)}$$

and the price for each hour is:

$$POMD'(up, h) = POS'(up, h)$$

21.3.2.2.b CALCULATION OF THE PRICE ACCORDING TO THE MINIMUM INCOME CONDITION IN THE COMPLEX BID

If the computations set out in section 21.3.1.1 produced the result $IOC(up) \geq IOS(up)$, the following is calculated:

$$IOC'(up) = NPVP'(up) * TF(up) + \sum_h [ERVP(up, h) - EPBF(up, h)] * TV(up)$$

and the price is the same for all the hours, and is calculated as follows:

$$POMD'(up, h) = \frac{IOC'(up)}{\sum_h [ERVP(up, h) - EPBF(up, h)]}$$

21.3.2.2.c CALCULATION OF THE PRICE TO APPLY WHEN $IOC(UP) = IOS(UP)$

If $IOS'(up) > IOC'(up)$, $POMD'(up, h)$ is calculated according to the formula given in 21.3.2.2.a.

If $IOC'(up) > IOS'(up)$, $POMD'(up, h)$ is calculated according to the formula in 21.3.2.2.b.

$IOS'(up) = IOC'(up)$, $POMD'(up, h)$ is calculated according to the formula given in 21.3.2.2.a.

21.3.2.2.d CALCULATION OF THE PRICE TO BE APPLIED WHEN THERE IS NO VALID BID IN THE DAILY MARKET

In those cases in which the production unit goes into operation or increases production in order to obviate technical constraints affecting the PBF, and there is no applicable bid in the daily market, the $POMD'(up, h)$ price shall be calculated by multiplying the daily market hourly marginal price by 1.15.

$$POMD'(up, h) = 1.15 * PMH(h)$$

21.3.2.3 COLLECTION RIGHTS FOR REAL POWER PRODUCED AND RECOGNIZED FOR TECHNICAL CONSTRAINTS

In all the hours in which the account entry for technical constraints has been rectified as stipulated in 21.3.2.1, and it is $ERVP(up, h) > EPBF(up, h)$, the following collection right shall be entered:

$$DCPVPMED(up, h) = [ERVP(up, h) - EPBF(up, h)] * POMD'(up, h)$$

21.3.2.4 COLLECTION RIGHTS BASED ON ASSESSMENT OF PRODUCTION DECREASE AT THE MARGINAL PRICE

In order to take into account the financial effects of the general procedure for calculating the deviations generated between the final hourly schedule and the following ones, as well as between the latter and the measurement, the market operator shall assess, at the hourly marginal price furnished by the daily market, the power not produced for the solution of technical constraints according to the following formula:

$$DCVPRED(up, h) = [EPVP(up, h) - ERVP(up, h) - RBAJ(up, h)] * PMH(h)$$

Where:

DCVPRED(up,h) > 0 and

RBAJ(up,h): Absolute value of matched power volumes to lower in the intra-day market sessions, and of the power in redispatches to lower in the hourly operating schedule (PHO), except for the deviations notified.

21.3.3 PRODUCTION UNITS THAT INCREASE THEIR PRODUCTION IN THE PVP WITH RESPECT TO THE PBF, IN ORDER TO CANCEL IMBALANCES GENERATED BY THE SOLUTION OF TECHNICAL CONSTRAINTS

The same collection rights set out in section 21.3.1 are applicable, by calculating the power price POMD(up,h) based only on the simple bid, according to the method described in 21.3.1.1.a or, failing that, by multiplying the hourly marginal price by 1.15.

21.3.4 PRODUCTION UNITS THAT DO NOT COMPLY WITH THE INCREASE IN THEIR PRODUCTION, IN THE PVP WITH RESPECT TO THE PBF, TO CANCEL THE IMBALANCES GENERATED BY THE SOLUTION OF TECHNICAL CONSTRAINTS

The same collection rights set out in section 21.3.1 are applicable, by calculating the POMD'(up,h) power price based only on the simple bid, according to the method described in 21.3.2.2.a or, failing that, by multiplying the hourly marginal price by 1.15.

21.3.5 PRODUCTION AND PURCHASING UNITS WHICH WITHDRAW FROM THE PBF TO SOLVE TECHNICAL CONSTRAINTS

The market operator shall rectify the provisional account entry reflecting the power pertaining to each production unit up which was withdrawn from matching in order to obviate technical constraints, according to the following formulas:

$$RPBC(up, h) = [EPVP(up, h) - EPBF(up, h)] * \frac{EPBC(up, h)}{EPBF(up, h)}$$

$$OPPVPBC(up, h) = RPBC(up, h) * PMH(h)$$

Where:

RPBC(up,h): Power withdrawn in the PVP with respect to the PBF of production unit up, in hour h, from that part of the power volume that was assigned in PBC.

OPPVPBC(up,h): Rectification of the account entry recording the withdrawal from matching in the PVP of power pertaining to production unit up, in hour h.

The market operator shall rectify the provisional account entry corresponding to the power pertaining to each purchasing unit ua which was withdrawn from matching, according to the following formulas:

$$RPBC(ua, h) = [EPVP(ua, h) - EPBF(ua, h)] * \frac{EPBC(ua, h)}{EPBF(ua, h)}$$

$$DCPVPBC(ua,h) = RPBC(ua,h)*PMH(h)$$

Where:

RPBC (ua,h): Power withdrawn in the PVP with respect to the PBF of purchasing unit ua in hour h, from the part of the power volume assigned in PBC.

DCPVPBC (ua,h): Rectification of the account entry reflecting the withdrawal from matching in the PVP of power pertaining to purchasing unit ua in hour h.

21.3.6 PRODUCTION UNITS WHICH WITHDRAW FROM THE PBF TO CANCEL IMBALANCES INTRODUCED BY THE SOLUTION OF TECHNICAL CONSTRAINTS IN THE PBF

The market operator shall rectify the provisional account entry corresponding to the sale bid that was withdrawn from the base operating schedule in order to cancel imbalances introduced by the solution of technical constraints by applying the same formula as in section 21.3.5.

21.3.7 SALES AND PURCHASES OF POWER UNDER PHYSICAL BILATERAL CONTRACTS WHICH ARE MADE IN THE MARKET DUE TO THE WITHDRAWAL OF POWER FROM PHYSICAL BILATERAL CONTRACTS IN THE PBF

The withdrawal of power assigned for sale or purchase in bilateral contracts to solve technical constraints, or to cancel imbalances introduced by the solution of technical constraints, produces an imbalance in the bilateral contract which is obviated by buying or selling the deficit or surplus power in the market at the hourly marginal price.

For the computations that are developed below [and for non-instrumental units except those units cited in the first two paragraphs of point 7, Rule 10](#), the following are defined:

up: Production unit with a bilateral contract with purchasing unit ua.

ua: Purchasing unit with a bilateral contract with production unit up; [the purchasing unit may be a qualified customer](#).

RCBIL (up,h): Power withdrawn in the PVP with respect to the PBF from production unit up, in hour h, from the part of the power volume assigned by bilateral contracts.

RCBIL (ua,h): Power withdrawn in the PVP with respect to the PBF from purchasing unit ua, in hour h, from the part of the power volume assigned by bilateral contracts.

RMBIL (ua,h): Power bought in the market by purchasing unit ua, in hour h, from the part of the power volume assigned by bilateral contracts.

RMBIL (up,h): Power sold in the market by production unit up, in hour h, from the part of the power volume assigned by bilateral contracts.

21.3.7.1 PURCHASES IN THE MARKET

The market operator shall enter a payment obligation in the account of purchasing unit ua for the volume of power assigned in physical bilateral contracts which was purchased in the market because power was withdrawn from the selling production unit up, in accordance with the following formulas:

$$RCBIL(up, h) = [EPVP(up, h) - EPBF(up, h)] * \left(1 - \frac{EPBC(up, h)}{EPBF(up, h)}\right)$$

$$RCBIL(ua, h) = [EPVP(ua, h) - EPBF(ua, h)] * \left(1 - \frac{EPBC(ua, h)}{EPBF(ua, h)}\right)$$

$$RMBIL(ua, h) = RCBIL(up, h) + RCBIL(ua, h)$$

If $RMBIL(ua, h) < 0$:

$$OPPVPBI(ua, h) = RMBIL(ua, h) * PMH(h)$$

Where:

OPPVPBI (ua, h): Obligation to pay for the power purchased in the market, in hour h, from the part of the power volume assigned by physical bilateral contracts.

In cases where there are several purchasing physical bilateral contracts for the same production unit up, this payment obligation shall be distributed in proportion to the power assigned in each contract to each buyer.

21.3.7.2 SALES IN THE MARKET

The market operator shall enter a collection right in the account of production unit up for the volume of power assigned in physical bilateral contracts which was sold in the market because power was withdrawn from the buying purchasing unit ua, in accordance with the following formulas:

$$RMBIL(up, h) = RCBIL(up, h) + RCBIL(ua, h)$$

If $RMBIL(up, h) > 0$:

$$DCPVPBI(up, h) = RMBIL(up, h) * PMH(h)$$

Where:

DCPVPBI(up, h): Collection right for the power that was not withdrawn from the selling party of the physical bilateral contracts of production unit up in hour h.

If there are several purchasing physical bilateral contracts with the same purchasing unit ua, this collection right shall be split in proportion to the power assigned in each contract to each seller.

21.3.8 PAYMENT OBLIGATIONS INCUMBENT ON PURCHASING UNITS AND PURCHASING HOLDERS OF PHYSICAL BILATERAL CONTRACTS FOR THE OVERAGE DERIVED FROM THE SOLUTION OF TECHNICAL CONSTRAINTS IN THE PBF

Owners of purchasing units (except pumping consumption units) and holders of physical bilateral contracts designated for this purpose, shall be obligated to pay the proportional part of the

overage derived from the solution of technical constraints, and from the canceling of imbalances, in proportion to the electric power assigned in the base operating schedule. Resellers who buy power by virtue of the bilateral contracts referred to in article 21 of Royal Decree-law 6/2000 shall pay overages for the power incorporated in the base operating schedule through non-instrumental units.

The overage SCVPV(h) shall be calculated by means of the following formula:

$$SCPVP(h) = \sum_{up} (DCPVP(hp, h) + OPPVPBC(up, h) + DCPVPBI(up, h)) + \sum_{up} (OPPVPREC(up, h) + DCPVPMED(up, h) + DCPVPRED(up, h)) + \sum_{ua} (OPPVPBI(ua, h) + DCPVPBC(ua, h))$$

If SCPVP(h) > 0, a payment obligation shall be recorded; this obligation shall be calculated with the following formula:

$$OPPVPSC(uaeb, h) = \frac{-EPBF(uaeb, h)}{\sum_{uaeb} EPBF(uaeb, h)} * SCPVP(h)$$

Where:

- uaeb: Purchasing unit, except for pumping units
- OPPVPSC(uaeb, h): Payment obligation incumbent on the purchasing unit or purchasing party in physical bilateral contract uaeb, in hour h, for the overage derived from solving technical constraints.
- EPBF(uaeb, h): Power assigned to purchasing unit uaeb, or to the purchasing party in physical bilateral contract uaeb, in hour h, in the PBF.

If SCPVP(h) < 0, the collection right shall be entered, and shall be calculated by using the following formula:

$$DCPVPSC(uaeb, h) = \frac{-EPBF(uaeb, h)}{\sum_{uaeb} EPBF(uaeb, h)} * SCPVP(h)$$

Where:

- DCPVPSC(uaeb, h): Collection right owing to purchasing unit or physical bilateral contract purchasing party uaeb, in hour h, for the undercost of solving technical constraints.

The previous payment obligation or collection right corresponding to the buying party of a physical bilateral contract shall be settled in favor of the selling party of the physical bilateral contract in cases of physical bilateral contracts in which the buyer is not a market participant. Otherwise, it shall be settled in favor of the contracting party who declares its assumption of the cited costs.

21.3.9 INCOME FROM BIDDING TO SOLVE TECHNICAL CONSTRAINTS IN INTERNATIONAL TIE-LINES

In compliance with the provisions of article 9.2.b of the Order of 14 July 1998, which establishes the legal system applicable to external agents for the execution of power exchanges with European Union and other foreign countries, the income obtained by the system operator as a result of the auction for the solution of technical constraints in international tie-lines, shall be treated as income of the organized production market received in the corresponding session.

The system operator shall report the income obtained in each hour of the auction to the market operator, generating a payment obligation for the system operator:

$$OPPVPSUB (os,d) = ISUB (d)$$

Where:

OPPVPSUB (os,d): Payment obligation incumbent on system operator os, for the amount of the auction income in the session of day d.

ISUB (d): Amount of the income obtained in the day d session by the system operator as a result of the auction for the solution of technical constraints in the international tie-lines.

The income obtained shall be distributed among the purchasing units, except for pumping units, in proportion to the power purchased in the daily market session on day d, according to the following formula:

$$DCPVPSUB(uaeb,d) = ISUB(d) * \frac{EPBC(uaeb,d)}{\sum_{uaeb} EPBC(uaeb,d)}$$

where:

DCPVPSUB(uaeb,d): Collection right owing to purchasing unit uaeb for the distribution of the income from the auction held in the session on day d.

21.4 SECONDARY REGULATION ANCILLARY SERVICES MARKET

The market operator shall calculate the collection rights and payment obligations, respectively, of the sellers and buyers in the secondary regulation ancillary services market according to the applicable provisions of the System Operation Standards and Procedures in effect. The said collection rights and payment obligations shall be those detailed below.

The market operator shall reference the calculations by regulation area to the composition of the areas reported to it by the system operator, in accordance with the latter's operating procedures and standards.

21.4.1 REGULATING BAND IN SECONDARY REGULATION

a) Collection rights

Production unit owners who have submitted bids for a regulating band in secondary regulation shall have a collection right which shall be equal to the regulating band assigned for the marginal price resulting from the ancillary services market matching process referred to in the System Operation Standards and Procedures cited previously.

$$DCCFB(i,h) = P_{mB}(h) * B(i,h)$$

$$CFB(h) = \sum_i DCCFB(i,h)$$

where:

- $P_{mB}(h)$: Marginal price of the secondary regulation regulating band in hour h.
- $B(i,h)$: Band of regulation area i assigned in the secondary regulation market in hour h.
- $DCCFB(i,h)$: Collection right pertaining to regulation area i in hour h due to its regulating band in secondary regulation.
- $CFB(h)$: Cost corresponding to the regulating band in system secondary regulation.

b) Payment obligations

The payment obligations derived from the above-cited secondary regulation band costs shall correspond, in proportion to the electric power in the final hourly schedule, to the distributors, resellers, qualified consumers and production unit owners who are not part of a regulation area, including holders of physical bilateral contracts, as defined in the system operator's relevant technical procedure.

The payment obligations indicated above shall be calculated according to the following formula:

$$OPBS(i,h,j) = -k(i,h,j) * CFB(h)$$

where:

$OPBS(i,h,j)$: Payment obligation in hour h due to the secondary regulation band incumbent upon:

- | | |
|--|--------|
| Distributor i | if j=1 |
| Reseller i's non-instrumental purchasing unit | if j=2 |
| Qualified customer i | if j=3 |
| Non-instrumental production unit i outside the regulation zone | if j=4 |
| Physical bilateral contract | if j=5 |

- | | | |
|-------------|-------------------|--------|
| $k(i,h,j)=$ | $K(h) * DD(i,h)$ | if j=1 |
| | $K(h) * DC(n,h)$ | if j=2 |
| | $K(h) * DCC(k,h)$ | if j=3 |
| | $K(h) * GTZ(l,h)$ | if j=4 |
| | $K(h) * DBL(m,h)$ | if j=5 |

where:

$$K(h) = \frac{1}{\sum_i DD(i,h) + \sum_n DC(n,h) + \sum_K DCC(k,h) + \sum_l GFZ(l,h) + \sum_m DBL(m,h)}$$

and

- DD(i,h): Demand produced by distributor i in hour h
- DC(n,h): Reseller n's non-instrumental unit via international tie-line, in hour h in the external consumption market, and purchases made by reseller n in hour h in the national consumption market.
- DCC(k,h): Demand produced by qualified customer k in hour h
- GFZ(l,h): Sales transacted by non-instrumental production unit l outside the zone in hour h.
- DBL(m,h): Demand produced by physical bilateral contract m in hour h

21.4.2 COST VARIATION DUE TO THE OPERATION OF SECONDARY REGULATION IN REAL TIME

The system operator shall place at the market operator's disposal, in the latter's computer system, the following operations information in real time, once its accuracy has been verified:

- KA(i,h): Coefficient of participation of regulation area i in the system reserve in hour h
- RNTS(h): Total nominal system reserve to raise in hour h
- RNTB(h): Total nominal system reserve to lower in hour h
- TOFF(i,h): Regulation area i OFF cycles in hour h, except those cycles which are OFF by indication of the system operator.

In the cycles in which the regulation area is in the ACTIVE, INACTIVE or EMERGENCY state, the system operator shall calculate the following parameters, which it shall then place at the market operator's disposal:

- RRSP(i,h): Accumulated value of the positive difference between the residual reserve to raise set by regulation area i and its rated power to raise assigned in hour h.
- RRBP(i,h): Accumulated value of the positive difference between the residual reserve to lower set by regulation area i and its rated power to lower assigned in hour h.
- RRSN(i,h): Accumulated value of the negative difference between the residual reserve to raise set by regulation area i and its rated power to raise assigned in hour h.
- RRBN(i,h): Accumulated value of the negative difference between the residual reserve to lower set by regulation area i and its rated power to lower assigned in hour h.

The market operator shall make an hourly computation of the penalty corresponding to regulation area i to compensate for the cycles during which the area in question is in the OFF state, by applying the following formula:

$$CFO(i,h) = -KN * [KA(i,h) * RNTS(i,h) * KA(i,h) * RNTB(i,h)] * TOFF(i,h)$$

where:

- CFO(i,h): Penalty applied to area i for being in the OFF state in hour h

KN: Penalty coefficient KN = 1.5

The market operator shall make an hourly calculation of the variation experienced by the cost of secondary regulation actually delivered by utilizing the following set of formulas:

- The discount for a residual reserve greater than the assigned reserve shall be:

$$CFRR(i,h) = KP * [RRSP(i,h) + RRBP(i,h)]$$

where:

CFRR(i,h): Cost for residual reserve exceeding the assigned reserve

KP: Discount factor = 1.5

- The penalty for a residual reserve below the assigned reserve shall be:

$$CFI(i,h) = KN * [RRSN(i,h) + RRBN(i,h)]$$

where:

CFI(i,h): Cost for residual reserve below the assigned reserve. It has a negative value because the terms RRSN(i,h) and RRBN(i,h) are negative.

In each hour, and for each regulation area, the market operator shall calculate and publish the cost variation as a result of real-time operation. For area i, this shall be:

$$VCF(i,h) = P_{mB}(h) * \left[\frac{CFO(i,h) + CFRR(i,h) + CFI(i,h)}{TRCP(h)} \right]$$

and for all the regulation:

$$VCF(h) = P_{mB}(h) * \left[\frac{\sum_i (CFO(i,h) + CFRR(i,h) + CFI(i,h))}{TRCP(h)} \right]$$

where:

TRCP(h): Number of active secondary regulation cycles in hour h.

For each regulation area, the market operator shall publish not only the comprehensive term VCF(i,h), but also each of the individual components that make it up, as reported by the system operator, in order to be able to monitor the residual reserve that each regulation area maintains.

21.4.2.1 SECONDARY REGULATION COST VARIATION DUE TO BAND INCREASE IN REAL TIME

- Collection rights

The regulation areas with $VCF(i,h) > 0$ shall have a collection right in each hour, which shall be equal to:

$$DCVCF(h) = \sum_{i_with_VCF(i,h)>0} VCF(i,h)$$

b) Payment obligations

Payment obligations shall correspond, in proportion to the electric power in the final hourly schedule, to the distributors, resellers, qualified consumers and production unit owners who are not part of the regulation area, in compensation for the ancillary services which are actually delivered, including holders of physical bilateral contracts, as defined in the system operator's technical procedure.

The payment obligations mentioned in the preceding paragraph shall be computed by applying the following formula:

$$OPDVCF(i,h,j) = -k(i,h,j) * DCVCF(h)$$

where:

OPDVCF(i,h,j): Payment obligation due to secondary regulation cost variation in real time, incumbent upon:

Distributor i	if j=1
Reseller i's non-instrumental purchasing unit	if j=2
Qualified customer i	if j=3
Non instrumental production unit i outside the regulation zone	if j=4
Physical bilateral contract	if j=5

21.4.2.2 SECONDARY COST REGULATION VARIATION DUE TO BAND REDUCTION IN REAL TIME

a) Payment obligations

The regulation areas with $VCF(i,h)<0$ shall have a payment obligation in each hour, which shall be equal to:

$$OPVCF(h) = \sum_{i_with_VCF(i,h)<0} VCF(i,h)$$

b) Collection rights

Collection rights shall correspond, in proportion to the electric power in the final hourly schedule, to the distributors, resellers, qualified consumers and production unit owners who are not part of the regulation area, in compensation for the ancillary services which are actually delivered to them, including holders of physical bilateral contracts, as defined in the system operator's technical procedure.

The collection rights shall be computed by applying the following formula:

$$DCDVCF(i,h,j) = -k(i,h,j) * OPVCF(h)$$

where:

DCDVCF(i,h,j): Collection right due to secondary regulation cost variation in real time, owing to:

Distributor i	if j=1
Reseller i's non-instrumental purchasing unit	if j=2
Qualified customer i	if j=3
Non instrumental production unit i outside the regulation zone	if j=4
Physical bilateral contract	if j=5

21.5 INTRA-DAY MARKET

The market operator shall place at the market participants' disposal the information on collection rights and payment obligations for the daily scheduling horizon corresponding to the intra-day market bidding sessions.

21.5.1 COLLECTION RIGHTS

The seller whose sale bids have been matched in the intra-day market trading sessions shall have a collection right which shall be calculated as the product of the electric power whose production is assigned in each hourly scheduling period to the production or purchasing unit owned or controlled by the seller, multiplied by the marginal price of that power set in the corresponding trading session.

The seller's collection right shall be:

$$DCI(u,h,s) = EPIBC(u,h,s) * PMHI(hs)$$

where:

DCI(u,h,s)	Seller's collection right in the intra-day market for the bid corresponding to production or purchase unit u for hour h in session 's.'
EPIBC(u,h,s)	Sale power assigned to production or purchasing unit u in hour h in intra-day market session 's' (PIBC).
PMHI(hs):	Hourly marginal price corresponding to hour h in intra-day market session 's.'

21.5.2 PAYMENT OBLIGATIONS

For each trading session, the buyer shall have a payment obligation corresponding to the product of the volume of electric power it required in the intra-day market, multiplied by the marginal price corresponding to each scheduling period. The buyer's obligation for each purchase bid in hour h shall be:

$$OPI(u,h,s) = ECPIBC(u,h,s) * PMHI(h,s)$$

Where:

OP OPI(u,h,s): Buyer's obligation to pay in the intra-day market emanating from the bid corresponding to purchasing or production unit u in hour h in session 's.'

ECPIBC(u,h,s): Purchased power corresponding to bidding purchase or production unit u for hour h in session 's.'

21.6 PROCEDURE FOR SOLVING TECHNICAL CONSTRAINTS IN THE INTRA-DAY MARKET

The technical constraints that could affect the execution of the result of intra-day market matching shall be solved according to the provisions of Rule 18.

If situations were to arise that affected the conditions of safety, quality and reliability of supply after the publication of the final hourly schedule, situations that could only be obviated by modifying transactions matched in the daily market or in some intra-day market session, they would be resolved by the system operator, who would apply system technical operation procedures.

21.6.1 RECTIFICATION OF THE ACCOUNT ENTRY REFLECTING WITHDRAWN PRODUCTION OR PURCHASING UNITS' SALE BIDS

The market operator shall rectify the provisional account entry reflecting a sale bid that was withdrawn, with respect to the previous matching, in order to solve technical constraints, by applying the following formula:

$$OPIPROP(u,h,s) = ERVPIBC(u,h,s) * PMHI(h,s)$$

where:

OPIPROP(u,h,s): Payment obligation emanating from the withdrawal from matching, with respect to PIBC session 's,' of the sale bid submitted by production or purchasing unit u in hour h.

ERVPIBC(u,h,s): Electric power withdrawn from the sale bid placed by production or purchasing unit u in hour h, with respect to PIBC session 's.'

21.6.2 RECTIFICATION OF THE ACCOUNT ENTRY REFLECTING WITHDRAWN PRODUCTION OR PURCHASING UNITS' PURCHASE BIDS

The market operator shall rectify the provisional account entry reflecting a purchase bid that was withdrawn, with respect to the previous matching, for the solution of technical constraints, by applying the following formula:

$$DCIPROP(u,h,s) = ERCPIBC(u,h,s) * PMH(h,s)$$

where:

DCIPROP(u,h,s): Collection right due to the withdrawal from matching, with respect to PIBC session 's,' of the purchase bid submitted by production or purchasing unit u in hour h.

ERCPIBC(u,h,s): Electric power withdrawn from the purchase bid placed by production or purchasing unit u in hour h, with respect to PIBC session 's.'

21.7 ASSESSMENT OF THE POWER VOLUMES CONTRIBUTED TO SOLVE DEVIATIONS BETWEEN THE FINAL HOURLY SCHEDULE AND MEASUREMENT

21.7.1 DEVIATION MANAGEMENT

The market operator shall settle the transactions made under the control of the deviation management mechanism in accordance with the System Operation Standards or Procedures in effect and with the information reported by the system operator.

This procedure shall be applicable to the deviations between generation and consumption which must be managed by different mechanisms from the utilization of ancillary regulation services.

All deviations foreseen and reported by a market participant shall be managed, and shall give rise to the rectification of its schedule with the consequences in settlement that shall be generally determined, as long as the system operator calls for deviation management. For all other deviations, there shall be no record of the affected participant's schedule for settlement purposes.

If, in accordance with the standards and procedures in effect, the system operator calls for bids to cover deviations, the owners of production or purchasing units, and the parties to bilateral contracts who have generated the deviations in question must assume the costs, derived from the deviation management procedure, of the power volumes that are added or withdrawn from the system as a result of the deviations, [except for instrumental units and including the purchasing units involved in physical bilateral contracts as described in section 7 of rule 10.](#)

Deviations may occur on both the generation and the demand sides of the system.

There are two types of deviations in the operating procedure for deviation management:

- 1) Deviations pertaining to production or purchasing units and reported by market participants. There are two sub-types:

DC⁺(u,h,s): Power contributed to the system as a deviation from the previous scheduling, in hour h, by production or purchasing unit u in session 's.'

DC⁻(u,h,s): Power withdrawn from the system as a deviation from the previous scheduling, in hour h, by production or purchasing unit u in session 's.'

- 2) Deviations estimated by the system operator in the course of its duties and in the application of the standards and procedures that regulate them. Again, there are two sub-types:

DOS⁺(h,s): Estimation of power added to the system as a deviation from the previous scheduling, in hour h, in addition to the power declared by the market participants.

DOS⁻(h,s): Estimation of power withdrawn from the system as a deviation from the previous scheduling, in hour h, in addition to the power declared by the market participants.

In each session 's,' deviation management produces a power-balanced schedule—that is, a schedule in which the sum of the power volumes applied to generation or consumption deviations is equal to the sum of production units' redispatches as a result of the procedure.

$$\sum_u DC^+(u, h, s) + \sum_u DC^-(u, h, s) + DOS^+(h, s) + DOS^-(h, s) =$$

$$\sum_u PRD^+(u, h, s) + \sum_u PRD^-(u, h, s)$$

where:

- PRD⁺(u,h,s): Power contributed to the system to resolve deviations corresponding to production unit u, in hour h and session 's.'
- PRD⁻(u,h,s): Power withdrawn from the system to resolve deviations corresponding to production unit u, in hour h and session 's.'

Valuation

The determination of the collection rights and payment obligations of production or purchasing units and holders of physical bilateral contracts as the result of the deviation management process cannot be done definitively until the data on the deviations caused by the market participants are known. The data on measured deviations must, therefore, be known.

Consequently, the following principles shall govern the valuation procedure:

- 1) All deviations of power from the production or purchasing units shall be assessed at the daily market marginal price. When the deviations are reported by market participants, collection rights and payment obligations shall be generated in compliance with the provisions of Rule 21.8.3.1.
- 2) Power volumes contributed by production units to resolve deviations are valued at their marginal sale price. Similarly, power that is withdrawn by production units to solve deviations is assessed at its marginal purchase price.
- 3) The difference between the compensation to production units which resolve deviations, according to the marginal sale or purchase price, and the assessment of those purchases or sales at the daily market marginal price, gives rise to an overage that is distributed among the market participants causing the deviation, both if it was previously reported and if it is a deviation that became known after making the pertinent measurement. This procedure obeys the stipulations of Rules 21.8.4 and 21.8.5.

21.7.1.1 DEVIATION MANAGEMENT SCHEDULE POWER ADDED TO THE SYSTEM TO RESOLVE DEVIATIONS

Collection rights for sale of power

Production unit owners who sell power to the system shall derive collection rights computed according to the following formula:

$$DCPRD(u, h) = \sum_s PRD^+(u, h, s) * PMRD(h, s)$$

- PMRD (h,s): Marginal sale price for the power increments contributed to the system corresponding to deviation management in the schedule made up in session 's' for hour h.

21.7.1.2 DEVIATION MANAGEMENT SCHEDULE POWER WITHDRAWN FROM THE SYSTEM TO RESOLVE DEVIATIONS

Payment obligations for repurchase of power

Production unit owners who reduce the power placed at the system's disposal as the result of applying the deviation management procedure shall derive payment obligations which shall be calculated according to the following formula:

$$OPPRD(u, h) = \sum_s PRD^-(u, h, s) * PRCRD(h, s)$$

where:

PRCRD (h,s): Marginal purchase price for the application of the deviation management procedure in the schedule made up in session 's' for hour h.

21.7.2 CONTRIBUTED SECONDARY REGULATION POWER TO RAISE

Collection rights for contributed power to raise

The production unit owners referred to in section 21.4.1 a) who are grouped in the same regulation area shall also have, if the system operator requires them to deliver the secondary regulation ancillary service in its variable part, the right to collect for the electric power that they actually supply. For this purpose, the system operator shall determine, in compliance with the provisions of the System Operation Standards and Procedures in force, the price of the substitute electric power to raise and decrease and the amount of electric power corresponding the cited variable term of the said secondary regulation ancillary service, and shall report them to the market operator.

The collection right of regulation area j in hour h for the contributed secondary regulation power to raise shall be calculated by applying the following formula:

$$DCZESCS (j, h) = ESCS (j, h) * PTSCS (h)$$

where:

ESCS (j,h): Secondary regulation power to raise contributed by regulation area j.

DCZESCS (j,h): Collection right owing to regulation area j in hour h for the secondary regulation power to raise this area has contributed.

PTSCS (h): Price of replacement power to raise in hour h.

21.7.3 CONTRIBUTED SECONDARY REGULATION POWER TO LOWER

Payment obligation for power contributed to lower

The obligation to pay, at the repurchase price, for the secondary regulation power contributed to lower shall be calculated by applying the following formula:

$$OPZESCB (j, h) = ESCB (j, h) * PTSCB (h)$$

where:

- ESCB (j,h): Secondary regulation power to lower contributed by regulation area j.
- OPZESCB (j,h): Obligation to pay for the secondary regulation power to lower contributed by regulation area j in hour h.
- PTSCB (h): Price of replacement power to lower in hour h.

21.7.4 TERTIARY REGULATION POWER TO RAISE

The settlement corresponding to the tertiary regulation ancillary services shall be the consequence of matching performed by the system operator in accordance with the applicable System Operation Standards and Procedures that are in force.

Collection rights for the power contributed to raise

The collection rights of sellers who submit bids in this market shall be calculated as the product of the marginal price of the tertiary regulation power to raise multiplied by the quantity of electric power assigned to raise, respectively, to each production unit.

The collection right for tertiary regulation power to raise assigned to production unit j shall be:

$$DCVETCS (j,h) = ETCS (j,h) * PTTCS (h)$$

where:

- ETCS (j,h): Tertiary regulation power to raise assigned to production unit j.
- DCVETCS (j,h): Collection right for the tertiary regulation power to raise contributed by production unit j in hour h.
- PTTCS (h): Price of the tertiary regulation power to raise in hour h, according to the System Operation Standards and Procedures in force, determined and reported by the system operator to the market operator.

In an hour h for a regulation area i, the balance in the hour is taken into account; therefore one of the terms ESCS(i) or ESCB(i) is equal to zero.

21.7.5 TERTIARY REGULATION POWER TO LOWER

Payment obligations for the power contributed to lower

The payment obligations for tertiary regulation power to lower contributed by production unit j shall be:

$$OPCETCB (j,h) = ETCB (j,h) * PTTCB (h)$$

where:

- ETCB (j,h): Tertiary regulation power to lower assigned to production unit j.
- OPCETCB (j,h): Payment obligation for the tertiary regulation power to lower assigned to production unit j in hour h.

PTTCB (h): Repurchase price of the tertiary regulation power to lower in hour h, according to the System Operation Standards and Procedures in force, determined and reported by the system operator to the market operator.

21.8 VALUATION OF DEVIATIONS BETWEEN THE FINAL HOURLY SCHEDULE AND MEASUREMENT

The market operator shall calculate the deviations for non-instrumental and instrumental units involved in physical bilateral contracts as stipulated in section 7 of rule 10 by regulation areas, by production units not included in regulation areas, by purchasing units and purchasing parties in bilateral contracts.

21.8.1 HOURLY SCHEDULE TO BE SETTLED

The hourly schedule to be settled, which shall be utilized to calculate the deviations for each scheduling period of the production units, purchasing units or physical bilateral contracts, shall be defined as the aggregate of the firm transactions made as the result of:

- The viable daily schedule.
- The intra-day market sessions.
- The deviation management sessions. Only the power volumes contributed to resolve deviations and those reported deviations that have been resolved by means of deviation management shall be considered.
- The tertiary regulation power requested.
- The mechanisms for the solution of alert or emergency solutions in real time.

21.8.2 PROCESS FOR DETERMINING MEASURED DEVIATIONS

The market operator shall determine the measured deviations on the basis of the following information supplied by the system operator after the data received from the market participants have been verified:

- a) Measurement corresponding to each market participant
 - a.1) For production units, the measurement shall be made in generating station busbars at each connecting point of the production units they own.
 - a.2) In the cases of purchasing units and qualified consumers who are parties to physical bilateral contracts, the measurement shall be made at each connecting point shared by the purchasing unit or consumer with other units, with transport or with international borders, increasing this quantity by the transport and distribution grid losses that correspond to them. Qualified consumers must also pay for the losses experienced in the distribution grid which correspond to them, in compliance with the stipulations of Royal Decree 2821/1998, of 23 December, which establishes the electric power tariff for 1999.

For qualified customers who purchase part of their power at tariff rates, the system operator shall give the total measurement of their consumption by connecting point.
 - a.3) For exchanges between market participants and other, duly authorized countries, or with external agents, the system operator shall provide the market operator with the power

scheduled in each of these exchanges; this information shall, for all intents and purposes, be considered as measurement data, and shall subsequently be raised by the corresponding losses.

- b) Volume of power production and purchase obtained from the application of deviation management mechanisms and from the provision of ancillary services after the final hourly schedule, broken down by production unit, purchasing unit and physical bilateral contract.

Those qualified customers who operate partially or completely in the market and the production units whose consumption / generation is the subject of different types of contracts between market participants, shall report to the market operator, either directly or through their market agents, whatever information may be required to determine the measure of power governed by each of these contracts.

In order to calculate the deviation, the market operator shall determine the difference between the volume of electric power obtained in the measurement, including the corresponding losses, when purchasing units are involved, and the hourly schedule to be settled.

To this end, the market operator shall aggregate the results of measurement and of the hourly schedule to be settled pertaining to those production units included in the same regulation area, in which case it shall discount the quantity of secondary regulation power that the regulation area in question actually contributed to the system from the resultant deviation.

The resellers' deviation shall be calculated in the following manner:

- Resellers, for each of their production units used to sell power emanating from contracts with European Union or non-Union undertakings, only bear deviation, as do the rest of the external units, if the measurement taken at the border associated with the reseller's set of purchasing contracts across the mentioned border is different from the power volume sold to the market and to their customers issuing from the cited contracts.
- Resellers, for the production units they use to sell power to the market issuing from contracts with special-regime installations, bear deviation if the measurement of these installations as a group differs from the sum of the power sold to the market and to their customers under the cited contracts.
- For all of their national customers taken as a whole, resellers shall bear deviation if the sum of the measurement of the said customers, to which corresponding losses must be applied, is different from the power purchased by their purchasing units for national consumption.
- Resellers, for all of their customers taken as a whole and for each international tie-line, shall only bear deviation, as the rest of the external units do, if the measurement taken at the border, to which the corresponding losses must be applied, differs from the power purchased by their purchasing units for external consumption.

However, resellers may request that deviations be determined separately for a set or sets of customers.

Until data enabling the evaluation of these deviations become available, it shall be provisionally assumed, for the purpose of assigning a counterpart to the power volumes used in regulation and in deviation management, that all the purchasing units and purchasing holders of bilateral contracts deviate in proportion to their electric power in the hourly schedule to be settled.

The system operator shall make an hourly calculation, which it shall report to the market operator, of the international regulation deviations with each of the foreign systems, as a difference between the sum of the schedules and the measurement taken at the connecting points shared with each of those external systems.

The market operator shall pass on the excess cost of the power assigned to processes executed after the final hourly schedule: secondary and tertiary regulation and deviation management ancillary services.

The market operator shall settle the deviation by assigning the overage generated by the secondary and tertiary regulation and deviation management ancillary services, in proportion to the absolute value of their deviation, to the regulation areas, distributors, resellers, qualified consumers and production unit owners who are not part of a regulation area that delivers ancillary services, and to the holders of physical bilateral contracts. The deviation shall be computed by applying the following formulas:

$$P(i,h) = PD(i,h) + PRD(i,h) + ETCS(i,h) + ETCB(i,h) + PI(i,h) + DC(i,h)$$

$$D(i,h) = EMBC(i,h) - (P(i,h) + ESCS(i,h) + ESCB(i,h))$$

where:

P(i,h): Hourly schedule power to be settled pertaining to a production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i.

PD(i,h): Schedule corresponding to the production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i in the definitive daily viable schedule PVD.

PRD(i,h): Power corresponding to the production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i in the deviation management procedure for power contributed in all of the sessions.

PI(i,h): Schedule corresponding to the production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i for all of the intra-day market sessions in which trading has been carried out for hour h.

DC(i,h): Deviation reported and solved by deviation management requested by a production unit that is not part of the regulation area, a purchasing unit or physical bilateral contract i.

D(i,h): Deviation of the production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i.

EMBC(i,h): Measured power corresponding to the production unit that is not part of the regulation area, purchasing unit, regulation area or physical bilateral contract i, as specified in sections 1.a) and 2) of this rule.

The market operator shall aggregate the deviations reported to the system operator experienced by those production units that are included in the same regulation area.

Where:

$$DABST(h) = \sum_i ABS(D(i,h))$$

$$K(i,h) = \frac{ABS(D(i,h))}{DABST(h)}$$

where:

DABST (h): Sum of the absolute values of the deviations in each regulation area, purchase bid unit, production unit not part of a regulation area, and physical bilateral contract utilized to calculate the splitting of the overages associated with secondary tertiary regulation power.

21.8.3 ASSESSMENT OF COLLECTION RIGHTS AND PAYMENT OBLIGATIONS ASSOCIATED WITH DEVIATIONS

The assessment of collection rights and payment obligations corresponding to power associated with deviations shall be done by the market operator at the daily market marginal price, using the following formula:

21.8.3.1 ASSESSMENT, AT THE DAILY MARGINAL PRICE, OF POWER VOLUMES CONTRIBUTED TO OR WITHDRAWN FROM THE SYSTEM AS DEVIATIONS REPORTED BY MARKET PARTICIPANTS

As a result of schedule rectification derived from the declaration of deviations by the owners of production or purchasing units, the following corrections of account entries shall be necessary:

a) Collection rights

$$DCDC(i,h) = \sum_s DC^+(i,h,s) * PMH(h)$$

where:

DCDC (i,h): Collection right belonging to production unit i in hour h for increasing production, or to purchasing unit i for decreasing purchases.

b) Payment obligations

$$OPDC(i,h) = \sum_s DC^-(i,h,s) * PMH(h)$$

where:

OPDC (i,h): Payment obligation incumbent upon production unit i in hour h for reducing production, or on purchasing unit i for increasing purchases.

21.8.3.2 ASSESSMENT, AT THE DAILY MARGINAL PRICE, OF POWER VOLUMES CONTRIBUTED TO OR WITHDRAWN FROM THE SYSTEM AS MEASURED DEVIATIONS

a) Collection rights

$$DCPTD(i, h) = D(i, h) * PMH(h)$$

$$\text{If } D(i, h) > 0$$

where:

DCPTD (i,h): Collection right belonging to the production unit not included in the regulation area, purchasing unit, regulation area or physical bilateral contract i in hour h in which the unit, area or contract holder is a power creditor with respect to the body of schedules as a whole.

b) Payment obligations

$$OPPTD(i, h) = D(i, h) * PMH(h)$$

$$\text{If } D(i, h) < 0$$

where:

OPPTD (i,h): Payment obligation incumbent upon the production unit not included in the regulation area, purchasing unit, regulation area or physical bilateral contract i in hour h in which the unit, area or contract holder is a power creditor with respect to the body of schedules as a whole.

Since the power volumes in the daily market and the intra-day market tally, $A = B$ in the overall system.

where:

$$A = \sum_i (ESCS(i, h) + ESCB(i, h) + ETCS(i, h) + ETCB(i, h))$$

$$- \sum_s (DOS^+(h, s) + DOS^-(h, s))$$

$$B = - \left(\sum_i D^+(i, h) + \sum_i D^-(i, h) + DESVR(h) \right)$$

$$DESVD(h) + DESVG(h) + DESVR(h)$$

$$A * PMH(h) = B * PMH(h)$$

where:

DESVG(h): Total deviations of the production units or regulation areas in hour h.

DESVD(h): Total deviations of the purchasing units in hour h.

DESVR(h): International regulation deviation power.

$D^+(i,h)$: Positive deviations.

$D^-(i,h)$: Negative deviations

Therefore, with all the deviations valued at the daily market hourly marginal price, all the payment obligations and collection rights arising from the deviations would satisfy, at the same hourly marginal price, the payment obligations and collection rights pertaining to the secondary and tertiary regulation power volumes as well as the power assigned in the deviation management processes.

The positive difference between the sum of the deviations estimated by the system operator for hour h in the various deviation management sessions 's,' $DOS(h,s)$, and the real deviations $DR(h)$ shall be calculated as follows:

$$ABS\left(\sum_s DOS^+(h,s) + \sum_s DOS^-(h,s)\right) > ABS\left(\sum_i D^+(i,h) + \sum_i D^-(i,h)\right)$$

then

$$DR(h)ABS\left(\sum_s DOS^+(h,s) + \sum_s DOS^-(h,s)\right) - ABS\left(\sum_i D^+(i,h) + \sum_i D^-(i,h)\right)$$

otherwise.

$$DR(h) = 0$$

21.8.4 PAYMENT OBLIGATIONS FOR OVERAGE ASSOCIATED WITH THE DEVIATION MANAGEMENT SCHEDULE POWER CONTRIBUTED TO THE SYSTEM TO RESOLVE DEVIATIONS

The overage with respect to the hourly marginal price is calculated according to the following formula:

$$SBSPRD(h) = \sum_s \sum_u PRD^+(u, h, s) * [PMRD(h, s) - PMH(h)]$$

and is split according to this formula:

$$K(h) = SBSPRD(h) * \frac{-1}{\sum_s \sum_i ABS(DC(i, h, s)) + \sum_s ABS(DOS(h, s))}$$

$$OPSDC(i, h) = K(h) * \sum_s ABS(DC(i, h, s))$$

$$L(h) = K(h) * ABS(DOS(h, s)) \frac{-1}{\sum_i ABS(D(i, h)) + ABS(DR(h))}$$

$$OPSD(i, h) = L(h) * ABS(D(i, h))$$

$$OPSDR(i,h) = L(h) * ABS(DR(h)) * ABS(ER(i,h)) / \sum_j ABS(ER(j,h))$$

where:

- OPSDC (i,h): Payment obligation incumbent upon production or purchasing unit or physical bilateral contract i for the overage produced by the deviation management procedure in hour h in response to a reported deviation.
- OPSD (i,h): Payment obligation incumbent upon production or purchasing unit or physical bilateral contract i for the overage produced by the deviation management procedure in hour h in response to a measured deviation.
- OPSDR (i,h): Payment obligation incumbent upon production or purchasing unit or physical bilateral contract i for the overage produced by the deviation management procedure in hour h as a result of the positive difference between the deviation estimated by the system operator and the real deviation.
- ER (i,h): Power in the hourly schedule to be settled pertaining to non-instrumental production unit, non-instrumental purchasing unit or bilateral contract i, including the instrumental units involved in physical bilateral contracts as described in section 7 of rule 10.

The overage or excess cost has two parts; that is, the overage shall be passed on first to the production units, distributors, resellers, qualified consumers and to the holders of bilateral contracts causing the deviation in proportion to its absolute value, [considering the instrumental units included in physical bilateral contracts as described in section 7 of rule 10 and excluding the rest of the instrumental units](#).

Secondly, if the system operator had called a deviation that was different from the declared one, the corresponding overage would be passed on in proportion to the absolute value of the deviations of production or purchasing unit owners, [considering the instrumental units involved in physical bilateral contracts as described in section 7 of rule 10, and excluding the rest of the instrumental units, whose units were actually deviated](#). If a part of the deviation which is different from the declared one, estimated by the system operator, were to result in a positive difference with respect to the real deviations, the overage corresponding to all the market participants would be passed on in proportion to the latest information on their scheduled power.

21.8.5 PAYMENT OBLIGATIONS DUE TO OVERAGE INCURRED BY DEVIATION MANAGEMENT SCHEDULE POWER WITHDRAWN FROM THE SYSTEM TO RESOLVE DEVIATIONS

The overage with respect to the hourly marginal price is calculated by means of the following formula:

$$SBBPRD(h) = \sum_s \sum_u PRD^-(u,h,s) * [PRCRD(h,s) - PMH(h)]$$

and is split according to the formulas indicated in point 21.8.4.

21.8.6 OBLIGATION TO PAY OVERAGES INCURRED BY CONTRIBUTED SECONDARY REGULATION POWER TO RAISE

The overage with respect to the hourly marginal price is computed by using the following formula:

$$SBESCS(j,h) = ESCS(j,h) * (PMH(h) - PTSCS(h))$$

where:

SBESCS (j,h): The excess cost of the secondary power to raise contributed by area j in hour h.

This cost is split according to the following formula:

$$OPESCS(i,h) = K(i,h) * \sum_j SBESCS(j,h)$$

where:

OPESCS(i,h): Payment obligation for the overage of the contributed secondary power to raise of the market participants enumerated in section 6) of this Rule 21.8.

21.8.7 OBLIGATION TO PAY OVERAGES INCURRED BY CONTRIBUTED SECONDARY REGULATION POWER TO LOWER

The overage with respect to the hourly marginal price is calculated in accordance with the following formula:

$$SBESCB(j,h) = ESCB(j,h) * (PMH(h) - PTSCB(h))$$

where:

SBESCB (j,h): The excess cost of the secondary power to lower contributed by area j in hour h.

And this overage is split according to the following formula:

$$OPESCB(i,h) = K(i,h) * \sum_j SBESCB(j,h)$$

where:

OPESCB(i,h): Obligation to pay the overage of the contributed secondary power to lower among the market participants indicated in section 6 of this Rule 21.8.

21.8.8 OBLIGATIONS TO PAY OVERAGES ARISING FROM CONTRIBUTED TERTIARY POWER TO RAISE

The overage with respect to the hourly marginal price is computed by applying the following formula:

$$SBETCS(j,h) = ETCS(j,h) * (PMH(h) - PTTC(h))$$

where:

SBETCS (j,h): The excess cost of the tertiary power to raise contributed by production unit j in hour h.

This overage is distributed according to the following formula:

$$OPETCS(i, h) = K(i, h) * \sum_j SBETCS(j, h)$$

where:

OPETCS(i,h): Obligation to pay the excess cost of the contributed tertiary regulation power to raise, among the market participants enumerated in section 6) of this Rule 21.8.

21.8.9 PAYMENT OBLIGATIONS EMANATING FROM EXCESS COSTS OF CONTRIBUTED TERTIARY REGULATION POWER TO LOWER

The overage with respect to the hourly marginal price is computed by applying the following formula:

$$SBETCB(j, h) = ETCB(j, h) * (PMH(h) - PTTCB(h))$$

where:

SBETCB (j,h): The excess cost of the tertiary power to lower contributed by production unit j in hour h.

This overage is distributed according to the following formula:

$$OPETCB(i, h) = K(i, h) * \sum_j SBESTB(j, h)$$

where:

OPETCB(i,h): Obligation to pay the excess cost of the contributed tertiary regulation power to lower, among the market participants enumerated in section 6) of this Rule 21.8.

21.9 PROCEDURE FOR EXCEPTIONAL MARKET SITUATIONS AND EMERGENCIES

When situations arise which the system operator identifies as extraordinary, it may decide that, to guarantee the supply of electric power, certain production units must modify their operating schedules. The system operator shall inform the market operator of such decisions, and shall tell the latter the volumes of electric power whose production has been assigned to the mentioned units. For these purposes, extraordinary situations are defined as those, among others, which involve an alteration of the normal operation of the production market, to include an insufficient number of bids, in the system operator's judgment, for the market's operation procedures.

For settlement purposes, the system operator shall inform the market operator of the causes and consequences of these situations and of the procedures in which they have arisen.

The valuation of the power volumes assigned through this exceptional procedure with respect to the market shall be:

- a) If a procedure for assigning regulating band is involved, the price to apply shall be the one resulting from multiplying 1.15 times the marginal band price assigned in this procedure in the sessions held before the exceptional or emergency situation arose.

The payment obligations derived from this process shall be distributed according to the provisions of Rule 21.4.1.b) for payment obligations derived from the costs of secondary regulation band.

- b) If the application of procedures for the assignment and assessment of secondary and tertiary regulation are involved, the price to apply to the power shall be the figure that results from multiplying 1.15, when power to raise is involved, or 0.85, when power to lower is entailed, by the marginal price corresponding to the bids assigned by the procedure for assigning regulation power in previous sessions.

The obligation to pay the overages with respect to the marginal price shall be calculated according to the stipulations of Rules 21.8.4 and 21.8.5, if secondary regulation power to raise or decrease, respectively, is involved, or in rules 21.8.6 and 21.8.7 if it is a question of tertiary regulation power.

- c) If the assignment procedure was deviation management, the price to apply shall be the figure calculated as the product of 1.15, if the power in question is contributed power to raise, or 0.85 if power contributed to lower is involved, multiplied by the marginal price corresponding to the bids assigned in the deviation management procedure in previous sessions.

The overage with respect to the hourly marginal price shall be passed on according to the provisions of Rules 21.8.3, if the power in question is contributed to the system, and 21.8.4, if the power is withdrawn from the system.

In any event, if there is no reference price in the previous sessions, the price corresponding to the same day of the week in the closest week under the same working conditions (i.e., work day or holiday) shall be used.

- d) If the exceptional situation is different from the ones described in sections a, b and c above, or in cases of solution of alert situations, the price to apply to power volumes to raise or decrease shall be the price corresponding to the respective bid to raise or bid down for the tertiary regulation ancillary service, or, failing that, the applicable valid bid submitted to the daily market. If the daily market price is applied, it shall be done in accordance with Rule 21.3. In this case, the amount resulting from applying the complex daily bid price to all the energy redispatched to solve constraints shall be compared with the amount resulting from the application to that same amount of power of the simple daily market bid price, or the price of the tertiary regulation bid in the hours in which such bids exist in the market, or, failing that alternative, 1.15 or 0.85 the daily market marginal price.

The overage derived from this situation shall be passed on to the [non-instrumental](#) purchasing unit owners, [considering the instrumental units involved in physical bilateral contracts as described in section 7 of rule 10, and excluding the rest of the instrumental units](#), except for pumping units, and the purchasing holders of physical bilateral contracts, in proportion to the electric power purchased in generating station busbars resulting from measurement.

If production or purchasing units fail to fulfill the assigned power due to exceptional or emergency situations, similar account entries to the ones described in Rule 21.3.2 shall be made.

21.10 POWER GUARANTEE

21.10.1 PARTICIPANTS WITH COLLECTION RIGHTS EMANATING FROM THE POWER GUARANTEE

[The following shall have the right to obtain compensation based on a power guarantee:](#)

- [Owners of ordinary-regime production units who are required to submit sale quotations in the electric power production market. In order to collect their compensation, these production unit owners shall have demonstrated that the units have operated during an annual minimum of MINHOR hours at full load, or an equivalent time if they do not operate at full load.](#)

- To collect power guarantee compensation during the year 2000, the value of MINHOR is 290 hours during the said year.
- To collect power guarantee compensation during the year 2001, the value of MINHOR is 290 hours during the said year.
- To collect power guarantee compensation during the years following 2000, the value of MINHOR is 480 hours during the previous year.

However, newly installed groups shall not be required to comply with the operating hours requirement; rather, their power guarantee shall be applied once they have begun commercial production.

- The holders of those auto-producing installations of over 5 MW who voluntarily enter the market to sell their power surpluses, by virtue of the provisions of article 17, point 2 of Royal Decree-law 6/2000, and the intermediary selling participants who, by virtue of the provisions in the same article, make sale bids offering the power surpluses generated by these installations when they act on their own behalf and on behalf of third parties.
- The owners of those generating installations whose installed power is greater than 50 MW and which operate under the provisions of Royal Decree 2366/1994, who are required to make bids to the market operator for the purpose of shedding their electric power surpluses.
- The holders of the rest of the special-regime generating installations, who are not included under the previous points and who access the market bidding system for annual periods by virtue of the Eighth Temporary Provision of Law 54/1997, and of article 18 of Royal Decree 2818/1998.
- Resellers, based on the power they integrate into the organized market by submitting bids by virtue of power purchase contracts concluded with national power producers operating under the special regime, which are duly authorized in accordance with standards in force.

The following shall not have collection rights based on power guarantee:

- Imports of electric power transacted by external agents who join the production market.
- Power coming from special-regime generating installations that join the production market without submitting bids.
- That part of the generated power that is linked to compliance with a bilateral contract.

21.10.2 AMOUNT TO COLLECT FOR POWER GUARANTEE

The monthly amount to be collected for the power guarantee shall be the result of multiplying 0.8 PTA/kWh by the monthly demand in generating station busbars, according to the following formula:

$$RTGP(m) = 0.8 * DT_{bc}(m)$$

where:

RTGP (m): Power guarantee compensation for month m.

$DT_{bc}(m)$: Demand during month m in generating station busbars which includes the power demand in the national end-users' organized production market presented to generating station busbars in accordance with the provisions of Rule 21.12, excluding self-consumption of production, pumping consumption and the production corresponding to the special regime that does not enter the production market.

The monthly amount to collect assigned to the production units operating under the ordinary regime shall be distributed in proportion to the product of two factors:

- The production unit's coefficient of availability
- The production unit's equivalent power.

A production unit's equivalent power is defined as the average between the installed capacity and the production unit's average power limited by the availability of raw materials.

$$P_{EQ}(i,m) = \frac{1}{2} * [P_{NET}(i) + P_{MLIM}(i,m)]$$

$P_{MLIM}(i,m)$: Average power of production unit i limited by the availability of raw materials in month m .

$P_{EQ}(i,m)$: Equivalent power of production unit i in month m .

$P_{NET}(i)$: Net installed capacity of production unit i . Until the net installed capacities are established for existing facilities, as provided in the Ministerial Order of 17 December 1998, which modifies the Ministerial Order of 29 December 1997, the value in force on 31 December 1997 shall continue to be used, with the modifications approved by means of the Resolution of the General Energy Office.

$$P_{EQ}(i,m) \leq P_{NET}(i)$$

If the ordinary-regime production unit is assigned to a physical bilateral contract, the value shall be:

$$P'_{EQ}(i,m) = P_{EQ}(i,m) * C_{bl}(i,m)$$

with:

$$C_{bl}(i,m) = 1 - \frac{1}{h(m)} \frac{\sum_{h=1}^{h=h(m)} P_{BL}(i,h,m)}{P_{EQ}(i,m)}$$

where:

$P'_{EQ}(i,m)$: Equivalent power of production unit i in month m , where the power is bound by a physical bilateral contract.

$C_{bl}(i,m)$: Equivalent power reducing coefficient of production unit i due to the power committed under physical bilateral contracts in month m . When this coefficient is less than zero, it shall take the value of zero.

$h(m)$: Number of hours in month m .

$P_{BL}(i,h,m)$: Power pertaining to production unit i which is assigned to a physical bilateral contract in hour h of month m .

The calculation of the two factors mentioned above shall be determined by the market operator according to the following formula:

AVAILABILITY COEFFICIENT

a) Thermal turbogenerating sets:

$$Cd(i,m) = \frac{1}{h(m)} \frac{\sum_{h=1}^{h=h(m)} P_{NETD}(i,h,m)}{P_{NET}(i)}$$

If $Cd(i,m) < 0$, then $Cd(i,m) = 0$

where:

$Cd(i,m)$: Availability coefficient of thermal turbogenerating set i in month m .

$P_{NETD}(i,h,m)$: Net available power of thermal turbogenerating set i in month m .

$$P_{NETD}(i,h,m) = P_{NETD}(i) - P_{ind}(i,h,m) * k(i,h,m)$$

$P_{ind}(i,h,m)$: Power which is unavailable from thermal turbogenerating set i in hour h of month m .

$k(i,h,m)$: Unavailability penalty coefficient applicable to thermal turbogenerating set i in hour h of month m .

$k(i,h,m)=1$: In those hours in which thermal turbogenerating set i is totally or partially unavailable and has no hourly operating schedule assigned.

$k(i,h,m)=1.1$: In those hours in which thermal turbogenerating set i is completely or partially unavailable and has an hourly operating schedule that has not been established to solve system technical constraints.

$k(i,h,m)=1.2$: In those hours in which thermal turbogenerating set i is completely or partially unavailable and has an hourly operating schedule that has been established to solve system technical constraints.

b) [Hydroelectric and pumping units, and other non-consumable, renewable energies:](#)

[For hydroelectric and pumping units and other non-consumable energies, this value shall be zero.](#)

AVERAGE POWER LIMITED BY UNAVAILABILITY OF RAW MATERIALS

a) Thermal turbogenerating sets:

$$P_{MLIM}(i,m) = P_{NET}(i) - \text{Physical supply restrictions.}$$

b) Pure pumped storage stations:

$$P_{MLIM}(i,m) = P_{ITUR}(i) * 0.35 * C_R(i,m)$$

$P_{ITUR}(i)$: Installed turbogenerating capacity in pumping unit i.

$C_R(i,m)$: Reducing coefficient in month m of pure pumped production unit i

$$C_r(i,m) = \frac{1}{d(m)} \sum_{d=1}^{d=d(m)} C_r(i,d,m)$$

$C_r(i,d,m)$: Shall be equal to 1 whenever, in any of the first four hours of the day after those in period 6 (as defined in Annex V of Royal Decree 2821/1998), the upper impounding reservoir contains a volume of dammed water that is greater than or equal to 75% of its useful storage volume, or can operate for 12 consecutive hours at full load. In those cases in which none of the preceding conditions is met, $C_r(i,d,m)$ shall be calculated as the quotient of the maximum percentage filling value of any of the first four hours of the day after the hours in period 6 (as defined in Annex V of Royal Decree 2821/1998, or in whatever standard may replace it) and 75% of its useful storage volume. On days when period 6 includes all the hours in the day, $C_r(i,d,m)$ shall be calculated as the quotient of the maximum percentage filling value at any hour of the day and 75% of the useful storage volume, which shall be equal to 1 if 75% of the full volume with respect to its useful volume is exceeded in any hour in the upper impounding reservoir, or the unit can operate at full load for 12 consecutive hours.

$d(m)$: Number of days in month m.

c) Mixed pumped storage stations:

$$P_{MLIM}(i,m) = P_{ITUR}(i) * 0.35 + P_{MLIMN}(i,m)$$

$$P_{MLIMN}(i,m) = \frac{1}{5 * h(m)} \sum_{j=1}^5 PRDBN(i,m,j)$$

$P_{ITUR}(i)$: Installed turbogenerating capacity in mixed pumping unit i.

$PRDBN(i,m,j)$: Net production of mixed pumping unit i with natural additions in month m of year j of the previous five calendar years.

d) [Hydroelectric stations and other non-consumable energies:](#)

$$P_{MLIM}(i,m) = \frac{1}{5 * h(m)} \sum_{j=1}^5 PRDB(i,m,j)$$

PRDB (i,m,j): Net production of hydro station i in month m of year j of the last five calendar years.

MONTHLY SPLITTING OF POWER GUARANTEE INCOME

Power covered by an import contract with EDF shall have a collection right for the power imported in month m which shall be calculated according to the following formula:

$$IGPIMP(m) = EIMP(m) * 0.8$$

where:

IGPIMP(m): Collection right emanating from the power guarantee corresponding to the power imported under the import contract with EDF in month m.

EIMP(m): Power covered by import contracts signed by Red Eléctrica de España in month m.

Auto-producers with power greater than 5 MW that satisfy the conditions stated in section 3 of the Eighth Temporary Provision of the Electric Sector Act, and which voluntarily opt to bid, individually and either directly or through a selling participant who acts on their behalf, their surplus power to the market operator; intermediary selling participants who submit bids from the latter when acting on their own behalf or on behalf of third parties; auto-producers having power greater than 50 MW and operating under Royal Decree 2366/1994, and which are obligated to submit quotations to the market operator or to resellers for the production unit with which they bring power generated by these installations into the market, shall have the right to collect based on the power guarantee for the surplus power sold in the organized market valued at the unit price of 1.5 PTA/kWh, as indicated by the following formula:

$$IGPAUT(au1,m)=EAUT(au1,m)*1.5$$

Where:

au1: Auto-producer's generating unit that bids its power surpluses in the organized market, intermediary selling participant or reseller that brings power from special-regime producers into the organized market.

IGPAUT(au1,m): Collection right based on power guarantee held by production unit au1 in month m.

EAUT(au1,m): Measured power generated by production unit au1 in hour h.

Special-regime production units that choose to submit bids to the market by annual periods, obligatorily for each of the scheduling periods, and whose installed power is greater than 1 MW and equal to or less than 50 MW, to which article 17.2 of Royal Decree-law 6/2000 is not applicable, and resellers that bring the power from these installations into the market, shall have a power guarantee-based collection right for their production or surpluses of electric power sold in the organized market, valued at 0.8 PTA/kWh, as indicated by the following formula:

$$IGPAUT(au2,m)=EAUT(au2,m)*0.8$$

Where:

au2:	Special-regime generating unit that bids its power surpluses in the organized market, or reseller that brings power from special-regime producers into the organized market.
IGPAUT(au2,m):	Collection right based on power guarantee held by production unit au2 in month m.
EAUT(au2,m):	Measured power generated by production unit au2 in hour h.

Special-regime producers, intermediary selling participants (as applicable), and resellers who sell power emanating from contracts with special-regime producers, shall be obligated to provide the market operator with the breakdown of the measurement of the connecting points when, at the said points, the measured power volumes pertain to different contract types, in order to be able to assign the power guarantee collection to the participants in the proportion corresponding to the power sold by each of them.

For the rest of the payments:

IGP(i,m) =

$$\left[RTGP(m) - IGPIMP(m) - \sum_{au} IGPAUT(au, m) \right] \times CRGP(i, m) / \sum_i CRGP(i, m)$$

Where:

au:	Auto-producer's generating unit that bids its power surpluses in the organized market, intermediary selling participant or reseller that brings power from special-regime producers into the organized market.
-----	--

With:

$$CRGP(i, m) = Cd(i, m) * P_{EQ}(i, m)$$

where:

IGP(i,m): Income arising from the power guarantee held by set i.

CRGP(i,m): Distribution coefficient of set i in month m.

During their first year of operation, the coefficient of availability of newly installed groups shall be the average availability coefficient applied to the production units having the same technology.

If the average coefficient indicated in the previous paragraph cannot be determined because no generating station of the same technology exists in Spain, the General Energy Office shall establish the cited coefficient based on known references in foreign systems.

21.10.3 MARKET PARTICIPANTS WHO ARE REQUIRED TO PAY FOR THE POWER GUARANTEE

All distributors, resellers, qualified consumers and external agents shall be obligated to pay for the power guarantee associated with the electric power they purchase in the production market.

Neither market participants who purchase power linked to a physical bilateral contract, nor producers, with respect to the power they generate for self-consumption and pumping consumption, shall be required to pay for the power guarantee.

Each month the market operator shall assign the payment to the buyers listed in the first paragraph, according to the following criteria:

- The resellers, qualified consumers and external agents who purchase their power in the production market at a fixed unit price established for each of the hourly periods which are defined below.
- The distributors shall pay that remaining part of the monthly total not paid by the market participants mentioned in the previous paragraph in proportion to their demand for power purchased in the production market placed in generating station busbars in the corresponding month.

21.10.3.1 POWER GUARANTEE PAYMENT BY THE RESELLER FOR SALE TO QUALIFIED CONSUMERS OR FOR EXPORT, QUALIFIED CONSUMERS OR EXTERNAL AGENTS WHO PURCHASE THEIR POWER IN THE PRODUCTION MARKET

This shall be the sum of the monthly terms of each tariff period, as defined further on in these rules, which are the result of multiplying the power demand placed in generating station busbars in the production market by the power guarantee unit price, as detailed in the following formula:

$$PGP(c, m) = \sum_{i=1}^6 X_i x D_{bc}(c, m)_i$$

Where:

PGP (c,m): Power guarantee payment incumbent upon reseller, qualified consumer or external agent c in month m arising from power purchased in the production market.

D_{bc} (c,m)_i: Demand placed in generating station busbars for power purchased in the production market by a reseller for sale to qualified consumers or for export, qualified consumer or external agent in month m and in tariff period i.

The reseller, qualified consumer or external agent shall pay power guarantee for the difference between the measured power and the power purchased through a bilateral contract.

x_i: Power guarantee unit price for each tariff period i which, depending on the tariff period differentiation of the access tariff that is applied, takes the following values:

VALUES OF X_i IN PTA/kWh

Power purchased by customers availing themselves of access tariffs divided into six periods:

Period 1	X ₁ = 1.3
Period 2	X ₂ = 0.6
Period 3	X ₃ = 0.4

Period 4 $X_4 = 0.3$
 Period 5 $X_5 = 0.3$
 Period 6 $X_6 = 0.0$

The following are considered peak, off-peak and valley hours according to type of day:

Tariff period	Type of Day	Type A	Type B	Type C	Type D
1		16-22			
2		8-16 22-24			
3			9-15		
4			8-9 15-24		
5				8-24	
6		0-8	0-8	0-8	0-24

Where:

- Type A: From Monday to Friday (excluding holidays) during the high season (November, December, January and February)
- Type B: From Monday to Friday (excluding holidays) during the shoulder season (March, April, July and October)
- Type C: From Monday to Friday (excluding holidays) during the low season, except August (May, June and September)
- Type D: Saturdays, Sundays, holidays and the month of August.

For this purpose, the holidays to be taken into consideration shall be national holidays that are defined as such on the official calendar for the relevant year, to include all those that can be replaced at the initiative of each Regional Government.

Power purchased by customers who have opted for three-period access tariffs:

Period 1 (peak) $X_1 = 1.3$
 Period 2 (off-peak) $X_2 = 0.7$
 Period 3 (valley) $X_3 = 0.0$

The following shall be considered peak, off-peak and valley hours according to the type of hourly discrimination:

Hourly discrimination	Winter			Summer		
	Peak	Off-peak	Valley	Peak	Off-peak	Valley
Type 3	18-22	8-18 22-24	0-8	9-13	8-9 13-24	0-8
Type 4	16-22	8-16 22-24	0-8	8-14	14-24	0-8

For type 4, valley hours shall also include the twenty-four hours on Saturdays, Sundays and national holidays, including those national holidays that can be replaced by Regional Government initiative for subscribers who have suitable hourly discrimination equipment.

Power purchased by customers who have chosen two-period access tariffs:

Period 1 (peak and off-peak) $X_1 = 2.2$
 Period 2 (valley) $X_2 = 0$

Valley hours are considered to be the hours from eleven PM to 12 midnight and from midnight to seven AM during the winter schedule, and from midnight to eight AM during the summer schedule.

Power purchased by customers who have opted for one-period tariffs:

Period 1 (peak, off-peak and valley) $X_1 = 2.2$

Qualified consumers and external agents who make bids in the market, and resellers, for each one of their customers, shall be obligated to notify the market operator of the access tariff to which they are subject so that the said operator may determine the tariff periods that must be applied. The market operator may ask the distribution undertaking to confirm the data reported by the resellers and qualified consumers.

21.10.3.2 DISTRIBUTORS' POWER GUARANTEE PAYMENT

Each distributor's monthly power guarantee payment shall be the product of the power placed in generating station busbars which was purchased in the production market during the month multiplied by its unit price, in accordance with the following formula:

$$PGP(d,m) = Y \times D_{bc}(d,m)$$

Where:

PGP(d,m) = Power guarantee payment incumbent upon distributor d in month m, arising from power purchased in the production market.

$D_{bc}(d,m)$ = Demand placed in generating station busbars for power purchased in the production market by distributor d in month m.

Y = Unit price Y of the power guarantee payment. This is computed as a ratio of the total amount collected for power guarantees in a given month, after discounting payments made for this item by resellers, qualified consumers and external agents during the same period, to the demand placed in generating station busbars for power purchased in the production market, defined in accordance with the following formula:

$$Y = \frac{RTGP(m) - \sum_{j=1}^n PGP(c,m)_j}{\sum_{k=1}^{\bar{n}} D_{bc}(d,m)_k}$$

Where:

RTGP(m) = Total amount collected for power guarantees corresponding to month m.

$$\sum_{j=1}^n PGP(c,m)_j$$

= Sum of the power guarantee payments of all the resellers, qualified consumers and external agents, n , in month m .

= The sum of the power requirements placed in generating station busbars and purchased in the production market by the distributors as a group, \tilde{n} , in month m .

$$\sum_{k=1}^{\tilde{n}} D_{bc}(d, m)_k$$

21.11 MEASUREMENT

Measurement between facilities corresponding to the activities that comprise the supply of electric power shall be effected in accordance with Royal Decree 2018/1997, of 26 December, on Measuring Points, and with the provisional measurement procedures that may be approved by the [Ministry of the Economy](#).

All the electric power exchanged at the connection points between two installations corresponding to activities which are different from the ones comprising the supply of electric power and at the connection points joining distribution installations.

Measuring point is defined as the specific place in the power grid where the measuring equipment is located.

The electric power exchanged at a connection point may be measured by a measuring device used at the said connection point, or estimated by several measuring devices.

The system operator, in compliance with the System Operation Standards and Procedures in force, shall receive the hourly values corresponding to each measuring point and to each interconnection point of the System agents.

The system operator shall send the measurements taken at the connecting points between activities to the market operator, after they have been verified and confirmed. The system operator shall expressly indicate the production or purchasing units (including the instrumental units) that are related with the connecting point.

These values may be definitive or provisional.

21.11.1 CALCULATION OF THE PRODUCED ELECTRIC POWER DELIVERED TO THE TRANSMISSION NETWORK

On each production border, the hourly volume of electric power delivered shall be computed by the system operator according to the following formula:

$$G(i, j) = \sum_k C_k * eh(i, h, k)$$

where:

G (i,j): Electric power delivered by production unit i in busbar j.

C_k : Parameter corresponding to measuring device k.

$eh(i,j,k)$: Hourly power corresponding to production unit i in busbar j, and to measuring device k.

In each busbar j, the power volumes delivered to the grid as a whole shall be:

$$GN(j) = \sum_i G(i, j)$$

where:

$GN(j)$: The electric power delivered in busbar j.

Likewise:

$$GN(J) = \sum_i GT(i, j) + \sum_i GD(i, j)$$

where:

$GT(i,j)$: Electric power delivered to the transmission network by production unit i in busbar j.

$GD(i,j)$: Electric power delivered to the distribution grid by production unit i in busbar j.

The intakes of imported electric power are considered production.

21.11.2 CALCULATION OF THE ELECTRIC POWER RECEIVED FROM THE TRANSMISSION NETWORK

On the borders with the distribution activity or customers, the hourly volume of electric power received shall be calculated according to the following formula:

$$D(i, j) = \sum_k C_k * eh(i, j, k)$$

where:

$D(i,j)$: Required electric power received by purchasing unit i in busbar j.

$eh(i,j,k)$: Hourly electric power by purchasing unit i in busbar j in measuring device k.

The sum of the electric power volumes received in busbar j shall be:

$$DN(j) = \sum_i D(i, j)$$

If a series of values is provisional, the system operator shall indicate this to the market operator, who shall record this fact in the corresponding monthly settlement.

21.12 LOSSES

The system operator shall assign and determine the losses in the transmission network after making an hourly calculation of those losses and the loss coefficients in the transmission network busbars.

The system operator shall calculate the losses incurred in the transmission network by examining the difference between the volume of electric power injected into the transmission network at the generating units' connection points, the international tie-lines and the distribution with the transport network, and the volume of electric power taken at the transmission network connection points with the distributors, generators, international exchanges, resellers and, as appropriate, qualified consumers and buyers fulfilling physical bilateral contracts.

Because the transmission network losses shall be assigned to all consumers, they must also be assigned to customers who are able to select their suppliers and to physical bilateral contracts.

The losses experienced by resellers, qualified consumers and physical bilateral contracts shall be calculated in accordance with Royal Decree 2821/1998 of 23 December, which sets the electric power tariff for 1999.

For settlement purposes, the transmission network losses shall be:

$$P = G - D - \sum_i TC(i) * (1 + K(i))$$

$$G = \sum_i \sum_j GT(i, j)$$

$$D = \sum_j DN(j)$$

where:

- P: Transmission network losses, after discounting the losses corresponding to qualified consumers who are directly connected to the transmission network.
- G: Generation delivered to the transmission network.
- D: Demand taken from the transmission network for distribution.
- TC(i): Consumption by qualified consumer i taken directly from the transmission network.
- K(i): Loss coefficient corresponding to the qualified consumer's voltage level and hourly period.

The distributors' power values measured at the substation busbars and transferred to generating station busbars shall be calculated in accordance with the following formula:

$$D' (i,j) = D (i,j) * (1 + P/D)$$

The power actually purchased by the distributor, to be settled subsequently by the market operator, shall be:

$$DD(i) = \sum_j D'(i, j) - \sum_j DCC(i, j) * (1 + K(j))$$

where:

DD(i): Demand to be settled for distributor i.

DCC(i,j): Demand generated by qualified customer j in the area of distributor i.

K(j): Loss coefficient corresponding to the voltage level and hourly period of qualified consumer j.

The system operator shall notify the market operator of the results of the assignment and determination of the losses in the transmission network calculated in accordance with the provisions of this clause so that the said results can be included in the settlement.

21.13 INTERNATIONAL CONTRACTS SIGNED BY RED ELECTRICA DE ESPAÑA, S.A.

21.13.1 CONTRACTS IN FORCE

Under the international importation exchanges associated with the contracts referred to in section 3 of the Ninth Temporary Provision of Law 54/1997, Red Eléctrica de España, S.A. shall generate some collection rights, which the market operator shall calculate according to the following formula:

$$DCUO (ui,h) = E (ui,h) * PFVE (h)$$

where:

DCUO (ui,h): Collection right pertaining to the power imported from bidding unit ui in hour h.

E (ui,h): Power from import bidding unit ui in hour h.

PFVE (h): Final sale price in the production market in hour h.

Red Eléctrica de España, S.A. shall be obligated to make the payments which the market operator shall calculate according to the formula shown below, corresponding to the electric power export purchase bids that the Spanish company places as the result of the contracts mentioned in the previous section.

$$OPUO (ua,h) = E (ua,h) * PFCE (h)$$

where:

OPUO (ua,h): Payment obligation incumbent upon export bidding unit ua in hour h.

E (ua,h): Power for export bidding unit ua in hour h.

PFCE (h): Final purchase price in the electric power production market in hour h.

The market operator shall make a monthly settlement for each distributor, who shall receive an amount L (i,m) calculated in the following manner:

$$L(i,m) = L(m) \frac{VD(i,m)}{\sum_i VD(i,m)}$$

$$L(m) = SI(m) - CCs(m) + CCe(m)$$

$$SI(m) = \sum_h (PFVE(m,h) * Ei(m,h) - PFCE(m,h) * Ee(m,h))$$

$$CCs(m) = CCsf(m) + CCsv(m)$$

$$CCe(m) = CCef(m) + CCev(m)$$

where:

- L (i,m): Settlement corresponding to distributor i in month m.
- VD (i,m): Value of electric power purchases made by distributor i in month m.
- SI (m): Financial balance, obtained in the production market, of the international exchanges under contracts held by Red Eléctrica.
- Ei (m,h): Final electric power imported in hour h of month m.
- Ee (m,h): Final electric power exported in hour h of month m.
- CCs (m): Red Eléctrica's cost under the importation contract in month m.
- CCe (m): Red Eléctrica's cost under the exportation contract in month m.
- CCsf (m): Fixed cost of the importation contract in month m.
- CCsv (m): Variable cost of the importation contract in month m.
- CCef (m): Fixed cost of the exportation contract in month m.
- Ccev (m): Variable cost of the exportation contract in month m.

21.13.2 REGULATION DEVIATIONS AND SUPPORT EXCHANGES

The market operator shall maintain a compensation account for electric power priced at the daily market hourly marginal price, to record inter-system regulation deviations and support exchanges between systems.

The settlement of these accounts, which shall be effected each month, shall be handled in the same way as for the surpluses and deficits corresponding to contracts executed by Red Eléctrica de España, S.A.

21.14 SETTLEMENTS

21.14.1 DAILY SETTLEMENT

Within three days following the day after the bidding session is held, the market operator shall place the settlement corresponding to the said daily scheduling horizon at the market participants' disposal in the operator's information systems. The settlement shall distinguish each hourly scheduling period and provide the pertinent information on collection rights and payment obligations derived from it.

This settlement shall be effected in accordance with the standards stated in this Rule 21, provided that the information required for this purpose has been received.

The daily settlement shall always be of a provisional nature.

21.14.2 MONTHLY SETTLEMENT

The market operator shall effect a monthly settlement based on the daily settlements.

The monthly settlements of the entire market may be provisional or definitive.

A settlement is considered provisional for a settlement period when it is obtained before the period ends or, if the period has ended, when the market operator did not have all the information required to enable it to issue a definitive settlement, or when there are claims pending resolution. The reasons for making a provisional, rather than a definitive or final settlement are the following:

- a) The measurements taken were of a provisional nature.
- b) There are claims pending with regard to the development of some electric power production market bidding session.
- c) There are claims pending with respect to the settlement.
- d) Erroneous values have appeared, a posteriori, in a settlement considered definitive, and which neither the market participants nor the market operator were able to detect when the settlement was issued.
- e) Any other factor giving rise to insufficiency or inaccuracy of the information required to make the settlement.

The cause or causes of the provisional nature of a settlement shall be explicitly stated.

The monthly settlement shall be considered definitive except when one or more of the causes mentioned in the preceding paragraphs intervenes, in which case the settlement shall be provisional. In any case, the collections and payments which are due to or incumbent upon the market participants according to the monthly settlement shall be considered on account of the definitive settlement.

21.14.3 REQUEST FOR DEFINITIVE SETTLEMENT

During the period of installation of the SIMEL measurement system, and as long as the measurements required to make a definitive settlement for each month for the market as a whole are not yet available, market participants may request the definitive settlement of their transactions in the electric power production market if they fulfill the following requirements:

- [Have firm measurements declared by the system operator to the market operator in compliance with Royal Decree 2018/1997.](#)
[For this purpose, market participants shall periodically send the system operator the measurements taken from the meters the former have at their disposal, without waiting to have full months.](#)

- Definitive settlements may be made at the participant's request when their purpose is to convert provisional settlements from previous months into definitive ones. Such settlements shall be sent by the market operator to the participants on the third work day after the fifteenth of each month. Payments and collections shall take place on the last work day of each month.
- Request it previously from the market operator. To this end, the definitive settlements considered in the previous paragraph shall be made with the requests and information available to the market operator on the last day of the previous month.
- Accept the results of the settlement, renouncing any subsequent resettlement unless it is detected later that the Royal Decree on measurements was not complied with.
- The settlement accepted under these terms shall be suitably corrected if it is subsequently demonstrated that the market participant's measuring devices do not satisfy the technical characteristics established in the cited Royal Decree.
- Without detriment to the provisions of the previous paragraph, if the market operator has all the information required to make a definitive settlement, or if all the market participants have requested a definitive settlement, even though they do not have the required measuring devices, the market operator shall assign the overage due to the resulting deviations, in accordance with Rule 21.8.

The market operator shall take the following values into account when calculating the above settlements:

- The settlement shall be made with the latest available values on the requested settlement date.
- The losses considered by resellers, qualified customers and buyers bound by physical bilateral contracts shall be the standard losses in effect at the time of settlement and applicable to the market participants according to the nature of their activity, voltage and whatever other parameters are usable for determining losses.

With respect to distributors, the applicable losses shall be: losses obtained from measurements, where measurements have been made, and, failing that and whenever possible, the losses assessed by the system operator's state estimator, and, as a last resort when the above are not available, the applicable standards which are in effect at the time.

- Payment of overages corresponding to measured deviations shall be made at the rate of 10% of the daily market hourly marginal price.
- Overages due to restrictions in the PVP and to alert situations in real time shall be assessed, if there are no definitive measurements on which to base their calculation, according to scheduling values.
- Any surplus or deficit arising as the result of subsequent re-settlements shall be assigned to the rest of the market participants when the re-settlements are effected for them.

The system operator shall apply the procedure referred to in article 29 of Royal Decree 2018/1997 as soon as it has the whole set of measurements corresponding to a market participant.

In any case, the collections and payments shall be made on a monthly basis.

21.14.4 TRANSMISSION OF INFORMATION TO MARKET PARTICIPANTS

The market operator shall send each market participant complete data on each of its transactions made in the electric power production market, specifying the following items for each transaction:

- The market or process involved.
- Production unit, purchasing unit, or physical bilateral contract.
- Quantity.
- Unit price.
- Applicable collection right or payment obligation.
- Total collection rights or payment obligations accumulated by corresponding market or process.
- Total of final payments and collections.
- Hourly cost of restrictions in the PVP.
- Hourly cost of resolving alert situations in real time.
- Deviation management price to raise and decrease, and power to raise or decrease.
- Total deviations declared per hour.
- Total deviations managed by the system operator in each hour.
- Information on availability of the thermal turbogenerating sets, required to calculate the power guarantee.

The market operator shall send all the market participants the aggregate information that is indispensable for checking their settlements. This essential information shall include at least the following items:

- Basis for splitting each overage and for distributing the collection rights and payment obligations emanating from the power guarantee.
- Total amount of the each overage.
- Total secondary regulation power to raise utilized in the hour.
- Total secondary regulation power to lower utilized in the hour.
- Total tertiary regulation power to raise assigned in the hour.
- Total tertiary regulation power to lower assigned in the hour.
- Total deviations measured in each hour, expressed as an absolute value.
- Demand for power guarantee.

- Red Eléctrica de España contract.

21.14.5 CONFIDENTIALITY

The information pertaining to the electric power production market settlement for a market participant shall be considered confidential for the rest of the participants.

All market participants shall have access to the aggregate information mentioned in Rule 21.14.4.

Electric power production market participants shall only have access to information regarding other participants if it is expressed in aggregate form.

The market operator shall place the aggregate information as a whole at the market participants' disposal at the same time as it provides them with the settlements that are made on a daily basis.

A market participant may request the market operator's permission to consult the itemized information regarding any other participant when there is a claim regarding the settlement of a bid.

21.15 RESOLUTION OF INCIDENTS

When the market operator has issued the daily or monthly settlement, the market participants shall have three work days to submit whatever claims regarding the settlement they deem appropriate.

The market operator shall then have three work days to resolve the claims submitted.

21.15.1 DAILY SETTLEMENT

During each monthly period the market operator shall make daily settlements based on the information received from the system operator and from the market operator himself.

These daily settlements may be modified to include new data or modifications of the information considered previously on the initiative of the system and market operators initiative, or of the market participants, after they have been accepted by the appropriate operator.

- Schedule

Within two work days after the date on which the schedules are placed at the market participants' disposal, the participants may make their disagreements regarding those schedules they find erroneous known to the system operator, sending a copy to the market operator.

If the market operator detects erroneous information in its own files or in those received from the system operator, it shall record this fact in the settlement for the information of the market participants and system and market operators.

The system operator shall agree to whatever it esteems appropriate within two work days, and shall send memoranda to the corresponding market participant and to the market operator.

Within three work days after each day, the market operator shall prepare the settlement for that day, reiterating the settlements of the previous days of the same month, and even rectifying them, according to the provisions set out above.

Within three work days following the notification of the daily settlement, the market participants shall make the claims they deem appropriate with respect to the settlement for the said day, as well as those regarding previous days of the same month whose settlements have been modified and whose modification has been notified for the first time.

In those cases where the claim refers to a schedule error, the market operator shall forward the claim to the system operator for the latter's report, which the market operator must receive within two work days.

The market operator shall issue the corresponding resolution, in accordance with the system operator's report, stating the decision that best responds to the claim, within three work days.

– Measurements

The settlements effected by the market operator shall include the electric power measurements received from the system operator, as established in Rule 21.11.

If the market participant does not agree with the measurement data used to calculate the settlements, it must make the corresponding claim to the market operator, indicating the cause of the claim, within three work days, to be counted from the date of the transmittal of the settlement.

The market operator shall consider the cause of the claim. If the cause propounded is based on the information provided by the system operator, the market operator shall transmit the claim to the latter so that it can issue a report within two work days.

The market operator shall send the corresponding resolution within three work days.

If the market operator has not received the pertinent measurement data by the time the settlements are issued, it shall make the settlements by taking into account only the established schedules and considering that they have been strictly observed.

21.15.2 MONTHLY SETTLEMENT

Within three work days after the last day of each month, the market operator shall prepare the monthly settlement for that month.

The market participants shall then have three work days, to be counted from the day after the settlement is issued, to make whatever claims they deem appropriate with respect to the settlements of all the days of the month.

The market operator shall resolve their claims within three work days.

If, due to the time limit established in these rules for effecting the monthly settlement, with respect to the time limits mentioned above for claims, there are claims pending resolution, the monthly settlement in question shall be provisional in nature.

If a market participant were not to agree with the resolution of a claim decided by the market operator, the principles to apply for its resolution shall be those stated in the Eighth Temporary Provision of Royal Decree 2019/1997, of 26 December, which governs the organization and regulation of the electric power production market.

In such a case, and in compliance with Rule 21.14.2, the settlement made shall be provisionally maintained until the firm resolution of the claim.

CHAPTER FIVE

SYSTEM OF CHARGES, PAYMENTS AND GUARANTEES

RULE 22 PROCEDURE

22.1 SETTLEMENT AND CREDIT AND DEBIT NOTES

After making the monthly settlement described in Rule 21.14, the market operator shall notify the market participants who had acted as buyers or sellers, by whatever means or medium which leaves a record of the transmittal and reception of the notification, of the provisional debit and credit notes indicating the payments and collections which they are to make or receive, respectively, in each monthly settlement period. The market operator shall issue the debit and credit notes at least three days before their due dates.

Together with the credit and debit notes, the market operator shall include all the rights and obligations of the electric power production market pertaining to the production and purchasing units.

If there are no claims of the types described in Rule 21.15, or the claims made have been resolved, or the time limit established in Rule 21.15 has expired, the market operator shall issue the definitive debit and credit notes.

In the light of the First Temporary Provision of Law 54/1997 of 27 November, and until the administrative registers intended for the different individuals who operate in the electric power industry are not fully configured and the [Ministry of the Economy](#) reports their configuration to the market operator, the settlements and debit and credit notes cited in the previous paragraph shall be made considering the producing subsystems and undertakings included in the resolution of the General Energy Office of 6 February 1990 and in updating standards.

22.2 CHARACTERISTICS OF THE CREDIT AND DEBIT NOTES

22.2.1 The market operator shall send the market participants their corresponding credit or debit notes, which shall indicate, as appropriate, the following:

- Monthly settlement period.
- Power purchased as a buyer.
- Final price of the power purchased, article 23 of Royal Decree 2019/1997.
- Nuclear energy moratorium quota referred to in article 6.3, second paragraph of Royal Decree 2017/1997, of 26 December.
- Quota passed on from the Electricity Tax, article 64 bis, A), 6. of Law 38/1992, of 28 December, on Special Taxes.
- Value Added Tax (VAT; Spanish abbreviation: IVA) to apply to purchase transactions concluded by the market participant.
- Power sold as a seller.
- Final price of the power purchased, article 23 of Royal Decree 2019/1997.

- Value Added Tax (VAT) to consider in the sales transactions made by the market participant.
- Corresponding payment to or deposit in the account of the market participant.
- Date and time of payment deadline.
- Market operator's account to which payment is to be made.
- Market participant's account to which the market operator is to make payment.
- For settlements of regulated activities, the cost assigned for power purchased in the market for the intents and purposes of the provisions of Royal Decree 2017/1997, on settlements for distributors.

22.2.2 The market operator shall inform the [National Energy Commission](#), for purposes of its information function, assigned by virtue of article 8.1, eighth function, of Law 54/1997.

22.2.3 In addition to the credit or debit notes, the market operator shall issue, on behalf of and at the risk of the suppliers of the power, the invoices and documents stipulated in the Fifth Additional Provision of Royal Decree 2402/1985, of 18 December, which regulates the duty of issuing and delivering invoices which are incumbent on businesspeople and professionals, in the language in which this precept is couched in article 3 of Royal Decree 215/1999, of 5 February, in the form and with the effects established in the said standard.

22.3 OBLIGATIONS OF MARKET PARTICIPANTS WHO ACT AS BUYERS

The market participant must deposit the amount it is obligated to pay, including the Value Added Tax established at all times. Further, it must pay any other type of tax or surcharge that it is legally required to pay and, and especially, when applicable, the Electricity Tax and the nuclear power moratorium quota mentioned in Rule 22.2.1.

Payment must be made no later than 10:00 AM of the last work day of the first fortnight of the month in question. Saturdays, Sundays and Madrid Stock Exchange holidays are considered non-working days.

The buyer shall not be released from its obligation to pay until its payment is deposited in the market operator's account. The amount owed, when applicable, shall reduce, on a pro rata basis, the sellers' collection rights. The market operator shall make the appropriate regularization when the debt has been paid.

22.4 RIGHTS OF MARKET PARTICIPANTS WHO ACT AS SELLERS

The market operator shall issue instructions to the bank or savings institution where it maintains the treasury account regarding execution of payments to the sellers who have participated in the electric power market during the monthly settlement period in question.

The payment must be made on the date defined in Rule 22.3 as the charge date for market participants who are debtors.

Payment against the above-mentioned treasury account shall be made by the bank on the same day and effective date on which the payments are received from the market participants who act as buyers in the electric power production market, as the result of the monthly settlement in question.

The said payment shall include the Value Added Tax that the market participant must pass on, and any other tax of any nature that the legislation then in force requires him to administer.

22.5 ACCOUNT DESIGNATED BY THE MARKET OPERATOR FOR PAYMENTS AND COLLECTIONS

The market operator shall designate a treasury account in the *Banco de España* (the Spanish national government bank) or in a domestic bank or savings institution for the purposes established in these Rules.

The account opened by the market operator shall be a deposit account, which the market operator shall administer in the interests of the market participants. The regime established for the management of external businesses shall be applied to this account; consequently, the balances this account may show as an exception shall not be considered, for any intent or purpose, part of the market operator's assets. With respect to those balances, the market operator could only order the charges and payments in the account in response to the settlements resulting from the market in the electric power production market, according to the terms of the preceding sections.

22.6 PROCEDURE IN CASE OF NON-PAYMENT

If the market operator's bank has not received firm notice of execution of payment by 11:00 AM on the payment date, the following procedure shall be applied:

- The market operator shall execute, after notifying the affected market participant, the guarantee constituted by the latter, in accordance with Rule 32.8. If the execution of the guarantee allows immediate collection, the market operator shall effect all the planned payments.
- If executing the guarantee does not enable the immediate collection of the amount owed, the market operator shall reduce, on a pro rata basis, the collection rights of the market participants who prove to be sellers, which gives rise to a loan to the non-paying participant from the selling participants.
- The amount owed shall earn interest for delayed payment at the rate that is determined in Rule 23.9, to be paid by the participant who is in arrears.
- Once the debt has been paid, the market operator shall regularize it by paying the unpaid amount plus the corresponding delayed payment interest to the sellers, according to the stipulations set out in the preceding sections.

22.7 CALENDAR

No later than the 15th of December of each year, the market operator shall provide the market participants a calendar of payments for the following fiscal year, from the 1st of January to the 31st of December of the next year. This calendar shall detail the deadline dates for notifying the charges and payments and the payment deadline dates corresponding to each monthly settlement.

RULE 23 PROCEDURE RELATIVE TO THE PROVISION OF GUARANTEES IN FAVOR OF THE MARKET OPERATOR

23.1 ESTABLISHMENT OF GUARANTEES

The market participants who act in the market as buyers of electric power shall provide the market operator sufficient guarantee to cover the financial obligations derived from their transactions, in such a way as to warrant the sellers' collection of the entire amount due for the electric power they supply, at its final price, as well as the other items included in Rule 22.3, and on the same date when the settlement for the corresponding period is made.

Failure to provide this guarantee, its non-acceptance by the market operator due to insufficiency or inappropriateness, or the participant's failure to maintain and update the guarantee, shall cause the market

participant to be barred from transacting business in the production market and from participating in settlements.

23.2 MAINTENANCE OF GUARANTEES

The market operator shall release the guarantee provided by the buyer in the production market when the latter loses its status as a participant in the said market, provided that it has fulfilled all the obligations derived from its participation in it.

23.3 COVERAGE OF THE GUARANTEES

The guarantee that each buying participant must provide shall affirm responsibility, without any limitation, in accordance with the terms of these rules, for the obligations it assumes by virtue of its purchases of electric power in the production market.

This guarantee shall not cover obligations contracted with customers, persons or institutions other than the participants who act as sellers in the production market. In particular, it shall not take responsibility for the payments that must be made for the settlement of tolls nor for the payments corresponding to physical bilateral contracts that are formalized outside the production market.

23.4 TYPES OF GUARANTEES

The guarantees that buyers in the production market are required to provide are the following:

- a) A operational guarantee, corresponding to each buying participant, which shall be initially determined by the market operator, with a report to the Market Participants' Committee (if it has been constituted), and shall be set and revised according to the evolution of the volume of power traded in the period, in order to ensure a sufficient level of guarantee on a continuous basis.

The report of the Market Participants' Committee shall be issued within 15 days, and shall be considered issued if it does not appear within that time limit.

- b) A complementary guarantee, which can be required of buyers in those situations in which, after consulting with the Market Participants' Committee, the market operator considers it necessary, due either to a risk that exceeds the coverage of the operational guarantee, to other special circumstances which objectively justify the requirement of complementary guarantees.

In this regard, the market operator shall be able to ask a rating company to rate the risk level of a participant who acts as a buyer in order to justify objectively the requirement of a complementary guarantee.

23.5 FORMALIZING GUARANTEES

Guarantees must be formalized in favor of the market operator:

- a) By means of cash deposits in the market operator's bank (Rule 22.5), and at its disposal.
- b) By means of a solidary guaranty or bond in favor of the market operator, underwritten by a bank, savings institution or credit union that does not belong to the guaranteed or bonded undertaking's group, and deposited in the banking institution where the market operator has opened the treasury account mentioned earlier. In the solidary guaranty or bond, the guarantor shall recognize that its obligation to pay by virtue of the bond is, at the first demand, completely abstract, without allowing the guarantor to allege or make any exception in order to avoid payment to the market operator and, especially, no exception emanating from the underlying relationships that may exist between the guarantor and the bonded or guaranteed undertaking.

The amount of this bond shall be equal to the amount of the limits of the operational guarantees and, if applicable, of whatever complementary guarantee the market operator may establish.

The bond shall remain in force until the guarantee is released, which shall occur when the buyer loses its status as a market participant.

If the guaranteeing organization were to be declared in suspension of payments or bankruptcy, or if the governmental authorization of the guarantor's pursuit of its business were to be voided, the participant required to provide the guarantee would be required to replace the guarantee with another, of the same or another type cited in this rule, in compliance with the time limits set in Rule 23.6.3.

The payment covered by the executed guarantee shall be made so that the market operator can convert the guarantee to cash on first demand, within no more than twenty-four (24) hours after payment is demanded of the guarantor.

- c) By means of an irrevocable authorization to make use of one or several credit lines contracted by the power buyer, up to the maximum amount of the payment obligations undertaken in the period to be settled.

The authorization to use these credit lines shall be understood to have been conceded automatically by the power buyer in favor of the market operator if, after 10:00 AM on the settlement date, the Agent Bank has not received confirmation of deposit of the amount owed.

The credit lines considered in this section shall be exclusive in nature, and thus shall be used only as payment or coverage lines to guarantee the satisfaction of obligations undertaken by virtue of purchases of electric power in the production market. These credit lines must have at all times a minimum available amount which shall be equal to the operational guarantee indicated by the market operator and, if applicable, to the additional amount corresponding to the complementary guarantee.

- d) Through the transfer of the production market collection rights pending payment, which the seller of electric power makes in favor of buyers, provided that it is previously accepted by the market operator.

23.6 REGIME FOR DETERMINING THE AMOUNT OF THE GUARANTEES AND THE WAY THEY ARE CONSTITUTED

23.6.1 Based on the stipulations of Rule 23.4, the amount of the operational guarantees that each buyer must provide at all times, shall be determined by the market operator according to the following criteria:

- a) The risk period that the guarantee must cover, which shall correspond to the settlement period plus the increment to include the 15 additional days until payment is effected and the following five days needed to formalize new guarantees in case payment is not made.
- b) Maximum power to purchase in the trading period which, in accordance with its best demand forecast, the purchaser shall buy in the production market in the said period. This power volume shall be updated according to the progress of settlements.
- c) The physical bilateral contracts shall provide the guarantees that emanate from the use of ancillary services and other benefits, in compliance with Royal Decree 2019/1997.

23.6.2 When the market operator requires it, buyers shall demonstrate their fulfillment of the obligation to establish and maintain updated guarantees.

23.6.3 When, as the result of the execution of guarantees, or for any other reason, the minimum level set by the market operator were to descend, the market operator shall require the affected buyer to replace its guarantee within two work days. If the guarantee were not to be replaced within that time limit, the market operator shall be able to arrange the provisional suspension of the buyer as a market participant, giving him a new period of seven (7) work days to replace the guarantee. When this period has expired, the market operator shall report it to the Market Participants' Committee, to [National Energy Commission](#), to the [Ministry of the Economy](#) and the market participants, for the purposes provided in the Electric Sector Act and its regulations.

23.6.4 To calculate the amount of the operational guarantees which are incumbent on buyers at all times, the market operator shall be able to verify at any time that the guarantee provided by the market participant in question covers the amount of accrued unpaid purchases. For this purpose, the market operator shall confirm that the payment obligations accrued to date are less than 90% of the sum of the guarantees established plus the minimum of the transferred collection rights and the collection rights accrued to date, under the maximum limit of one month. Otherwise, the market operator shall urge the market participant to increase or replace its guarantee according to the provisions of Rule 23.6.3.

23.6.5 DETERMINATION OF THE GUARANTEES

Before the 10th day of the months of January, April, July and October, the market operator shall calculate the guarantees that the market participants must provide for each calendar quarter of the year, without affecting the daily revision which, in compliance with Rule 23.6.4, it shall perform systematically.

The said guarantees shall be determined for each participant by selecting the greater of the following two values:

- Maximum sum of the daily purchases of 50 consecutive days of the quarter prior to the one for which the guarantees are to be established.
- Maximum sum of the daily purchases of 50 consecutive days of the same quarter of the year prior to the one for which the guarantees are to be established.

If, in either of the above cases, there were only 'd' days, where d is less than 50, on which the market participants had purchased power, the amount obtained would be raised by the ratio of 50/d.

However, the participants shall be obligated to report whatever changes they may foresee in their power purchases for the quarter, as long as the average daily value of their forecast purchases exceeds the greater of the following:

- Average daily value of the maximum value of the daily purchases of 50 consecutive days of the previous quarter.
- Average daily value of the maximum value of the daily purchases of 50 consecutive days of the same quarter of the previous year.

If, in either of the above cases, there were only 'd' days, where d is less than 50, on which the market participants had purchased power, the amount obtained would be raised by the ratio of 50/d.

In this case the guarantees required shall be increased with respect to the ones calculated in the general way in the same proportion in which the purchases increase.

The guarantees provided shall include whatever taxes may be applicable to the buyers at the time of payment of their purchases in the electric power production market.

23.6.6 TRANSFER OF COLLECTION RIGHTS

Market participants shall be allowed to transfer their collection rights accrued in the production market to guarantee the payment obligations of any market participant, as established in Rule 23.5.d.

The collection rights that the market participants may transfer shall be calculated by the market operator on the same dates when it calculates the guarantees that the debtor participants must provide. These collection rights shall be determined as the lesser of the following two values:

- Minimum amount of the monthly sales of the quarter prior to the one for which the guarantees are established.
- Minimum amount of the monthly sales of the same quarter of the year prior to the one for which the guarantees are to be established.

23.6.7 REVISION OF THE GUARANTEES

The revision of the guarantees provided may be done quarterly in the months of January, April, July and October.

The market participants shall be allowed to revise, with the market operator's agreement, the amount of the operational guarantees provided.

This amount shall never be less than the amount determined in the application of Rule 23.6.5.

The market participants shall modify the guarantees provided in the first two work days after the date on which each month's settlements are paid, when the process of collections and payments corresponding to the previous month has been completed.

23.7 ADMINISTRATION OF GUARANTEES

The market operator shall be responsible for administering the guarantees provided, in the interests of the market participants, for the purposes of supervising the obligations to establish and maintain updated guarantees, and of the ordinary asset management this may give rise to, or, when applicable, of the disposal of the amounts required to meet the guaranteed obligations. The market operator shall keep a record in which it shall include, under separate headings, the rights and obligations associated with the guarantees.

23.8 CRITERIA FOR ACTION IN CASES OF NON-FULFILLMENT

If a participant in the electric power production market should fail to meet its payment obligation derived from the transactions effected in the electric power production market, the market operator shall execute the constituted guarantees with the greatest diligence and speed, in order to ensure the fulfillment of the non-compliant market participant's obligations.

Moreover, for the intents and purposes of the provisions of article 50 of Law 54/1997, of 27 November (the Electric Sector Act), if the non-compliant participant is a qualified consumer, the market operator shall immediately report the said non-fulfillment to the [Ministry of the Economy, the National Energy Commission](#) and the area distributor corresponding to the cited consumer.

23.9 DELAYED PAYMENT AND DELAYED PAYMENT INTEREST

When a purchasing electric power market participant does not meet a payment obligation on time, it shall be obligated to pay a penalty. The amounts due and unpaid shall accumulate delayed payment interest, to be applied from the date on which the payment fell due but was not effected until the date on which the pending amount is actually paid.

The delayed payment interest rate applicable shall be the rate resulting from applying the interbank (MIBOR) rate, according to the average rate published daily by the *Banco de España* (the Spanish national government bank) for one-day deposits, plus three additional percentage points.

The amounts owing shall be calculated according to the following formula:

$$D = E * (1 + i * P/360)$$

where:

- D: Amount due, including delayed payment interest
- E: Amount due and unpaid, excluding delayed payment interest
- i: MIBOR + three percentage points
- P: Interest settlement period.

Independently of the above, the late-paying buyer in the electric power production market shall be responsible for all the damages caused by the delay.

23.10 PROLONGED PAYMENT DELAY

In the case of a prolonged non-fulfillment of payment obligations by a market participant, which is not covered by the guarantees provided by the said participant, the market operator shall proceed against him either through the courts or by any other means accepted by the legal system, on behalf of the sellers in the market. The non-compliant participant shall be obligated to pay the overdrafts, with the interest applied thereto, and all the damages caused, which shall be shared by the sellers on a pro rata basis applied to the collection rights held by each seller in the market. The monetary results of the cited claim shall be delivered by the market operator to the sellers, in proportion to the damage suffered by each of them.

For the intents and purposes of this rule, a prolonged non-fulfillment of payment obligations by a market participant is defined as a delay of more than three days from the date on which the payment falls due and continues not to be effected.

23.11 FAILURE TO CONSTITUTE OR UPDATE GUARANTEES

The failure by any buyer in the electric power production market to constitute, replace or update any of the guarantees stipulated in these Market Activity Rules shall be interpreted as an order to settle all the transactions in which the participant in question has been involved, for all intents and purposes; therefore, in these cases the market operator shall proceed to close, in the market, the transactions made in which the non-compliant buyer has participated.

CHAPTER SIX

FINAL RULES

RULE 24 DESCRIPTION OF THE TRADING SESSION SEQUENCE

The elements that make up the sequence of operations of the electric power production market are the following:

1. Supply by the system operator to the market operator of information on the best demand forecast, which refers to whole months and is published during the first fifteen days of the month before the month discussed in the forecast; the state of the transmission network; the instances of partial or total unavailability of electric power production units; and any other information that could be determined or which the system or market operator may esteem important. From this information reports shall be made to the market participants containing the data that affect their production and purchasing units.
2. Determination of the start of the computer connections between the market operator, the system operator and the market participants, and verification of the operation of all the communications devices required for the correct development of the trading session.
3. Transmittal to the market participants of whatever information the system operator has reported to the market operator affecting the participants' production or purchasing units, regarding demand forecasts, the state of the grid, the availability of the production units and the status of possible technical constraints, before the start of the trading session.
4. Determination of the closing hour of the daily market trading session.
5. Analysis of the claims submitted regarding the process of validation upon reception of the bids, and solution of those claims, if they can be attended to and obviated within a sufficiently brief time to be immediately useful.
6. Notification of the elements of formal electric power supply contracts or bilateral contracts, when those elements affect international tie-lines.
7. Matching of sale and purchase bids for the daily market.
8. Reporting the provisional result (pending claims) of the matching to the market participants and the system operator.
9. Analysis of the claims regarding the matching process of the daily market trading session that the market participants submit to the market operator in the form that is established in its system. The incidents noticed by the market operator shall also be analyzed.
10. Repetition of the daily market matching process, if some claim or incident can be attended to and resolved within a sufficiently brief time to be immediately useful.
11. Report of the result of the new matching to the system operator, assuming the situation described in the previous paragraph exists, with transmittal to the participants of the data corresponding to their production or purchasing units.

12. Report of the elements of the formal electric power supply contracts or bilateral contracts, when those elements do not affect the international tie-lines.
13. Submittal, to the market operator by the distributing participants, of the production forecasts for auto-producers and special-regime producers in each scheduling period.
14. Notification to the market operator, by the participants whose sale bids have been matched in the trading session, of the production volumes forecast for each scheduling period and physical production unit.
15. Report to the market operator, by the participants whose purchase bids have been matched in the trading session, of the supplies forecast for each scheduling period and grid connection bus of the requirements matched in the matching results.
16. Issuance of the daily base operating schedule to the system operator, with transmittal to the participants of the data corresponding to their production or purchasing units, and notification to distributors only of the information corresponding to their distribution systems, aggregated for each of the busbars that have been defined and reported by the system operator.
17. Notification by the system operator of the technical constraints affecting the daily market matching results, and determination of the solution of the restrictions, in cooperation with the market operator, according to the procedure described in these rules.
18. Publication by the market operator of the following information:
 - the aggregate supply and demand curves of the daily and intra-day markets, with explicit splitting of each of the points that make up the curves, as well as modifications derived from process of solving technical constraints, including, in this case, the affected bilateral contracts;
 - the sales capacities and intracommunity and international exchanges by border;
 - on a monthly basis, the results of the power schedules, aggregated by participant and calendar month, of the electric power production market, published one month after the last day of the month described in the results;
 - on a monthly basis, the bids submitted by the participants in each of the daily and intra-day markets, published three months after the end of the month reported.
19. Management of the ancillary services by the system operator.
20. Determination by the system operator of the definitive viable schedule and transmission of that schedule to the market operator, and transmittal to the market participants of the data corresponding to their production or purchasing units.
21. Transmittal by the system operator to the market operator of the limitations on the possibility of bidding in the intra-day market. This notification shall be made before opening the bid reception period for the first intra-day market, and can be updated before each intra-day market session if the information is different. The information regarding limitations on the possibility of bidding may not be modified by the system operator during the bid reception period for the various intra-day market sessions.
22. Determination of the opening and closing of each intra-day market bidding session.

23. Analysis of the claims submitted in response to the validation process that is carried out upon the reception of bids and solution of the claims if they can be attended to and resolved quickly enough for the solution to be immediately useful.
24. Matching of the sale and purchase bids for each of the intra-day market trading sessions.
25. Reporting of the provisional result (pending claims) of the matching of the intra-day market trading sessions to the system operator, and transmittal to the market participants of the data corresponding to their production or purchasing units.
26. Analysis of whatever claims regarding the intra-day market trading sessions the market participants may submit to the scheduling horizon in the form established by the latter's computer system, or, until that procedure is set, by fax. The incidents detected by the market operator shall also be analyzed.
27. Repetition of the intra-day market matching process, if some claim or incident can be attended to and resolved within a sufficiently brief time to be immediately useful.
28. Report of the result of the new matching to the system operator, assuming the situation described in the previous paragraph exists, and transmittal to the market participants of the data corresponding to their production or purchasing units.
29. Report to the market operator, by the participants whose sale bids have been matched in the trading session, on the production volumes forecast for each scheduling period and physical production unit.
30. Report to the market operator, by the participants whose purchase bids have been matched in the trading session, on the supplies planned for each scheduling period and grid connection bus to satisfy the power requirements that were matched in the matching result.
31. Notification by the system operator to the system operator of the technical constraints affecting the matching results and determination of the means of solving the restrictions.
32. Notification by the market operator to the system operator of the start-up schedule for the electric power production units or final hourly scheduling, with transmittal to the participants of the data corresponding to their production or purchasing units, and notification to distributors only of the information corresponding to their distribution systems, aggregated for each of the busbars that have been defined and reported by the system operator.
33. Publication by the market operator of the following information:
 - the daily and intra-day market aggregate supply and demand curves, with explicit splitting of each of the points that configure the said curves, as well as the modifications derived from the process of solving technical constraints, including, when such restrictions exist, the bilateral contracts they affect;
 - the sales capacities and intracommunity and international exchanges by border;
 - on a monthly basis, the results of the power schedules, aggregated by participant and calendar month, of the electric power production market, published one month after the last day of the month described in the results;
 - on a monthly basis, the bids submitted by the participants in each of the daily and intra-day markets, published three months after the end of the month reported

34. Hourly transmittal by the system operator to the market operator of the electric power production units' hourly operating schedule, before verifying the measurement.
35. Reporting by the system operator of the results of measuring corresponding to the electric power traded in the trading session.

RULE 25 SCHEDULE OF OPERATIONS IN THE ELECTRIC POWER PRODUCTION MARKET

25.1 SCHEDULE

25.1.1 SEQUENCE OF OPERATIONS IN THE DAILY MARKET

- a) Before 8:30 AM, the system operator shall have placed the following information at the market operator's disposal: the demand forecasts provided for in article 28, section One of Royal Decree-law 6/2000, the state of the transmission network, the international tie-line capacity, the partial or total unavailability of production units for each of the hourly scheduling periods for the following day, and any other information that could be determined or that the system operator may consider important. From this information reports shall be made to the market participants containing the data that affect their production and purchasing units. From the moment when the system operator sends the market operator the information regarding production unit unavailability described in the Rule on "information the system operator must supply to the market operator," the data on unavailability may be subsequently updated at any time until 10:00 AM, if there are modifications to be made.
- b) The market participants may submit claims against the result of the validation of the sale and purchase bids, which takes place at the moment they are received, until five minutes after the close of the acceptance of bids for the corresponding session, without detriment to the provisions of section 25.1.1.g.
- c) Before 10:00 AM the participants shall have informed the market operator of the power included in the execution of the physical bilateral contracts established for each of the hourly scheduling periods for the following day in which the international tie-lines are involved.
- d) At 10:00 AM, the market operator shall close the period for the reception and validation of the sale and purchase bids placed by the market participants for the daily market. These bids shall be net of the production and purchase obligations emanating from physical bilateral contracts. The system operator shall have reported the quantities, prices and load gradients of each of the purchase or sale bids corresponding to the contracts referred to in section 2 of the Third Temporary Provision of the Electric Sector Act. The purchase bids that the distributors submit shall include the demand generated by consumers subject to regulated tariff, from which they shall subtract the foreseeable production volumes of those installations operating under special regimes which inject the electric power they produce into the said distributor's grids, when they have not been the subject of sale bids in the daily production market. From that moment on, the market operator shall execute the matching process.
- e) Before 11:00 AM, the market operator shall place the provisional matching result at the system operator's disposal, and shall inform the market participants of the data corresponding to their production or purchasing units.

- f) Before 11:00 AM, the market participants shall have informed the market operator of the power included in the physical bilateral contracts established for each of the following day's hourly scheduling periods, in which international tie-lines are not involved. Likewise, the distributors shall inform the market operator of the foreseeable production volumes of those installations operating under special regimes which inject the electric power they produce into the said distributors' grids, when they have not been the subject of sale bids in the daily production market.
- g) Once the data on the bilateral contracts and the foreseeable production volumes of those special-regime installations which have not been the subject of sale bids have been added to the provisional matching result, the market operator shall place the provisional base operating schedule at the system operator's disposal, shall inform the participants of the data corresponding to their production or purchasing units, while informing the distributors only of the information corresponding to their distribution systems, aggregated for each of the busbars that have been defined and reported by the system operator.
- h) In accordance with the provisions of Royal Decree 2019/1997 of 26 December, the market participants shall have thirty (30) minutes from the placement at their disposal of the provisional matching process result by the market operator to make claims regarding the said result. Their claims shall be processed according to the established procedure. During this period of time, the market operator shall be able to present the incidents which, in its judgment, have occurred in the process.
- i) Before 12:00 noon, the market operator shall inform the market participants, if appropriate, of the existence of any claim that is pending resolution, or any incident presented by the market operator, which may be cause for repeating the matching process. If a repetition is required, the schedule of the sequence may be altered according to the stipulations of Rule 25.2.
- j) If the market participants have submitted no claims and the market operator has brought up no incidents during the time interval established for this purpose (30 minutes), and without affecting the claims the market participants may make afterward, the provisional base operating schedule shall become the base operating schedule.
- k) Before 12:00 noon, the sellers shall place at the market operator's disposal, and the latter shall place at the system operator's disposal, the breakdown of the production of each of the installations that comprise their production units, according to the criteria that the system operator may establish in the corresponding System Operation Procedure. In the same way, the buyers shall place at the market operator's disposal, and the latter shall place at the system operator's disposal, as established in these rules, the breakdown of the demand of each of the supply points included in their purchasing units.
- l) Using the provisional base operating schedule as a basis, the system operator, with the market operator's agreement, shall initiate the procedure for the solution of system technical constraints. If the repetition of the matching process is necessary, for the reasons indicated in previous points, and the base operating schedule does not turn out to be equal to the provisional base operating schedule, the system and market operators shall repeat the procedure for solving technical constraints, using the base operating schedule as a point of departure.
- m) Before 2:00 PM, the system operator shall place the provisional viable daily schedule at the market operator's disposal. At this point the market operator shall have resolved the

technical constraints foreseen in the system, and shall inform the participants of the data corresponding to their production or purchasing units. The system operator shall then publish the secondary regulation needs, and the process of transmittal of bids for the mentioned ancillary service shall begin. This process shall end before 3:30 PM.

- n) Before 4:00 PM, the system operator shall resolve the bids for delivery of secondary regulation ancillary services and shall report its conclusions to the market participants, according to the provisions of the pertinent Operation Procedure. Once this phase of the process is complete, the system operator shall place the definitive viable schedule at the market operator's disposal, and shall inform the participants of the data corresponding to their production or purchasing units.
- o) Before 12:00 midnight, the period for the transmittal of bids for the delivery of tertiary regulation ancillary services for the following day shall close.

25.1.2 SEQUENCE OF OPERATIONS IN THE INTRA-DAY MARKET

The sessions of the intra-day market shall be held independently of the daily market matching process. When each of the intra-day market sessions ends, the market operator shall place the final hourly schedule at the system operator's disposal, and shall inform the participants of the data corresponding to their production or purchasing units, while providing the distributors only with the information corresponding to their distribution systems, aggregated for each of the busbars that have been defined and reported by the system operator.

The sequences of processes in each intra-day market session shall be as follows:

- a) According to the schedule provided for in Rule 13, under the sole condition of previously publishing, in compliance with the confidentiality criteria established previously for the daily market, the final hourly schedule corresponding to the previous session of the intra-day market, or, if the first session is involved, publishing, also in accordance with the confidentiality criteria applied to the daily market, the definitive viable schedule for the following day, the bid reception period shall begin.

The first hourly scheduling period of the session horizon shall begin three hours after the time planned for opening of the session, except in the first session of the intra-day market, which shall begin four hours after the planned session opening time. The scheduling horizon shall extend to all the hourly scheduling periods for which there is a published definitive viable schedule.

- b) The length of the bid reception period shall be forty-five (45) minutes, except for the period corresponding to the first intra-day market session; that initial bid reception interval shall be one hundred five (105) minutes long.
- c) The market participants shall be able to make claims regarding the results of the sale and purchase bid validation process, which takes place at the same time the bids are received, until five minutes after the close of the bid acceptance period for the corresponding session, without detriment to the provisions of section 25.1.2.e.
- d) The market operator shall have forty-five (45) minutes to publish, in accordance with the confidentiality criteria established previously for the daily market, the provisional result of the matching process, pending claims or incidents, as indicated in the following point.

- e) In compliance with the stipulations of Royal Decree 2019/1997 of 26 December, the market participants shall have fifteen (15) minutes from the placement at their disposal of the matching results by the market operator to submit claims against the said results, which claims shall be processed according to the established procedure. If no claims are received by the time this period expires, and without discounting the claims which may be submitted afterward by the market participants, the matching result shall become firm. During this time period, the market operator shall be able to present the incidents that, in its judgment, have occurred in the process.
- f) The participants shall have fifteen (15) minutes from the publication, compliant with the confidentiality criteria established previously for the daily market, of the matching result to send their breakdowns of the power assigned in the session to each of the production or purchasing units.
- g) If there is any claim pending resolution, or any incident presented by the market operator, which may give rise to the repetition of the matching process, the market operator shall be able to report it until fifteen (15) minutes before the beginning of the corresponding session's scheduling horizon. In this case, the schedule of the sequence may be altered according to the specifications of Rule 25.2.
- h) The system operator shall have fifteen (15) minutes before the start of the horizon of the corresponding session to formulate, in cooperation with the market operator, the proposal for solving technical constraints. Immediately afterwards, the market operator shall publish, in compliance with the confidentiality criteria established previously for the daily market, the final hourly schedule, which shall include the result of the resolution of constraints.

25.1.3 OPERATIONS FOLLOWING THE PUBLICATION OF THE FINAL HOURLY SCHEDULE

After the close of the intra-day market, the system operator shall marshal its needs to ensure the safety of the system by means of the deviation management procedure, whose scheduling time period comprehends the hourly periods included between the time when it is convened, the first hourly scheduling period of the following intra-day market session, and the assignment of ancillary services as established in the corresponding operation procedures, placing at the market participants' and the market operator's disposal the results of the consecutive sessions which are successively established by means of the so-called P48 program, which sets up the last operating schedule for each hourly scheduling period.

25.2 ALTERATIONS TO THE SCHEDULE

If incidents arise which alter the normal course of any of the mechanisms which make up the daily market and intra-day market matching procedures, or market participants submit claims which entail repeating any part of the processes, the market operator shall be able to modify the schedule of the sequence of operations corresponding to these markets, and shall dedicate its best efforts to placing the modified schedule at the disposal of the market participants and the system operator as soon as possible, notifying the market participants and the system operator of the new schedules.

If incidents occur in any of the processes entrusted to the system operator, it shall be able to modify the schedule of the sequence of operations subsequent to the establishment of the base operating schedule, for which purpose it shall dedicate its best efforts to placing the information on [the definitive viable schedule that must be given to the market participants with regard to their purchasing and production units, at the participants' disposal, and at the market operator's disposal, before 4:00 PM on the day of the](#)

trading session in question. If this is not possible, the system operator shall devote its best efforts to placing the said definitive viable schedule at the disposal of the market operator, and transmitting the pertinent information to the participants, as soon as possible, notifying the market participants and the market operator of the new schedules. When this situation arises, or there are incidents in the market operator's processes, and a delay can be foreseen in the established time for the publication of the final hourly schedule, the market operator shall be able to make the decision to suspend the intra-day market session or to perform the matching of the complete scheduling horizon corresponding to the said session, but considering the result invalid, for all intents and purposes, for one or more of the hours in the horizon due to force majeure. Whatever decision is made shall be conveyed to the market participants and the system operator through the market operator's information system.

When there are problems in the system operator's processes that make a delay foreseeable in the established time for the publication of the final hourly schedule, the system operator shall be able to make the decision not to consider the intra-day market matching result for the first hour or hours of the scheduling period. Whatever decision is made shall be communicated to the market participants and the market operator by whatever means the system operator may establish that leaves a record of the communication.

RULE 26 COORDINATION BETWEEN THE MARKET OPERATOR AND THE SYSTEM OPERATOR

In order to ensure compliance with the provisions of article 34.1 of the Electric Sector Act regarding the coordination between the system operator and the market operator, as well as articles 24 and 25 of Royal Decree 2019/1997 of 26 December, both operators shall supply each other the information indicated below through their information systems. [This information shall be contained in files, and its format and transmittal shall be defined by both operators, and the information pertaining to each participant shall be placed at the latter's disposal.](#)

As soon as the process or market whose information the files contain is completed, the files shall be sent to the system or market operator, as appropriate, [and simultaneously the market participants shall be sent the data corresponding to their purchasing and production units.](#)

The market and system operators shall validate the format of the information contained in the files received before inserting them into the market operator's information system so that, if errors are detected in them, they can be returned to their sender.

All files sent to correct errors must have the corresponding report justifying the correction made. The time limit for sending the corrected file shall depend on the nature of the file. Those files which are necessary for matching or real-time processing shall be corrected immediately.

With regard to the mentioned files for executing settlements, the procedure indicated below shall be followed:

- The files required for making settlements shall be sent within two work days.
- The market operator shall calculate the settlements with those files which include all the aggregate information on the corresponding market or process.
- When these aggregate files correspond to the accumulation of hourly files that include the same information pertaining to different hourly periods of a given day, the market operator shall perform the corresponding validation. In the cases where the closing file does not coincide with the hourly files, it shall not be considered valid, and it shall be sent to the system operator.

- The daily settlement made by the market operator shall not include the files that have not passed the validation; the market operator shall send a message to all the market participants and the system operator indicating the reasons why the files thus affected were excluded.
- When three work days have passed, the file or files that failed to pass validation shall be included in the calculation of settlements, and an indication shall be made that the values are provisional, pending their correction.

26.1 INFORMATION THE SYSTEM OPERATOR MUST SUPPLY TO THE MARKET OPERATOR

The system operator shall place the information required to perform market processes and the settlement of the transactions made at the market operator's disposal by means of the files established in the current version of the document entitled *Modelo de ficheros para el intercambio de información entre OS y OM / Agentes* ["File model for the exchange of information between SO and MO / market participants"], as agreed between the two operators relative to the files exchanged between them, and published by the system operator.

Among the validations that shall be performed, in addition to the ones indicated previously, a check shall be made to ensure that the schedules sent maintain the generation-demand balance in each hourly period, except in the hourly operating schedules. It shall be confirmed that the schedule files correspond to the accumulation of the previous schedule plus its redispatches. Any information regarding a unit's power, whether it is a sale or purchasing unit, shall be verified to see that it falls between the maximum and minimum declared in the market operator's information system. Power redispatches shall be checked to be sure that no redispatches are made with labels that are different from the ones allowed by the file specifications.

The information that the system operator shall send is the following:

26.1.1 DAILY MARKET

- Information relative to the instances of unavailability of production units.

This file shall be sent by the system operator each time this information is updated.

- [Demand forecast file](#)

[This file shall be sent by the system operator whenever the information it contains is modified, in compliance with the provisions of article 28 of Royal Decree-law 6/2000.](#)

- Information sent before the close of the session:

- Demand forecast file.

This file contains the best demand forecast for the following day, at least.

- Bids pertaining to long-term international contracts held by Red Eléctrica de España, S.A.

26.1.2 PROCESSES FOR SOLVING TECHNICAL CONSTRAINTS AFFECTING THE BASE OPERATING SCHEDULE

Information on the result of the solution of technical constraints reached by the system operator:

- Redispatches due to technical constraints:

This file contains information on the alterations to the base operating schedule caused by the solution of technical constraints.

- Limitations on the possibility of altering the assignment to production units in the process of correcting imbalances:

This file contains the information on the limitations to raise and / or decrease for production units in order to comply with safety criteria.

- Provisional daily viable schedule (PVP):

This file shall be the result of the sum of the base operating schedule (PBF), the alterations to the schedule due to technical constraints and their readjustments to correct imbalances.

- Tie-line capacity auction:

Income obtained by the system operator as a result of the diverse tie-line capacity auctions.

26.1.3 SECONDARY REGULATION ANCILLARY SERVICES MARKET

- Assignment of secondary regulation:

- Secondary regulation assignment:

Assigned band to raise and lower for each production unit.

- Secondary regulation prices:

File containing the marginal prices resulting from the assignment of secondary regulation band

- Result of the assignment of secondary regulation, real-time tracking:

- Hourly values of the values required to make entries and perform the settlements corresponding to the results in real time of the behavior of the secondary regulation areas.

- Contributed secondary regulation power to raise and to lower.

- Definitive daily viable schedule (PVD):

- Final schedule resulting from the daily market. This schedule shall coincide with the provisional daily viable schedule (PVP).

26.1.4 INTRA-DAY MARKET:

- [Demand forecast file](#)

[This file shall be sent by the system operator whenever the information it contains is modified, in compliance with the provisions of article 28 of Royal Decree-law 6/2000.](#)

- Information on instances of unavailability of the production units:

This file shall be sent by the system operator each time this information is updated.

Information sent before the opening of the session:

- Demand forecast file. This file contains the best demand forecast for the following day, at least.
- Limitations on the possibility of bidding in each intra-day market:

This file contains the limitations affecting the possibility of bidding in the intra-day market, in order to comply with safety criteria, before each intra-day market session. The information contained in this file shall be coherent with the data contained in the file on unavailability instances.

The procedure used for the transmittal of at least the files corresponding to unavailability instances and limitations on the possibility of bidding in the intra-day market must be such that it allows the system operator to ensure that the file has been validated and received by the market operator, according to the time indicated by the market operator's information system. In addition, the market operator must be able to have a record of the content and reception time of the files.

The system operator shall send this file before the opening of each session, provided that the information has changed with respect to the previous session.

Information sent after the session matching is completed:

- Redispatches due to technical constraints:

This file contains the information regarding the alterations made to the matching result of each intra-day market.
- Cancellation of hours in intra-day market sessions:

This file contains the information on the hours in intra-day market sessions whose transactions have been cancelled by the system operator because it has not been able to schedule them for some reason.

26.1.5 DEVIATION MANAGEMENT PROCEDURE

- Assignment of deviations:

File containing the power volumes assigned in the daily operating schedule as the result of deviations notified, and due to the resolution of deviations.
- Redispatches of deviations:

This file contains the modifications of power between the final hourly schedule and the hourly operating schedule and the time of its publication. If there is resolution of deviations, the price shall be indicated.
- Redispatches of notified deviations which are considered in each call for deviation management.

26.1.6 TERTIARY REGULATION ANCILLARY SERVICE

- Assignment of tertiary regulation:

File containing the power volumes assigned in the daily operating schedule due to the tertiary regulation ancillary service

- Redispatches due to the tertiary regulation ancillary service:

This file contains the modifications of power between the final hourly schedule and the hourly operating schedule, indicating price.

26.1.7 EXCEPTIONAL OR EMERGENCY SERVICES

- Assignment of power:

File containing the power volumes assigned in the hourly operating schedule due to emergency situations

- Redispatches due to emergencies:

This file contains the modifications of power between the final hourly schedule and the hourly operating schedule. If they have been resolved with the tertiary regulation bid, this circumstance shall be recorded along with the price.

- Assignment of band due to exceptional mechanism:

The band to raise and / or lower assigned by emergency mechanism shall be indicated.

- Tertiary bid from the production units assigned due to technical constraints:

In cases of production units assigned by emergency mechanisms whose power is assessed according to their tertiary regulation bid, the complete power bid shall be conveyed in the direction in which it was assigned.

26.1.8 MEASUREMENTS

- Structural data on connecting points, which contain the following information:

- Connecting point identification: code and description.
- Activities on both sides of the border defined.
- Production or purchasing units relating to each other on both sides of the border.
- Codes of the undertakings located on both sides of the border.
- Any other structural information needed to ensure correct application of transport and distribution losses.

Any modification of these data or addition or withdrawal of connecting points must be notified.

- Provisional hourly values of the connecting points, with an indication of the origin (active or reactive) and the type of measurement (principal, redundant, checking, estimated or temporary)
- Definitive hourly values of the connecting points, with an indication of the origin (active or reactive) and the type of measurement (principal, redundant, checking, estimated or temporary)

- Provisional hourly measurement values of the production and purchasing units
- Definitive hourly measurement values of the production and purchasing units
- Definitive monthly values of connecting points
- Provisional hourly values of losses in the transmission network
- Definitive hourly values of losses in the transmission network
- Hourly accumulated [values] between activities
- Values of deviations between international borders and international schedules for Portugal, France, Andorra and Morocco.

Time limits affecting transmittal of measurement information:

- 1) Any modifications, additions or eliminations of connecting points shall be sent each day before 10:30 AM.
- 2) The provisional daily measurements of the connecting points and the production and purchasing units, the provisional hourly values of losses in the transmission network, the hourly accumulated values between activities and the deviations due to regulation between systems shall be sent each day before 11:00 AM.
- 3) The definitive daily measurements of the connecting points and the production and purchasing units, the definitive monthly values of the connecting points, the definitive hourly values of losses in the transmission network and the hourly accumulated values between activities shall be sent before 6:00 PM on the second work day of the following month.

It shall be confirmed that all the measurement values refer to connecting points and production or purchasing units that are registered in the market operator's information system.

26.1.9 POWER GUARANTEE

- Net monthly production volumes of mixed pumped storage stations achieved with their own contributions in the last five calendar years.
- Net monthly production volumes of conventional hydroelectric stations in the last five calendar years.

Time limits for transmittal of power guarantee information:

The file regarding the useful filling volume of pure pumped storage stations shall be sent on the following day.

The net historic production volumes of conventional and mixed pumping hydroelectric stations shall be transmitted no later than the month of January of the year n for the twelve months of the year n-1.

26.1.10 INTERNATIONAL CONTRACTS SIGNED BY RED ELÉCTRICA DE ESPAÑA, S.A.

- [Fixed and variable cost values and power volumes corresponding to the monthly settlement of the contracts governing importation from EDF, exportation to EDF and](#)

exportation to ONE, signed before 31.12.97, which are the contracts referred to in section 3 of the Ninth Temporary Provision of Law 54/1997.

- The time limits for transmittal of the information regarding the international contracts formalized by Red Eléctrica de España, S.A. must be at the disposal of the market operator before the third work day prior to the date of collections and payments, set in Rule 22.7.

26.1.11 COORDINATION OF THE INFORMATION FROM THE PRODUCTION AND PURCHASING UNITS

Production and purchasing units in the system operator's database.

Any change that may affect the transmittal of information regarding production and purchasing units must be agreed between the market operator and the system operator, who shall jointly set the date on which any concerted changes shall go into effect.

26.2 INFORMATION WHICH THE MARKET OPERATOR MUST SUPPLY TO THE SYSTEM OPERATOR

The market operator shall place at the system operator's disposal the information required to carry out the latter's management processes by means of the files established in the most recent version of the document entitled *Modelo de ficheros para el intercambio de información entre OS y OM / Agentes* ["File model for the exchange of information between SO and MO / market participants"], as agreed between the two operators relative to the files exchanged between them, and published by the system operator.

The validations that the system operator shall include a check to ensure that the schedule files correspond to the accumulation of the previous schedule plus its redispatches.

The market operator shall provide the following information to the system operator:

Daily Market:

- Base matching schedule (PBC)
This file contains the result of the assignment of power as a solution of the daily market matching process.
- Daily market marginal prices. File containing the marginal prices resulting from matching.
- Daily market bid data
This file contains all the valid bids—both matched and unmatched—received in the daily market process.
- Daily market order of financial precedence
This file contains the completely matched, partially matched and unmatched bids arranged in order according to the criteria established in the pertinent rule.
- Physical bilateral contract data
This file contains the physical bilateral contracts received by the market operator and the cost information in pesetas / kWh for the purchase of the capacity available in the tie-line, in case restrictions arise in the said tie-line.

- Base daily operating schedule (PBF)
 - This file shall be the result of the sum of the base matching schedule (PBC), of the auto-producers and special-regime producers declared by the market participants of the power that is to be transferred to distributors, and of the executed bilateral contracts.
 - Breakdowns of the forecast production volumes for the production units, and of the supplies by the purchasing units to the daily market.

Processes for the solution of technical constraints of the base operating program:

- Redispatches of the provisional daily viable schedule, with prices.

This file contains the adjustments to eliminate imbalances arising because of alterations to the PBF, or due to technical constraints.

Intra-day Market:

- Incremental result of the matching of each intra-day market
- This file contains the information on the incremental result of the intra-day market matching, with respect to the PVD, in the case of the first session, or with respect to the final hourly schedule of the previous market in the rest of the sessions.
- Accumulated result of the matching of each intra-day market.
- This file contains the accumulated information resulting from intra-day market matching.
- Marginal prices resulting from each intra-day market session.
- File containing the marginal prices resulting from matching.
- Data on the bids received from each intra-day market.
- This file contains all the valid bids received in the daily market process, including the matched and unmatched bids.
- Financial order of precedence of each intra-day market session
- This file contains the completely matched, partially matched and unmatched bids placed in order according to the criteria established in the pertinent rule.
- Breakdowns of the forecast production volumes for the production units, and of the supplies by the purchasing units to the daily market.
- Final hourly schedule resulting from each intra-day market session (PHF)

This file coincides with the sum of the accumulated schedule resulting from matching, plus the redispatches representing the solution of technical constraints.

Coordination of the production and purchasing unit information

- Production and purchasing units in the market operator's information system.

Any change that may affect the transmittal of information regarding production and purchasing units must be agreed between the market operator and the system operator, who shall jointly set the date on which any concerted changes shall go into effect.

RULE 27 TRANSACTION SYSTEM IN THE MARKET

- 27.1** The *Compañía Operadora del Mercado Español de Electricidad, S.A.* [Spanish Electricity Market Operating Company, Inc.], as the market operator and organization charged with the financial management of the system, is responsible for performing all of the functions required for the effective development of the electric power production market and, in particular, of the daily and intra-day markets and the settlement system, and, in general, the functions assigned to it by the legal provisions and regulations governing electric power.
- 27.2** The market operator shall carry out its functions in compliance with the provisions of the laws and rules which regulate the electric power production market. Moreover, in the operation of the market, it shall act in accordance with the stipulations of these Market Activity Rules and with the information and communication systems included in the market operator's information system.
- 27.3** The market participants shall act in the market in compliance with the provisions of the laws and rules governing the electric power market, and in accordance with the stipulations set out in these Market Activity Rules and in the information and communication systems integrated in the market operator's information system.
- 27.4** In fulfillment of the provisions stated in these Market Activity Rules and, in particular, in Rule 27.3, the market operator shall provide the market participants with the programs and documentation associated with the market operator's information system, for the participants' use, as well as any modifications and new releases of such programs as they are produced. This provision of information and programs shall be articulated through agreements to be made by the market operator with each of the market participants, which shall set out the form and terms of the cession. These agreements shall also embrace the market operator's delivery to the participants of assistance services, specific training, aptitude training for personnel who operate directly in the market, and a test system to ensure the best functioning of the market and guarantee its operation.
- 27.5** The market operator shall not be responsible for the consequences of the acts in which market participants or third parties are involved, nor for the consequences derived from the application of these Activity Rules and of the information and communication systems integrated in the market operator's information system. Nor shall the market operator be responsible for the consequences derived from circumstances beyond its direct control, for cases of force majeure or of an accidental nature, for the direct consequences of the acts and operations carried out in the electric power production market, nor for the risks derived from its operation.

RULE 28 THE COMING INTO EFFECT, DURATION AND MODIFICATIONS OF THE MARKET ACTIVITY RULES

- 28.1** The Market Activity Rules shall come into effect on the date of the [Ministry of the Economy](#) resolution that approves them, according to the terms of article 27.3 of Royal Decree 2019/1997 of 26 December, which organizes and regulates the electric power production market, and shall remain in force indefinitely, without detriment to the modifications mentioned in this rule, unless the law or its regulations establish a period of duration for the rules or decide to terminate them.

- 28.2** By virtue of the provisions of article 27.3 of Royal Decree 2019/1997 of 26 December, which organizes and regulates the electric power production market, it is the market operator's responsibility to submit to the [Ministry of the Economy](#), for its approval, the proposals for modifications of the Market Activity Rules that the said operator considers suitable for the best execution of the Electric Sector Act and its regulations.

The market operator shall be obligated to submit proposals for the modification of these Market Activity Rules to the [Ministry of the Economy](#) in those cases in which it is necessary in order to comply with the law and its regulations in effect at any time. The Ministry shall make its decisions based on the report of the [National Energy Commission](#).

Likewise, the market operator, on its own initiative and based on the report of the Market Participants' Committee, shall review these rules whenever it is advisable to do so. The report of the Market Participants' Committee shall be issued within fifteen days, and shall be considered issued if that time limit expires without the appearance of a report. The market operator shall also submit to the [Ministry of the Economy](#) the proposals for modification of the Market Activity Rules that it submits to the Market Participants' Committee.

In any case, each market participant's adherence to the Market Activity Rules also entails adherence to all the modifications that may be made to the rules by virtue of the provisions of this rule.

- 28.3** In any case, the market operator shall be allowed to dictate whatever instructions it may consider necessary for the best application of the Market Activity Rules, and the sellers and buyers who participate in the electric power production market must comply with those instructions. In particular, the market operator shall prepare user's guides for the effective utilization by market participants of the computer systems that the normal operation of the electric power production market may require.

RULE 29 NOTIFICATIONS AND SUBMITTAL OF CLAIMS TO THE MARKET OPERATOR

29.1 NOTIFICATIONS

29.1.1 Any notifications that must be made by virtue of these Market Activity Rules shall be directed to the address of the parties that is shown in the heading of the corresponding Contract of Adherence. However, the parties may vary the place of reception of notifications by means of the notification they make to the other party seven (7) days before the change occurs.

29.1.2 Notifications shall be transmitted by any means that leaves a record of the content and reception of the message.

29.2 SUBMITTAL OF CLAIMS TO THE MARKET OPERATOR

Market participants shall be able to express their objections to validation results, to the results of the various markets, and to settlements, in accordance with the stipulations of these rules for each case.

The claims submitted by participants, when integrated into the sequence of the market operator's processes, shall have the effects established in the pertinent rules. The rest of the claims shall also be answered by the market operator, but shall not have the effects indicated above.

The claim process shall be as follows:

- a) Claims shall be made through the market operator's computer application that is intended for this function, provided that it is available; the use of fax transmissions is also permitted, but only in case of failure of the said computer application.
- b) The claims shall be known to all the market participants, except for those which, because they contain sensitive information, are made confidential by the submitting participant. The participant submitting the claim may change its degree of confidentiality at any time. The market operator shall respect the confidential nature stated in the claim, although the operator may request justification of confidential treatment.
- c) When the market operator has made the appropriate decision regarding the claims and information submitted by the market participants, the claim process shall continue until its completion, without affecting the reiteration of the claim by the interested participant at a later time, with the corresponding effects.
- d) The market participants shall have access at all times to the claims they themselves have made, and to other participants' non-confidential claims.
- e) The market operator's information system shall indicate the date and time of each writing on the text of the claim, as well as the identification of the individual who did the writing.
- f) The market operator's information system shall ensure that neither the market participant nor the market operator can alter information previously entered in the text of the claim.

RULE 30 APPLICABLE LEGISLATION AND RESOLUTION OF CONFLICTS

30.1 Spanish laws shall be applicable to these Market Activity Rules.

30.2 Any conflicts that may arise in the application of these Market Activity Rules shall be resolved in accordance with the stipulations of the Eleventh Additional Provision, third, section 2, second function of Law 34/1998 of 7 October (the Hydrocarbon Industry Act), and in the Eighth Temporary Provision of Royal Decree 2019/1997, of 26 December. The controversies, disagreements, claims and differences which may arise in this matter, respecting the authority of the National Energy Commission, shall be remitted, with renunciation of any other judge or court that may have jurisdiction, either to the arbitration of the said Commission, in accordance with article 8.1.10 of Law 54/1997, or to the arbitration of law which shall be held in Madrid by three arbitrators, in compliance with the rules of UNCITRAL and with the *Ley de Arbitraje de Derecho Privado* [Private Law Arbitration Act] of 5 December 1988 and, therefore, with express acquiescence to the arbitration finding that is pronounced. The parties agree to raise whatever differences between them which, by legal imperative, cannot be remitted to arbitration, to the courts of the city of Madrid, and therefore renounce any other judge or court that may have jurisdiction.

RULE 31 – PUBLICATION OF INFORMATION

All the information provided by the market operator to a market participant on another participant or participants in compliance with these rules, and whose transmission does not arise from the existence of a claim or complaint, shall be given to the general public, except the information supplied to distributors giving the data that are exclusively pertinent to their distribution system, aggregated for each of their busbars as defined and notified by the system operator, which the distributors must maintain confidential.

To disseminate information to the general public, the market operator may make use of its public website.

RULE 32 – CONVERSION OF THE INSTRUMENTAL PRICE OF PURCHASE BIDS TO EUROS

The instrumental price of 30 PTA/kWh mentioned in rules 5.5.5, 15.3.2.6 and 15.8.1.8 shall be, expressed in Euros, 18.030 hundredths of a Euro.

TRANSITIONAL RULE

Within three months of the date on which this resolution goes into effect, the individuals (natural persons) who are authorized to use the market operator's electronic means of communication to act on behalf of more than one participant, or who are authorized to act on behalf of a single participant and maintain a dependent service relationship with another, different participant from the one they are authorized to represent, shall inform the market operator of the authorization that, in compliance with the provisions of rules 4.1.4 and 5.1.3, they wish to maintain. When the mentioned three-month period expires, the market operator shall proceed to cancel those authorizations in which the individual representation requirement is not satisfied in the terms established in the above-cited rules.