(Published in the Official Gazette No. 27200 dated 15/04/2009.)

# ELECTRICITY MARKET BALANCING AND SETTLEMENT REGULATION

## PART ONE General Provisions SECTION ONE Objective, Scope, Legal basis and Definitions

## Objective

**ARTICLE 1** – (1) The objective of this Regulation is to set forth the principles and procedures regarding balancing of the active electricity demand and supply and settlement

## Scope

**ARTICLE 2** - (1) This Regulation covers duties, powers and responsibilities of the parties involved in balancing mechanism and settlement, and the principles and procedures applicable to the balancing of active electricity supply and demand as well as the financial settlement of the receivables and payables of licence holder legal entities arising from participation in balancing mechanism and settlement.

## Legal basis

**ARTICLE 3** - (1) This Regulation has been prepared based on Electricity Market Law No. 4628.

## Definitions

 $^{1,2}$ ARTICLE 4 - (1) For the purposes of this Regulation, the following terms shall bear the following meanings:

a) Emergency Condition: System stability and security threatening conditions within the framework of provisions of the Electricity Market Grid Regulation published in the Official Gazette No. 25001 dated 22/01/2003, license of TEIAS and the other provisions of relevant legislation,

b) Emergency Instruction: Up-regulation and down-regulation instructions issued by the System Operator in order to overcome emergency conditions,

c) Intermediary Bank: The bank used by the market participants for the execution of collateral transactions Advance and Invoice payments,

ç) Advance period: the period starting as of 00:00 hours on any calendar day and ending at 24:00 hours on the same day in an invoicing period,

d) Advance payment: Payment realized based on advance payment notice, published without issuance of an invoice regarding the electricity energy traded in the previous day in the scope of dah ahead balancing,

e) Connection Point: The area or contact point, at which the market participants and/or eligible consumers connect to the transmission or distribution system under their connection agreements,

f) Ministry: Turkish Republic Ministry of Energy and Natural Resources,

g) President: President of the Energy Market Regulatory Board,

ğ) Block Purchase Bid: Active electricity energy purchase bids that are valid for more than one consecutive hour for the next day, including average price and average quantity information for the time interval it spans and submitted by market participants that participate to the day ahead market,

h) Block Sales Bid: Active electricity energy sales bids that are valid for more than one consecutive hour for the next day, including average price and average quantity information for the time interval it spans and submitted by market participants that participate to the day ahead market.

<sup>&</sup>lt;sup>1</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>2</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

Published in the Official Gazette No. 27200 dated 15/04/2009.

1) Block Bid: Block purchase and/or sales bids,

i) RLDC: Regional Load Dispatch Center,

j) Distribution: The distribution of electricity via lines with voltage level of 36 kV and less,

k) Distribution Region: The region defined in a distribution license,

l) Distribution License Holder Legal Entity: distribution license holder companies and distribution license holder legal entities within the Industrial Zone that are established in accordance with the provision of the Turkish Commercial Code No. 6762 dated 29/6/1956,

m) Distribution System: The electricity distribution facilities and grid which a distribution company operates and/or owns in its designated region,

n) Distribution Company: The legal entity engaged in the distribution of electricity in a designated region,

o) Valuation coefficient: Coefficient to be used in determining the TL equivalent for the noncash collaterals requested from the market participants.

ö) Balance Responsible Group: The group formed by notification to Market Operator by market participants and in which one participant among group undertakes the obligations regarding balance responsibility on behalf of the group,

p) Balance Responsible Party: The market participant that takes over, on behalf of the balance responsible group, the financial liability against the Market Operator for the energy imbalance of the balance responsible group or that is not part of any balance responsible group,

r) Balancing: The activities performed to ensure balance between electricity demand and supply,

s) Balancing Entity: Generation or consumption facility or part of the generation or consumption facility eligible to participate in balancing,

s) Balancing Power Market: The organized wholesale electricity market, which is operated by the System Operator and where the reserve capacity, obtained by the change in output power within 15 minutes, is sold or purchased, to serve the purpose of real-time balancing of demand and supply,

t) Balancing Mechanism: The activities which complement bilateral contracts and which consist of day ahead balancing and real-time balancing,

u) EIC: Energy Identification Coding standards whose principles and procedures regarding its formation are determined by ETSO, announced in the official web site of the Association and used in all member countries of ETSO,

ü) Flexible Sales Bid: Single hour active electricity energy sales bids submitted by market participants that participate to the day ahead market for the next day but that is not related to a certain hour,

v) Matching: Considering the hourly purchase and sales bids that are submitted to the day ahead market for a certain trade zone or a zone composed of certain trade zones, operation of drawing the demand and supply curves and determining the intersection point of demand and supply curves for the relevant zone,

y) ETSO: Association of European Transmission System Operators,

z) Invoicing Period: The period begins at  $00^{00}$  hours on the first day of a calendar month and ends at  $24^{00}$  hours on the last day of that month,

aa) Price Zone: All bid zones having the same hourly marginal price for a specific settlement period within the scope of balancing power market,

bb) Real-time Balancing: The actions carried out by the System Operator in order to balance the supply and demand of active electricity energy in real-time,

cc) Day Ahead Balancing: The activities regarding day ahead planning or day ahead market intended to ensure the day ahead balancing of supply and demand in the system, as well as balancing of the contractual commitments and generation and/or consumption plans of market participants,

çç) Day Ahead Price: The system marginal prices determined under day ahead planning or the final market clearing price determined in the day ahead market,

dd) Day Ahead Market: The organized wholesale electricity market established for purchase and sale transactions of electricity to be delivered in the day ahead on the basis of settlement period and that is operated by the Market Operator,

ee) Day Ahead Market Price: Final market clearing price,

ff) Day Ahead Market Participation Agreement: The standard agreement including requirements and rules about market participant's attendance to day ahead market and management of the day ahead market by the Market Operator,

gg) Day Ahead Market Bids: Single hour purchase and sales bids, block purchase and sales bids and flexible sales bids that are submitted by market participants that participate in Day Ahead Market,

ğğ) Day Ahead Planning: The actions carried out under the coordination of Market Operator in order to balance the foreseen hourly demand regarding the following day on the day ahead, until when day ahead market will be initiated,

hh) Day Ahead Planning Module: The software module that takes place in the context of MMS and used by the Market Operator and System Operator within the framework of day ahead planning in order to determine system marginal prices and prepare day ahead schedule such that balancing costs will be minimized,

11) Day Ahead Schedule: The national scale generation/consumption schedule prepared for the following day, as a result of day ahead balancing activities,

ii) Day Ahead Generation/Consumption Schedule (DGS): The generation or consumption values with respect to settlement delivery point which a settlement aggregation entity anticipates to realize in the following day and notifies the Market Operator at the beginning of day ahead balancing stage, according to the obligations of the balance responsible party to which it is attached,

jj) Day Ahead Offers: The hourly, block and flexible offers submitted within the framework of day ahead planning,

kk) Day Ahead Bids: The hourly and block bids submitted within the framework of day ahead planning,

ll) Bilateral Contracts: The commercial contracts between license holder legal entities and real persons or legal entities or among license holder legal entities for the purchase and/or sale of active electricity under the provisions of civil law,

mm) Transmission: The transport of electricity through lines with voltage level higher than 36 kV,

nn) Transmission Capacity: The amount of electric power that can be sent / received from any point of the transmission system, as expressed in megawatt (MW) terms,

oo) Transmission System: Electricity transmission facilities and network,

öö) Transmission System Configuration: Calculation rules that includes information such as the meters, which will be considered in order to calculate the electricity supplied to a transmission system or electricity withdrawn from the transmission system and, direction of the meters in terms of supply and withdraw, loss coefficient that will be applied to meters,

pp) Relevant Legislation: The laws, regulations, communiqués, circulars and Board decisions regarding the electricity market as well as the licenses held by the relevant legal entities,

rr)<sup>3</sup> Referential Connection Point: The referential point used in the calculation of losses in the Procedures and Principles related with Calculation Methodology for Loss Coefficients, drafter by the Authority and enacted upon approval by the Board.

ss) Law: Electricity Market Law No. 4628 dated 20/02/2001,

ss) Final Day Ahead Generation/Consumption Schedule (FDGS): The generation or consumption values which a settlement aggregation entity anticipates to realize in the following day and notifies the System Operator at the opening of the balancing power market according to the obligations of the balance responsible party to which it is attached and the result of day ahead balancing,

tt) Congestion Management: The methods used for the elimination of any congestion that has arisen or is foreseen to arise in the transmission system,

uu) Unconstrained Market Clearing Price (UMCP): Hourly electricity energy purchase and sales price that is determined by matching the hourly sale and purchase bids, submitted for a certain hour and for all the trade zones in day ahead market,

üü) Board: The Energy Market Regulatory Board,

vv) Authority: The Energy Market Regulatory Authority,

yy) Central Settlement Bank: Bank used by the Market Operator and the market participants for the purpose of effecting of processes related with payment and collateral in the scope of this Regulation between the market participants.

<sup>&</sup>lt;sup>3</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

zz) Central settlement bank agreement: Agreement covering the tasks and liabilities of the parties related with collateral management and payment, to be signed between the Market Operator and the central settlement bank,

aaa) Central settlement bank-participant agreement: Agreement to be prepared by the Market Operator and signed between the market participants and the central settlement bank regarding collateral management and cash clearing services,

bbb) National Load Dispatch Center (NLDC): The central unit under the body of TEIAS in charge of real-time balancing of electricity demand and supply and system operation, and Regional Load Dispatch Centres affiliated to central unit,

ccc) Minimum cash collateral: Portion to be presented in TL currency of the total collateral amount required to be presented for the name of the Market Operator related with the day ahead balancing activities, to be presented by the market participants operating in the scope of day ahead balancing,

ççç) Final Market Clearing Price (FMCP): Hourly electricity energy purchase and sales price that is determined for a certain trade zone and a certain hour by considering the transmission constraints between trade zones.

ddd) Organized Wholesale Electricity Market: Electricity markets such as day ahead market, balancing power market, ancillary services market, operated by the Market Operator and/or System Operator where wholesale trade of electricity energy, capacity or derivatives take place,

eee) Automatic Meter Reading System (AMRS): The system which will be installed by TEIAS and distribution license holder legal entities, and which will cover the required software, hardware and communication infrastructure for automatic remote reading of meter data, transferring data to a central system, validating, filling the missing data and submitting them to the relevant parties in the desired format,

fff) Autoproducer: The legal entity engaged in the generation of electricity primarily for the purpose of meeting his own electricity need,

ggg) Autoproducer Group: The legal entity engaged in the generation of electricity primarily for the purpose of meeting the electricity need of his partners,

ğğğ) Metering System: All metering equipment including meters, metering transformers (voltage and current transformers), related communication equipment and cabling,

hhh) Market Operator: Market Financial Settlement Center,

111) Market Participation Agreement: The standard agreement covering the provisions and conditions regarding the operation of balancing mechanism by the Market Operator and System Operator and the participation of the market participant to the balancing mechanism excluding Day Ahead Market,

iii) Market Participant: License holder legal entities explained in this Regulation,

jjj) Market Financial Settlement Center (MFSC): The unit whose duties and responsibilities are set out in the Law and in this Regulation, and which is in charge of operating the day ahead planning/day ahead market and settlement,

kkk) Market Management System (MMS): The applications that are working as thin client aimed at executing the balancing mechanism and settlement transactions and accessible by the Market Operator, System Operator, market participants and transmission and distribution license holder legal entities responsible for reading the meters,

lll) Primary Frequency Control Capacity: The part of the operational reserve used to stabilize the system frequency through automatic increase or decrease of unit active power output via speed governor and selected to be enough for this operation,

mmm) Single Hour Purchase Bids: Price and quantity pairs that are submitted regarding the purchase of hourly active electricity energy for every hour of the next day by market participants that participate to the day ahead market,

nnn) Single Hour Sales Bids: Price and quantity pairs that are submitted regarding the sale of hourly active electricity energy for every hour of the next day by market participants that participate to the day ahead market

ooo) Secondary Frequency Control Capacity: The part of the operational reserve that is used by the means of secondary control system and that is chosen to be adequate for this operation, in order to release the primary control reserve, used with the aim of frequency control, to bring the frequency back to its nominal value, and to keep the electricity energy exchange among neighbour electricity networks at the programmed level,

ööö) Eligible Consumer: Any real person or legal entity that has the liberty to choose its supplier, due to its consumption of more electricity than the amount set by the Board or its direct connection to the transmission system,

ppp) System purchase instruction: Notifications made by the system operator or the Market Operator to the related market participants for the system purchases of market participants participating the day ahead planning,

rrr) System purchase bid price: unit price requested from the system for purchase by the market participants participating in the day ahead balancing activities,

sss) System purchase bid volume: Reduction of generation or increase in consumption volumes offered at the related balancing unit by the market participants participating in the day ahead balancing activities.

şşş) System: All user systems including the electricity transmission system and distribution system,

ttt) System Imbalance Price: The price applied for the energy imbalances of market participants arising from their balance responsibilities, as determined for each settlement period,

uuu) System Operator: National Load Dispatch Center and Regional Load Dispatch Center

üüü) System Marginal Price: The maximum accepted hourly offer price applied to up-regulated balancing entities to correct the energy deficit in the system or the minimum accepted bid price applied to down-regulated balancing entities to correct the energy surplus in the system, for the purposes of balancing and irrespective of transmission system congestion, within the context of day ahead planning or balancing power market,

vvv) System sale instruction: notices sent by the system operator or the Market operator to the related market participants regarding the system sales of market participants participating in day ahead planning activities.

yyy) System sale bid price: unit prices requested by the market participants participating in day ahead balancing activities for sale to the system.

zzz) System sale bid volume: Increase of generation or reduction in consumption volumes offered at the related balancing unit by the market participants participating in the day ahead balancing activities,

aaaa) Demand Control: The services carried within the framework of principles indicated in Electricity Market Grid Regulation in order to reduce demand in case of insufficient available generation capacity, by TEIAS and the users,

bbbb) Demand Forecast: The hourly consumption forecasts published on a daily basis by the System Operator,

cccc) Instruction: Up-regulation or down-regulation instructions,

cccc) Instruction Tag Value: The value of the instruction tag being 0 (zero) for instructions issued for balancing purposes and 1 (one) for instructions to resolve system constraints and (2) for instructions given within the scope of Ancillary Services,

ddd) Instruction Tag: The variable used for identifying the purpose of the up-regulation and down-regulation instructions issued by the System Operator to the market participants in day ahead planning and balancing power market,

eeee) TCMB: Central Bank of Turkey,

ffff) Supplier: The generation companies, autoproducers, autoproducer groups, wholesale companies and retail sale license holder companies providing electricity energy and/or capacity,

gggg) TEIAS: Turkish Electricity Transmission Co. Inc.,

ğğğğ) Trade Zone: Smallest topological transmission system area where large scale transmission constraints are expected on the transmission system connection points that constitute the borders of these zones,

hhhh) Technical Parameters: The values that include the performance characteristics of a balancing entity such as stepping-in, stepping-out, loading, de-loading and fulfilment of instructions and that are notified to the System Operator by the balancing entity owner market participants,

111) Collateral Level: The total amounts of the assets that can be accepted as collateral and submitted by a market participant to the Market Operator,

iiii) Tertiary Control Reserve Capacity: The part of the operational reserve that would be put into the service manually in case of need, after the secondary frequency control reserve was put into the service, supplied by power output deviation capability of the balancing entities within 15 minutes and chosen to be adequate to release the secondary frequency control reserve in case of another frequency deviation risk,

jjjj) Facility: The facilities and/or equipment installed for the purpose of generating, consuming, transmitting or distributing electricity,

kkkk) TETAS: Turkish Electricity Trading and Contracting Co. Inc,

llll) Trade Limit: Maximum allowable hourly transmission capacity limit for electricity trading between trade zones excluding transmission capacity that is out of usage due to technical and security reasons,

mmmm) Commercial Transaction Confirmations: Notification of Market Operator that includes the purchase and sales quantities of each relevant market participant, and notified following the calculation of final market clearing price for each trade zone,

nnnn) Wholesale Electricity Market: Electricity markets like day ahead market, balancing power market and ancillary services that are organized by Market Operator and/or System Operator or the bilateral agreements market where wholesale trade of electrical energy, capacity or derivatives take place,

0000) Consumption: Electricity energy consumption

öööö) Consumption Unit: Facilities where electricity energy is consumed,

pppp) Settlement: The activities of calculating the amounts payable and receivable due to balancing mechanism and/or energy imbalances and of preparing the related payable-receivable notices,

rrrr) Settlement Period: The periods taken as a basis for settlement transactions,

ssss) Settlement Delivery Point: Transmission system connection point where consumption or export from the transmission system occurs and that is subject to transmission system loss.

şşşş) Contract Notification: Notifications made as a basis for settlement by the balance responsible party to the Market Operator regarding energy volumes notified to be purchased or sold for a certain settlement period as per the vesting contracts and bilateral contracts established within the context of activities realized due to licences of market participants

tttt) Settlement Aggregation Entity: Active electric energy generating or consuming entities which are defined by market participants and registered via MMS so that the settlement calculations for each market participants can be made,

uuu) Settlement Aggregation Entity Configuration: The calculation rules that includes information such as the meter data, which will be considered while calculating the settlement aggregation volumes of settlement aggregation entities; direction of the meters in terms of supply or withdraw and on behalf of which market participant the meter is registered to,

üüüü) Settlement Volume: On the basis of the settlement delivery point, the reading values of the meters in the settlement aggregation entity configuration and that will be used as a basis in settlement calculations,

vvvv) Entity: Each generation entity which can independently up-regulate or down-regulate, each gas turbine and generator and the share of steam turbines and generators that will operate as connected to gas turbines and generators in the case of combined cycle power plants.

yyyy) Generation: The transformation of energy resources into electricity energy in generation facilities,

zzzz) Legal Entity Engaged in Generation Activity: Legal entities holding generation, autoproducer or autoproducer group licenses,

aaaaa) Generation Facility: The facilities where electricity energy is generated,

bbbbb) Ancillary Services: The services defined in the Electricity Market Grid Regulation,

ccccc) Up-regulation: The situation where a balancing entity sells energy to the system by increasing its generation or decreasing its consumption, in line with the instructions issued by System Operator.

ççççç) Up-regulation Instruction: The notifications issued by the System Operator or Market Operator to the related market participants, for up-regulation of the market participants participating in day ahead planning or balancing power market, dddd) Offer Price: The unit prices requested by market participants participating in day ahead planning and balancing power market, for up-regulation,

eeeee) Offer Volume: The volumes of increase in generation or decrease in consumption, which market participants participating in day ahead planning and balancing power market propose to undertake in the related balancing entity,

fffff) Offer: The proposal that includes data such as price, volume and the effective period, and that is submitted for up-regulation by the market participants participating in day ahead planning and balancing power market,

ggggg) Down-regulation: The situation where a balancing entity buys energy from the system by decreasing its generation or increasing its consumption, in line with the instructions issued by System Operator,

ğğğğğ) Down-regulation Instruction: The notifications issued by the System Operator or Market Operator to the related market participants, for down-regulation of the market participants participating in day ahead planning or balancing power market,

hhhhh) Bid Price: The unit prices requested by market participants participating in day ahead planning and balancing power market, for down-regulation,

1111) Bid Volume: The volumes of decrease in generation or increase in consumption, which market participants participating in day ahead planning and balancing power market propose to undertake in the related balancing entity,

iiiii) Bid: The proposal that includes data such as price, volume and the effective period, and that is submitted for down-regulation by the market participants participating in day ahead planning and balancing power market."

# PART TWO Balancing Mechanism and Settlement

# **SECTION ONE**

# **General Principles of Balancing Mechanism and Settlement**

## General principles regarding balancing mechanism

**ARTICLE 5** - (1) Balancing mechanism shall complement bilateral agreements and cover activities that consist of day ahead planning and real-time balancing.

(2) Day ahead balancing consists of activities intended to balance the supply and demand in the system and to ensure day ahead balancing of market participants' contractual obligations and generation and/or consumption plans, and is executed through the day ahead planning and day ahead market.

(3) Real time balancing shall consist of balancing power market and Ancillary Services. The balancing power market shall provide the System Operator with reserves that can be activated within maximum 15 minutes, for real-time balancing. Frequency control and demand control services shall be provided through Ancillary Services.

(4) Market Operator and System Operator shall ensure all necessary coordination and communication and execute the balancing mechanism activities required for balancing electricity energy supply and demand as well as the principles and procedures applicable to these activities.

#### General principles of balance responsibility

**ARTICLE 6** - (1) For each settlement period and each trade zone, market participants shall ensure balance between supply to the system, electricity energy purchases and imports on the one hand, and withdrawal from the system, electricity energy sales and exports on the other hand.

(2) Market participants shall assume financial liability towards the Market Operator on a settlement period basis for their energy imbalance and its settlement. A market participant assuming this financial liability is called Balance Responsible Party.

Published in the Official Gazette No. 27200 dated 15/04/2009.

(3) Balance responsible parties may join together to form a balance responsible group. On behalf of the balance responsible group one balance responsible party among the group assumes the financial liability for the balance responsible group's energy imbalance towards the Market Operator.

(4) Balance responsible parties shall ensure balance by using all available opportunities, until the completion of day ahead balancing. Real-time balancing of the system shall be the responsibility of System Operator.

(5) Market Operator shall receive necessary information from all balance responsible parties to detect the systematic violation of obligations regarding balance responsibility and to report such deviations to the Authority.

## General principles regarding day ahead balancing

**ARTICLE 7** - (1) Day ahead balancing shall be performed one day before the real time on the basis of settlement period in order to maintain the generation and consumption balance, according to the following objectives:

- a) The offers and bids submitted to the day ahead balancing shall be evaluated on a nondiscriminatory basis amongst day ahead market participants.
- b) The prices applied for the settlement of day ahead balancing shall be determined on the basis of marginal pricing or final market clearing price setting principle, taking into consideration the bids and offers submitted to day ahead balancing.
- c) Day ahead balancing activities shall be performed in line with the principles of transparency and accountability.
- (2) Day ahead balancing shall be performed by means of day ahead planning or day ahead market

(3) The day ahead market shall be operated by the Market Operator and performed in line with the following goals;

- a) provide market participants the opportunity to balance their generation and/or consumption needs and contractual obligation in the day ahead,
- b) determine reference price for electricity energy,
- c) provide System Operator a balanced system in the day ahead,
- ç) provide System Operator the ability to manage congestions in the day ahead,
- d) provide market participants the opportunity to buy and sell electricity for the following day, in addition to their bilateral contracts.

(4) Day ahead planning is operated by the Market Operator in accordance with provisions regarding day ahead planning that are set out in this Regulation.

#### General principles regarding real-time balancing

**ARTICLE 8** - (1) Real-time balancing consists of the activities performed by System Operator and defined in the Electricity Market Grid Regulation, in order to ensure the balance of active electricity supply and demand on a real-time basis.

(2) Primary frequency control reserve capacity, secondary frequency control reserve capacity, tertiary control reserve capacity and demand control are used for real-time balancing tools. The principles and procedures applicable to the use of primary frequency control reserve capacity, secondary frequency control reserve capacity and demand control have been set out in the Electricity Market Grid Regulation.

(3) The tertiary control reserves used within the context of real-time balancing shall be purchased via the balancing power market. The balancing power market is operated by System Operator.

(4) Real-time Balancing shall be performed in line with the following general principles in order to ensure supply of sufficient and good quality electricity energy to consumers with low-cost in a continuous manner:

a) Real-time balancing shall be performed in line with the principle of balancing supply and demand on a real-time basis in tune with the principles of supply quality and operational condition criteria specified in the Electricity Transmission Grid Supply Security and Quality Regulation published in the Official Gazette No. 25639 dated 10/11/ 2004, such that operational security and system integrity will be preserved.

- b) The offers and bids submitted to the balancing power market for real time balancing, shall be evaluated on a non-discriminatory basis amongst balancing power market participants, taking into consideration the data regarding bid and offer and their eligibility for balancing.
- c) Real-time balancing activities shall be carried out in a way that minimizes the balancing costs for System Operator, considering the system security.
- ç) Real-time balancing activities shall be performed in line with the principles of transparency and accountability.

## General principles regarding settlement

**ARTICLE 9** – (1) Settlement shall be performed by the Market Operator within the framework of following general principles in order to calculate the amounts of receivables and payables arising from day ahead planning, day ahead market, balancing power market and/or energy imbalances and to prepare related receivable-payable notices in a fast, reliable and transparent manner:

- a) On behalf of wholesale electricity market, Market Operator shall execute the settlement and invoicing operations of the electricity sold and purchased because of the participation of market participants to balancing mechanism and energy imbalances of the balance responsible parties. The Market Operator shall not incur any loss or profit due to these procedures executed on behalf of wholesale electricity market.
- b) Prices, based on the settlement period, shall be used for settlement of electricity energy purchase and sale in the context of balancing mechanism. These prices are determined by considering marginal pricing principal and the offer/bid prices regarding the electricity sale and purchase that is performed for balancing in the context of balancing mechanism. Electricity energy purchase and sale that is performed in the context of balancing mechanism are binding between parties.
- c) The imbalances of balance responsible parties arising from their balance responsibilities shall be settled over the system imbalance price to be determined on a settlement period basis. The system imbalance price applicable for each settlement period is a single price to be determined equal to the hourly system marginal price established in the balancing power market for the aforementioned settlement period.
- c) For settlement calculations of a settlement period, only the values in the related settlement period shall be kept in regard. Values related to one settlement period cannot be transferred to another settlement period.
- d) Settlement calculations shall be performed individually for every market operation and energy imbalance in balancing mechanism.

# SECTION TWO Parties, and Duties, Powers and Responsibilities of Parties Market participants

**ARTICLE 10 -** (1) Market Participants shall consist of the following legal entities:

- a) Generation licensee,
- b) Autoproducer licensee,
- c) Autoproducer group licensee,
- ç) Wholesale licensee,
- d) Retail licensee.

The consumption units of eligible consumers purchasing electricity from market participants shall be registered in the name of market participants.

(2) Market participants shall perform their activities under the provisions of this Regulation and the relevant legislation in a manner that will not distort the market and/or system operation.

# **Responsibilities of Market Operator**

**ARTICLE 11 -** (1) Market Operator shall be MFSC. Market Operator shall perform operation of Day Ahead Planning/Day Ahead Market, administration of settlement and data publication activities, without discriminating among equal parties and in line with the principles of transparency and accountability.

(2) Market Operator shall perform the following activities related to operation of day ahead planning/day ahead market:

- a) operate day ahead planning/day ahead market in compliance with the provisions of this Regulation and relevant legislation,
- b) prepare any legislations regarding establishment of the organized wholesale electricity markets and operation within its scope of operation and submit it to the Board,
- c) prepare and publish any internal rules regarding day ahead planning/day ahead market operation,
- c) take decisions regarding matters related with the day ahead planning/day ahead market operation, raise recommendations and/or proposals to authorized bodies, fulfil other duties assigned under the legislation,
- d) review and conclude any dispute that may arise during day ahead planning/day ahead market activities,
- e) propose recommendations to develop solutions supporting effective development and usage of the organized wholesale electricity markets,
- f) monitor relevant legislation within the scope of ensuring effective operation of the organized electricity markets and develop required suggestions.

(3) Related to settlement administration, Market Operator shall carry out settlement transactions and calculate the amount of receivables and payables to be accrued for balancing mechanism and energy imbalances, and prepare the related receivable-payable notices

(4) Market Operator shall perform the following activities related to data publication and reporting:

- a) prepare and publish reports that will be requested by the Authority with regard to organized wholesale electricity markets operated by the Market Operator,
- b) provide information to System Operator regarding organized wholesale electricity markets operated by the Market Operator,
- c) regularly announce market prices and information regarding organized wholesale electricity markets operated by the Market Operator,
- c) compile and publish statistical data regarding activities performed in the organized wholesale electricity markets operated by the Market Operator.

 $(5)^4$  Market Operator shall executive monitoring activities related with issues such as development of bid volume instabilities of the participants in an invoice period. In the event of determination of a constant increase in the instability amount within an invoice period, the Market Operator shall require supplementary collateral from the related participants.

(6) In addition to operation of day ahead planning/day ahead market, administration of settlement and data publication operations mentioned in the second, third and fourth clauses of this Article, Market Operator shall fulfil duties within the frame of other provisions of relevant legislation.

# **Responsibilities of System Operator**

**ARTICLE 12 -** (1) System Operator shall be the NLDC. System Operator shall perform the following activities, without discriminating amongst equal parties and in line with the principles of transparency and accountability:

a) make load forecasts on day ahead,

<sup>&</sup>lt;sup>4</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- b) ensure instantaneous balance in the system while preserving adequate supply quality, keep necessary reserves through the procurement of ancillary services and balancing mechanism,
- c) perform real-time balancing in compliance with the provisions of this Regulation and the provisions of Electricity Market Grid Regulation,
- c) update minimum up-regulation and down-regulation offer and bid volume limit as part of Balancing Power Market when required, and notice market participations,
- d) make recommendations for the development of solutions that will support effective development and use of system,
- e) monitor the relevant legislation from the perspective of ensuring adequate supply quality and effective use of system, and develop required suggestions.,
- f) determine trade zones and trade limits,
- g) compile information that carry significance regarding the electricity market and supply quality, and provide them to the related parties,
- ğ) provide the information needed for settlement in a timely manner to Market Operator,
- h) prepare and publish reports requested by the Authority regarding system operation,
- 1) fulfil duties assigned within the frame of other provisions of the relevant legislation.
- <sup>5</sup>i) Identification of generation facilities with limit registered connection characteristics as stipulated in the Electricity Market Grid Regulation and the maximum capacities that may be realized technically for said facilities and notification to the Market Operator.

#### **Transmission capacity management**

**ARTICLE 13** - (1) The System Operator is responsible for serving existing transmission capacity so as to ensure maximum energy transmission within the system transmission constraints and system operation security criteria. The System Operator and the Market Operator shall cooperate to ensure the optimal utilization of the national transmission capacities.

## Congestion management and trade limits in transmission system

**ARTICLE 14 -** (1) The System Operator resolves real-time congestion in the transmission grid via instructions having tag value of 1 in accordance with the provisions regarding the balancing power market.

(2) When it is necessary to manage transmission congestions based on the day ahead market, System Operator shall determine the maximum allowable transmission capacity limits, which are called trade limits, on settlement period basis for electricity trade among trade zones with the exception of the unavailable transmission capacity due to technical and security reasons. All of the transmission capacity within trade limits is provided to the day ahead market by the System Operator. The System Operator shall notify the determined trading limits to Market Operator and market participants in accordance with the provisions in Article 51 of this Regulation.

(3) In case, System Operator requires managing the transmission congestions based on day ahead market, principles and procedures regarding determination of trade zones will be set by TEIAS and be proposed to Authority. Communiqué regarding these principles and procedures shall take effect by publication as Board Decision.

## **Responsibilities of distribution licence holder legal entities**

**ARTICLE 15 -** (1) Distribution licence holder legal entities shall fulfil the following duties regarding the balancing and settlement activities:

a) <sup>6,7</sup> register meters of the market participants having settlement aggregation entity and balancing entity connected to the distribution system, all meters included into the settlement aggregation entity configuration, and meters of eligible consumers that are connected to the

<sup>&</sup>lt;sup>5</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>6</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>7</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

distribution system and which purchase electricity energy through bilateral contracts from a supplier other than the retail license holder distribution company in its region and metering systems measuring electricity flows between two distribution regions, in accordance with the provisions regarding registration,

- b) <sup>8</sup>ensure the validity of the reading values that is basis for settlement through tests, controls and audits regarding the meters indicated in the item (a) of this Article; read meters; determine settlement aggregation entity configurations in its region; storage of measurement data; store metering data and notify them to the Market Operator in the format determined by the Market Operator and in a timely manner; and approve related single-line diagrams;,
- c) reach an agreement with market participants as indicated in the Article 82 of this Regulation regarding objections on reading values that is basis for settlement,

ç) install, operate and maintain remote automatic data collection, storage and processing systems (AMR System) to be used in the referred transactions in items (a) and (b) of this Article,

- d) <sup>9</sup>perform the tasks regarding profiles that will be applied to meter reading values in case it is not possible to get readings based on the settlement periods from the meters<sup>10</sup> that are connected to the distribution system of eligible consumers receiving electricity energy from a supplier through bilateral contracts.
- e) prepare and apply the internal legislation, principles and procedures regarding the business processes in the context of this Article.
- f) fulfil duties assigned within the frame of other provisions of the relevant legislation.

## Other responsibilities of TEIAS

**ARTICLE 16 -** (1) In addition to its responsibilities regarding organized wholesale electricity market and system operation, TEIAS shall execute other activities regarding balancing and settlement indicated as follows:

a)<sup>11</sup> register all meters of the market participants having settlement aggregation entity and balancing entity inside the settlement aggregation entity configuration, and of the eligible consumers connected to the transmission system, in accordance with the provisions regarding registration,

b)<sup>12</sup> ensure validity of the reading values that is basis for settlement through tests, controls and audits regarding the related meters; read meters via AMR System; install and operate the active and passive equipment and the necessary communication infrastructure for the meters belonging to the eligible consumers connected to the transmission system and for the meters in the transmission system belonging to the market participants other than the legal entities engaged in generation activities, to communicate with the AMR system, determine settlement aggregation entity configurations; store metering data and notify them to the Market Operator in the format specified by the Market Operator and in a timely manner; approve related single-line diagrams,

c) reach an agreement with market participants as indicated in the Article 82 of this Regulation regarding objections on reading values that is basis for settlement,

ç) Execute payable and receivable management activities of the organized wholesale electricity markets operated by the Market Operator,

d) install, operate and maintain remote automatic data collection, storage and processing systems (AMR System) to be used in the referred transactions in items (a) and (b) of this Article,

e) prepare and apply the principles, procedures and internal rules related to work processes within the scope of this Regulation,

f) fulfil duties assigned within the frame of other provisions of the relevant legislation.

<sup>&</sup>lt;sup>8</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>9</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>10</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>11</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>12</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

# PART THREE Provisions Regarding Registration of Market Participants

#### SECTION ONE

## **Obligation of the Market Participants to Register and Registration Rules**

#### **Obligation of the market participants to register**

**ARTICLE 17** - (1) Market Participants shall register to the Market Operator within the timeframe specified in this Regulation.

(2) In case market participants fail to complete their registration regarding settlement aggregation entity in line with the provisions of this Regulation, the following provisions shall be applied:

a) In case registration procedures were not completed for a generation facility whose provisional acceptance is done by Ministry, the electricity energy supplied to the transmission or distribution system by such generation facility are not taken into account in the settlement calculations. The Market Operator shall not accrue or pay any amount as a result of the volumes supplied to the transmission or distribution system. Electricity energy volume that the mentioned generation facility withdraws from the transmission or distribution system is evaluated within the frame of the provisions of the relevant legislation regarding illegal electricity energy consumption.

b) A generation facility that connected to the system and gained provisional acceptance but that do not gained provisional acceptance by the Ministry shall supply electricity energy that is withdrawn from the transmission and distribution system from retail license holder legal entity, from retail license holder distribution company that is active within the distribution region where it is located, or by registering settlement aggregation entity of the related generation facility to the Market Operator. Otherwise, electricity energy volume that the mentioned generation facility withdraws from the transmission or distribution system is evaluated within the frame of the provisions of the relevant legislation regarding illegal electricity energy consumption. Electricity energy supplied to the transmission and distribution system by the aforementioned generation facilities are not taken into account in the settlement calculations.

c) In case a consumption unit that withdraws electricity energy from the transmission system is not registered to the name of a market participant that has completed his registration procedures, related consumption facility is included to the settlement aggregation entity configuration of the retail license holder distribution company that is active within the distribution region where it is located, upon the detection of such condition, and illegally used energy is evaluated as part of retroactive correction item. Required procedures are carried out regarding the aforementioned electricity energy withdrawal in accordance with the provisions of the Electricity Market Customer Services Regulation published in the Official Gazette No. 24887 dated 25/9/2002, by the retail license holder distribution company that is active within the region where the related consumption unit is located.

c) In case any consumption unit that withdraws electricity energy from the distribution system is not registered to the name of a market participant that has completed his registration procedures; such energy withdrawn shall be reflected in the account of the related retail license holder distribution company. In case there is no electricity energy sales agreement between such consumption unit and the related license holder distribution company, aforementioned electricity energy withdrawal is processed in accordance with the provisions of the Electricity Market Customer Services Regulation.

#### Registration of market participants in the day ahead market

**ARTICLE 18 -** (1) All license holder legal entities who are market participant can participate in the day ahead market. For a market participant to participate in the day ahead market, he shall apply to the Market Operator and complete his registration procedures.

# Registration of market participants in the day ahead planning and balancing power market

**ARTICLE 19** - (1) The market participants, which have at least one settlement aggregation entity that satisfy the conditions of being a balancing entity and registered in relevant market participant's own name, shall be required to participate in the day ahead planning and balancing power market. The market participants which are required to participate in the day ahead planning and balancing power market shall apply to the Market Operator and complete the registration procedures of their balancing entities. When the market participants complete the registration of their balancing entities, the process of their participation in the day ahead planning and balancing power market shall be deemed to be complete.

## **Registration rules regarding balance responsible parties**

**ARTICLE 20 -** (1), Each market participant shall be registered as balance responsible party, as long as it does not participate in a balance responsible group.

(2) A registered market participant or a market participant that registers for the first time may apply to the Market Operator to participate in a balance responsible group. The application to be filed by a market participant to the Market Operator to participate in a balance responsible group shall be filed jointly by the related market participant and the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group.

(3) The balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group cannot transfer or assign the rights and obligations regarding balance responsibility.

## Settlement aggregation entities and their registration rules

**ARTICLE 21** - (1) Market participants are responsible for determining the settlement aggregation entities by which they are responsible for the energy supplied to the system or withdrawn from the system, and shall register them under their own name.

(2) Each of the following shall be a settlement aggregation entity:

a) All licensed generation facilities,

b) Consumption facilities that carry the obligation of being balancing entity,

c) A consumption unit of an eligible consumer which purchases electricity energy from a supplier other than the retail license holder distribution company in whose region he is located by concluding a bilateral contract, or which is connected to the system at the transmission level,

ç) A consumption unit of autoproducers and a consumption unit belonging to consumers in an autoproducer group,

d) A distribution region or a part of the distribution region,

e) The connection point of national transmission system with neighbour country transmission systems.

 $(3)^{13}$  Each defined settlement aggregation entity shall be registered under the settlement account of only one market participant.

(4)<sup>14</sup> Excluding synchronous parallel connections, the settlement aggregation entities which are in the form of connection point of national transmission system with neighbour country transmission systems shall be registered under the name of TEIAS, if more than one market participant performs energy sale and purchase over these settlement aggregation entities. The whole settlement aggregation volumes of such settlement aggregation entities registered under the name of TEIAS shall be distributed to the settlement accounts of related market participants.

 $(5)^{15}$  For the synchronous parallel connections, settlement aggregation entities in the form of connection system between the national transmission system and the transmission system of the neighbour country shall be registered under the name of TEIAS.

 $(6)^{16}$  The rules and exceptions within the scope of this Regulation regarding the import and export activities to be realized from the settlement aggregation entities in the form of connection system between the national transmission system and the transmission system of the neighbour

<sup>&</sup>lt;sup>13</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>14</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>15</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>16</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

country shall be arranged in the Balancing and Settlement Procedures and Principles regarding Imports and Exports, which shall be enacted upon approval by the Board.

## **Balancing entities and registration rules**

**ARTICLE 22 -** (1) The market participants that will participate in balancing mechanism shall define their balancing entities and register them under their own name.

(2) Of the generation or consumption facilities or units which can independently up-regulate or down-regulate, and which can be independently metered on settlement period basis through meters installed pursuant to the provisions of relevant legislation; each of the following shall be a balancing entity:

a) Licensed generation facilities or units owned by this generation facilities,

b) The consumption units whose consumption can be changed or cancelled through instructions to be notified by the System Operator and whose participation is requested by the registered market participant and accepted by the System Operator.

(3) Except for the turbines of the combined cycle power plants in the same block, units in the same generation facility, and connected to the system from different voltage levels cannot take place under the same balancing entity.

(4) The following generation facilities shall be exempted from the obligation of being a balancing entity, but may become a balancing entity upon the request of related market participant and the acceptance of such request by the System Operator:

- a) Canal or river type hydroelectric generation facilities,
- b) Generation facilities based on wind power,
- c) Generation facilities based on solar energy,
- ç) Generation facilities based on wave power,
- d) Generation facilities based on tidal energy,
- e) Cogeneration facilities,
- f) Geothermal generation facilities.

(5) A balancing entity is a settlement aggregation entity and thus, the registration rules applicable to settlement aggregation entities are also applicable to balancing entity.

(6) In order to register generation facilities as balancing entity, meters that enable to measure separately generation and consumption facilities that are connected to the same busbar shall be established.

(7) Meters of the units, which are required to be registered as balancing entities on unit basis by the System Operator, shall be established in such a way that would enable to measure on unit basis. If required, the change in the meter's place is realized within 3 months as of the notification of the related market participant by the Market Operator after the determination of the balancing entity's registration change requirement by the System Operator.

(8) In order to register a consumption facility; whose request for becoming a balancing entity is approved, as balancing entity, related market participant is responsible for installing the necessary monitoring and data communication systems under the coordination of the System Operator, if required by the System Operator.

## **Registration rules regarding meters**

**ARTICLE 23** - (1) During the registration process of the market participants, the metering systems that allows for metering or calculation of the settlement volumes of each settlement aggregation entity, shall be registered. The metering systems that allow for metering of the following energy flows regarding the settlement aggregation entity should be registered:

a) The electricity energy supplied to or withdrawn from the transmission system,

b) The electricity energy withdrawn from the distribution system by an eligible consumer which purchases electricity energy from a supplier other than the retail license holder distribution company in whose region he is located, by concluding a bilateral contract,

c) The electricity energy withdrawn from the distribution system by the consumption units of market participants holding generation, autoproducer and autoproducer license, and by the consumption units in an autoproducer group,

ç) The electricity energy supplied to the distribution system by generation units holding generation, autoproducer and autoproducer group license,

d) The electricity energy supplied and withdrawn between two distribution systems,

e) The electricity energy at the system connection points of balancing entities.

#### SECTION TWO Registration Process

#### **Scope of registration operations**

**ARTICLE 24 -** (1) As part of the registration process, the following shall be registered:

a) Legal entities of market participants,

b) Settlement aggregation entities chosen by market participants to be registered under their settlement accounts,

c) The participation of market participants in a balance responsible group

ç) The meters included in the settlement aggregation configuration of each registered settlement aggregation entity,

d) The participation of market participants in the balancing power market and their balancing entities which they are required to register under their own settlement accounts.

e) The Participation of market participants in the day ahead market.

#### Market participation agreement and day ahead market participation agreement

**ARTICLE 25** - (1) The Market Participation Agreement whereby the market participant confirms the accuracy of all information and documents in his registration file as well as accepts and commits his obligations under the Balancing and Settlement Regulation, and which consists of articles regarding the related market participants' obligations regarding balance responsibility, and Day Ahead Market Participation Agreement consisting of articles that cover obligations regarding participation in the day ahead market of the market participants participating in the day ahead market, shall be prepared by the Market Operator and shall be submitted to the President for approval.<sup>17</sup>

(2) All market participants shall sign the standard Market Participation Agreement approved by to the President<sup>18</sup> market participants participating in day ahead market shall also sign the standard Day Ahead Market Participation Agreement approved by to the President <sup>19</sup>. These agreements shall be submitted to the Market Operator.

## Legal entity registration application of the market participants

**ARTICLE 26** - (1) Market participants that have received generation, autoproducer and autoproducer group licenses shall apply to Market Operator regarding legal entity registration, in order to complete their legal entity application, within 15 working days before energizing their facilities following the provisional acceptance.

(2) Market participants that have received retail and wholesale license shall apply to Market Operator regarding legal entity registration application within 15 working days following the effectiveness date of their license.

(3) After entering the information regarding their legal entities to the Market Management System (MMS) for approval, the market participants shall submit the following documents together with a cover letter to the Market Operator in hand and apply for legal entity registration:

<sup>&</sup>lt;sup>17</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>18</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>19</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

a)<sup>20</sup>

b) A copy of their licenses signed on the company seal by the authorized person or persons to represent and bind,

c) Legal entity registration form,

ç) The authorization certificates of persons who have signatures on the documents and the original or notarized copies of their specimen signatures.

d) Photocopy of the Commercial Register Gazette.

(4) It is mandatory for market participants to enter their legal entity information to the MMS for approval. The registration applications of market participants who have not entered their legal entity information to the MMS for approval shall not be taken into consideration, and this situation shall be notified to the related market participant in written. The registration process begins after market participants enter their legal entity information to the MMS for approval.

# Review and evaluation of the legal entity applications of market participants

**ARTICLE 27** - (1) The Market Operator shall complete, within 10 working days following the date of application, the review and evaluation of information and documents in the application file as well as the review of whether such information and documents conform to the information entered to MMS.

(2) Any shortcoming detected as a result of review and evaluation and the fact that the legal entity registration will not be done if such shortcomings are not eliminated shall be notified to the applying market participant and a 10 working days shall be given for the elimination of shortcomings.

(3) Market participants whose application files have been accepted or who have completed the shortcomings within 10 working days shall be informed that their applications have been accepted and their registration applications filed via MMS shall be approved. The market participants whose legal entity registration applications have been accepted shall be assigned an EIC code in compliance with ENTSO- $E^{21}$  standards by the Market Operator

(4) Legal entity registration procedures of market participants who have not completed their shortcomings within due course shall not be completed and their registration applications filed via MMS shall not be approved. The application file shall be returned to related market participants in hand, and the Authority shall be informed.

(5) Licensed legal entities may be asked to provide any additional information and document during the review and evaluation of application files and the persons authorized to directly represent the legal entity may be invited for interview.

(6) Market participants may proceed with the other stages of registration process only after completing the legal entity registration process. A market participant, characterized as a legal entity holding wholesale license and that has signed the Market Participation Agreement and completed the legal entity registration process shall be registered as balance responsible party. All the other market participants that signed the Market Participation Agreement and completed the legal entity registration process shall be registered as balance responsible party. All the other market participants that signed the Market Participation Agreement and completed the legal entity registration process shall complete the registration process regarding their settlement aggregation entities in order to be registered as balance responsible party.

## **Registration of settlement aggregation entities**

**ARTICLE 28** - <sup>22</sup>(1) Market participants shall submit, in hand, the following information and documents to the Market Operator when registering their settlement aggregation entities to the Market Operator;

a) Single line diagram showing the metering and connection points of the settlement aggregation entities to be registered and approved by the related distribution license holder legal entity or TEIAS,

b) a copy of the connection agreement,

c) Except for those submitted during legal entity registration, copy of generation facilities' licenses signed on the company seal by the authorized person or persons to represent and bind,

ç) Minute of temporary acceptance for the generation facilities

<sup>&</sup>lt;sup>20</sup> Abolished by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>21</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>22</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

d) Settlement aggregation entity registration form,

(2) In case a market participant is included in a balance responsible group when it files a registration application for a new settlement aggregation entity, the registration application shall be filed jointly by the related market participant and the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group.

(3) During the registration of settlement aggregation entities, the settlement aggregation configuration for the subject entity shall be defined and registered. The loss coefficients to be applied to the metering systems shall be determined during the registration of metering systems.

(4) Each registered settlement aggregation entity shall be assigned a settlement aggregation entity code in compliance with ENTSO-E Standards by the Market Operator.

(5) In order to complete the registration of settlement aggregation entities;

a) Registration of meters in the settlement aggregation configuration must have been completed,

b) The total amount of collateral submitted to the Market Operator by the market participant must be at a level that covers the total collateral value of the market participant including the settlement aggregation entity being registered

(6) Participation of a generation facility; that will supply electricity to the system for the first time, in the balancing mechanism and settlement procedures after the registration of settlement aggregation entity with the Market Operator, shall take place following the meter reading minute prepared during the temporary acceptance procedures of the subject generation facility or unit/units of the generation facility by participation of the Ministry temporary acceptance delegation and related TEIAS and/or distribution license holder legal entity officials. In case a generation facility or unit/units of the generation facility completes the temporary acceptance procedures by the Ministry, but not applies to the Market Operator for registration of settlement aggregation entity, such generation facility shall participate in the balancing mechanism and settlement procedures only after the registration of settlement aggregation entity to the Market Operator and the meters in the subject settlement aggregation configuration are registered.

## Participation of market participants in a balance responsible group

**ARTICLE 29 -** (1) For a market participant to apply for participation in a balance responsible group;

a) he must have completed his legal entity registration,

b) he must have completed the registrations regarding the settlement aggregation entities associated with him, as of the time of application.

(2) The application of a market participant to the Market Operator in order to participate in a balance responsible group shall be filed jointly by the related market participant and the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group. In order to complete the process of a market participant's participation in a balance responsible group, the total amount of collateral submitted to the Market Operator by the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group must be at a level that covers the balance responsible party's total collateral requirement<sup>23</sup>, including the settlement aggregation entities registered in the name of the market participant that is included in the balance responsible group. The participation of a market participant in a balance responsible group takes effect as of the first invoicing period that follows the invoicing period in which the procedures regarding participation in the group are completed.

## **Registration of meters**

## **ARTICLE 30** – <sup>24</sup>

(1) During the registration of settlement aggregation entities, the meters in the settlement aggregation configurations of these entities shall also be registered.

<sup>&</sup>lt;sup>23</sup> 06 Kasım 2010 tarihli ve 27751 sayılı Resmi Gazetede yayımlanan Yönetmelikle değiştirilmiştir.

<sup>&</sup>lt;sup>24</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

(2) Market Operator shall make notifications to the market participant and other related units of TEIAŞ and/or real persons holding distribution licenses for mutual registration of settlement aggregation units.

(3) The meters not conforming to the relevant legislation shall not be registered.

(4) In the event of failure of the consumer facilities that are required to install meters that are capable of measuring on the settlement period basis pursuant to procedure and principles related with profile application, the registration of said meters shall be deleted. Participant whose meter registration is deleted are registered as of 00:00 on the beginning of the month after the month in which the meter change is realized in conformity with the legislation.

(5) First index determination protocols shall be issued by the market participant's official and TEIAŞ and/or real person holding distribution license until the date specified in the notification. Tests of the metering systems required for registration of the meters which are installed new or of which the periodical control period has expired in line with the provisions of Measurements and Calibration Law No. 3516 of 11/1/1989 and the test processes required for establishment of communication between AMRS and the meters required to be included into the AMRS scope pursuant to the Procedure and Principles regarding the Scope of Automatic Meter Reading Systems and Determination of Meter Values.

(6) The test report prepared for the metering systems and the first index determination protocol shall be signed by the Market participant's official and TEIAS and/or the real person holding distribution license. Upon signing of the test report and the first index determination protocol by the parties and completion of the works related with establishment of communication with AMRS for meters that are included into the AMRS scope pursuant to Procedure and Principles related with Scope of Automatic Reading Systems and Determination of Meter Values, the meters shall be registered.

(7) Regarding the meters that are included into the AMRS scope pursuant to Procedure and Principles related with Scope of Automatic Reading Systems and Determination of Meter Values, the related parties shall be required to have fulfilled the tasks and liabilities specified in within the framework of said procedure and principles.

(8) Regarding meters that are not included into the AMRS scope pursuant to Procedure and Principles related with Scope of Automatic Reading Systems and Determination of Meter Values, this situation shall be determined upon first index reading. Information regarding the reading period and reading term of said meters shall be provided in the first index determination protocol. Upon issuance of the first index determination protocol and the metering system test report, the meters shall be registered.

 $(9)^{25}$ 

(10) TEIAS and/or distribution license holder legal entities shall determine whether transformer loss and/or line loss will be applied or not, taking into consideration the loss coefficient calculation methodology and the criteria mentioned in the Article 80.<sup>26</sup> In cases where it is necessary to apply transformer loss and/or line loss, the characteristic data regarding the transformer and line loss coefficient formula determined through the Board decision applicable to the transformer and/or line shall be included to the single line diagram by TEIAS and/or distribution license holder legal.

(11) The meter reading minute prepared by the temporary acceptance delegation as a result of temporary facility acceptance that is realized before energizing new generation facilities and/or new units by connecting to the transmission system, shall be considered as the first index reading protocol.

(12) The meters included in another settlement aggregation entity configuration and registered earlier shall not be registered again.

# Supplier replacement processes for the settlement aggregation units related with eligible consumers

# **ARTICLE 30/A -** <sup>27</sup>

(1) Excluding the retail sales price list, approved by the Board in the scope of retail sale agreement for the aggregation unit of the eligible consumer receiving energy from a distribution

<sup>&</sup>lt;sup>25</sup> Abolished by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>26</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>27</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

company holding retail sale license with a retail sale agreement in the scope of price lists approved by the Board, in the event of a market participant intending to supply electricity energy for the first time with a bilateral agreement making an application for meter registration, settlement aggregation unit registration and addition to the portfolio regarding the settlement aggregation unit belonging to the consumer who shall buy the energy;

a) the market participant intending to become a new supplier and/or the retail sale license holder distribution company intending to sell energy with bilateral agreements to the eligible consumers in its area other than the retail sales price lists approved by the board in the scope of retail sales agreements, shall enter the information related with the settlement aggregation unit and the meters over the MMS by 17.00 hours on the last business day before the sixth day of the current month and shall handover the Energy Purchase-Sale Notification Form for eligible consumers to the Market Operator. Information entries made by the new supplier shall be announced to the current supplier of the eligible consumer through the MMS.

b) Until 17:00 hours on the last business day before the twenty-third day of the current month:

1) It shall be approved through the MMS by the related retail sale license holder distribution company, who is construed as being the current supplier, that said consumer is an eligible consumer and has fulfilled its liabilities towards its existing supplier or it shall be rejected through MMS with grounds of rejection specified. In the event of rejection that the liability has been fulfilled, the situation shall be notified over the MMS to the market participant intending to be the new supplier in the same day along with reasons thereof. Payment liability of said consumer towards its current supplier shall be evaluated on the basis of the last invoice that has been issued.

2) It shall be approved through the MMS by the related distribution license holder real person or TEIAŞ that meters are in conformity with the related legislation along with the loss values and other parameters based on the single line diagram that shows the metering and connection points for the settlement aggregation units to be registered, which is available electronically on the MMS and which is in conformity with the related settlement aggregation unit or this shall be rejected with reasons specified through the MMS. In the event of rejection of conformity, the situation shall be notified by the Market Operator over the MMS to the market participant intending to be the new supplier in the same day along with reasons thereof.

(2) In the event of replacement of a supplier by an eligible consumer receiving energy from a supplier in the scope of bilateral agreements;

a) The related market participant intending to become the new supplier shall apply for the portfolio change by 17.00 hours on the last business day before the sixth day of the current month by entering the information over the MMS and shall submit the Energy Sale-Purchase Notification Form to the Market Operator for sales to the eligible consumers. Information entries by the new supplier shall be announced to the supplier of the eligible consumer through MMS.

b) Market Operator shall realize the processes to be made regarding the portfolio change over MMS by 17:00 hours on the last business day before the 10th of the current month.

c) It shall be approved through the current supplier, that the related consumer has fulfilled its liabilities towards its current supplier by 17:00 hours of the last business day prior to the twenty-third day of the current month through MMS or it shall be rejected through MMS with grounds of rejection specified. In the event of rejection that the liability has been fulfilled, the situation shall be notified over the MMS to the market participant intending to be the new supplier in the same day along with reasons thereof. Payment liability of said consumer towards its current supplier shall be evaluated on the basis of the last invoice that has been issued.

(3) In the event of a market participant requesting removal of an aggregation unit of an eligible consumer from its portfolio:

a) Market participant who is the current supplier of the eligible consumer shall apply to the Market Operator with an official letter by 17:00 hours on the last business day before the sixth day of the current month.

b) Removal of the eligible consumer from the portfolio of the market participant shall be realized by the Market Operator.

(4) Market Operator shall announce the meters that are removed from the portfolio, of which the portfolio has been changed and which have been registered new to the related distribution company,

TEIAŞ and the related market participants by 17:00 hours on the last business day before the twentieth of the current month.

(5) First index determination protocols shall be issued by the market participant's official and TEIAŞ and/or the distribution license holder real person for registration of the meters by reading of the related meters by 24:00 hours on the last day of the current month.

(6) Meter readings at 24:00 hours on the last day of the current month shall be considered as the last reading for the current supplier and as the first reading for the new supplier and said settlement aggregation units shall be removed from the portfolio of the current supplier.

(7) In the event of non-approval or rejection of the information provided in these subparagraphs over the MMS by the date specified in the first and second subparagraph of this article, said information related with the eligible consumer shall be construed as being approved.

(8) In the event of a market participant, providing electricity energy to the aggregation units of an eligible consumer, withdrawing the application for addition to and removal from the portfolio of the settlement aggregation units, related market participant shall present its said request with the bilateral agreement cancellation notification form that indicates that an agreement has been reached with the related eligible consumer to the Market Operator by 17.00 hours on the last business day before the 23rd day of the current month. This situation shall be notified to the existing supplier of the consumer on the same day over the MMS.

## **Registration of balancing entities**

**ARTICLE 31 -** (1) Market participants shall register their balancing entities to the Market Operator.

(2) During the registration of balancing entities, the information and documents as well as technical parameters required to be provided pursuant to the provisions of relevant legislation shall be entered to the MMS and submitted to the Market Operator by the market participant registering his balancing entity.

(3) The technical parameters to be needed by the System Operator regarding the balancing entity shall be sent to the System Operator for the necessary reviews. As a result of the review to be conducted by the System Operator within 10 working days, the related generation facility or unit shall be registered as a balancing entity under the name of the market participant upon the System Operator's approval.

 $(4)^{28}$  In the event of the market participant having a consumption unit with eligible consumer characteristic registered as a balancing unit, the document indicating that the legal entity owning the consumption unit approves registration of the consumption unit under the name of the related market participant, shall be delivered in person by the related market participant to the Market Operator.

(5) A balancing entity does not include a smaller balancing entity that satisfies the rules regarding the settlement aggregation entities and balancing entities.

(6) Generation facilities whose ministerial provisional acceptance was not completed cannot be registered as balancing entity. A generation facility is accepted as a settlement consumption unit until it completes the registration for balancing entity.

## Procedures for the participation of market participants in the day ahead market

**ARTICLE 32 -** (1) The market participants that have completed the legal entity registration and the registration of all the related settlement aggregation entities as of the application date may apply to the Market Operator for registration to the day ahead market.

(2) The application for participation in the day ahead market shall be filed via MMS first. If deemed necessary, the information and documents to be announced by the Market Operator shall be submitted to the Market Operator in the declared format.

(3) The market participants to participate in the day ahead market shall sign the Day Ahead Market Participation Agreement that also includes the obligations of market participants regarding the day ahead market. Following the signing of Day Ahead Market Participation Agreement by the related

<sup>&</sup>lt;sup>28</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

market participant, the registration process for the participation of the related market participant in the day ahead market shall be complete.

# SECTION THREE Updating of Registration Information

#### Updating of registration information

**ARTICLE 33** –  $^{29}(1)$  The registration information of market participants shall be updated in the following cases;

a) Changes in market participant's data,

b) Changes or deletion of data regarding existing balancing entities,

c) Changes or deletion of data regarding existing settlement aggregation entities,

ç) Changes or deletion of data regarding existing metering systems,

d) Registration of a new balancing entity,

e) Registration of a new settlement aggregation entity

f) Registration of a new metering system,

g) Registration of a market participant to a balance responsible group or changing the registered balance responsible group,

(2) Market participants shall make the requests related with addition or removal of the settlement aggregation units to or from their portfolios regarding the eligible consumers in their portfolios, in the scope of the process specified in article 30/a. In case, market participant is included in a balance responsible group when they notify their application regarding deletion of a settlement aggregation entity from their portfolio, balance responsible party, who undertakes liability on behalf of the balance responsible group, is notified regarding the issue.

(3) In case an update procedure affects the register of multiple market participants, the registers of affected market participants shall be simultaneously updated.

(4) In case a market participant wishes to cease supplying to an eligible consumer to which supplies by registering his settlement aggregation entity under his own account and thus exclude the settlement aggregation entity of the subject eligible consumer from his own register, the application for modification of register shall be filed in accordance with the related provisions of the agreement between the market participant and the eligible consumer.

(5) In case a market participant wants to register a settlement aggregation entity that is already registered in the system into its portfolio or to change the register information of the already registered settlement aggregation entities, processes explained in the Articles 28 and 30/A are applied. However, among documents that are stated in the first clause of Article 28 and in the first and second clauses of Article 30/A, only the ones that changed are resubmitted to the Market Operator.

## Market participants leaving a balance responsible group

**ARTICLE 34** - (1) The register modification application of a market participant for leaving a balance responsible group shall be filed by the related market participant or the balance responsible party that has taken over the balance responsibility on behalf of the balance responsible group, in accordance with the related provisions of the agreement between both parties. Such application shall be notified to the Market Operator by 2 working days before the beginning of the invoicing period when the register modification will take effect, at the latest. Register modification shall take effect as of the beginning of the invoicing period indicated in the application.

(2) The register of a market participant that has left a balance responsible group and has not participated in another balance responsible group shall be updated by the Market Operator and such market participants shall become balance responsible party.

<sup>&</sup>lt;sup>29</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

## PART FOUR Provisions Regarding Day Ahead Balancing SECTION ONE Day Ahead Planning

#### Principles of day ahead planning

**ARTICLE 35** - (1) Day ahead planning shall be executed according to the provisions of this Regulation, with due regard also to the Electricity Market Grid Regulation and Electricity Transmission System Supply Reliability and Quality Regulation<sup>30</sup>, such that the forecasted hourly demand for the day ahead will be balanced while;

a) ensuring operational security and system integrity,

b) satisfying supply reliability and supply quality criteria,

c) minimizing balancing costs.

(2) Transactions related to the day ahead planning are executed on the basis of below principles;

a) All market participants must participate in day ahead planning. Market participants who own balancing entity registered under their own name submit offers and bids as part of day ahead planning<sup>31</sup>,

b) Day ahead planning offers and bids are submitted daily on an hourly basis. Each day consists of hourly time intervals starting at  $00:^{00}$  and ending next day at  $00:^{00}$ .

c) All offers and bids, submitted to the day ahead planning, are valid for a certain balancing entity, certain day and a certain time interval through that day,

c) In offers and bids submitted to day ahead planning, all the technically feasible capacity owned by the balancing entity shall be proposed in consistent with the format of the submitted offer and bid. Dengeleme biriminin sisteme bağlantısının kısıt kayıtlı bağlantı niteliği taşıması halinde teknik olarak gerçekleştirilebilecek tüm kapasite Sistem işletmecisi tarafından belirlenen teknik olarak gerçekleştirilebilecek azami kapasite ile sınırlandırılır. <sup>32</sup> The capacity that corresponds to the primary frequency control reserve amount that is required to be provided within the context of Electricity Market Ancillary Services Regulation published in the Official Gazette No. 27093 dated 27/12/2008 before submitting offer and bid to the balancing power market is exempted from this capacity. Hydroelectric generation facilities may consider constrains regarding water usage and reserve management while determining the capacity they can propose,

d) Day ahead planning transactions correspond to a fixed supply or demand level through the relevant time interval,

e) Offers and bids<sup>33</sup> that are accepted on the day ahead planning incur the obligation of physical electricity supply and demand for the relevant market participant,

f) Each transaction, concluded on the day ahead planning, is completed by the delivery of active electricity energy at the settlement delivery point during the period of instruction,

g) The Market Operator is a counterpart for each day ahead planning participant, for all the transactions concluded on the day ahead planning.

#### Day ahead planning process

**ARTICLE 36 -** (1) Day ahead planning shall be executed on a daily basis and shall consists of the following steps:

a) By 11:<sup>30</sup> hours<sup>34</sup> each day, the demand forecast for the following day is announced by System Operator via MMS.

b) Until 11:<sup>30</sup> hours<sup>35</sup> each day, System Operator shall enter highly probable system congestions for the following day to the day ahead planning module of MMS.

<sup>&</sup>lt;sup>30</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>31</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>32</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>33</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>34</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>35</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

c) Until 11:<sup>30</sup> hours<sup>36</sup> each day, the market participants participating in day ahead planning shall notify DGSs that are determined according balancing obligations for each balancing entity, and day ahead offers and bids<sup>37</sup> to Market Operator via MMS.

ç) Until 11:<sup>30</sup> hours<sup>38</sup> each day, all market participants shall notify total consumption forecasts for each hour of the following day concerning consumption units registered under the name of each market participant to Market Operator via MMS.

d) Between  $11:^{30}$  and  $13:^{00}$  hours<sup>39,40</sup> each day

1)The Market Operator shall prepare the unconstrained generation/consumption schedule that will balance the forecasted hourly demand, for each hour of the following day, via the day ahead planning module of MMS.

2) The Market Operator shall determine the system marginal price within the context of day ahead planning, for each hour of the following day via the day ahead planning module of MMS, taking into consideration the prices of hourly, block and flexible offers and bids used for the preparation of unconstrained generation/consumption schedule,

3) The Market Operator shall evaluate, via the day ahead planning module, the day ahead offers and bids<sup>41</sup>, taking into consideration the system congestions entered to the day ahead planning module by the System Operator. The Market Operator shall form, via MMS, the day ahead offers and bids within the context of the day ahead planning, for all accepted offer and bid instructions<sup>42</sup> and shall issue the instructions to the related market participants. Market Operator shall take the Methodology for Determination of System Marginal Price in Day Ahead Planning and Establishment of System Sale and System Purchase Instructions, which has been published by the Authority with the approval of the President, as the basis in determination of determination of the System Day Ahead Price and system sale and purchase instructions through MMS.<sup>43</sup>

e) Between 13:<sup>00</sup> and 13:<sup>30</sup> hours<sup>44</sup> each day; the market participants participating in day ahead planning shall check whether or not the day ahead offer and bid instructions<sup>45</sup> issued by the Market Operator for day ahead planning are consistent with the related offers and bids<sup>46</sup>, and may object to the Market Operator regarding the inconsistent instructions,

f) Between 13:<sup>30</sup> and 14:<sup>00</sup> hours<sup>47</sup> each day; the Market Operator shall evaluate the objections and if necessary, re-determine the system marginal prices within the context of day ahead planning, issue the offer and bid<sup>48</sup> instructions within the context of day ahead planning regarding all accepted offers and bids to the related market participants and announce the system marginal prices within the context of day ahead planning. In case there is no objection, pre-calculated system marginal prices cannot be changed by the Market Operator under all circumstances.

g) Until  $14:^{00}$  hours each day; the System Operator shall conclude the day ahead schedule for whole system.

## Notification of demand forecasts by the System Operator

**ARTICLE 37** - (1) By 11:<sup>30</sup> hours<sup>49</sup> each day, the demand forecast for the following day is announced by System Operator, via MMS.

<sup>&</sup>lt;sup>36</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>37</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>38</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>39</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>40</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>41</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>42</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>43</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>44</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2000

<sup>&</sup>lt;sup>45</sup> Amended by the regulation published in the Official Gazette No. 27/31 dated 00 November 2010.

<sup>&</sup>lt;sup>46</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>47</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>48</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>49</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

(2) The demand forecast announced by the System Operator shall contain information on total demand (MWh) to be met by all generation facilities in the system for each hour between  $00:^{00}$  and  $24:^{00}$  hours on the day that follows the day of announcement.

(3) The demand forecast announced by the System Operator must have been prepared on the basis of the most up-to-date data available.

# Structure, content and notification of DGSs and consumption forecasts

**ARTICLE 38** - (1) DGS contains the hourly total active electricity energy planned to be generated by each generation facility and the hourly total active electricity energy planned to be consumed by each consumption unit, in terms of MWh for each hour in the period it covers and covers the period between  $00:^{00}$  and  $24:^{00}$  hours on the day following the day of notification. DGSs that are notified within the context of day ahead planning are on the basis of settlement delivery point.

(2) All settlement aggregation entities in the form of generation facility are required to make a notice on DGS.

(3) The DGSs that are determined on the basis of related balancing entity, for the balancing entities within the context of day ahead planning, shall be notified to the Market Operator via MMS until 11:<sup>30</sup> hours<sup>50</sup> each day in line with the provisions of Article 48 by making use of all available communication opportunities. In case the DGSs are not notified by the specified time, the DGS for the previous day shall be valid.

(4) The DGS prepared on the basis of settlement aggregation entities, for the generation facilities which are required to notify DGS but are not balancing entities, shall be notified via MMS by 11:<sup>30</sup> hours<sup>51</sup> each day. After meeting the obligation of the related market participant, remaining volume of DGS notifications that are made regarding generation facilities that are not balancing entity shall be considered as a bilateral agreement made with Market Operator<sup>52</sup>. Market participants that do not have access to MMS shall notify their DGSs to the RLDC to which the generation facility is attached until 10:<sup>00</sup> hours<sup>53</sup>. In this case, RLDCs shall enter the notified DGSs to MMS. In the event of the DGSs not being notified by the designated time, DGS entered for the last day with the same characteristics in the scope of classification of days shall be construed as being valid for the related day regarding the successive working days and holidays, without the requirement of belonging to the successive calendar days being applicable.<sup>54,55</sup>

(5) Consumption forecasts consist of consumption information anticipated in hourly MWh term regarding the following day and that are anticipated to be consumed by the market participants via consumption facilities, registered under their own account, but who are not balancing entity. Consumption forecasts are notified to Market Operator by all market participants via MMS until 11:<sup>30</sup> hours<sup>56</sup> each day. In case a consumption forecast notification regarding related day is not made by a market participant, the consumption forecast entered for the last day with the same characteristics in the scope of classification of days shall be construed as being valid for the related day regarding the successive working days and holidays, without the requirement of belonging to the successive calendar days being applicable.<sup>57</sup>

(6) Market participants shall carry out the generation/consumption activities of their related generation/consumption facilities as specified in their DGSs and consumption forecasts, unless otherwise instructed.

# Offers and bids within the context of day ahead planning58

**ARTICLE 39** - (1) The market participants participating in day ahead planning may submit hourly and/or block and/or flexible offers<sup>59</sup>, and hourly and/or block bids<sup>60</sup> within the context of day

<sup>&</sup>lt;sup>50</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>51</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>52</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>53</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>54</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>55</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>56</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>57</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>58</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

ahead planning. Offers<sup>61</sup> and bids<sup>62</sup> within the context of day ahead planning are on the basis of settlement delivery point.

(2) All offers submitted regarding a balancing entity within the context of day ahead planning for any hour must be achievable by the related balancing entity at the same time. Likewise, all bids submitted regarding a balancing entity within the context of day ahead planning for any hour must be achievable by the related balancing entity at the same time<sup>63</sup>.

(3) Offers<sup>64</sup> and bids<sup>65</sup> within the context of day ahead planning consist of information on volume and price that may vary for different hours. All submitted offer and bid prices shall have one percent sensitivity and in Turkish official currency terms. All submitted offer<sup>66</sup> and bid<sup>67</sup> volumes shall be expressed in 1 MWh term and its folds.

(4) Offers<sup>68</sup> and bids<sup>69</sup> within the context of day ahead planning shall at least consist of following information:

a) Name and participation code to day ahead planning of relevant market participant,

b) Date when the offer and bid is valid.

c) Excluding flexible bids, time interval when the offer and bid is valid,

ç) Offer and bid type.

d) Price and volume.

(5) ) Structure and the required information for all the offers<sup>70</sup> and bids<sup>71</sup> submitted within the context of day ahead planning are determined by Market Operator and notified to market participants by Market Management System (MMS).

#### Structure and content of hourly offers and bids<sup>72</sup>

**ARTICLE 40** - (1) The market participants participating in the day ahead planning submit hourly offers<sup>73</sup> and bids<sup>74</sup> to the Market Operator, via MMS regarding the hourly generation/consumption increases or decreases they can fulfil for the following day, on the basis of balancing entities within the context of day ahead planning, as inclusive of offer and bid prices, and volumes, for each hour of the following day.

(2) Hourly offers<sup>75</sup>, committed by the market participant participating in day ahead planning and to be realized by the related balancing entity for each hour of the following day, shall contain the MWh volume of the generation increase or consumption decrease according to DGS in case of first level and to the generation or consumption values determined in the previous level in case of other levels, as well as the unit price requested for such increase in generation or decrease in consumption (TL/MWh).

(3) Hourly bids<sup>76</sup>, committed by the market participant participating in day ahead planning and to be realized by the related balancing entity for each hour of the following day, shall contain the MWh volume of the generation decrease or consumption increase according to DGS in case of first level and to the generation or consumption values determined in the previous level in case of other levels, as well as the unit price requested for such decrease in generation or increase in consumption (TL/MWh).

<sup>59</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>60</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>61</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>62</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>63</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>64</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>65</sup> Amended by the regulation published in the Official Ga	× 1 /	
<sup>66</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>67</sup> Amended by the regulation published in the Official Ga		
<sup>68</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>69</sup> Amended by the regulation published in the Official Ga	· 1 /	
<sup>70</sup> Amended by the regulation published in the Official Ga		
<sup>71</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.
<sup>72</sup> Amended by the regulation published in the Official Ga		
<sup>73</sup> Amended by the regulation published in the Official Ga		
<sup>74</sup> Amended by the regulation published in the Official Ga		
<sup>75</sup> Amended by the regulation published in the Official Ga		
<sup>76</sup> Amended by the regulation published in the Official Ga	azette No. 27418 (repeated)	dated 26 November 2009.

(4) Market participants participating in day ahead planning may submit hourly offers<sup>77</sup> and bids<sup>78</sup> at 15 levels of volumes, separately for offers<sup>79</sup> and bids<sup>80</sup>. Except the hydroelectric power plants, prices regarding hourly offer<sup>81</sup> and bid<sup>82</sup> volumes are submitted separately for offers<sup>83</sup> and bids<sup>84</sup> as a single price for all levels of volume by the market participants. Hydroelectric power plants may submit separate offer price for each level of volume. Prices regarding all the submitted hourly offer<sup>85</sup> and bid<sup>86</sup> volumes shall at least be equal to higher than zero and have one percent sensitivity. All hourly offer<sup>87</sup> prices shall be submitted such that the price of next offer level will be higher than or equal to the price of next offer level will be lower than or equal to the price of the previous bid level.

(5) For consecutive weekdays<sup>89</sup>; not necessarily consecutive calendar days, on the basis of balancing entities participating in day ahead planning, the weighted average of the hourly offer<sup>90</sup> prices for the second day among the hourly offer<sup>91</sup> prices corresponding to the same hour may exceed the weighted average of the hourly offer<sup>92</sup> prices for the first day that has the same characteristic as part of aforementioned categorization on days, by 10 % at maximum. Likewise, on the basis of related balancing entity, the weighted average of hourly bid<sup>93</sup> prices for the second day may be smaller than the weighted average of the hourly bid<sup>94</sup> prices corresponding to the same hour of the first day that has the same characteristic as part of aforementioned categorization on days, by 10 % at maximum. Official holidays and the administrative holidays before or after the official holidays shall be excluded from this scope and the 10% restriction shall not be applied on the bid prices for said kinds of days.<sup>95</sup>

(6) The sum of hourly offer<sup>96</sup> volumes regarding an hour shall be determined by taking into consideration the generation increase or consumption decrease achievable by that balancing entity within that hour so that the DGS value can be achieved in the following hour. Likewise, the sum of hourly bid<sup>97</sup> volumes regarding an hour shall be determined by taking into consideration the generation decrease or consumption increase achievable by that balancing entity within that hour so that the DGS value can be achievable by that balancing entity within that hour so that the DGS value can be achievable by that balancing entity within that hour so that the DGS value can be achieved in the following hour.

(7) In case the market participants that participate in day ahead planning prefer that the hourly offers and bids of a balancing entity within the context of day ahead planning can only be accepted in their entirety, due to technical reasons regarding the related balancing entity, they may note that the offers and bids cannot be accepted partially. The instructions prepared for the offers and bids which cannot be accepted partially shall cover the whole of the related offer or bid volume.

# Structure and content of block offers and bids<sup>98</sup>

**ARTICLE 41 -** (1) The market participants participating in day ahead planning shall submit block offers<sup>99</sup> and bids<sup>100</sup> to the Market Operator, via MMS for the generation/ consumption increases or

<sup>&</sup>lt;sup>77</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>78</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>79</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>80</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>81</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>82</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>83</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>84</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>85</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>86</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>87</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>88</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>89</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>90</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>91</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>92</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>93</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>94</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>95</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>96</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>97</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>98</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

decreases they can achieve on the basis of balancing entities within the context of day ahead planning and valid for multiple consecutive hours in the following day, as inclusive of offer and bid prices and quantities.

(2) Block offers<sup>101</sup> shall contain the hourly MWh volume of the constant level generation increase or consumption decrease proposed by the market participant participating in day ahead planning, to be realized by balancing entity for a certain period of time, as well as the unit price (TL/MWh) that is requested for such increase or decrease and that is effective for the period which the block offer covers.

(3) Block bids<sup>102</sup> shall contain the hourly MWh volume of the constant level generation decrease or consumption increase proposed by the market participant participating in day ahead planning, to be realized by balancing entity for a certain period of time, as well as the unit price (TL/MWh) that is requested for such decrease or increase and that is effective for the period which the block bid covers.

(4) The blocks which the market participants participating in day ahead planning may propose shall be determined by the System Operator and implemented by the Market Operator. The market participants participating in day ahead planning may be granted the right to define their own block offers and bids via MMS; however, the block offers and bids to be defined as such shall cover a period of at least 4 hours and their number shall not exceed 5 in a day on the basis of balancing entity within the context of day ahead planning. The market participants participating in day ahead planning may submit a maximum 25 block offers and bids in total, for each balancing entity within the context of day ahead planning.

(5) For consecutive weekdays<sup>103</sup>; not necessarily consecutive calendar days, on the basis of balancing entity participating in day ahead planning, the weighted average of the block offer prices<sup>104</sup> for the second day among the block offer prices<sup>105</sup> corresponding to the same hour, may exceed the weighted average of the block offer prices<sup>106</sup> for the first day by 10 % at maximum. Likewise, on the basis of related balancing entity, the weighted average of block bid<sup>107</sup> prices for the second day of the block bid<sup>108</sup> prices corresponding the the same hour may be smaller than the weighted average of the block bid<sup>109</sup> prices of the first day that has the same characteristic as part of aforementioned categorization on days, by 10 % at maximum. Official holidays and the administrative holidays before or after the official holidays shall be excluded from this scope and the 10% restriction shall not be applied on the bid prices for said kinds of days.<sup>110</sup>

(6) Each block offer or bid shall either be accepted for the entire period of time it covers or shall not be accepted. Block offers and bids cannot be accepted for a period of time shorter that they cover.

(7) Block bids offered to day ahead planning are evaluated via day ahead planning module such that minimum possible system marginal prices can be obtained for the whole time period covered by those bids. All block offers<sup>111</sup> and bids<sup>112</sup> regarding a balancing entity are evaluated independently.

#### Structure and content of flexible offers<sup>113</sup>

<sup>&</sup>lt;sup>99</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>100</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>101</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>102</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>103</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>104</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>105</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>106</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>107</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>108</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>109</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>109</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>109</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>108</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>109</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>110</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<sup>111</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
<

**ARTICLE 42** - (1) Flexible offers<sup>114</sup> are offers consisting of hourly offer<sup>115</sup> volumes and offer<sup>116</sup> prices on the basis of balancing entities within the context of day ahead planning, as separate from hourly offers<sup>117</sup> and bids<sup>118</sup>. Flexible offers<sup>119</sup> are not associated with a certain hour. The evaluation of flexible offers<sup>120</sup> shall be based on the principle that the offer be accepted at the hour in which the day ahead price within the context of day ahead planning is the highest, such that it will be equal to or higher than the relevant flexible offer<sup>121</sup> price.

(2) For consecutive weekdays<sup>122</sup>; not necessarily consecutive calendar days, on the basis of balancing entities within the context of day ahead planning, the prices of flexible offers<sup>123</sup> for the second day may exceed the prices of flexible offers<sup>124</sup> for the first day that has the same characteristic as part of aforementioned categorization on days, by 10 % at maximum. Official holidays and the administrative holidays before or after the official holidays shall be excluded from this scope and the 10% restriction shall not be applied on the bid prices for said kinds of days.<sup>125</sup>

#### <sup>126</sup>Submission of offers and bids

**ARTICLE 43** - (1) The market participants participating in day ahead planning shall submit offers and bids to Market Operator, via MMS on the basis of balancing entities under day ahead planning, by 10:<sup>30</sup> hours each day in accordance with the provisions of Article 48 by using all the available communication means. In case the offers and bids are not submitted by the specified time;

(a) In case the participant not providing the DGS regarding the related balancing unit, the offers and bids of the previous day with the same characteristics in the scope of classification of days shall be effective regarding the successive working days and holidays without the successive calendar days requirement being applicable.

(b) In the event of a DGS entry being made by the participant, the system purchase and sale offer shall be considered as not being present.

## Evaluation of offers and bids <sup>127</sup>

**ARTICLE 44 -** (1) Within the framework of day ahead planning activities, the Market Operator shall evaluate the offers<sup>128</sup> and bids<sup>129</sup> submitted for day ahead planning through the day ahead planning module, firstly without taking into consideration system congestions and the constraints regarding balancing entities within the context of day ahead planning, and prepare the day ahead unconstrained generation/consumption schedule to balance DGSs that are submitted by the market participants participating in day ahead planning and consumption forecasts notified by the market participants. By taking into consideration the offer and bid prices used for the preparation of unconstrained generation/consumption schedule, the Market Operator shall determine the system marginal price within the context of day ahead planning via the day ahead planning module. In case of use of only the block offers in the establishment of an unrestricted generation/consumption schedule for any hour, block offer prices shall be taken into consideration when determining the system marginal price.<sup>130</sup>

<sup>&</sup>lt;sup>114</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>115</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>116</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>117</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>118</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>119</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>120</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>121</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>122</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>123</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>124</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>125</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>126</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>127</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>128</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>129</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>130</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

(2) By taking into consideration;

a) transmission system congestions,

b) technical constraints of balancing entities within the context of day ahead planning,

c) reliability of supply and supply quality criteria,

the System Operator shall determine and enter to the day ahead planning module all possible congestions that will likely endanger operational security and system integrity by 11.<sup>30</sup> hours<sup>131</sup>. Congestions entered into day ahead planning are published by the System Operator together with its reasons by 17.<sup>00</sup> hours on the following day.

(3) Day ahead offers<sup>132</sup> and bids<sup>133</sup> shall be re-evaluated through the day ahead planning module, taking into consideration the congestions entered to the day ahead planning module, such that balancing costs will be minimized, and the day ahead schedule for the entire system shall be prepared.

(4) Within the context of day ahead planning, offer<sup>134</sup> and bid<sup>135</sup> instructions regarding all offers and bids accepted for the preparation of day ahead schedule, and the hourly energy purchase and sale volumes that are determined to eliminate predicted imbalances regarding the following day according to consumption forecasts of the market participants are determined by Market Operator via MMS, and notified to the related market participants.

(5) The volume of offer<sup>136</sup> and bid<sup>137</sup> instructions that are issued due to congestions that are entered into day ahead planning module by System Operator as indicated in the second clause of this Article, are published by System Operator.

<sup>138</sup> "(6) In case of the supply and demand curves not coinciding, the Market Operator may request the options of either or both updating of the consumption forecasts or reduction of the consumption forecast in a way to affect all market participants at an equal rate. In the event of updating of the consumption forecast, the time schedule regarding the processes shall be realized shall be notified to the market participants by the Market Operator. In the event of reduction of the consumption forecast so as to have all market participants affected at the same rate, the reduced demand amount shall be notified by the Market Operator to the System Operator. Reduction schedule to be applied on the day after regarding the notified amount shall be established and applied by the System Operator".

# Offer and bid instructions within the context of day ahead planning<sup>139</sup>

**ARTICLE 45** - (1) The offer<sup>140</sup> and bid<sup>141</sup> instructions within the context of day ahead planning indicate the average volume of generation/consumption, which the related balancing entity must increase or decrease in terms of MWh, for the related hour or the period of time which the block offers or bids cover. Offer<sup>142</sup> and bid<sup>143</sup> instructions within the context of day ahead planning are on basis of settlement delivery point.

(2) Offer<sup>144</sup>, bid<sup>145</sup> instruction volumes issued by the Market Operator for a balancing entity within the context of day ahead planning cannot be higher than the related offer<sup>146</sup> and bid<sup>147</sup> volumes that have been accepted for preparing instructions.

<sup>134</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>131</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>132</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>133</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>135</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>136</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>137</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>138</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

 <sup>&</sup>lt;sup>138</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
 <sup>139</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>140</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>141</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>142</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>143</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>144</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>145</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>146</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>147</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

(3) Day ahead offer<sup>148</sup> and bid<sup>149</sup> instructions shall be issued by the Market Operator to the related market participant participating in day ahead planning, by 13:<sup>00</sup> hours each day.

# Objections to instructions, evaluation and conclusion of objections

**ARTICLE 46** - (1) In case the offer<sup>150</sup> and bid<sup>151</sup> instructions, issued within the context of day ahead planning, are not consistent with the related offers<sup>152</sup> and bids<sup>153</sup>, the market participants may object to the Market Operator between 13:<sup>00</sup> and 13:<sup>30</sup> hours.

(2) The objections shall be evaluated by the Market Operator by 14:<sup>00</sup> hours. In case the objection is found to be justifiable, the instruction volume shall be corrected to ensure consistency with the related offers<sup>154</sup> or bids<sup>155</sup>. If the corrected instruction affects the instructions issued to other market participants within the context of day ahead planning, the Market Operator shall re-prepare a day ahead generation/consumption schedule in line with the provisions of Article 44. By 14:<sup>00</sup> hours, the instruction data updated as a result of the new day ahead generation/consumption schedule shall be issued to the related market participants participanting in day ahead planning. Offer<sup>156</sup> and bid<sup>157</sup> instructions that are issued within the context of day ahead planning cannot be changed after the completion of day ahead planning activities.

(3) FDGS that will be notified for a balancing entity within the context of day ahead planning is formed by considering the offer<sup>158</sup>, bid<sup>159</sup> instructions issued within the context of day ahead planning and the DGS that is notified for the related balancing entity within the context of day ahead planning.

# Principles regarding the determination of tag values of the offer and bid instructions within the context of day ahead planning<sup>160</sup>

**ARTICLE 47 -** (1) Within the context of day ahead planning, the instructions accepted by the Market Operator for the preparation of unconstrained generation/consumption schedule and effectively sent to the market participants participating in day ahead planning shall be given a tag value of 0, and all other instructions shall be given a tag value of 1 by considering the method indicated in Article 44, by the Market Operator.

ARTICLE 48 - (1) Within the context of day ahead planning,

a) notification of DGSs and consumption forecasts by the relevant market participants,

b) submission of system offers and system bids<sup>161</sup> by market participants,

c) announcement of demand forecast for the following day by the System Operator,

ç) notification of all instructions and energy purchase, sale volumes prepared by the Market Operator to the market participants participating in day ahead planning,

d) except the ones mentioned above all other notifications to be made by the Market and Systems Operators to the related market participants, all information to be posted and announcements to be made,

e) except the ones mentioned above all other notifications to be made by the market participants to the Market and/or System Operators.

are executed via MMS.

<sup>156</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>148</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>149</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>150</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>151</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>152</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>153</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>154</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>155</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>157</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>158</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>159</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>160</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>161</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

(2) Market participants are required to take the necessary measures for ensuring access to MMS. However, when MMS is not functional, notifications shall be made via first fax and then telephone. The notifications made via fax and telephone shall be transferred to MMS by the Market or System Operator.

(3) MMS malfunction procedures indicated in the Article 65 are applied for execution of day ahead planning activities when MMS is not functioning.

## SECTION TWO Day Ahead Market

## General provisions regarding day ahead market process

**ARTICLE 49** - (1) Transactions regarding day ahead market are executed on the basis of following general principles;

a) Day ahead market transactions are executed daily on an hourly basis. Each day consists of hourly time intervals starting at  $00:^{00}$  and ending next day at  $00:^{00}$ .

b) Day ahead market transactions correspond to a fixed supply or demand level through the relevant time interval,

c) Purchase and sales bids that are accepted in the day ahead market incur the obligation of physical electricity supply and demand for the relevant market participant,

ç) The Market Operator is a counterpart for each day ahead market participant, for all the transactions concluded in the day ahead market,

d) Each bid, submitted to the day ahead market, is valid for a certain trade zone, a certain day and a certain time interval through that day,

e) Each transaction, concluded on the day ahead market, is completed by the delivery of active electricity energy at the settlement delivery point or the connection point of national transmission system and the transmission system of neighbouring country.

## Day ahead market process

**ARTICLE 50 -** (1) Day ahead market shall be executed on a daily basis and shall consist of the following steps:

a) By 09:<sup>30</sup> hours each day, in case there is more than one trade zone, Market Operator notifies the market participants regarding the hourly transmission capacity that is determined by the System Operator and that can be used next day for the day ahead market,.

b) By 11.<sup>30</sup> hours<sup>162</sup> each day, market participants that participate to the day ahead market submit day ahead market bids to Market Operator by MMS. Each submitted day ahead market bid is confirmed or rejected by the Market Operator until 12:<sup>00</sup> hours<sup>163</sup>, by the evaluation in line with the provisions of Article 57.

c) Between  $11:^{30} - 13:^{00}$  hours<sup>164</sup> each day;

1) Market Operator calculates the next day's day ahead market price for every hour and every trade zone,

2) Market Operator notifies the commercial transaction confirmations, which includes the day ahead market sale and purchase quantities of each market participant, to the market participants that participates to the day ahead market.

ç) Between  $13:^{00} - 13:^{30}$  hours each day; market participants that participate to the day ahead market checks the commercial transaction confirmations, notified to them and if necessary they submit their objections to the Market Operator.

d) Between  $13:^{30} - 14:^{00}$  hours each day; Market Operator evaluates the objections and notifies the results of objections to the relevant market participants.

## Determination and declaration of trade zones

<sup>&</sup>lt;sup>162</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>163</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>164</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

**ARTICLE 51 -** (1) System Operator regularly performs necessary analysis and actions in order to determine long term, large scale and enduring possible congestions in transmission system. Within the framework of this analysis, System Operator divides the national electricity system into areas called trade zones.

(2) System Operator shall notify the Market Operator regarding the changes in border definitions of trade zones within the deadlines mentioned in principles and procedures regarding determination of trade zones. The changes in border definitions of trade zones shall be notified to the market participants by the Market Operator.

## Determination and declaration of trade limits

**ARTICLE 52** - (1) System Operator determines the trade limits between the trade zones everyday according to the relevant legislation. All of the transmission capacity within trade limits is provided to day ahead market by System Operator. Until 09:<sup>30</sup> hours each day, System Operator determines the hourly available transmission capacity that is available for day ahead market in the following day and notifies to Market Operator. Market Operator notifies the market participants regarding the hourly transmission capacity that is determined by the System Operator and that can be used next day for the day ahead market.

## Day ahead market bids

**ARTICLE 53** - (1) Market participants that participate to the day ahead market can submit single hour, and/or block and/or flexible bids within the context of day ahead market. All the submitted bids for any hour shall be fulfilled simultaneously by relevant market participant.

(2) Day ahead market bids consist of price and quantity pairs that may vary for different hours. All the submitted bid prices shall have one percent sensitivity and expressed in Turkish official currency terms. All the submitted bid quantities shall be expressed in 1 MWh term and its folds..

(3) Bids submitted in day ahead market include at least the information below;

a) Name and participation code to day ahead market of relevant market participant,

b) Date when the bid is valid,

c) Excluding flexible bids, time interval when the bid is valid,

ç) Trade zone where the bid is valid,

d) Bid type,

e) Price and quantity.

(4) Structure and the required information for the bids submitted to day ahead market are determined by the Market Operator and notified to market participants by Market Management System (MMS).

(5) Day ahead market bids can be submitted only for the trade zones where relevant market participant generates or consumes electricity or owns contract notifications.

## Structure and content of single hour purchase or sales bids

**ARTICLE 54 -** (1) Market participants that participate to the day ahead market submit single hour purchase or sales bids for each hour of the following day to Market Operator by Market Management System (MMS) concerning the sale or purchase of active electricity energy.

(2) Each single hour purchase or sales bid submitted to day ahead market consists of pricequantity pairs at most with 32 different price levels for each of purchase and sale directions.

(3) Each price-quantity pair that constitutes a purchase bid submitted to day ahead market determines the maximum MWh unit price at which the relevant market participant proposes to purchase certain quantity of electricity that does not exceed the quantity mentioned in the price-quantity pair. Bids are determined in such a way that when purchase quantities are listed in an increasing order, the second one of the consecutive two bids has a lower price than the first one.

(4) Each price-quantity pair that constitutes a sales bid submitted to day ahead market determines the minimum MWh unit price at which the relevant market participant proposes to sell certain quantity of electricity that does not exceed the quantity mentioned in the price-quantity pair. Sales bids are determined in such a way that when sales quantities are listed in an increasing order, the second one of the consecutive two bids has a higher price than the first one.

(5) Market participants that participate to the day ahead market may have only one valid single hour purchase or sales bid for each price level. A market participant that participates to the day ahead market cannot have both a valid single hour purchase and sales bids for the same price level.

(6) Maximum and minimum price limits that will be used for submitting single hour purchase and sales bids to day ahead market are determined by the Market Operator and declared to market participants via MMS. Maximum price limit shall be determined far above the expected maximum price in the market. Bid prices, regarding all single hour purchase and sale bids submitted to the day ahead market shall be submitted in a way that they contain the price limits. According to the changing market conditions, Market Operator updates the maximum and minimum price limits and declares to market participants via MMS.

## Structure and content of block purchase or sales bids

**ARTICLE 55** - (1) Market participants that participate to the day ahead market submit block purchase or sales bids that are valid for more than one consecutive hours of the following day to Market Operator and System Operator by MMS concerning the sale or purchase of active electricity energy.

(2) Block purchase bid includes the constant level purchase volume in terms of hourly MWh that the market participant that participates to the day ahead market proposes to buy from day ahead market for a certain time interval and the unit price (TL/MWh) that the market participant offers to pay for this purchase, valid for all the time interval that the bid spans.

(3) Block sales bid includes the constant level sales volume in terms of hourly MWh that market participant that participates to the day ahead market proposes to sell to day ahead market for a certain time interval and the unit price (TL/MWh) that the market participant asks for this sale, valid for all time intervals that the bid spans.

(4) Market participants that participate to the day ahead market can submit more than one block bids that span the same or different time intervals of the same day. Block bids consist of consecutive complete hours. The blocks, for which market participants that participate to the day ahead market bid, are determined by the System Operator and executed by the Market Operator. Market participants that participate to the day ahead market might be given the right to define their own block bids through MMS, provided that block bids that are determined in this way shall span at least 4 hours. Market participants that participants that participants that participants that participants that participants to the day ahead market may submit at most 50 block bids in a day

(5) Each block bid is either accepted for the whole time interval it spans or not accepted at all. Block bids cannot be accepted for a time interval shorter than the time interval it spans.

(6) For at most three block bids, block bids may be linked to each other. Out of three block bids that are liked to each other in this way, first one may be accepted alone, second one may be accepted as soon as the first one is accepted and the third one may be accepted as soon as the first two are accepted. All of the block bids that are linked to each other in this way shall be either purchase or sale block bids and related to the same sales portfolio and trade zone.

#### Structure and content of flexible sales bids

**ARTICLE 56** - (1) Flexible sales bids are the single hour sales bids that are not associated with a certain hour and different from single hour purchase and sales bids. Market participants that participate to the day ahead market submit the flexible sales bids for the following day to Market Operator by MMS.

#### Submission and validation of day ahead market bids

**ARTICLE 57** - (1) The time interval, during which day ahead market bids, regarding any day, are submitted and which starts from 5 (five) days before the relevant day and ends on the previous day at 11:30 <sup>165</sup>, is called the bid submission period. Day ahead market bids regarding any day can be submitted to Market Operator via MMS, during bid submission period by market participants participating to day ahead market.

<sup>&</sup>lt;sup>165</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

(2) Market Participants that participate to day ahead market submit bids to Market Operator during the mentioned bid submission period in accordance with the provisions of Article 66, by using all the available communication means.

(3) Submission of the day ahead market bids is performed by the completion of submission of the bids to MMS. Completion of the submission of bids to MMS is performed by at least assigning an entry number to each bid and recording the entry time of the bid in hour, minute and seconds to MMS. Via the MMS, market participants that participate to the day ahead market can view their own bids that were submitted to the MMS.

(4) Each day ahead market bid that is submitted via MMS is controlled by Market Operator in order to determine whether;

a) collateral liabilities are satisfied or not and

b) total sale and purchase quantity limits that can be proposed to day ahead market by each market participant and that were determined by market participants that participate to the day ahead market or by Market Operator are exceeded or not.

Bids that satisfy the mentioned criteria are validated by Market Operator. Validated day ahead market bids become effective. Bids that do not satisfy the mentioned criteria are rejected by Market Operator by specifying the reasons and are not considered within the context of day ahead market operations. A day ahead market bid that is rejected by Market Operator in such a way may be revised in order to satisfy the mentioned criteria and submitted once again within the bid submission period. Market Operator shall complete the evaluation regarding the acceptance or rejection of each bid, submitted to MMS, until 12:<sup>00</sup> hours<sup>166</sup> on the last day of bid submission period. Relevant market participant informs the Market Operator regarding the day ahead market bids that are not evaluated within this time frame.

(5) Any day ahead market bid submitted by the market participants that participate to the day ahead market or became effective by validation can be replaced with a new bid within the bid submission period by the relevant market participant. Each revised bid shall be controlled according to the criteria mentioned in fourth clause of this Regulation and validated again. Any validated day ahead market bid shall be valid until it is replaced with a new validated bid. Records regarding each revision on a day ahead market bid are saved on MMS.

#### Price determination process in day ahead market

**ARTICLE 58** - (1) In day ahead market, day ahead price determination process is executed daily, between  $12:^{00}$  -  $13:^{00}$  hours<sup>167</sup> each day for each hour of the relevant day and consists of the steps below:

a) Day ahead market bids that are submitted for all trade zones are taken into account without considering the transmission constraints between zones an UMCP for every hour of the relevant day are calculated.

b) Purchase and sales quantities for each trade zone at UMCP level and envisaged energy flow quantities between trade zones that are connected with lines with transmission constraints are determined. When, envisaged flow quantities between zones are less than or equal to the available transmission capacities that is reserved for day ahead market, UMCP is determined as the FMCP for the related zones. When, envisaged flow quantities between zones are more than the available transmission capacities that are reserved for day ahead market, different FMCPs for each trade zone and for each hour are determined such that the transmission constraints between zones are removed.

c) At the level of FMCP, purchase and sales quantities of each market participant within the context of day ahead market is determined and notified to market participants by commercial transaction confirmations.

#### Matching and determination of UMCP in day ahead market

**ARTICLE 59** - (1) For all trade zones, matching the hourly purchase and sale bids and calculation of the UMCP are done as mentioned below by considering all the bids submitted to the day ahead market:

<sup>&</sup>lt;sup>166</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>167</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

a) All the hourly sale bids submitted to day ahead market for the relevant hour are listed in an increasing order of price starting from the price-quantity pair with lowest price until the price-quantity pair with highest price and combined into one bid. Supply curve is formed by combining each price-quantity pair with the consequent price-quantity pair in the direction of increasing price, utilizing linear interpolation method. When summation of the quantities in all validated hourly sale bids are zero, supply curve occurs between minimum and maximum prices with a quantity zero at all points.

b) All the hourly purchase bids submitted to day ahead market for the relevant hour are listed in a decreasing order of price starting from the price-quantity pair with highest price until the pricequantity pair with lowest price and combined into one bid. Demand curve is formed by combining each price-quantity pair with the consequent price-quantity pair in the direction of decreasing price, utilizing linear interpolation method. When summation of the quantities in all validated hourly purchase bids are zero, demand curve occurs between minimum and maximum prices with a quantity zero at all points.

c) By intersecting the demand and supply curves formed for every hour according to items (a) and (b), the intersection point, where purchased and sold electricity energy quantities and transferred energy price are equal, and the price that corresponds to the intersection point are determined. When demand and supply curves are intersected on a segment corresponds to a unique quantity but an interval of price, the price that corresponds to intersection point is calculated by arithmetic average of maximum and minimum points of the price interval.

ç) For each hour of the relevant day, UMCFs are determined by evaluating the block and flexible bids in accordance with the provisions of Article 61 and Article 62 respectively.

## Congestion management process in day ahead market and determination of FMCP

**ARTICLE 60 -** (1) After determining the UMCP on the basis of method determined in Article 59, Market Operator calculates the purchase and sales quantities at the level of UMCP for each trade zone. Purchase and sales quantities for the relevant trade zone are calculated by considering the block and flexible bid quantities that are accepted and quantities in price-quantity pairs that have prices equal to the UMCP among all submitted purchase and sale bids,

(2) If the difference between purchase and sales quantities at the level of UMCP for the relevant trade zone is lower than or equal to the available transmission capacity that is reserved for day ahead market transactions, then FMCP is determined as equal to UMCP for the relevant trade zone.

(3) For one or more trade zones, if the difference between purchase and sales quantities at the level of UMCP for the relevant trade zone is higher than the available transmission capacity that is reserved for day ahead market transactions, then flow between zones is diminished to a level that does not exceed the available transmission capacity reserved for day ahead market by decreasing the price of surplus zone starting from the UMCP and increasing the price of energy deficit zone starting from the UMCP, for the trade zones laying at each side of the constraint. Until the condition that requires difference between purchase and sales quantities at the level of new price does not exceed the available transmission capacity that is reserved for day ahead market transactions is satisfied for all trade zones, same steps are repeated. This operation shall be executed with the aim of maximum fulfilment of energy flow from low price zones to high price zones and achieving the minimum price that does not violate the transmission constraints in all zones considering all the day ahead market bids valid for the related trade zone. In this way the new price levels calculated for all the trade zones are determined as the FMCP.

(4) In case of demand and supply curves do not intersect; Market Operator may choose one or two of the following ways: to recollect day ahead market bids by increasing the maximum price limit and repeat the market operations or to decrease purchase bid quantities at a rate that affect all of the market participants in the same ratio. In case of repetition in the market operations, the time schedule is declared to the market participants by the Market Operator. In case of decrease in purchase bid quantities at a rate that affect all of the market participants, the System Operator is informed by the Market Operator about decreasing demand quantity. The outage schedule to be applied in the following day for the informed quantity is determined and implemented by the System Operator.

#### **Evaluation of block bids**

**ARTICLE 61** - (1) Block bids are accepted when the below criteria are met:
a) Block sale bids are accepted, if the price determined by matching the hourly purchase and sales bids for the consecutive hours that block bid spans is equal to or higher than the related block bid price.

b) Block purchase bids are accepted, if the price determined by matching the hourly purchase and sales bids for the consecutive hours that block bid spans is equal to or lower than the related block bid price.

c) When block bid satisfies the acceptance criteria mentioned in items (a) or (b), block bid is accepted as a whole for the time interval it spans.

(2) Block bids submitted to day ahead market are evaluated by MMS as the lowest possible UMCP for a certain hour and the lowest possible FMCP for all trade zones are attained.

# **Evaluation of flexible sales bids**

**ARTICLE 62** - (1) Evaluation of the flexible sales bids shall be based on the principle that the bid be accepted at the hour in which market clearing price is the highest and such that the market clearing price is higher than or equal to the relevant flexible sales bid. Flexible sales bids shall be evaluated in the order determined by considering bid price and in case bid prices are same, the completion time of bid submission to MMS. Hourly and block bids are prioritized over flexible bids.

### **Commercial transaction confirmations**

**ARTICLE 63 -** (1) After calculation of the FMCP for each trade zone, Market Operator notifies the calculated purchase and sales quantities to the relevant market participant via commercial transaction confirmations that include the validated purchase and sales quantities,

(2) Commercial transaction confirmation is notified to the relevant market participants until 13:<sup>00</sup> hours by Market Operator. Commercial transaction confirmation includes at least the information below:

a) Name and participation code to day ahead market of relevant market participant,

- b) Date when the bid is valid,
- c) Time interval when the bid is valid,
- ç) Trade zone where the bid is valid,
- d) Quantity that is purchased and sold by the relevant market participant,
- e) Confirmed purchase and sale price.

(3) Market participants that participate to the day ahead market may make an objection to these notifications until 13:<sup>30</sup>, in case an error exists in the content. Objections are accepted only if the error arises from the Market Operator. If the objection is justifiable, Market Operator is obliged to revise the purchase and sales quantities and send the revised commercial transaction confirmation to the relevant market participant until 14:<sup>00</sup>. According to MMS malfunction procedures in Article 65, in case of a delay in commercial transaction confirmations, 30 minutes of objection time, starting from the notification of commercial transaction confirmations by Market Operator, is granted to market participants. If this objection is justifiable, Market Operator is obliged to send the revised commercial transaction confirmations to the relevant market participants. If this objection is justifiable, Market Operator is obliged to send the revised commercial transaction confirmation to the relevant market participant in 30 minutes.

(4) As long as the objection is not accepted by the Market Operator, objection does not remove the obligations of the relevant Market Participant. The market participant that does not make an objection during the objection period is considered to accept the commercial transaction confirmation together with its complete content. After the completion of the objection period, commercial transaction confirmations are considered as agreement bounded with the quantity it covers.

(5) In case of a delay in commercial transaction confirmations, Market Operator can determine different rules for commercial transaction confirmations and objections if found necessary and provided that is announced to market participants.

# Notification of day ahead market results to the System Operator

**ARTICLE 64** - (1) After the commercial transaction confirmations, within the schedule determined by System Operator and in format determined by System Operator, Market Operator presents to the System Operator the day ahead market results, whose commercial transaction confirmations are completed.

# MMS malfunction procedures

**ARTICLE 65** - (1) In case problems that prevent operations to be carried out in a coherent way occur in computer, software or other technological infrastructure used by Market Operator in execution of the market operations or in case communication lines that are used by Market Operator are interrupted, MMS malfunction procedures are applied.

(2) In case of MMS's unexpected malfunction, if it appears that Market Operator cannot complete the processes in accordance with this Regulation within the mentioned time frame, Market Operator determines a new time frame in order to complete the processes. Notifications that should be performed in accordance with the provisions of this Regulation are fulfilled by utilizing the alternative channels stated in Article 66. In case MMS malfunctions and Market Operator cannot complete day ahead market transactions before the relevant day, values in commercial transaction confirmations of the day before the malfunction or a similar day announced by the Market Operator, are used on an hourly basis, as long as the malfunction continues. The end of MMS malfunction procedures is declared to market participants that participate to the day ahead market by the Market Operator.

(3) Market Operator and market participants that participate to day ahead market are obliged to determine at least one person who can be reached immediately during the time when MMS malfunction procedures are in effect, provide the relevant telephone and fax number to the other party, and inform the other party as soon as the contact information is changed.

(4) Market Operator is obliged to take necessary precautions in order to avoid malfunction of MMS. Market Operator cannot be held liable for additional costs and losses that incur as a consequence of execution of MMS malfunction procedure.

# Notifications within the context of day ahead market

ARTICLE 66 - (1) Within the context of day ahead market,

a) notification of trade zones determined by System Operator to Market Operator and relevant market participants,

b) notification of available transmission capacity that is reserved for day ahead market by System Operator to Market Operator and relevant market participants,

c) submission of day ahead market bids to Market Operator by market participants that participate to the day ahead market,

ç) notification to relevant market participant concerning confirmation or rejection of bids that were submitted by market participants that participate to the day ahead market,

d) notification of day ahead prices, determined for trade zones to market participants,

e) notification of commercial transaction confirmations to relevant market participants by Market Operator,

f) notification of objections against commercial transaction confirmations to Market Operator by market participants that participate to the day ahead market and notification of results of objections to relevant market participants by Market Operator,

g) notifications to the System Operator concerning the results of the day ahead market by the Market Operator.

ğ) except the ones mentioned above all the notifications, information and announcements to relevant market participants published by Market and System Operators,

h) except the ones mentioned above all the notifications to Market and/or System Operator by relevant market participants

are executed via MMS.

(2) Market participants are required to take the necessary measures for ensuring access to MMS. However, when MMS is not functional, notifications shall be made via first fax and then telephone. The notifications made via fax and telephone are transferred to MMS as soon as possible by Market or System Operator.

# PART FIVE Provisions Regarding Balancing Power Market SECTION ONE Balancing Power Market

# General principles regarding balancing power market process

**ARTICLE 67 -** (1) Transactions regarding balancing power market are executed on the basis of following general principles:

a) Balancing power market offers and bids are submitted daily on an hourly basis. Each day consists of hourly time intervals starting at  $00:^{00}$  hours and ending next day at  $00:^{00}$ .

b) All offers and bids submitted to the balancing power market are valid for a certain balancing entity, a certain trade zone, a certain day and a certain time interval through that day.

c) In the offers and bids submitted to the balancing power market, all the technically feasible capacity of the related balancing entity shall be proposed in consistent with the format of the submitted offer and bid. The capacity that corresponds to the primary frequency control reserve amount that is required to be provided within the context of Electricity Market Ancillary Services Regulation, before submitting offer and bid to the balancing power market is exempted from this capacity. Hydroelectric generation facilities may consider constraints regarding water usage and reserve management while determining the capacity they can propose.

ç) It is assumed that instructions issued by the System Operator within the framework of balancing power market correspond to a fixed supply or demand level between the start and end times.

d) Offers and bids that are accepted in the balancing power market incur the obligation of physical electricity supply or demand for the relevant market participant.

e) Balancing power market instructions may be issued at any time from the completion of final day ahead generation/consumption schedule notification and offer and bid submission within the context of balancing power market until the end of the relevant day.

f) Each transaction concluded in the balancing power market is completed by the delivery of active electricity energy at the settlement delivery point, during the period of instruction.

## **Balancing power market process**

**ARTICLE 68** - (1) The balancing power market process shall begin at 14:<sup>00</sup> hours each day, when the day ahead balancing is completed, and is executed according to the following steps on a daily basis;

a) By 16:<sup>00</sup> hours each day; each market participant that participates in balancing power market shall submit offers and bids regarding balancing power market and notify final day ahead generation/consumption schedules containing the hourly generation or consumption values to the System Operator, via the MMS, for the settlement aggregation entities in the form of generation and consumption facility registered under its own account.

b) By 17:<sup>00</sup> hours each day; the System Operator controls notifications regarding final day ahead generation/consumption schedules and its offers and bids, thus, identifies whether material error exists. System Operator gets in contact with the relevant market participant regarding the erroneous notifications and assures the required corrections are done until 17:<sup>00</sup> hours.

c) The offers and bids submitted within the context of the balancing power market shall be ranked by System Operator according to their prices, for each trade zone and each hour.

c) Beginning from 17:<sup>00</sup> hours each day; in order to eliminate the existing or predictable energy surplus or deficit in the system regarding the relevant day, removing the system constraints and/or building capacity regarding provision of ancillary services, System Operator shall evaluate the offers and bids submitted within the context of the balancing power market and shall issue the instructions for the accepted offers and bids to the related market participants. The notifications regarding the termination of instructions shall be made to the related market participants.

d) The instructions issued within the context of the balancing power market shall be tagged with 0 for balancing instructions, with 1 for removing system constraints and with 2 for instructions regarding ancillary services.

e) The system marginal prices in the balancing power market for each hour shall be determined in the two hours following the related hour and shall be announced to market participants by the System Operator.

### Notification of final day ahead generation/consumption schedules

**ARTICLE 69** - (1) The final day ahead generation/consumption schedules and available capacities of each market participant, regarding the generation or consumption values anticipated to be

realized for the following day depending on its balance responsibility obligations and the result of day ahead balancing, shall be notified to the System Operator by 16:<sup>00</sup> hours each day<sup>168</sup>.

(2) All settlement aggregation units that have the characteristics of a generation facility shall be required to present their finalized day ahead generation/consumption schedules and available capacities.<sup>169</sup> Final day ahead generation/consumption schedule includes the hourly generation or consumption values of all balancing entities in the form of generation and consumption facilities registered under the account of the market participants or settlement aggregation entities that are not balancing entities but in the form of generation facilities. Final day ahead generation/consumption schedules are notified on the basis of balancing entity, separately for balancing entities or settlement aggregation entities that are not balancing entities but in the form of generation facilities.

(3) If the difference of final day ahead generation/consumption schedule of a balancing entity within the context of the balancing power market for 2 consecutive hours is equal to or higher than 200 MWh, the final day ahead generation/consumption schedule for the second hour shall be notified to the System Operator in a detailed manner on the basis of 15 minutes long time periods. For such balancing entities, final day ahead generation/consumption schedules shall be submitted on the basis of 15 minutes long time periods, instead of hourly final day ahead generation/consumption schedules.

(4) Offers, bids and the final day ahead generation/consumption schedules which were checked against material errors by the System Operator are confirmed by 17:<sup>00</sup> hours.

(5) Market participants shall carry out generation/consumption activities of their related generation/consumption facilities as specified in their FDGS, unless otherwise instructed by the System Operator. Whether the generation/consumption facilities carry out their generation in accordance with their FDGSs and the instructions issued by the System Operator shall be monitored by NLDC for generation facilities that are balancing entities and by RLDCs for other generation facilities.

(6) In order to prevent the repetition of violation, the System Operator shall serve a written notice regarding market participants who are detected as not performing their generation or consumption in compliance with their FDGSs and the instructions issued by the System Operator. In case the related market participant repeats the violation, the System Operator shall prepare a report detailing the violation and submit it to the Authority.

(7) In case the Authority detects a violation on review of the report, sanctions shall be imposed on the related market participant pursuant to Article 11 of the Law.

# Structure and content of the offers and bids submitted within the context of balancing power market

**ARTICLE 70** - (1) The market participants participating in balancing power market shall submit hourly offers and bids related to the generation/consumption increases or decreases they can realize in 15 minutes to System Operator via MMS, as effective for the following day considering the maximum offer and bid rates and on the basis of balancing entities within the context of the balancing power market, as inclusive of offer and bid prices and volumes, separately for each trade zone and for each hour of the related day.

(2) Hourly offers to be realized by the balancing entity of market participant within the context of the balancing power market for each hour of the related day, shall contain the MW volume of generation increase or consumption decrease achievable in maximum 15 minutes, according to the final day ahead generation/consumption schedule in case of first level and to the generation or consumption values determined in the previous level in case of other levels, as well as the unit price requested for such increase (TL/MWh).

(3) Hourly bids to be realized by the balancing entity of market participant within the context of the balancing power market for each hour of the related day, shall contain the MW volume of generation decrease or consumption increase achievable in maximum 15 minutes, according to the final day ahead generation/consumption schedule in case of first level and to the generation or

<sup>&</sup>lt;sup>168</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>169</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

consumption values determined in the previous level in case of other levels, as well as the unit price requested for such decrease in generation or increase in consumption (TL/MWh).

(4) Market participants within the context of balancing power market may submit offers and bids at 15 levels of volumes, separately for offer and bid directions. Except the hydroelectric power plants, prices regarding hourly offer and bid volumes are submitted separately for offer and bid directions as single price for all levels of volume by the market participants. Hydroelectric power plants may submit separate offer and bid price for each level of volume. All submitted offers and bids shall satisfy the following conditions:

a) All offer and bid prices shall at least be equal to or higher than zero, have one percent sensitivity and in the Turkish official currency terms.

b) All offer prices shall be determined such that they will be equal to or higher than the day ahead price set for the related trade zone for the related hour.

c) All bid prices shall be determined such that they will be equal to or smaller than the day ahead price set for the related trade zone for the related hour.

 $\bar{c}$ ) All offers shall be submitted such that the price of next offer level will be equal to or higher than the price of previous offer level.

d) All bids shall be submitted such that the price of next bid level will be equal to or smaller than the price of previous bid level.

(5) The sum of offer and bid volumes regarding an hour and a balancing entity within the context of balancing power market shall be determined by taking into consideration the change achievable in output power or consumption within 15 minutes after the instruction reaches the related balancing entity. For any given hour, all offers submitted regarding a balancing entity within the context of the balancing power market must be achievable by the related balancing entity within maximum 15 minutes. Likewise, for any given hour, all bids submitted regarding a balancing entity within the context of the balancing power market must be achievable by the related balancing entity within maximum 15 minutes. For an offer or bid submission to be valid, the owner of offer or bid must keep needed capacity available so that the offer or bid he has submitted can be achievable within maximum 15 minutes. The minimum offer and bid volume shall be 10 MW. If deemed necessary, the System Operator may set a different minimum limit for offers and bids providing that market participants are notified at least one month before. All submitted offer and bid volumes shall be expressed in 1 MW term and its folds.

(6) In the offers and bids submitted within the context of balancing power market, participants shall propose the capacity which can be achieved within maximum 15 minutes, in offer and bid directions by balancing entities in the balancing power market.

(7) Market participants participating balancing power market, shall notify the available capacities regarding balancing entities to System Operator together with offers and bids submitted in the context of balancing power market.

# Submission of offers and bids

**ARTICLE 71 -** (1) The market participants participating in the balancing power market shall submit offers and bids for the following day to the System Operator, via MMS, on the basis of balancing entities within the context of balancing power market by 16:<sup>00</sup> hours each day. It is mandatory that offers and bids be submitted to the System Operator by the specified time and as described in Article 77, using all available communication means.

(2) The volumes of offers and bids submitted within the context of balancing power market may be changed until 1 hour before their effective hour, at the latest. This change can be done only if the System Operator is informed of the technical requirements which cause a change in the offer or bid and the System Operator allows for such change. The technical reasons causing a change in offer or bid shall be notified to the System Operator in writing, within 2 working days at the latest.

# <sup>170</sup>Amendment of the technical parameters

ARTICLE 71/A - (1) Market participants participating in the balancing power market are required to observe the instructions presented to them by the NLDC in the scope of real time

<sup>&</sup>lt;sup>170</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

balancing. When liabilities cannot be fulfilled due to technical requirements, said legal entities shall notify the NLDC or the RLDC immediately by telephone, fax etc. communication means. Parties subject to real time balancing shall be liable for notifying the reasons why they could not fulfil their liabilities in writing within a period of 3 working days after the event at the latest.

(2) Market participants participating in the balancing power market shall be required to observe the KDGSs that are notified to the NLDC. In the event of changes in the available capacities of the balancing units, NLDC shall be notified by telephone, fax etc. communication means and subsequently by MMS. All kinds of changes occurring in the available capacity shall be notified to NLDC along with technical reason causing the change and shall come into force upon approval of NLDC. Any changes realized in the available capacity with the approval of NLDC shall not relieve the participant of its related financial liabilities related with the imbalance.

(3) In the event of a reduction in the available capacity by means of an approval by NLDC, a reduction shall be applied in the up-regulated offer amounts related with the related balancing unit with priority. In the event of the reduction made in the up-regulated offer amounts not covering the reduction in the availability regarding the related balancing unit, the KDGS and the down-regulated offer amounts of the related balancing unit shall be reduced. Instructions issued to the balancing unit of which the available capacity has been reduced shall be terminated by NLDC pro rata to the capacity reduction amount.

(4) In the event of an increase in available capacity upon approval by NLDC, entry of upregulated offer amounts for the subsequent hours of the related day or updating of the existing upregulated offer amounts shall be permitted. Increase in the available capacity shall not constitute a reason for increase of the KDGS value of related balancing unit.

# **Evaluation of offers and bids**

**ARTICLE 72 -** (1) The offers and bids submitted within the context of balancing power market shall be ranked according to their prices for each hour on the basis of trade zones. The offers and bids ranked according to their prices shall be evaluated such that operational security and system integrity will be ensured and balancing costs will be minimized, by taking into consideration;

a) transmission system congestions,

b) technical constraints of balancing entities within the context of balancing power market,

c) reliability of supply and supply quality criteria.

(2) Offer and bid instructions issued due to the constraints defined in the first clause of this Article are published by the System Operator.

# Offer and bid instructions within the context of balancing power market

**ARTICLE 73 -** (1) The offer and bid instructions issued within the context of balancing power market represent the change in output power which must be achieved by the related balancing entities within maximum 15 minutes after the related instruction is issued or from the start time of the instruction.

(2) The instructions issued within the context of balancing power market shall start to be fulfilled after the instruction is notified or when the instruction effective time comes, and are ended with a notification issued by the System Operator. Unless indicated otherwise, all instructions issued within the context of a balancing power market for a given day shall expire at the end of relevant day.

(3) The instructions issued within the context of balancing power market shall be issued to relevant participants firstly via MMS. In the case it is found necessary, instructions issued via MMS shall also be issued via telephone.

(4) The market participants participating in the balancing power market shall carry out their generation in their respective balancing entities as specified in the instruction. In order to remove the violations, System Operator serve a written notice to the market participants who fail to fulfil the instructions issued, as specified in the instruction without a valid justification acceptable by System Operator. In case the related market participant carries on with such violations, the System Operator shall prepare a report detailing the violation and submit it to the Authority.

(5) In case the Authority detects a violation on review of the report, sanctions shall be imposed on the related market participant pursuant to Article 11 of the Law.

# Principles regarding determination of tag values of the offer and bid instructions within the context of balancing power market

**ARTICLE 74 -** (1) The offer and bid instructions issued as a basis for settlement, for the realtime balancing of supply and demand in the entire system, shall be evaluated separately from the offer and bid instructions issued within the framework of the other activities performed by the System Operator pursuant to the relevant legislation. The tag value of instructions issued for the real-time balancing of supply and demand in the entire system shall be set as 0, the tag value of instructions issued because of system congestions shall be set as 1, and the tag value of the instructions issued within the scope of Ancillary Services shall be set as 2 by the System Operator. For an offer which has been accepted for balancing purposes to acquire a 0 (zero) tag value and to be taken into consideration in determination of the price, it must be valid for a period longer than 15 days without interruption during the related hour.<sup>171</sup> In case an instruction is associated with more than one purpose, the System Operator shall give a tag value to the instruction according to the reason it is mostly associated with.

# Offer or bid acceptance and instructions issued in cases of emergency and force majeure conditions

**ARTICLE 75** - (1) In cases of emergency or force majeure conditions, the System Operator shall issue emergency condition instruction to the market participants participating in the balancing power market within the capacity limits of the relevant generation facilities, in order to preserve the operational security of the transmission system. Emergency condition instructions are perceived as offer or bid acceptance for the relevant balancing entity. Emergency condition instructions shall not be required to be compliant with the offers and bids submitted within the context of balancing power market for the related balancing entity. Emergency condition instructions shall have the same structure with the offer and bid instructions within the context of balancing power market. Market participants participating in the balancing power market notice that they will not be able to fulfil the emergency condition instruction, they shall promptly notify the System Operator together with the reasons.

(2) The System Operator may issue emergency condition instructions also to the generation facilities which are not balancing entities and any generation increase or decrease due to such emergency condition instructions, shall be evaluated in energy surplus and deficit.

### MMS malfunction procedures regarding Balancing Power Market

**ARTICLE 76** - (1) If the malfunction that has been described within the scope of the Article 65 has affected balancing power market and if it appears that System Operator will not be able to complete the procedures in accordance with this Regulation within the mentioned time frame, the System Operator determines new time frame. The notifications that should be performed according to the provisions of this Regulation are fulfilled by utilizing the alternative channels stated in the Article 77. In case MMS malfunctions and System Operator cannot collect the offers and bids regarding the balancing power market, FDGS values, offers and bids of market participants for the day before the malfunction or for a similar day announced by the System Operator; the day ahead market prices of the relevant day, if any or the day ahead market prices regarding a similar day are used on an hourly basis as long as the malfunction continues. In case the market participants are technically not able to fulfil the values announced by the System Operator, System Operator is informed on the situation. The end of MMS malfunction procedures is declared to the market participants participating in balancing power market by the System Operator.

(3) System Operator and market participants participating in balancing power market are obliged to determine at least one person who can be reached immediately during the time when MMS malfunction procedures are in effect and provide the relevant telephone and fax numbers to the other party, and inform the other party as soon as the contact information is changed.

(4) System Operator is obliged to take necessary precautions in order to avoid malfunction of MMS. The System Operator and/or Market Operator cannot be held liable for additional costs or losses that incur as a consequence of execution of MMS malfunction procedures.

<sup>&</sup>lt;sup>171</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

# SECTION TWO Notifications and Data to be provided by System Operator for Settlement Purposes

#### Notifications within the context of balancing power market

**ARTICLE 77** - (1) Within the context of balancing power market,

a) notification of day ahead generation/consumption schedules, offers and bids to the System Operator by market participants,

b) notifications made by the System Operator to market participants regarding the errors identified in day ahead generation/consumption schedules, offers or bids,

c) notification of offer and bid instructions within the context of balancing power market to the related market participants by the System Operator,

ç) except the ones mentioned above all other notifications to be made by the Systems Operator to the related market participants, all information to be posted and announcements to be made,

d) except the ones mentioned above all other notifications to be made by the market participants to the System Operator.

are executed via MMS.

(2) The instructions issued within the context of balancing power market shall be issued to market participants first via MMS. Instructions issued via MMS may also be confirmed via telephone as well, if deemed necessary.

(3) Market participants are required to take the necessary measures for ensuring access to MMS. However, when MMS is not functional, notifications shall be made via first fax and then telephone. The notifications made via fax and telephone shall be transferred to MMS by the System Operator.

#### **Instruction agreements**

**ARTICLE 78** - (1) Regarding the instructions issued by the System Operator to the relevant market participants within the framework of balancing power market, agreement shall be ensured between parties within two days following the end of each day.

(2) For the purposes of instruction agreement, the MMS records shall be taken as a basis for the instructions issued via MMS. In cases an instruction is issued via other means of communication in line with the provisions of Article 77 of this Regulation, the records of the means of communication used shall also be taken as a basis. In case of any disagreement between the System Operator and related market participant, the voice records in the voice recording system of the NLDC shall be valid.

(3) No change can be made on the instructions after the end of agreement period.

# Data to be provided by System Operator for settlement purposes

**ARTICLE 79** - (1) For settlement purposes, the System Operator shall provide the Market Operator with the offer and bid instructions issued and agreed within the context of balancing power market for each hour in the respective notification period, on the basis of balancing entities within the context of balancing power market, as well as the tag values of these instructions, offer and bid prices regarding instructions with a tag value of 1 and the system marginal prices calculated by the System Operator within the context of balancing power market.

# PART SIX Provisions Regarding Settlement SECTION ONE Matters Regarding Losses

### Settlement delivery point and settlement volumes

**ARTICLE 80** - (1) For the purposes of settlement calculations, market participants shall be deemed to have purchased and/or sold energy at a transmission system connection point where energy is withdrawn from or exported and where transmission system loss regarding relevant settlement

period exists. Such point, which forms the basis for settlement calculations, shall be deemed as the settlement delivery point.

(2) The supply or withdrawal volumes metered by the registered meters shall be converted into settlement volumes through applying the related loss factors in line with the provisions of relevant legislation and within the framework of the following basic principles:

a) In case there are any step-down or step-up transformers between meter and referential connection point, which is not taken into account during calculation of the system losses; a transformer loss factor, which is determined during the registration of these meters on the basis of the calculation methodology<sup>172</sup> of loss factors and which reduces the amount supplied or increases the amount withdrawn in order to reflect the related transformer loss, shall be applied for purposes of calculating settlement volumes. Relevant transformer losses are not included within the network borders that are considered in applied transmission<sup>173</sup> loss coefficient calculations, in determination of transformers to which loss will be applied.

b) In case there are any lines between meter and referential connection point, which is not taken into account during calculation of the system losses; a line loss factor, which is determined during the registration of these meters on the basis of the calculation methodology<sup>174</sup> of loss factors and which reduces the amount supplied or increases the amount withdrawn in order to reflect the related line loss, shall be applied for the purpose of calculating settlement volumes. In determination of lines to which loss will be applied, relevant line losses shall not be included within the network borders that are taken into account in calculation of transmission<sup>175</sup> loss coefficients

 $^{176}$ c) For settlement calculations, the electricity energy; that is supplied to the transmission system at the generation and/or connection point where exportation is made, is reduced by applying the transmission system loss for the relevant settlement period in settlement delivery volume calculation.

 $^{177, 178}$ c) In the calculation of settlement supply volumes for the generation facilities connected to the distribution system, the transmission system loss shall not be applied to the supply volume which is measured in order to reflect the distribution system loss.

 $^{179}$ d) (will be effective as of 1/3/2011) In the event of an energy flow from the medium voltage bars used by the distribution company to the transmission system, transmission system losses shall not be applied to said energy.

### SECTION TWO

# Reading, Collection, Verification and Correction of Supply-Withdrawal Values

# Reading and collection of supply-withdrawal values

**ARTICLE 81** – (1) Meters included in the settlement aggregation entity configuration and registered under the name of the market participants, are read via AMR system at periods defined within AMR system by TEIAS or distribution license holder legal entities and the data gathered is transferred electronically to the MMS.

(2) Market Operator notifies the Market Participants regarding the electronic data exchange format that will be used to transfer data to MMS.

(3) The list of meters to be read within the framework of settlement shall be updated by the Market Operator via MMS, on an invoicing period basis, depending on new registrations and registration updates.

<sup>&</sup>lt;sup>172</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>173</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>174</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>175</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>176</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>177</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>178</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>179</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

(4) On the meters within the framework of settlement, the following values shall be read for each settlement period of related invoicing period:

a) active electricity withdrawn from the system (kWh),

b) active electricity supplied to the system (kWh).

(5) If the AMR System is not installed;

a) In order to ensure the completion of meter readings within the prescribed time limits, the relevant units of TEIAS and distribution license holder legal entities shall do a meter reading planning indicating which meter shall be read at what date and time and notify the relevant market participants about such plans.

b) The meters included in the settlement aggregation entity configurations registered in the name of market participants shall be read by TEIAS or distribution license holder legal entities, in the presence of the representative of the related market participant, within 4 days following the end of invoicing period, the meter reading minutes shall be prepared jointly and signed by the representatives of parties and the read values shall be notified to the Market Operator through MMS or corporate e-mail.

c) In case representative of market participant or related distribution license holder legal entity and/or TEIAS representative fails to participate in meter reading on time, meter reading shall be performed by the representative(s) of other parties who are present, and the meter reading minutes shall be prepared. The meter reading minute signed by the present representative shall be sent to the party not present at the meter reading in written and electronic form, within 4 days following the end of each invoicing period. Relevant license holder legal entity and/or TEIAS shall notify Market Operator regarding the meter values that they are responsible for reading through MMS or corporate e-mail.

c) In case none of the parties are present for reading meter at the announced time, and/or the meter reading minutes signed by the present parties are not sent to the Market Operator in electronic form within 4 days following the end of the invoicing period, and/or the meter reading minutes lacks a reading for any settlement period, the supply-withdrawal values of the previous invoicing period corresponding to the related settlement period shall be taken as a basis for the related invoicing period.

(6) Meter values sent to the Market Operator as part of AMR system in electronic form and transferred to the MMS are considered as official invoice values.

### <sup>180</sup> Reading, Collection and Verification of Settlement Supply-Withdrawal Values

# ARTICLE 81 - (to come into force to replace the above text with the enactment of the Procedure and Principles related with the Scope of Automatic Meter Reading Systems and Determination of Meter Values).

(1) The meters, inside the settlement aggregation unit configurations, registered to the name of the market participants, which are required to be in the scope of the AMRS pursuant to the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values, shall be read through the AMRS by TEIAS or the distribution license holder legal entity and the transferred electronically to MMS. Regarding meters that are not included into the scope of AMRS, consumption values determined pursuant to the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values, shall be transferred electronically to MMS. Regarding meters that are not included into the scope of AMRS, consumption values determined pursuant to the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values shall be transferred electronically to MMS by the distribution license holder legal persons. In the event of there being inefficiencies in the meter values ready through AMRS by TEIAS and/or the related distribution company, the values completed in line with the AMRS replacement and verification procedures determined and published by TEIAS and/or the related distribution company shall be transferred electronically to MMS.

(2) Market Operator notifies the Market Participants regarding the electronic data exchange format that will be used to transfer data to MMS.

(3) The list of meters of which the values are to be notified within the framework of settlement shall be updated by the Market Operator via MMS, on an invoicing period basis, depending on new registrations and registration updates

(4) On the meters included in AMR and within the framework of settlement, the following values shall be read for each settlement period of related invoicing period

<sup>&</sup>lt;sup>180</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

a) active electricity withdrawn from the system (kWh),

b) active electricity supplied to the system (kWh).

(5) Regarding meters in the scope of settlement which are not included into the scope of AMRS pursuant to Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values, the values of active electricity energy drawn from the system in kWh for each settlement period of each invoicing term shall be determined within the framework of Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values.

(6) Where AMRS is not installed for meters which are required to be read in the first four day period following the end of the invoicing term pursuant to Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values:

a) In order to ensure the completion of reading of the meters within first 4 days following the end of invoicing period, TEIAS and distribution license holder legal entities shall do a meter reading planning indicating which meter shall be read at what date and time and notify the relevant market participants about such plans.

b) The meters shall be read within first 4 days following the end of invoicing period by TEIAS or distribution license holder legal entities, in the presence of the representative of the related market participant, within 4 days following the end of invoicing period. The meter reading minutes shall be prepared jointly and signed by the representatives of parties. The read values shall be notified by TEIAS or relative distribution license holder legal entities to the Market Operator through MMS or corporate e-mail.

c) In case representative of market participant or related distribution license holder legal entity and/or TEIAS representative fails to participate in meter reading on time, meter reading shall be performed by the representative(s) of other parties who are present, and the meter reading minutes shall be prepared. The meter reading minute signed by the present representative shall be sent to the party not present at the meter reading in written and electronic form, within 4 days following the end of each invoicing period. Relevant license holder legal entity and/or TEIAS shall notify Market Operator regarding the meter values that they are responsible for reading through MMS or corporate e-mail.

 $\varsigma$ )  $\varsigma$ ) In case none of the parties are present for reading meter at the announced time, and/or the meter reading minutes signed by the present parties are not sent to the Market Operator in electronic form within 4 days following the end of the invoicing period, and/or the meter reading minutes lacks a reading for any settlement period, the supply-withdrawal values of the previous invoicing period corresponding to the related settlement period shall be taken as a basis for the related invoicing period.

(7) Regarding meters that are not required to be read on invoicing term basis pursuant to the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values:

a) Distribution license holder legal entity shall have the meters required to be read at the end of each invoicing term read in the periods specified in the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values. The meters that fall in to this scope shall be notified to the Market Operator through the MMS during the meter registration.

b) Regarding the meters that are included into the settlement aggregation unit configurations registered to the name of the market participant but are not required to be read at the end of each invoicing term pursuant to the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values, the distribution license holding legal entity shall determine the consumption values within a period of four days following ending of the invoicing term in line with said Procedure and Principles, and shall notify it to the Market Operator through MMs or by corporate e-mail.

(8) Meter values sent to the Market Operator within the scope of this article in electronic form and transferred to the MMS are considered as invoice values.

# Verification and correction of supply-withdrawal values

**ARTICLE 82 -** (1) In order to enable the parties to object or correct the metering values, the settlement volumes shall be announced via MMS.

(2) In case none of the parties object, in written, to the values announced via MMS within 10 days following the end of invoicing period, the values in the MMS shall be valid for the related

invoicing period; if TEIAS or distribution license holder legal entity sends a correction in written or electronic form, the corrected settlement volumes indicated in the correction minute, sent by TEIAS or distribution license holder legal entity, shall be valid for the related invoicing period.

(3) If a market participant request a correction, it is necessary that the market participant applies to TEIAS or distribution license holder legal entity, agree with them and agreed values shall be sent electronically to Market Operator by TEIAS or distribution license holder legal entity.

(4) The corrected values sent to the Market Operator related to the settlement volumes after the  $10^{\text{th}}$  day following the end of invoicing period shall not be taken into account in the settlement calculations for the related month.

# Cases where read meter values are not on a settlement period basis or the meters are not read at the end of each invoicing period<sup>181</sup>

**ARTICLE 83** - (1) In the event that the meters under settlement are not metering on a settlement period basis, the settlement period values shall be calculated by TEIAS or distribution license holder legal entity by applying profiles to the meter values read. Principles and procedures regarding profile application are prepared by the Authority and enter into force with the approval of the Board. The values calculated on a settlement period basis shall be transmitted to the Market Operator pursuant to Articles 81 and 82.

 $(2)^{182}$  The meters in the scope settlement that do not require reading at the end of each invoicing term and other issues specified in the regulation shall be arranged in the Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values. The Procedure and Principles related with the Scope Automatic Meter Reading Systems and Determination Meter Values shall be drafted by the Authority and shall be placed into force upon approval by the Authority.

#### SECTION THREE

# Calculation of Settlement Volumes and Transmission System Loss Factor

#### **Calculation of settlement volumes**

**ARTICLE 84 -** (1) The settlement volumes of settlement aggregation entities shall be calculated according to the following formula:

$$UEVM_{h\mu} = ISVM_{h\mu} \times (1 - ISKK_{\mu})^{g} (1a)$$

 $UE \zeta M_{b,u} = IS \zeta M_{b,u} (1b)$ 

(2) where;

UEVM<sub>b,u</sub> is the Settlement Supply Volume (MWh) of Settlement Aggregation Entity "b" for settlement period "u",

 $ISVM_{b,u}$  is the Supply Volume (MWh) of Settlement Aggregation Entity "b" to transmission system for settlement period "u", which is calculated pursuant to Article 85,

 $\dot{I}SKK_u$  Transmission System Loss Factor for settlement period "u", which is calculated pursuant to Article 86,

UEÇM<sub>b,u</sub> is the Settlement Withdrawal Volume (MWh) of Settlement Aggregation Entity "b" in the settlement period "u",

<sup>&</sup>lt;sup>181</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>182</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

 $ISCM_{b,u}$  is the Withdrawal Volume (MWh) of Settlement Aggregation Entity "b" from the Transmission System in the settlement period "u", which is calculated pursuant to Article 85,

g is the tag value of settlement aggregation entity "b" that is equal to 1 in case the entity is a generation facility connected to the transmission system and 0 in all other cases

# Calculation of transmission system supply-withdrawal volumes of settlement aggregation entities

**ARTICLE 85** - <sup>183</sup> (1) The hourly supplies and withdrawals of a settlement aggregation entity, to and from the transmission system, are calculated according to the following formula

$$\dot{I}SVM_{b,u} = \sum_{s=1}^{x} \left[ SVD_{b,s,u} \times (1 - TKK_{b,s}) \times (1 - HKK_{b,s}) \times (-1)^{k} \right]$$

$$\dot{I}SQM_{b,u} = \sum_{s=1}^{x} \left[ \frac{SQD_{b,s,u}}{(1 - TKK_{b,s}) \times (1 - HKK_{b,s})} \times (-1)^{k} \right]$$
(2a)
(2b)

(2) where;

- ISVM<sub>b,u</sub> is the Supply Volume (MWh) of Settlement Aggregation Entity "b" to transmission system for settlement period "u",
- SVD<sub>b,s,u</sub> is the System Supply Value (MWh) indicating the read supply value of meter "s" defined in the Settlement Aggregation Entity Configuration "b" for the settlement period "u",
- TKK<sub>b,s</sub> is the Transformer Loss Factor applied to meter "s" defined in the Settlement Aggregation Entity Configuration "b",
- HKK<sub>b,s</sub> is the Line Loss Factor applied to meter "s" defined in the Settlement Aggregation Entity Configuration "b",
- $DKK_{b,s}$  is the Distribution Loss Factor applied to meter "s" defined in the Settlement Aggregation Entity Configuration "b",
- x is the number of meters in the Settlement Aggregation Entity Configuration "b",
- k is the coefficient, with value 0 or 1, applied to meter "s" defined in the Settlement Aggregation Entity Configuration "b",
- ISÇM<sub>b,u</sub> is the Transmission System Withdrawal Volume (MWh) of Settlement Aggregation Entity "b" for the settlement period "u",
- SÇD<sub>b,s,u</sub> is the System Withdrawal Value (MWh) of meter "s" defined in the Settlement Aggregation Entity Configuration "b" for the settlement period "u", displaying metered withdrawal value in case the relevant meter stands on the transmission system and displaying net withdrawal value from distribution system in case relevant meter stands on the distribution system,

# Calculation of transmission system loss factor

**ARTICLE 86** - (1) The Transmission System Loss Factor, which will be applied for each settlement period, shall be calculated according to the following formula:

<sup>&</sup>lt;sup>183</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

$$\dot{ISKK}_{u} = \frac{\sum_{s=1}^{n} \dot{ISVM}_{s,u} - \sum_{s=1}^{n} \dot{ISQM}_{s,u}}{\sum_{s=1}^{n} \dot{ISVM}_{s,u}} (3)$$

(2) where;

- İSKK<sub>u</sub> is the Transmission System Loss Factor calculated for the settlement period "u",
- ISVM<sub>s,u</sub> is the Transmission System Supply Volume (MWh) of meter "s" in the transmission system configuration for the settlement period "u", which is calculated pursuant to Article 85,
- ISÇM<sub>s,u</sub> is the Transmission System Withdrawal Volume (MWh) of meter "s" in the transmission system configuration for the settlement period "u", which is calculated pursuant to Article 85,

n is the number of meters in the transmission system configuration for the settlement period "u".

### SECTION FOUR Contract Notifications

#### **Contract notification rules**

**ARTICLE 87** - (1) Contract notifications shall be made jointly by two registered market participant that are license holder legal entities, one of whom is the seller and the other is the buyer.

(2) Contract notification volume is the electricity volume which market participants commit to purchase or sell for the same trade zone in a given settlement period via regulated or non-regulated bilateral contracts, and which are notified to the Market Operator under contract notifications. Contract notification volumes shall be indicated on a settlement delivery point basis.

# **Contract notification**

**ARTICLE 88** - (1) Contract notification related to a settlement period of a day shall be made by the market participant to the Market Operator via MMS latest by 16:<sup>00</sup> hours on the day before the related day.

(2) Contract notifications shall include the following data;

a) Market participant on the buyer side of the contract notification,

b) Market participant on the seller side of the contract notification,

c) Contract notification volume for each settlement period (MWh),

ç) Trade zone where bilateral contract is valid.

(3) Contract notifications shall be made jointly by both market participants of the notification. Contract notification made by a single market participant shall not be valid.

(4) In case the notification will continue to be valid after the related day, the days during which the notification will be valid shall be indicated.

 $(5)^{184}$ 

(6) Contract notifications made by the market participants via MMS are accepted as invoice based official values.

# **Changing contract notifications**

**ARTICLE 89 -** (1) Contract notifications may be changed latest by 16:<sup>00</sup> hours on the day before the related day.

<sup>&</sup>lt;sup>184</sup> Abolished by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

### SECTION FIVE General Provisions Regarding Settlement Transactions

### Invoicing period

**ARTICLE 90 -** (1) Invoicing period begins at  $00:^{00}$  hours on the first day of a calendar month and ends at  $24:^{00}$  hours on the last day of that month.

# **Settlement periods**

**ARTICLE 91 -** (1) Each hour in an invoicing period constitutes a settlement period.

# SECTION SIX Settlement of Day Ahead Balancing Activities

#### Data requirements for settlement of day ahead balancing activities

**ARTICLE 92** - (1) For the purposes of settling day ahead balancing activities, the following data shall be taken into account:

a) The offers and bids of each market participant participating in day ahead balancing, for selling electricity to or purchasing electricity from the system for each trade zone and for each hour in the invoicing period, within the context of day ahead balancing activities,

b) The actual energy sales or energy purchase volumes of each market participant participating in day ahead balancing, for each trade zone and for each hour in the invoicing period, as part of day ahead balancing activities and overcoming predicted imbalances,

c) The day ahead prices calculated for each trade zone via the related module of MMS, taking into consideration the offers and bids of market participants for selling electricity to or purchasing electricity from the system for each hour in an invoicing period within the context of day ahead balancing activities, and in line with the goal of minimizing balancing costs.

(2) In the first clause;

a) the data indicated in item (a) shall be provided by market participants, and

b) the data indicated in items (b) and (c) shall be provided by the Market Operator.

# Calculation of the amounts of market participants' sales to the system within the context of day ahead balancing

**ARTICLE 93** - <sup>185</sup> (1) For the sales of market participants to the system within the context of day ahead balancing, the amount of receivable to be accrued on the related market participant, on an individual trade zone and advance period basis, shall be calculated according to the following formula:

$$SST_{t,p,s} = \sum_{u=1}^{a} \left( \sum_{r=1}^{n} (SSF_{t,p,s,u,r} \times SSM_{t,p,s,u,r}) \right)$$
(4a) (2)

where;

SST<sub>t,p,s</sub> is the amount of receivable (TL) to be accrued on the market participant "p" for the sales of the related market participant to the system in the related advance period "s", for trade zone "t"

SSF<sub>t,p,s, u,r</sub> is the System Sales Price (TL/MWh) applicable to bid "r" of market participant "p" in the related advance period "s" for trade zone "t" and for the settlement period "u", which is calculated pursuant to Article 94.

<sup>&</sup>lt;sup>185</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- SSM<sub>t,p,S,u,r</sub> is the actual System Sales Volume (MWh) of market participant "p" in the related advance period "s" under its bid "r" for the settlement period "u", for trade zone "t", determined as a result of day ahead balancing,
- n is the number of bids under which market participant "p" has sold energy in the related advance period "s" to the system for trade zone "t" and for the settlement period "u"
- a is the number of settlement periods in the related advance period.

(3) For the sales of market participants to the system within the context of day ahead balancing, the amount of receivable to be accrued on the related market participant, on an individual trade zone and invoicing period basis, shall be calculated according to the following formula:

$$SST_{t,p} = \sum_{s=1}^{b} SST_{t,p,s}$$
(4b)

(4) where;

- $SST_{t,p,s}$  is the amount of receivable (TL) to be accrued on the market participant "p" for the sales of the related market participant to the system in the related advance period "s", for trade zone "t"
- $SST_{t,p}$  is the amount of receivable (TL) to be accrued on the market participant "p" for the sales of the related market participant to the system, for trade zone "t"
- b is the number of advance periods in the related invoicing period

# **Calculation of system sales prices ARTICLE 94 –** (1)

The system sales prices, which will be applied to the actual system sales of each market participant participating in day ahead balancing regarding its hourly and flexible bids<sup>186</sup> submitted for a trade zone within the framework of day ahead balancing, shall be calculated according to the following formula for each invoicing period and on a settlement period basis:

If $SSTF_{t,p,u,r} \le SG\ddot{O}F_{t,u}$ then $SSF_{t,p,u,r} = SG\ddot{O}F_{t,u}$ (	(5a	(5a)
--	-----	------

If 
$$SSTF_{t,p,u,r} > SGÖF_{t,u}$$
 then  $SSF_{t,p,u,r} = SSTF_{t,p,u,r}$  (5b)

- $SSTF_{t,p,u,r}$  is the System Sales Bid Price (TL/MWh) for bid "r" of market participant "p" for the settlement period "u", for trade zone "t",
- SGÖF<sub>t,u</sub> is the Day Ahead Price (TL/MWh) for trade zone "t" and for the settlement period "u",
- $SSF_{t,p,u,r}$  is the System Sales Price (TL/MWh) to be applied for bid "r" of market participant "p" for the settlement period "u", for trade zone "t".

<sup>&</sup>lt;sup>186</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>187</sup>(3) The system sales prices, which will be applied to the actual system sales of each market participant participating in day ahead balancing regarding its block bids submitted for a trade zone within the framework of day ahead balancing, shall be calculated according to the following formula for each invoicing period and on a settlement period basis:

$$IF SSTF_{tpr} \le OSG\ddot{O}F_{tr} SSF_{t,p,r} = OSG\ddot{O}F_{tr}$$
(5c)

$$IF SSTF_{t,p,r} > OSGÖF_{t,r} SSF_{t,p,r} = SSTF_{t,p,r}$$
(5ç)

 $SSF_{t,p,u,r} = SSF_{t,p,r}$  and "u"  $\subset$  "r" are the time period in which the offer is valid (5d)

$$OSG\ddot{O}F_{t,r} = \frac{\sum_{u=a}^{b} SG\ddot{O}F}{(b-a)} \text{ and } u=[a,b)$$
(5e)

<sup>188</sup>(4) where;

- SSTF<sub>t,p,r</sub> is the System Sales Bid Price (TL/MWh) for block bid "r" of market participant "p" for trade zone "t",
- $OSGOF_{t,r}$  is the Mean Day Ahead Price (TL/MWh) covered by the hours of the block bid "r" for trade zone "t",
- SSF<sub>t,p,r</sub> is the Hourly System Sales Price (TL/MWh) for block bid "r" of market participant "p", for trade zone "t"
- SSF<sub>t,p,u,r</sub> is the System Sales Hourly Bid Price (TL/MWh) for block bid "r" of market participant "p" for the settlement period "u", for trade zone "t"
- SGÖF, is the Day Ahead Price (TL/MWh) for trade zone "t" and for the settlement period "u",
- a is the starting hour of the block bid,
- b is the ending hour of the block bid,,
- u is one of the settlement periods in which the block bid "r" was valid.

Calculation of purchases of market participants from the system in the scope of day ahead balancing

**ARTICLE 95** - <sup>189</sup>(1) For the purchases of market participants from the system within the context of day ahead balancing, the amount of payable to be accrued on the related market participant on trade zone and advance period basis shall be calculated according to the following formula:

$$SAT_{t,p,s} = \sum_{u=1}^{a} \left( \sum_{r=1}^{n} \left( SAF_{t,p,s,u,r} \times SAM_{t,p,s,u,r} \right) \right)$$
(6a)

<sup>&</sup>lt;sup>187</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

 <sup>&</sup>lt;sup>188</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.
 <sup>189</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

(2) where;	
SAT <sub>t,p,s</sub>	is the amount of payable (TL) to be accrued on the market participant "p" for the
	purchases of the related market participant from the system in the related advance
	period "s", for trade zone "t",
SAF <sub>t,p,s,u,r</sub>	is the System Purchase Price (TL/MWh) applicable to bid "r" of market participant
	"p" in the related advance period "s" for trade zone "t" and for the settlement
	period "u", which is calculated pursuant to Article 96,
SAM <sub>t,p,s,u,r</sub>	is the actual System Purchase Volume (MWh) of market participant "p" in the related
	advance period "s" under its bid "r" for the settlement period "u", for trade zone "t",
n	is the number of bids under which market participant "p" has purchased energy
	from the system in the related advance period "s", for trade zone "t" and for the
	settlement period "u",

```
a is the number of settlement periods related to the relevant advance period.
```

(3) For the purchases of market participants from the system within the context of day ahead balancing, the amount of payable to be accrued on the related market participant on trade zone and invoicing period basis shall be calculated according to the following formula:

$$SAT_{t,p} = \sum_{s=1}^{p} SAT_{t,p,s}$$
(6b)

(4) where;

- $SAT_{t,p}$  is the amount of payable (TL) to be accrued on the market participant "p" for the purchases of the related market participant from the system, for trade zone "t",
- SAT<sub>t,p,s</sub> is the amount of payable (TL) to be accrued on the market participant "p" for the purchases of the related market participant from the system in the related advance period "s", for trade zone "t",
- b is the number of the advance periods in the related invoicing period,

# Calculation of system purchase prices

**ARTICLE 96** - (1) The system purchase prices, which will be applied to the actual system purchases of each market participant participating in day ahead balancing regarding its hourly bids<sup>190</sup> submitted for a trade zone within the framework of day ahead balancing, shall be calculated according to the following formula for each invoicing period and on a settlement period basis:

if	$SATF_{t,p,u,r} \ge SG\ddot{O}F_{t,u}$	then	$SAF_{t,p,u,r} = SG\ddot{O}F_{t,u}$	(7a)
if	$SATF_{t,p,u,r} \! < \! SG\ddot{O}F_{t,u}$	then	$SAF_{t,p,u,r} \!=\! SATF_{t,p,u,r}$	(7b)
(2)	where;			
SΔ	TE is the System	n Purch	hase Bid Price (TI /MWh) f	or hid "r" of market nar

- $SATF_{t,p,u,r} \quad \mbox{is the System Purchase Bid Price (TL/MWh) for bid "r" of market participant "p" for the settlement period "u", for trade zone "t", \label{eq:same}$
- $SG\ddot{O}F_{t,u}$  is the Day Ahead Price (TL/MWh) for trade zone "t" and for the settlement period "u",
- $SAF_{t,p,u,r}$  is the System Purchase Price (TL/MWh) to be applied for bid "r" of market participant "p" for the settlement period "u", for trade zone "t".

<sup>&</sup>lt;sup>190</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

Published in the Official Gazette No. 27200 dated 15/04/2009.

<sup>191</sup>(3) The system purchase prices, which will be applied to the actual system purchases of each market participant participating in day ahead balancing regarding its block bids submitted for a trade zone within the framework of day ahead balancing, shall be calculated according to the following formula for each invoicing period and on a settlement period basis:

IF 
$$SATF_{t,p,u,r} \le OSG\ddot{O}F_{t,r}$$
  $SAF_{t,p,u,r} = SATF_{t,p,r}$  (7c)

 $SAF_{t,p,u,r} = SAF_{t,p,r}$  and "u"  $\subset$  "r" are the time period in which the offer is valid (7d)

$$OSG\ddot{O}F_{t,r} = \frac{\sum_{u=a}^{b} SG\ddot{O}F}{(b-a)} \text{ and } u=[a,b)$$
(7e)

<sup>192</sup>(4) where;

- SATF<sub>t,p,u,r</sub> is the System Purchase Bid Price (TL/MWh) for bid "r" of market participant "p" for the settlement period "u", for trade zone "t"
- OSGÖF<sub>t,r</sub> is the Mean Day Ahead Price (TL/MWh) covered by the hours of the block bid "r" for trade zone "t"
- $SAF_{t,p,u,r}$  is the System Purchase Price (TL/MWh) to be applied for bid "r" of market participant "p" for the settlement period "u", for trade zone "t".
- SGÖF<sub>t,u</sub> is the Day Ahead Price (TL/MWh) for trade zone "t" and for the settlement period "u"
- a is the starting hour of the block bid,
- b is the ending hour of the block bid,,
- u is one of the settlement periods in which the block bid "r" was valid.

# Calculation of foreseen day ahead imbalance amount in the day ahead planning process

**ARTICLE 97** - <sup>193</sup> (1) On settlement period basis, the foreseen day ahead imbalance amount for every market participant participating in the day ahead planning is calculated according to following formula::

$$\ddot{O}EDM_{p,u} = \sum_{b=1}^{k} G \ddot{U}P_{b,u} + UEIAM_{p,u} - TT_{p,u}$$
(7f)

- ÖEDM<sub>p,u</sub> is the Foreseen Day Ahead Energy Imbalance Amount (MWh) of market participant "p" regarding settlement period "u",
- GÜP<sub>b,u</sub> is the Day Ahead Generation/Consumption Schedule (MWh) submitted by market participant "p" to the Market Operator for its settlement aggregation entity "b" in

<sup>&</sup>lt;sup>191</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>192</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>193</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

settlement period "u", that has positive value for supply to the system and negative value for withdrawal from the system,

- UEİAM<sub>p,u</sub> is the Contract Volume (MWh) of market participant "p" for settlement period "u" that is calculated pursuant to Article 112,
- $TT_{p,u}$  is the Consumption Forecast (MWh) sent to the Market Operator within the scope of day ahead planning for settlement period "u", regarding the energy foreseen to be consumed by the facilities that are registered under the market participant "p" and that are not balancing entities,
- k is the number of settlement aggregation entities registered under market participant "p"

# Calculation of receivable and payable amounts resulting from foreseen day ahead imbalances in the day ahead planning process

**ARTICLE 98** – <sup>194</sup> (1) Foreseen receivable and payable amount for an advance period, on settlement period basis, regarding energy purchase or sale that is realized to eliminate energy deficit or surplus of each market participant participated in day ahead planning are calculated according to following formula:

$$\ddot{O}EDT_{p,s} = \sum_{u=1}^{n} (\ddot{O}EDM_{p,u} \times SG\ddot{O}F_{u})$$
(7g)

(2) where;

- ÖEDT<sub>p,s</sub> is the Foreseen Energy Imbalance Amount of the market participant "p" for the advance period "s" regarding energy that is purchased from the system or sold to the system to eliminate energy imbalance from the day ahead, that will be accrued to market participant as receivable when the value is positive and the payable when the value is negative (TL),
- $\ddot{O}EDM_{p,u}$  is the Foreseen Energy Imbalance Volume of the market participant "p" that is anticipated from the day ahead for the settlement period "u" (MWh),

a is the number of settlement periods regarding relevant invoicing period.

(3) Foreseen receivable and payable amount for an invoicing period, on advance period basis, regarding energy purchase or sale that is realized to eliminate energy deficit or surplus of each market participated in day ahead planning are calculated according to following formula:

$$\ddot{O}EDT_{p} = \sum_{s=1}^{b} \ddot{O}EDT_{p,s}$$
(7ğ)

(4) where;

- ÖEDT<sub>p</sub> is the Foreseen Energy Imbalance Amount of the market participant "p" for the relevant invoicing period regarding energy that is purchased from the system or sold to the system to eliminate energy imbalance from the day ahead, that will be accrued to market participant as receivable when the value is positive and the payable when the value is negative (TL),
- $\ddot{O}EDT_{p,s}$  is the Foreseen Energy Imbalance Amount of the market participant "p" for the advance period "s" regarding energy that is purchased from the system or sold to the system to eliminate energy imbalance from the day ahead, that will be accrued to

<sup>&</sup>lt;sup>194</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

market participant as receivable when the value is positive and the payable when the value is negative (TL),

b

is the number of advance periods regarding relevant invoicing period.

# Calculation of the revenue related to day ahead market operations

**ARTICLE 99** - <sup>195</sup> (1) Revenue, based on the price differences between trade zones, related to the day ahead market operations and which will be utilized primarily for transmission investments regarding removal of the transmission congestion that cause price difference by TEIAS, shall be calculated according to the following formula:

$$G\ddot{O}PG_{s} = \sum_{t=1}^{n} \left( \sum_{p=1}^{m} SAT_{t,p,s} - \sum_{p=1}^{m} SST_{t,p,s} \right)$$
(8)

(2) Where;

- GÖPG<sub>s</sub> is the Day Ahead Market Revenue, based on the zone price differences related to the day ahead market operations for an advance period "s" and which will be evaluated only for transmission investments by TEIAS (TL)
- SAT<sub>t,p,s</sub> is the amount of payable accrued to the relevant market participant "p" for the system purchases realized in the advance period "s" for trade zone "t" (TL)
- SST<sub>t,p,s</sub> is the amount of receivable accrued to the relevant market participant "p" for the system sales realized in the advance period "s" for trade zone "t" (TL)
- n number of trade zones related to the advance period "s",
- m number of market participants related to the advance period "s".

# SECTION SEVEN Settlement of Balancing Power Market Activities

**ARTICLE 100** - (1) In Settlement of Balancing Power Market activities, following items shall be considered;

a) Offers and bids related to the energy purchase from the system and sales to the system of the relevant market participants, in each settlement period in an invoicing period, within the framework of Balancing Power Market activities by each market participant participating to the Balancing Power Market,

b) Offers and bid volumes accepted in the context of instructions given by System Operator, in each settlement period in an invoicing period, in the framework of Balancing and Power Market activities by each market participant participating to the Balancing and Power Market,

c) System marginal prices calculated for each trade zone by the System Operator in line with the accepted bids and offers of the market participants within the scope of Balancing Power Market, related to each settlement period in an invoicing period.

(2) For the first Clause,

- a) data in item (a) are provided by market participants,
- b) data in items (b) and (c) are provided by System Operator.

# Determination of the system direction based on the settlement period

**ARTICLE 101 -** (1) System direction related to a trade zone based on the settlement period is determined according to the following formula:

<sup>&</sup>lt;sup>195</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

If 
$$\sum_{d=1}^{k} \sum_{r=1}^{m} KEYALM_{d,u,r}^{0} \rangle \sum_{d=1}^{k} \sum_{r=1}^{n} KEYATM_{d,u,r}^{0}$$
 (9a)

For the relevant settlement period and trade zone, there is energy deficit in the system

If 
$$\sum_{d=1}^{k} \sum_{r=1}^{m} KEYALM_{d,u,r}^{0} \langle \sum_{d=1}^{k} \sum_{r=1}^{n} KEYATM_{d,u,r}^{0}$$
 (9b)

For the relevant settlement period and trade zone, there is energy surplus in the system

If 
$$\sum_{d=1}^{k} \sum_{r=1}^{m} KEYALM_{d,u,r}^{0} = \sum_{d=1}^{k} \sum_{r=1}^{n} KEYATM_{d,u,r}^{0}$$
 (9c)

For the relevant settlement period, system is at balance

## (2) where;

- KEYALM<sup>0</sup><sub>d,u,r</sub> is the accepted and fulfilled offer volume (MWh) of balancing entity "d" within the context of balancing power market, with 0 tag value, regarding the offer "r" valid for the settlement period "u and which is for the purpose of balancing related price zone and that is calculated pursuant to Article 104,
- KEYATM<sup>0</sup><sub>d,u,r</sub> is the accepted and fulfilled bid volume (MWh), balancing entity "d" within the context of balancing power market, with 0 tag value, regarding bid "r" valid for the settlement period "u", and which is for the purpose of balancing related price zone and that is calculated pursuant to Article 107,
- k is the number of balancing entities, whose 0 tagged bid/offer is accepted in order to balance the related trading zone
- m is the number of accepted offers of balancing entity "d" for the settlement period "u" with tag value 0,
- n is the number of accepted bids of balancing entity "d" for the settlement period "u" with tag value 0.

#### Calculation of offer amounts for offers accepted within the context of balancing power market

**ARTICLE 102** - (1) The amount of receivable to be accrued on the related market participant for an invoicing period, in connection with the offer instructions given to each balancing entity within the context of balancing power market shall be calculated according to the following formula:

If 
$$KEYALT_d = \sum_{u=1}^m \left( \sum_{r=1}^n \left( KEYALM_{d,u,r} \times YALF_{d,u,r} \right) \right)$$
 (10)

- KEYALT<sub>d</sub> is the amount of receivable (TL) to be accrued on the related market participant regarding the offers of balancing entity "d, accepted in all settlement periods of related invoicing period" within context of balancing power market ,
- $\begin{array}{lll} \text{KEYALM}_{d,u,r} & \text{is the accepted and fulfilled offer volume (MWh) of balancing entity "d" within the context of balancing power market, regarding the offer "r" valid for the settlement period "u" and that is calculated pursuant to Article 104, \\ \end{array}$
- $YALF_{d,u,r}$  is the offer price (TL/MWh) to be applied for offer "r" of balancing entity "d" within the context of balancing power market, for the settlement period "u", which is calculated pursuant to Article 103,
- n is the number of accepted offers of balancing entity "d" within the context of balancing power market, for the settlement period "u",
- m is the number of settlement periods in the related invoicing period.

# Determination of offer price for offers accepted within the context of balancing power market

**ARTICLE 103 -** (1) The offer prices to be applied to each balancing entity within the context of balancing power market for an invoicing period, in connection with the offer instructions issued for each settlement period, shall be calculated according to the following formula:

(2) When there is energy deficit in the price zone where the related balancing entity is located;

If	$YALTF_{d,u,r} \leq SMF_{d,u,t}$ then, $YALF_{d,u,r} = SMF_{d,u,t}$	(11a)
Τſ		(111)

If  $YALTF_{d,u,r} > SMF_{d,u,t}$  then,  $YALF_{d,u,r} = YALTF_{d,u,r}$  (11b)

(3) When the price zone where the related balancing entity is located is in balance and/or there is energy surplus in the price zone,

$$YALF_{d,u,r} = YALTF_{d,u,r}$$
(11c)

(4) where;

- YALTF<sub>d,u,r</sub> is the Offer Price (TL/MWh) for offer "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- SMF<sub>d,u,t</sub> is the System Marginal Price (TL/MWh) calculated for the settlement period "u", pursuant to Article 109 for the trade zone "t" in which the balancing entity "d" within the context of balancing power market is located,
- $YALF_{d,u,r}$  is the offer price (TL/MWh) to be applied to offer "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u".

# Determination of accepted offer volumes for offers accepted within the context of balancing power market

**ARTICLE 104 -** (1) The accepted offer volumes to be applied to each balancing entity within the context of balancing power market for an invoicing period, in connection with the offer instructions issued for each settlement period, shall be calculated according to the following formula:

$$KEYALM_{d,u,r} = YALTM_{d,u,r} \times (1 - \dot{I}SKK_u)^g \times (t_2 - t_1)/60$$
<sup>(12)</sup>

- KEYALM<sub>d,u,r</sub> is the accepted and fulfilled offer volume (MWh) within the context of balancing power market, regarding the offer "r" of balancing entity "d", which is valid for the settlement period "u",
- YALTM<sub>d,u,r</sub> is the offer instruction volume (MWh) given by the System Operator and realized regarding offer "r" of balancing entity "d", within the context of balancing power market, valid for the settlement period "u",
- ISKK<sub>u</sub> Transmission System Loss Factor for settlement period "u", which is calculated pursuant to Article 86,
- t<sub>1</sub> is the start time of offer instruction as hour and minutes, given by the System Operator regarding offer "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- t<sub>2</sub> is the end of offer instruction as hour and minutes, issued by the System Operator regarding offer "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u".
- g is the tag value of the balancing entity "d" within the scope of balancing power market that is equal to 1 when the balancing entity has a generation facility connected to the transmission system and that is equal to 0 in all other cases.

### Calculation of bid amounts for bids accepted within the context of balancing power market

**ARTICLE 105** - (1) The amount of payable to be accrued on the related market participant for an invoicing period, in connection with the bid instructions issued to each balancing entity within the context of balancing power market shall be calculated according to the following formula:

$$KEYATT_{d} = \sum_{u=1}^{m} \left( \sum_{r=1}^{n} \left( KEYATM_{d,u,r} \times YATF_{d,u,r} \right) \right)$$
(13)

(2) where;

- KEYATT<sub>d</sub> is the amount of payable (TL) to be accrued on the related market participant for the bids of balancing entity "d" within the context of balancing power market accepted in all settlement periods of related invoicing period,
- $\text{KEYATM}_{d,u,r}$  is the accepted and fulfilled bid volume (MWh) of bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u" and is calculated pursuant to Article 107,
- $YATF_{d,u,r}$  is the bid price (TL/MWh) to be applied for bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u", and is calculated pursuant to Article 106,
- n is the number of bids of balancing entity "d" within the context of balancing power market, accepted for the settlement period "u",
- m is the number of settlement periods in the related invoicing period.

#### Determination of bid prices for bids accepted within the context of balancing power market

**ARTICLE 106 -** (1) The bid prices to be applied to each balancing entity within the context of balancing power market for an invoicing period, in connection with the bid instructions issued for each settlement period, shall be calculated according to the following formula:

(2) When there is energy surplus in price zone where related balancing entity is located;

- If  $YATTF_{d,u,r} \ge SMF_{d,u,t}$  then  $YATF_{d,u,r} = SMF_{d,u,t}$  (14a)
- If  $YATTF_{d,u,r} < SMF_{d,u,t}$  then  $YATF_{d,u,r} = YATTF_{d,u,r}$  (14b)

(3) When the system is in balance and/or there is energy deficit in price zone where related balancing entity is located;

$$YATF_{d,u,r} = YATTF_{d,u,r}$$
(14c)

(4) where;

- YATTF<sub>d,u,r</sub> is the bid price (TL/MWh) for bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- $SMF_{d,u,t}$  is the System Marginal Price (TL/MWh) calculated for the settlement period "u" pursuant to Article 109 for the trade zone "t" in which the balancing entity "d", within the context of balancing power market, is located in the settlement period "u",
- $YATF_{d,u,r}$  is the bid price (TL/MWh) to be applied to bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u".

# Determination of accepted bid volumes for bids accepted within the context of balancing power market

**ARTICLE 107** - (1) The bid volumes to be applied to each balancing entity within the context of balancing power market for an invoicing period, in connection with the bid instructions given for each settlement period, shall be calculated according to the following formula:

$$KEYATM_{d,u,r} = YATTM_{d,u,r} \times (1 - \dot{I}SKK_u)^g \times (t_2 - t_1)/60$$
<sup>(15)</sup>

(2) where;

- KEYATM<sub>d,u,r</sub> is the accepted and fulfilled bid volume (MWh) of bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- $YATTM_{d,u,r}$  is the bid instruction volume (MWh) given by the System Operator regarding bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- İSKK<sub>u</sub> Transmission System Loss Factor for settlement period "u", which is calculated pursuant to Article 86,
- t<sub>1</sub> is the start time of bid instruction issued by the System Operator regarding bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u",
- t<sub>2</sub> is the end time of bid instruction issued by the System Operator regarding bid "r" of balancing entity "d" within the context of balancing power market, valid for the settlement period "u".
- g is the value of the balancing entity "d" within the scope of balancing power market that is equal to 1 when the balancing entity has a generation facility connected to the transmission system and that is equal to 0 in all other cases.

# SECTION EIGHT

# Settlement of Energy Imbalances

# Data requirement for the settlement of energy imbalances

**ARTICLE 108** - (1) In settlement of energy imbalances following items shall be considered;

a) Accepted offer and bid volumes for each market participant participating to the Balancing Power Market and the prices valid for these offers/bids within the context of instructions issued by System Operator, in each settlement period in an invoicing period, within the framework of Balancing Power Market activities,

b) Settlement volume of each settlement aggregation entity, for each settlement periods in an invoicing period,

c) Contract notification volume of each Balance Responsible Party, for each settlement period in an invoicing period,

ç) Generation volume for each settlement aggregation entity providing ancillary services in each settlement period in an invoicing period, which is provided due to ancillary services of which energy cost is paid within the frame of ancillary services,

d) System sales or purchase volumes of each market participants at the end of day ahead balancing,

e) Day ahead prices.

(2) For the first Clause,

a) data in item (a) are provided by System Operator,

b) meter readings required to calculate the data in item (b) are provided by TEIAS and/or relevant distribution license holder legal entity

c) data in item (c) are provided by balance responsible parties,

ç) data in item (ç) are provided by the related department in TEIAS, that is responsible for the implementation of ancillary services agreements,

d) data in items (d) and (e) are provided by Market Operator.

#### Calculation of system marginal price

**ARTICLE 109** - (1) The System Marginal Price  $(SMF_{t,u})$  which is determined for each trade zone on a settlement period basis, shall be calculated according to the following formula, depending on the energy balance status of the trade zone on a settlement period basis:

(2) In case of energy deficit in the trade zone "t" in the related hour;

$$SMF_{t,u} = \max(YALTF_{d_{1,u,r}}^{0}) \;\forall YALTF_{d_{1,u,r}}^{0} \text{ for } d1 = 1, 2, ...n \text{ and } r = 1, 2, ...k$$
(16a)

(3) In case of energy surplus in the trade zone "t" in the related hour,

$$SMF_{t,u} = \min(YATTF_{d_{2},u,r}^{0}) \quad \forall YATTF_{d_{2},u,r}^{0} \text{ for } d2 = 1,2,..m \text{ and } r = 1,2,..l$$
(16b)

(4) In case the system is in balance in the related hour or the tag value of all accepted offers and bids is 1 in the related hour;

$$SMF_{t,u} = SG\ddot{O}F_{t,u}$$
 (16c)

(5) where;

- SMF<sub>t,u</sub> is the System Marginal Price (TL/MWh) of trade zone "t" and calculated for the settlement period "u",
- $YALTF^{0}_{dl,u,r}$  is the offer price (TL/MWh) for offer "r" of balancing entity "d1" within the context of balancing power market, for the settlement period "u", with tag value 0,
- n is the number of balancing entities within the context of balancing power market, with tag values for offers accepted as 0 in settlement period "u,
- k is the number of offers of a balancing entity in the balancing power market, with tag value accepted as 0 in order to remove the energy deficit in trade zone "t", in the settlement period "u",
- $YATTF^{0}_{d2,u,r}$  is the bid price (TL/MWh) for bid "r" of balancing entity "d2" within the context of balancing power market, for the settlement period "u", with tag value 0,
- m is the number of balancing entities within the context of balancing power market, with tag values accepted as 0 for bids in settlement period "u",
- 1 is the number of bids of a balancing entity in the balancing power market, with tag value accepted as 0 in order to remove the energy surplus in trade zone "t", in the settlement period "u",
- $SG\ddot{O}F_{t,u}$  is the Day Ahead Price (TL/MWh) for the trade zone "t" and for settlement period "u".

# Calculation of energy imbalance amount

**ARTICLE 110** - (1) Receivable or payable amounts to be accrued on a balance responsible party, for an invoicing period, due to its energy imbalance in a settlement period, shall be calculated according to the following formula:

$$EDT_{f} = \sum_{t=1}^{m} \left( \sum_{u=1}^{n} \left( EDM_{f,t,u} \times SMF_{t,u} \right) \right)$$
(17)

$\mathrm{EDT}_{\mathrm{f}}$	is the energy imbalance cost (TL) of balance responsible party "f" for an invoicing period,
$EDM_{f,t,u} \\$	is the energy imbalance volume (MWh) of balance responsible party "f" for the settlement period "u" in the trade zone "t", which is calculated pursuant to Article 111,
$\text{SMF}_{t,u}$	is the System Marginal Price (TL/MWh) of trade zone "t" and calculated for the settlement period "u" pursuant to Article 109,
m	is the number of trade zone determined for relevant invoicing period,
n	is the number of settlement periods in an invoicing period.

# Calculation of the energy imbalance volume of a balance responsible party in a settlement period

**ARTICLE 111 -** (1) For an invoicing period, the energy imbalance volume of each balance responsible party in each settlement period shall be calculated according to the following formula:

$$EDM_{f,t,u} = \sum_{b=1}^{k} \left( UEVM_{f,t,b,u} - UEQM_{f,t,b,u} \right) + UEIAM_{f,t,u} - \left( \sum_{p=1}^{l} \ddot{O}EDM_{p,u} \right) + \left( \sum_{p=1}^{l} \sum_{r=1}^{m} SAM_{t,p,u,r} - \sum_{p=1}^{l} \sum_{r=1}^{n} SSM_{t,p,u,r} \right) + \left( \sum_{d=1}^{h} \sum_{r=1}^{t^{2}} KEYATM_{f,d,u,r} - \sum_{d=1}^{h} \sum_{r=1}^{t^{1}} KEYALM_{f,d,u,r} \right)$$
(18)

- $EDM_{f,t,u}$  is the Energy Imbalance Volume (MWh) for the settlement period "u" of balance responsible party "f" in the trade zone "t",

- UEİAM<sub>f,t,u</sub> is the Contract Volume of balance responsible party "f" for the trade zone "t" in settlement period "u", which is calculated pursuant to Article 112 (MWh),
- $\ddot{O}EDM_{p,u}$  is the foreseen Energy Imbalance Volume (MWh) of the market participant "p", anticipated from the day ahead for the settlement period "u" which is calculated as part of day ahead planning pursuant to Article 96,
- SSM<sub>t,p,u,r</sub> is the System Sales Volume (MWh) of market participant "p" under its offer "r" valid for settlement period "u" for trade zone "t", determined after day ahead balancing,
- SAM<sub>t,p,u,r</sub> is the System Purchase Volume (MWh) of market participant "p" under its bid "r" valid for settlement period "u" for trade zone "t",
- k is the number of settlement aggregation entities under the balance responsibility of balance responsible party "f" for the trade zone "t" valid for the settlement period "u",
- 1 is the number of market participants registered in the name of balance responsible party "f",

n	is the number of bids/offers under which market participant "p" has sold to the system for the trade zone "t" valid for the settlement period "u",
m	is the number of bids/offers under which market participant "p" has purchased from the system for the trade zone "t" valid for the settlement period "u",
KEYALM <sub>f,d,u,r</sub>	is the accepted and fulfilled offer volume (MWh) of the offer "r" of balancing entity "d", which is under the balance responsibility of balance responsible party "f", valid for the settlement period "u",
h	is the number of balancing entities under the balance responsibility of balance responsible party "f" for the trade zone "t" valid for the settlement period "u",
t <sub>1</sub>	is the number of accepted offers of balancing entity "d" in the balancing power market, for the settlement period "u",
KEYATM <sub>f,d,u,r</sub>	is the accepted and fulfilled bid volume (MWh) of the bid "r" of balancing entity "d", which is under the balance responsibility of balance responsible party "f", valid for the settlement period "u",
t <sub>2</sub>	is the number of accepted bids of balancing entity "d" in the balancing power market, for the settlement period "u".

### **Calculation of the contract volumes**

**ARTICLE 112 -** (1) Contract volumes of a balance responsible party for the settlement period "u" shall be calculated according to the following formula:

$$UEIAM_{f,u,t} = \sum_{p=1}^{k} UEIAM_{p,u,t}$$

$$UEIAM_{f,u,t} = \sum_{p=1}^{m} UEIAB_{p,u,t}$$
(19a)

$$UEIAM_{p,u,t} = \sum_{z^{2}=1} UEIAB_{p,u,t,z^{2}} - \sum_{z^{1}=1} UEIAB_{p,u,t,z^{1}}$$
(19b)

- UEİAM<sub>f,u,t</sub> is the Contract Volume (MWh) of balance responsible party "f" for trade zone "t" in the settlement period "u",
- UEIAM<sub>p,u,t</sub> is the Contract Volume (MWh) of the market participant "p" whose balancing responsibility is taken by the party "f" regarding the trade zone "t" for the settlement period "u",
- UEİAB<sub>p,u,t,z1</sub> is the Contract Notification (MWh) of the market participant "p" whose balancing responsibility is taken by the party "f" for energy sales to market participant "z1" for trade zone "t" in settlement period "u", and/or regarding the generation provided as per the ancillary services, whose energy cost is paid within context of ancillary services
- UEİAB<sub>p,u,t,z2</sub> is the Contract Notification (MWh) regarding market participant "p" whose balancing responsibility is taken by the party "f", which is made for energy purchase from the market participant "z2" regarding trade zone "t" in settlement period "u",
- k is the number of market participant whose balancing responsibility is taken by the balance responsible party "f",
- n is the number of balance responsible parties to which the market participant "p" sells electricity, regarding trade zone "t" in settlement period "u",
- m is the number of balance responsible parties from which the market participant "p" purchases electricity, for trade zone "t" in settlement period "u".

# SECTION NINE Allocation of Net Residual Amount and Market Operation Fee

# Allocation of net residual amount to market participants

**ARTICLE 113** - (1) Based on the principle that Market Operator would not make profit or lose money because of the operations done on behalf of wholesale electricity market; the total of receivables to be accrued on market participants shall be equal to the total of payables during an invoicing period regarding the settlement of balancing mechanism and imbalances of balance responsible parties, excluding the energy sales and purchases performed by market participants within the context of day ahead market, the market operation fee, transmission surcharge and receivables not paid on time.

(2) In this context, the net residual balance adjustment amount, this will be accrued as;

a) receivable of balance responsible parties if the total receivable amount that is accrued to the market participants and balancing responsible parties regarding offer instructions, sales and energy surplus within the framework of day ahead planning is higher than the payable that is accrued regarding energy deficit and purchases within the scope of day ahead planning, bid instructions within the frame of balancing power market and day ahead planning,

b) payable of balance responsible parties, if the total payable amount that is accrued to the market participants and balancing responsible parties regarding bid instructions as part of balancing power market and day ahead planning, purchases and energy deficit within the framework of day ahead planning is higher than the payable that is accrued regarding energy surplus and sales within the scope of day ahead planning, offer instructions within the framework of balancing power market and day ahead planning, offer instructions within the framework of balancing power market and day ahead planning,

Net residual balance adjustment amount shall be calculated according to the following formula:

$$SBDT_f = SBDT \times SBDK_f$$
 (20)

(3) where;

- SBDT<sub>f</sub> the receivable or payable amount (TL) to be accrued as net residual balance adjustment amount to balance responsible party "f" in an invoicing period
- SBDT is the net residual balance adjustment amount (TL) for an invoicing period, as calculated pursuant to Article 114,
- $SBDK_f$  is the net residual balance adjustment factor of balance responsible party "f" for an invoicing period, as calculated pursuant to Article 115.

#### Calculation of net residual balance adjustment amount in an invoicing period

**ARTICLE 114** - (1) The Net Residual Balance Adjustment Amount for an invoicing period (SBDT) shall be calculated according to the following formula:

$$SBDT = \sum_{d=1}^{m} \left( KEYATT_{d} - KEYALT_{d} \right) - \sum_{f=1}^{n} EDT_{f} + \left( \sum_{p=1}^{l} \left( SAT_{p} - SST_{p} - \ddot{O}EDT_{p} \right) \right) \times k - YHEB$$
(21)

(2) where;

SBDT is the Net Residual Balance Adjustment Amount (TL) for an invoicing period,

 $KEYALT_d$  is the amount of receivable (TL) that will be accrued to the related market participant, regarding the offers with the code 0 and 1, of the balancing entity "d" within the context of balancing power market accepted in all settlement periods of related invoicing period, which is calculated pursuant to the formula indicated in the Article 102 by only taking into account offers with the code 0 and 1,

- $KEYATT_d$  is the amount of payable (TL) that will be accrued to the related market participant, regarding the bids with the code 0 and 1, of the balancing entity "d" within the context of balancing power market accepted in all settlement periods of related invoicing period, which is calculated pursuant to the formula indicated in the Article 105 by taking into account only bids with the code 0 and 1,
- $EDT_f$  is the energy imbalance amount (TL) of the balance responsible party "f" for an invoicing period, as calculated pursuant to Article 110,
- SAT<sub>p</sub> is the amount of the debt (TL) accrued to the relevant market participant as the result of system purchases of the market participant "p" within the related invoicing period as part of day ahead planning,
- SST<sub>p</sub> is the receivable balance (TL) accrued to the relevant market participant as the result of system purchases of the market participant "p" within the related invoicing period as part of day ahead planning,
- ÖEDT<sub>p</sub> is the Foreseen Energy Imbalance Amount of the market participant "p" for the relevant invoicing period regarding energy purchased or sold to the system to eliminate energy imbalance in the day ahead, that will be accrued to market participant as receivable when the value is positive and the payable when the value is negative,
- YHEB is the total Ancillary Services Energy Cost (TL) for an invoicing period, regarding the payments to be done to market participants, providing ancillary services and for ancillary services whose energy cost is paid as part of ancillary services
- m is the total number of balancing entities within the context of the balancing power market, in an invoicing period,
- n is the total number of balance responsible parties in an invoicing period.
- k is the variable taking the value 1 in the period when day ahead planning is valid, and the value 0 in the period when day ahead market is valid,
- 1 is the number of the market participants engaged in the relevant invoicing period.

# **ARTICLE 115** – <sup>196</sup>

(1) The Net Residual Balance Adjustment Factor for balance responsible party "f" in an invoicing period shall be calculated according to the following formula:

$$SBDK_{f} = \frac{\sum_{b=1}^{n} \sum_{u=1}^{k} UE \zeta M_{f,b,u}}{\sum_{b=1}^{m} \sum_{u=1}^{k} UE \zeta M_{f,b,u}}$$
(22)

- SBDK<sub>f</sub> is the Net Residual Balance Adjustment Factor (%) of a balance responsible party "f" for an invoicing period,
- $UECM_{f,b,u}$  is the Settlement Withdrawal Volume (MWh) for settlement period "u" of the settlement aggregation entity "b" registered in the name of balance responsible party "f" as calculated pursuant to Article 84,

<sup>&</sup>lt;sup>196</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- n is the number of settlement aggregation entities belonging to the market participant registered in the name of balance responsible party "f", for an invoicing period,
- m is the total number of settlement aggregation entities for an invoicing period,
- k is the number of settlement periods in an invoicing period,

### Market operation fee

**ARTICLE 116** - (1) Market operation fee shall be accrued separately from electricity sales and purchase amounts in order to cover the operating costs regarding the services performed by the Market Operator as well as the capital expenditures.

(2) The market operation fee to be accrued to each market participant, is calculated by allocation of Market Operation Fee Revenue Cap, which is determined according to Communiqué Concerning Factors Subject to Regulation within the context of Revenue and Tariff Regulation and Principles Regarding Reporting in Electricity Market that is published in the Official Gazette No. 25003 dated 24/01/2003, to market participants by taking into consideration the activities fulfilled by Market Operator regarding organized wholesale electricity market.

(3) The market operation fee, which is valid for one advance period<sup>197</sup>, as determined by the Board and calculated on the basis of dividing the Market Operation Fee Revenue Cap equally among advance<sup>198</sup> periods in the relative year, shall be divided into market operation fee components in order to accrue on day ahead balancing, balancing power market and settlement of imbalances activities, taking into consideration the proportion of related organized wholesale market activities in the Market Operator's activities.

(4) The market operation fee components to be accrued on each organized wholesale market activity for an invoicing period shall be calculated according to the following formula:

$$PI\ddot{U}\_G\ddot{O} = \frac{1}{3} \times PI\ddot{U}$$
(23a)

$$PI\ddot{U} \_ DGP = \frac{1}{3} \times PI\ddot{U}$$
<sup>(23b)</sup>

$$PI\ddot{U}_{-}D = \frac{1}{3} \times PI\ddot{U}$$
(23c)

(5) where;

- PIÜ\_GÖ is the total Market Operation Fee share (TL) regarding day ahead balancing to be accrued by the Market Operator for the day ahead balancing activities in an invoicing period,
- PIÜ is the Market Operation Fee applied for an invoicing period, as calculated on the basis of the Market Operation Revenue Cap set by the Board,
- PIÜ\_DGP is the total Market Operation Fee share (TL) regarding balancing power market to be accrued by the Market Operator for the balancing power market activities in an invoicing period,
- PIÜ\_D is the total Market Operation Fee share (TL) regarding settlement of imbalances to be accrued by the Market Operator for the settlement of imbalances activities in an invoicing period.

Calculation of market operation fee to be accrued on market participants for the day ahead balancing activities

<sup>&</sup>lt;sup>197</sup> 06 Kasım 2010 tarihli ve 27751 sayılı Resmi Gazetede yayımlanan Yönetmelikle değiştirilmiştir.

<sup>&</sup>lt;sup>198</sup> 06 Kasım 2010 tarihli ve 27751 sayılı Resmi Gazetede yayımlanan Yönetmelikle değiştirilmiştir.

**ARTICLE 117** - <sup>199</sup> (1) The market operation fee to be accrued on each market participant participating in day ahead balancing, for the day ahead balancing activities shall be calculated according to the following formula:

$$PI\ddot{U}S\_G\ddot{O} = 0.25 \times PI\ddot{U}\_G\ddot{O} \tag{24a}$$

$$PI\ddot{U}D\_G\ddot{O} = 0.75 \times PI\ddot{U}\_G\ddot{O}$$
(24b)

$$PI\ddot{U}S\_G\ddot{O}_s = \frac{PIUS\_GO}{b}$$
(24c)

$$PI\ddot{U}D\_G\ddot{O}_s = \frac{PI\ddot{U}D\_G\ddot{O}}{b}$$
(24ç)

$$PI\ddot{U}_{-G}\ddot{O}_{p,s} = \frac{PI\ddot{U}S_{-G}\ddot{O}_{s}}{k} + \frac{\left(\sum_{t=1}^{m}\sum_{u=1}^{a}\sum_{r=1}^{t_{1}}SSM_{t,p,s,u,r} + \sum_{t=1}^{m}\sum_{u=1}^{a}\sum_{r=1}^{t_{2}}SAM_{t,p,s,u,r}\right)}{\left(\sum_{p=1}^{k}\sum_{t=1}^{m}\sum_{u=1}^{a}\sum_{r=1}^{t_{1}}SSM_{t,p,s,u,r} + \sum_{p=1}^{k}\sum_{t=1}^{m}\sum_{u=1}^{a}\sum_{r=1}^{t_{2}}SAM_{t,p,s,u,r}\right)} \times PI\ddot{U}D_{-G}\ddot{O}_{s}$$
(24d)  
$$PII\ddot{U}_{-G}\ddot{O}_{-G} = \sum_{t=1}^{b}PII\ddot{U}_{-G}\ddot{O}_{t}$$
(24a)

$$PI\ddot{U}\_G\ddot{O}_p = \sum_{s=1}^{\nu} PI\ddot{U}\_G\ddot{O}_{p,s}$$
(24e)

- PIÜS\_GÖ is the total day ahead balancing Market Operation Fee fixed share (TL) to be accrued by the Market Operator for the day ahead balancing activities in an invoicing period,
- PIÜ\_GÖ is the total day ahead balancing Market Operation Fee amount (TL) to be accrued by the Market Operator for the day ahead balancing activities in an invoicing period,
- PIÜD\_GÖ is the day ahead balancing Market Operation Fee variable share (TL) to be accrued by the Market Operator for the day ahead balancing activities in an invoicing period,
- PIÜS\_GÖ<sub>s</sub> is the total day ahead balancing Market Operation Fee amount (TL) to be accrued by the Market Operator for the day ahead balancing activities in an advance period
- PIÜD\_GÖ<sub>s</sub> is the day ahead balancing Market Operation Fee variable share (TL) to be accrued by the Market Operator for the day ahead balancing activities in an advance period,
- a Number of settlement periods in the relating advance period,
- b Number of advance periods in the relating invoicing period,
- PIÜ\_GÖ<sub>p,s</sub> is the day ahead balancing Market Operation Fee amount (TL) to be accrued by the Market Operator on the market participant "p" in the advance period "s" for the day ahead balancing activities in an invoicing period
- k is the number of market participants participating in day ahead balancing,
- SSM<sub>t,p,s,u,r</sub> is the System Sales Volume (MWh) of market participant "p" in die advance period "s" for trade zone "t", under its offer "r" that is valid for the settlement period "u", and determined as a result of day ahead balancing
- t<sub>1</sub> is the number of offers under which the market participant "p" has sold electricity to the system within the context of day ahead balancing, for the settlement period "u", in the trade zone "t",
- m is the number of offer areas specified for the related invoicing term,

<sup>&</sup>lt;sup>199</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- SAM<sub>t,p,s,u,r</sub> is the System Sales Volume (MWh) of market participant "p" in the advance period "s" for trade zone "t", under its offer "r" that is valid for the settlement period "u", and determined as a result of day ahead balancing
- t<sub>2</sub> is the number of bids under which the market participant "p" has purchased electricity from the system within the context of day ahead balancing, for the settlement period "u", in the trade zone "t",
- PIÜ\_GÖ<sub>p</sub> is the day ahead balancing Market Operation Fee amount (TL) to be accrued by the Market Operator on the market participant "p" for the day ahead balancing activities in an invoicing period.

# Calculation of market operation fee to be accrued on market participants for the balancing power market activities

**ARTICLE 118**  $-^{200}$  (1) The market operation fee to be accrued on each market participant participating in balancing power market, for the balancing power market activities shall be calculated according to the following formula;

$$PI\ddot{U}S\_DGP = 0.25 \times PI\ddot{U}\_DGP \tag{25a}$$

$$PI\ddot{U}D\_DGP = 0.75 \times PI\ddot{U}\_DGP \tag{25b}$$

$$PI\ddot{U}S\_DGP_s = \frac{PI\ddot{U}S\_DGP}{b}$$
(25c)

$$PI\ddot{U}D\_DGP_s = \frac{PI\ddot{U}D\_DGP}{b}$$
(25ç)

$$PI\ddot{U}_{-}DGP_{p,s} = \frac{PI\ddot{U}S_{-}DGP_{s}}{l} \frac{\left(\sum_{d=1}^{d1}\sum_{u=1}^{a}\sum_{s=1}^{n}KEYALM_{p,d,s,u,r} + \sum_{s=1}^{d2}\sum_{u=1}^{a}\sum_{r=1}^{s}KEYALT_{p,d,s,u,r}\right)}{\left(\sum_{p=1}^{l}\sum_{d=1}^{d1}\sum_{u=1}^{a}\sum_{s=1}^{n}KEYALM_{p,d,s,u,r} + \sum_{p=1}^{l}\sum_{d=1}^{d2}\sum_{u=1}^{a}\sum_{s=1}^{n}KEYALM_{p,d,s,u,r}\right)} \times PI\ddot{U}D_{-}DGP_{s}$$

$$PIU_{-}DGP_{p} = \sum_{s=1}^{b}PIU_{-}DGP_{p,s}$$
(25<sup>201</sup>)

- PIÜS\_DGP is the total balancing power market Operation Fee fixed share (TL) to be accrued by the Market Operator for the balancing power market activities in an invoicing period,
- PIÜ\_DGP is the total balancing power market Operation Fee amount (TL) to be accrued by the Market Operator for the balancing power market activities in an invoicing period,
- PIÜD\_DGP is the balancing power market Operation Fee variable share (TL) to be accrued by the Market Operator for the balancing power market activities in an invoicing period,
- PIÜ\_DGP<sub>p,s</sub> is the balancing power market Operation Fee amount (TL) to be accrued by the Market Operator on the market participant "p" for the balancing power market activities in the advance period "s"

<sup>&</sup>lt;sup>200</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>201</sup> Amended by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

- 1 is the number of market participants participating in balancing power market,
- a is the number of settlement periods in the relating advance period,
- b is the number of advance periods in the relating invoicing period
- KEYALM<sub>p,d,s,u,r</sub> is the accepted and fulfilled offer volume (MWh) of market participant "p" for the offer "r" valid for settlement period "u" in the advance period "s", of balancing entity "d" in the balancing power market
- t<sub>1</sub> is the number of offers accepted for the settlement period "u" related to balancing entity "d" in the balancing power market,
- d<sub>1</sub> is the number of balancing entities of market participant "p" with offers accepted for the settlement period "u" in the balancing power market,
- KEYATM<sub>p,d,s,u,r</sub> is the accepted and fulfilled bid volume (MWh) of market participant "p" for the bid "r" valid for settlement period "u" in the advance period "s", of balancing entity "d" in the balancing power market,
- t<sub>2</sub> is the number of bids of balancing entity "d" in the balancing power market, accepted for the settlement period "u",
- d<sub>2</sub> is the number of balancing entities of market participant "p" with bids accepted for the settlement period "u" in the balancing power market,
- PIÜ\_DGP<sub>p</sub> is the balancing power market Operation Fee amount (TL) to be accrued by the Market Operator on the market participant "p" for the balancing power market activities in a invoicing period

# Calculation of market operation fee to be accrued on balance responsible parties for the settlement of imbalances activities

**ARTICLE 119** - <sup>202</sup> (1) The market operation fee to be accrued on each balance responsible party for the settlement of imbalances activities shall be calculated according to the following formula:

$$PI\ddot{U}S\_D = 0.25 \times PI\ddot{U}\_D \tag{26a}$$

$$PIUD\_D = 0.75 \times PIU\_D \tag{26b}$$

$$PI\ddot{U}S\_D_s = \frac{PI\ddot{U}S\_D}{b}$$
(26c)

$$PI\ddot{U}D_{-}D_{s} = \frac{PI\ddot{U}D_{-}D}{b}$$
(26ç)

$$PI\ddot{U}_{D_{f,s}} = \frac{PI\ddot{U}S_{D_s}}{k} + \frac{\sum_{t=1}^{m} \sum_{u=1}^{a} \left| EDM_{f,t,s,u} \right|}{\sum_{f=1}^{k} \sum_{u=1}^{m} \sum_{u=1}^{a} \left| EDM_{f,t,s,u} \right|} \times PI\ddot{U}D_{D_s}$$
(26d)

$$PIU\_D_f = \sum_{s=1}^{b} PIU\_D_{f,s}$$
(26e)

<sup>&</sup>lt;sup>202</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- PIÜS\_D is the total Settlement of Imbalances Market Operation Fee fixed share (TL) to be accrued by the Market Operator for the settlement of imbalance transactions in an invoicing period (TL),
- PIÜ\_D is the total Settlement of Imbalances Market Operation Fee amount (TL) to be accrued by the Market Operator for the settlement of imbalance transactions in an invoicing period,
- PIÜD\_D is the Settlement of Imbalances Market Operation Fee variable share (TL) to be accrued by the Market Operator for the settlement of imbalance transactions in an invoicing period (TL),
- $EDM_{f,t,s,u}$  is the energy imbalance volume (MWh) for settlement period "u" of balance responsible party "f" in the trade zone "t" determined for a day in an invoicing period, as calculated pursuant to Article 111
- m is the number of trade zones determined for relevant invoicing period,
- b is the number of advance periods in the relating invoicing period,
- $PI\ddot{U}_D_{f,s}$  is the market operation fee amount (TL) to be imposed for settlement of imbalances by the Market Operator to the party responsible for "f" balance for the settlement activities of imbalances related with an advance payment period,
- $PI\dot{U}_D_f$  is the Settlement of Imbalances Market Operation Fee amount (TL) to be accrued by the Market Operator on the balance responsible party "f" for the settlement of imbalances activities in an invoicing period,
- a is the number of settlement periods in a invoicing advance period,
- k is the number of balance responsible parties

# PART SEVEN Provisions Regarding Financial Matters SECTION ONE Collaterals and Responsibilities of the Parties regarding Payments<sup>203</sup>

# **Responsibilities of Market Operator** <sup>204</sup> **ARTICLE 120 – (1) Market Operator** shall be responsible for;

a) Designation of the central settlement bank and information of the participants to that effect,

b) Signing of an agreement with the central settlement bank in order to ensure that the central settlement bank designated by the Market Operator can be used by all parties so as to have collateral and payment processes realized,

c) Calculation of the total collateral that is required to be presented by the market participants correctly,

c) determination of the fixed collateral amount to be used in the minimum collateral calculations on participant basis and the minimum collateral amount to be requested from the participants in line with the system utilisation agreement on the basis of maximum aggregation amounts specified in the system utilization agreement,

<sup>&</sup>lt;sup>203</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>204</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

d) determination of the minimum cash collateral amount to be presented by the market participants for the day ahead balancing activities,

e) Information of the market participants in a regular and correct manner regarding the collateral amounts required to be presented,

g) Information of the central settlement bank on collateral amounts required to be presented and the amounts receivable/payable by market participants in a regular and correct manner,

g) safekeeping of collateral letters to be presented to the name of TEIAŞ and information of the central settlement bank on the collateral letters that are presented,

ğ) In the event of a market participant's total collateral amount presented for a certain market activity and/or minimum cash collateral amount falling below the required level, calling the related participant to supplement the collateral with regards to necessary total and/or minimum cash collateral amount,

h) Calling for additional collateral from related participant when necessary by comparing the existing collateral amount of each participant with the collateral amount required to be presented,

1) Informing the market participants with regards to the service charge rates to be acquired by the central settlement bank for the collateral management and cash exchange service by the central settlement bank and the fund management commission rate to be collected for the accretion of the cash collaterals in TL currency present to the central settlement bank,

i) Opening of necessary accounts at central settlement bank on its name and account,

j) Information of the central settlement bank in a timely and correct manner with regards to the payments to be made in the scope of letters of assignment.

# Responsibilities of market participants <sup>205</sup>

**ARTICLE 121** – (1) Market participants shall be responsible for;

a) opening of the collateral and cash account in a timely and correct manner at the central settlement bank specified by the Market Operator for its own name in order to realize the actions related with collateral and the payments,

b) Signing of the central settlement bank-participant agreement for cash clearing exchange services safekeeping of collaterals other than the letter of guarantee to be provided by the central settlement bank,

c) opening of the cash account in a timely and correct manner at the mediator banks on its own account for realization of processes related with the payments in order to have advance and invoice payment processes realized by the Market Operator,

ç) making the payments in a timely and correct manner with regards to the advance payment notices and invoices notified to them by the Market Operator,

d) Calculation of the collateral amount required to be presented by the Market Operator as stipulated in the related articles of this Regulation,

e) Depositing of the collaterals specified by the Market Operator, in a timely manner at the collateral accounts opened to their name at the central settlement bank designated by the Market Operator to secure the payment liabilities,

f) Depositing of the service fee to the central settlement bank required for the collateral management and cash exchange service provided by the central settlement bank in a timely manner.

# **Responsibilities of Central Settlement Bank**<sup>206</sup>

ARTICLE 122 – (1) The Central Settlement Bank shall be responsible for;

a) Effecting the advance payments, invoice and assignment payments and the collateral processes correctly and in a timely manner,

<sup>&</sup>lt;sup>205</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>206</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.
#### Published in the Official Gazette No. 27200 dated 15/04/2009.

b) Establishment of the infrastructure, which shall provide the communication with Market Operator, market participants and the mediator banks regarding the advance payments, invoice and assignment payments and the collateral processes, and operation of the established system,

c) signing of the central settlement bank-participant agreement with the market participants for the cash exchange service and safekeeping of collaterals other than the collateral letter,

ç) signing of the central settlement bank agreement with the Market Operator for execution of the collateral and payments processes,

d) Monitoring that payments in the scope of assignment letters notified by the Market Operator are affected correctly and information of the Market Operator regarding the payments made,

e) Informing the Market Operator on processes realized regarding collateral management, advance and invoice payments,

f) Safekeeping of all collaterals other than the collateral letter presented to the name of the Market Operator,

g) Monitoring of processes realized with regards to the collaterals,

g) Information of the Market Operator regarding the processes realized in the collateral accounts of the market participants and the level of their existing collaterals,

h) In the event of the total collateral amount and/or minimum cash collateral amount required to be presented by a market participant for a certain market activity falling below the collateral level required to be provided by the related participant, notification of the Market Operator to make a call to the related participant for supplementing the collateral related with the total and/or minimum collateral amount,

1) accretion of the cash collaterals presented in TL currency by the market participants,

i) calculation of the default fines and information of the Market Operator regarding thereof in the event of default of the market participant,

j) information of the participants regarding service charges required to be paid by the market participants,

k) ensuring non-disclosure of information and data considered as trade secrets such as transactions and collateral utilisation sent on participant basis by the Market Operator regarding the market participants.

(2) Procedure and principles related with accretion are under the legal liability of the central settlement bank; and said accretion process shall be effected by the central settlement bank by means of maximum effort based on the market conditions of the day and the accretion amount shall be transferred to the account of the related market participant on the following business day.

## **Responsibilities of intermediary banks**<sup>207</sup>

**ARTICLE 123** – (1) **Intermediary banks** shall be responsible for;

Information of the related market participants in a correct and timely manner regarding the notices served to them by the central settlement bank,

In the event of the market participant being indebted, transferring the payment amount sent to them by the market participant to the central settlement bank in a correct and timely manner,

In the event of the market participant having an amount receivable, transferring the payment amount sent to them by the central settlement bank to the related participant in a correct and timely manner,

Establishment of a system that provides for communication and contact with the central settlement bank for ensuring effecting of the payment processes in a timely and correct manner.

<sup>&</sup>lt;sup>207</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

## SECTION TWO Collaterals <sup>208</sup>

## General principles of Collaterals<sup>209</sup>

**ARTICLE 124** – (1) Collaterals ensure the continuity of the cash flow between the participants in the event of failure of the market participants in fulfilling their liabilities related with the market or in realizing their activities and secure the other crediting market participants in the event of the market participant not making the payment in a timely manner.

(2) The Market Operator receives collateral from market participants for their liabilities arising from balancing mechanism and settlement processes,

(3) In case of failure to provide the required collateral, market participants shall not complete the relevant market activities,

(4) The transactions regarding collateral shall be executed according to the following principles:

a) The Market Operator receives collateral from market participants regarding the fulfilment of their payment obligation arising from balancing mechanism and settlement. In the following cases, Market Operator requests them to increase their existing collateral amounts:

1) registration of a new settlement aggregation entity,

2) inclusion of a new market participant in a balance responsible party,

3) Changing of the maximum exchange capacity specified in the system utilisation agreement signed on behalf of a market participant holding generation, auto-producer or autoproducer group license,

4) A higher purchase occurring in the day ahead balancing based on historical trends,

5) Collateral requirements calculated based on the imbalance settlement results being higher than the requirement calculated in the previous invoicing period,

6) Despite a market participant not having a settlement notification related with the imbalance in an invoicing period, determination of the fact that imbalance amount is continuously decreasing as a result of the related market monitoring activities and determination of the fact that the participant's risk cannot be covered with the existing collateral amount.

b) Market participants must present a collateral at a level that shall cover the total risks related with all activities of the market participants that are executed in the market scope in the time period designated in the related articles of the Regulation.

c) For market participants to proceed with the commercial transactions specified in item (a), they shall provide the collateral calculated by the Market Operator,

 $\boldsymbol{\varsigma})$  The Market Operator uses the central settlement bank for the execution of collateral and payment transactions

d) Tasks and responsibilities of the central settlement bank shall be determined with the central settlement bank agreement made between the Market Operator and the central settlement bank.

e) In essence, the market participants shall be required to operate by signing the related agreement with the central settlement bank designated by the Market Operator for execution of the collateral processes. The market participants may present their collaterals with the use of several banks.

f) All collaterals other than the collateral letter presented by the market participant shall be kept by the central settlement bank and the collateral letters shall be kept by the Market Operator.

g) Central settlement bank shall impose a pledge in favour of the Market Operator over the collateral amount presented to it regarding the market activities on participant basis on behalf of the Market Operator.

 $\check{g}$ ) Excluding the condition in which the market participant cannot realize the advance payment and the invoice payments in the period specified in Article 132/ $\zeta$ , payments and collections related with balancing mechanism and settlement of imbalances.

(5) Rates to be applied by the central settlement bank for the collateral safekeeping and cash exchange services provided by the central settlement bank and the fund management commission rate shall be determined in the central settlement bank-participant agreement. In the event of a change in

<sup>&</sup>lt;sup>208</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>209</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

said rates, Market Operator shall notify said changed rates through the MMS no later than one month in advance of the date on which said rates shall come into force.

## Processes regarding collateral transactions<sup>210</sup>

**ARTICLE 125** – (1) All Market participants shall open collateral accounts at the central settlement bank to carry out the transactions regarding the collateral of individually. The market Operator shall provide authorization to the central settlement bank for all the transactions regarding this account. The interests accruing from this account shall be reflected to the related market participants after deduction of legal liabilities and the service charges.

(2) As the guarantee for the fulfilment of the payment obligations arising from the balancing mechanism and settlement, market participants shall provide all collaterals consisting of the assets which can be accepted as collateral pursuant to Article 126 except bank guarantees to the Central Settlement Bank. All collaterals provided by the market participant shall be kept by the Central Settlement Bank and the bank guarantees by the Market Operator

(3) Market Operator shall make the necessary calculations related with the collateral amount required to be presented on the next day by 14:30 every day and shall inform the market participants and the central settlement bank on participant basis.

(4) Central settlement bank to which the collateral information is forwarded on participant basis, shall realize follow-up of the required collateral amounts.

(5) Collateral letters shall be presented to the Market Operator by 10:30 every day and while the other collaterals are presented to the central settlement bank by the market participant until 11:00 hours.

(6) Collateral letters related with the collateral supplementing calls made on the weekends or holidays or the first business day before the weekend or official holiday, shall be presented to the Market Operator by 10:30 hours on the first business day after the weekend or the official holiday when it is in the form of a collateral letter, and collaterals other than collateral letters shall be presented by the participant to the central settlement bank by no later than 11:00 hours.

(7) Market Operator shall notify the information related with the collateral letter amount presented on participant basis to the central settlement bank by no later than 10:30 hours on each day.

(8) Central settlement bank shall present the information provided by the market participants to the Market Operator on participant basis by no later than 11.00 hours each day.

(9) Following effecting of the advance payments in the scope of day ahead settlement activities, in the event of the minimum cash collateral amount presented by a market participant and the total collateral amount falling below the level required to be provided, the Market Operator shall call the related market participant by no later than 16:00 hours to present the collateral letters by 10:30 hours on the next day and collaterals other than collateral letters by 11:00 hours.

(10) For a market participant, who has been called to present a collateral, to continue the related market activities, the additional collateral shall be required to be presented to the central settlement bank and/or the Market Operator based on the characteristics of the supplementary collateral.

## Assets accepted as collateral <sup>211</sup>

**ARTICLE 126** – (1) The assets that can be accepted as collateral are listed below:

a) Turkish Lira,

b) Foreign currencies (US \$ or  $\in$ ),

c) The non-time limited performance bonds in Turkish Liras or foreign currencies (US or  $\in$ ) issued by banks and participating banks operating in Turkey, pursuant to the legislation governing the banking sector,

c) The non-time limited bank guarantees in Turkish Liras or foreign currencies (US or e) issued by banks and participating banks operating in Turkey, upon the counter-guarantee of the foreign banks permitted to operate in Turkey pursuant to the banking legislation and by the banks and similar credit institutions operating outside Turkey.

d) State Internal Borrowing Bonds, providing that they are issued to the bearer.

<sup>&</sup>lt;sup>210</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>211</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

(2) In the process of calculation of the TL equivalents of the collaterals, the foreign currency purchase rate of Central Bank of Turkey shall be applied for cash collaterals and collateral letters in foreign currencies, while indicator prices published in the Official Gazette by the Central Bank of Turkey shall be taken as the basis for state bonds and treasury bonds.

(3) The minimum cash collateral rate to be provided by the market participants participating in the day ahead balancing related with balancing shall be determined by the Market Operator and shall be published though the MMS no later than one month prior to the validity date of said rate.

(4) Market participants may provide the required collateral except the minimum collateral cash amount by only one or more than one of the assets that can be accepted as collateral, mentioned in the first clause of this Article. The collaterals provided may partially or wholly be replaced with other assets that can be accepted as collateral.

(5) Valuation coefficients shall be applied to the assets that are accepted as collateral other than collateral letters and the collateral letters in foreign currency. The valuation coefficient to be applied in the scope of this Regulation shall be determined by the Market Operator upon the recommendation of the central settlement bank with due consideration of valuation coefficients being applied in similar markets, and shall be announced to the market participants through the MMS.

(6) Al expenditures related to collateral shall be met by the related market participants.

## Minimum collateral control<sup>212</sup>

**ARTICLE 127** - (1) The minimum collateral amount required to be presented by the legal entity holding retail or wholesale sales license in order to continue its market operations, shall be calculated as follows:

$$MIN \_TT_{p,g} = STT \_1_{p,g}$$

(27a)

(2) The minimum collateral amount required to be presented by the legal entity holding a generation, auto-producer or auto-producer group license in order to continue its operations in the day ahead planning day ahead market and balancing power market shall be calculated as follows:

a) In the event of the total maximum exchange capacity specified in the system utilisation agreements made by the related market participant being more than 1000 MW:

$$MIN\_TT_{p,g} = STT\_1_{p,g}$$

(27b)

b) In the event of the total maximum exchange capacity specified in the system utilisation agreements made by the related market participant being between 50 MW and 1000 MW;

$$MIN\_TT_{p,g} = (KGUC\_TT_{p,g} \times KGUC_{p,g})$$
(27c)

c) In the event of the total maximum exchange capacity specified in the system utilisation agreements made by the related market participant being less than 50 MW;

$$MIN\_TT_{p,g} = STT\_2_{p,g}$$
(27ç)

(3) where;

- MIN\_TT<sub>p,g</sub> p" refers to the minimum collateral amount required to be provided by the "p" market participant for "g" days,
- STT\_1<sub>p,g</sub> refers to the fixed collateral amount (TL) to be presented by the related participant for "g" days in the event of the market participant being a legal entity holding retail sales license, wholesale sales license or legal entity holding a generation, auto-producer or autoproducer group license with a total maximum exchange capacity of more than 1000 MW with the system utilization agreements signed,
- KGUC<sub>p,g</sub> refers to the total maximum exchange capacity specified in the system utilisation agreement for facilities registered to the name of the "p" market participant in "g" days,

<sup>&</sup>lt;sup>212</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- $KGUC_TT_{p,g}$  refers to the fixed collateral amount (TL/MW) to be required on (g) day from the participant in the event of the related participant being a legal entity holding a generation, auto-producer or auto-producer group license with a maximum exchange capacity total between 50 MW and 1000 MW in the signed system utilisation agreements ,
- STT\_2p,g refers to the fixed collateral amount (TL) required to be presented by the related participant regarding "g" day in the event of the market participant being a legal entity holding a generation, auto-producer or auto-producer group license with a maximum exchange capacity total below 50 MW in the signed system utilisation agreements ,

(4) Fixed collateral amounts (TL) determined in the scope of minimum collateral amounts required to be presented by any market participant shall be determined by MFSC and said amounts shall be published over the MMS no later than one month in advance of validity date of said amounts.

(5) In the event of there being an increase in the maximum exchange capacity stipulated in the system utilisation agreements for a market participant, the Market Operator shall inform the related market participant with regards to the supplementary collateral required to be presented due to said change as of the invoice notification date. Market participant shall be required to increase the collateral in a period of six working days as of notification date of the invoice related with said change.

(6) Market participant, who has not signed a day ahead market participation agreement and who is included into another group which is responsible for another balance, shall not have the liability to provide minimum collateral.

## Control of collaterals in the day ahead balancing <sup>213</sup>

**ARTICLE 128** - (1) For the Market Operator to accept the bids regarding the day ahead balancing activities submitted by a market participant participating in the day ahead market, the cash collateral amount provided by the related market participant for the respective day has to be equal to or greater than the minimum cash collateral amount and also the total amount of collaterals to be equal to or greater than the amount which the related market participant must have.

(2) The amount of collateral corresponding to the exposure value of a market participant participating in the day ahead market regarding the day ahead market transactions as of a certain day shall be calculated according to the following formula:

$$SAT_{p,g} = \sum_{t=1}^{m} \sum_{u=1}^{24} \sum_{r=1}^{n1} \left( SAF_{t,p,u,r} \times SAM_{t,p,u,r} \right)$$
(28a)  
$$TT_{-}G\ddot{O}_{p,d+1} = \sum_{g=d-k+1}^{d} SAT_{p,g}$$
(28b)

(3) where;

- SAT<sub>p,g</sub> is the amount of payable to be accrued via commercial transaction confirmation on the market participant "p" due to that market participant's purchases from the system on the day "g" (TL)
- $SAF_{t,p,u,r}$  is the System Purchase Price that is calculated pursuant to Article 96, to be applied for the bid "r" of market participant "p" effective for the trade zone "t" and for the settlement period "u" (TL/MWh),
- SAM<sub>t,p,u,r</sub> is the actual System Purchase Volume of market participant "p" under his bid "r" for the trade zone "t" and for the settlement period "u" (MWh),
- n1 is the number of bids under which market participant "p" has purchased energy from the system, for the trade zone "t", in the settlement period "u" on the day "g",

<sup>&</sup>lt;sup>213</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- m is the number of trade zones defined for the day "g",
- d+1 is the day on which the control of the collateral regarding the day ahead balancing is controlled,
- TT\_GÖ<sub>p,d+1</sub> is the Collateral Amount which the market participant "p" participating in the day ahead balancing is required to provide as of the day "d+1" for the day ahead balancing transactions (TL)
- k is the number of days in risk period,

(4) Number of days included into the risk period shall be calculated by addition of two days to the total number of official holidays in official holidays longer than two days and shall be notified through the MMS to the market participants no later than one month before the starting date of the official holiday. Moreover, the risk period shall cover a period of four days.

## **Control of collaterals in the settlement of imbalances**<sup>214</sup>

**ARTICLE 129** - (1) For each balance responsible party to carry out the

a) registration of a new settlement aggregation entity,

b) inclusion of a new market participant in a balance responsible group,

transactions, the total amount of collaterals provided by the related balance responsible party for the settlement of imbalances has to be equal to or greater than the amount of collateral corresponding to his exposure value relating to settlement of imbalances as of that day.

(2) A balance responsible party's amount of collateral corresponding to his exposure value relating to settlement of imbalances shall be calculated according to the following formula:

$$SMF \_ ORT_{i} = \frac{\sum_{f=1}^{k} \sum_{t=1}^{m} \sum_{u=1}^{n} (|EDM_{i,f,t,u}| \times SMF_{i,t,u}|)}{\sum_{f=1}^{k} \sum_{t=1}^{m} \sum_{u=1}^{n} |EDM_{i,f,t,u}|}$$

$$SMF \_ MAX = \max(SMF \_ ORT)$$
(29a)

$$SMF \_MAX_g = \max(SMF \_ORI_i)$$
(29b)

∀SMF\_ORTi for i =g-1, g-2, g-3,g-4, g-5, g-6

$$TT \_DU_{f,g} = SMF \_MAX_g \times \max(\sum_{i=1}^{i+1} \sum_{u=1}^{m} EDM_{i,f,t,u}) xRK$$
(29c)

For  $\forall$ EDM<sub>i,f,t,u</sub> i =g-1, g-2, g-3,g-4, g-5, g-6

(3) where:

EDM <sub>i,f,t,u</sub>	is the energy imbalance volume (MWh) of balance responsible party "f" for the settlement period "u" in the trade zone "t" for the month "i" within the risk period, which is calculated pursuant to Article 111,
$\text{SMF}_{i,t,u}$	system marginal price (TL/MWH) calculated for the "u" settlement period pursuant to Article 109 regarding month "I" and "t" offer zone
$\mathrm{SMF}_{\mathrm{d},\mathrm{u},\mathrm{t}}$	is the System Marginal Price (TL/MWh) calculated for the settlement period "u", pursuant to Article 109 for the month "i" within the risk period and for the trade zone "t",
m	number of trade zones determined for the related invoicing period
n	number of settlement periods within an invoicing period
k	number of market participants related to the invoicing period,
SMF_ORT <sub>i</sub>	is the medial System Marginal Price for the month "i" within the past 6 months,
$SMF\_MAX_g$	is the maximum medial System Marginal Price within the risk period of past 6 months used for collateral calculation related to the moth "g"
TT_DU <sub>f,g</sub>	is the collateral required to be presented by the "p" market participant responsible for the "f" balance

<sup>&</sup>lt;sup>214</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- "f" is the Amount of Collateral which the market participant "p" as the balance responsible party "f" is required to provide for the settlement of imbalances for the month "g",
- R is the risk coefficient

(4) Collateral amount for the imbalances shall be calculated for the participants with energy deficit.

(5) In the collateral calculations, related with imbalances of the market participants, the highest of the total energy imbalance amounts for successive two months in the last six months shall be taken into consideration.

(6) Collateral requirement for imbalances for a market participant who has completed the six months of operation as of the completion of the registration processes shall be calculated as follows:

a) Collateral shall not be required for imbalance from a participant who has not completed his first month since the date of registration on the date on which the collateral calculation is realized.

b) The collateral required from a participant who has not completed his second month since the registration date on the date on which the collateral calculation is realized shall be calculated by multiplying the weighed mean of the system marginal price for the previous month with the total imbalance amount which is found by multiplying the imbalance amount of the participant in the previous month by two. Said amount calculated shall be multiplied subsequently with the risk factor.

c) The collateral required from a participant who has not completed his sixth month since the registration date on the date on which the collateral calculation is realized shall be calculated by multiplying the two monthly maximum imbalance amount of the participant in the previous months with the weighed mean of the maximum system marginal price in the previous months. Said calculated amount shall be multiplied subsequently with the risk factor.

(7) In the event of increase in the collateral amounts required to be presented by market participants, as the party responsible for balance, for settlement of imbalances after publication of the settlement notifications, they shall be notified by the Market Operator for updating of their collaterals on the invoice notification date. Market participant shall be responsible for increasing the collateral within a period of six working days as of the invoice notification date related with said change.

(8) In the event of a market participant being included into a group which is responsible for balance, the party responsible for who has undertaken the balance responsibility on behalf of the group responsible for balance, shall be considered as having undertaken the collateral liabilities related with the imbalances of the related market participant.

(9) In the event of a change in the risk coefficient, the Market Operator shall publish the new risk coefficient within a period of one month as of the validity date of said coefficient.

## Total collateral control<sup>215</sup>

**ARTICLE 130** – (1) The collateral amount required to be presented by the market participant for the day ahead activities shall be calculated on daily basis while the collateral required to be presented for imbalances shall be calculated on monthly basis.

(2) In any day, the total collateral amount required to be presented by the market participant shall be calculated as follows.

$$TT\_TOP_{p,d+1} = MAX (TT\_G\ddot{O}_{p,d+1} + TT\_DU_{f,p,g}; MIN\_TT_{p,g}) \times TAO_p$$
(30)

(3) where:

- $TT\_TOP_{p,d+1}$  is the total collateral amount which the market participant "p" is required to provide for next day,
- TT\_GÖ<sub>p,d+1</sub> is the Collateral Amount which the market participant "p" participating in the day ahead balancing is required to provide as of the day "d" for the day ahead balancing transactions (TL)
- TT\_DU<sub>f,p,g</sub> is the collateral required to be presented by the "p" market participant responsible for the "f" balance for settlement of the imbalances during the advance periods in the "g" invoice period.

<sup>&</sup>lt;sup>215</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

- $MIN_TT_{p,g}$  the minimum collateral amount required to be provided by the market participants for "g" days,
- TAO<sub>p</sub> as mentioned in article 124, "p" is the collateral increase rate, applicable for the "p" market participant when necessary, which has a default value of 1

(4) The collateral amount for day ahead processes and the minimum collateral amount required to be presented by a market participant shall be provided by the related market participant and the collateral amount required to be presented with regards to settlement of the imbalances shall be covered by the party responsible for the related imbalances.

(5) In the event of determination that the total collateral presented by the market participant is not at a level that can cover the total risk related with all operations of the participant in the market, the Market Operator may require increase of the collateral amount required to be presented by the participant by increasing the collateral increase rate.

## **Return of collaterals provided to the Central Settlement Bank**<sup>216</sup>

**ARTICLE 131** – (1) In case the total amount of collaterals provided by a market participant to the Central Settlement Bank exceeds the amount of collateral corresponding to the total collateral value of that market participant, the surplus collateral amount shall be returned to the market participant by the Central Settlement Bank upon the claim of market participant, if the mentioned collateral is adequate for partial return.

(2) Cash collateral withdrawal process to be realized by the market participant shall be realized between 14:30 and 15.40 and the non-cash collateral withdrawal shall be realized between 14:30 and 17:00.

## SECTION THREE

# Advance Payment Notifications, Settlement Notifications, Invoicing, Payments, Default in Payments<sup>217</sup>

#### **Advance Payment Notifications**

**ARTICLE 132** – (1) As a result of the settlement calculations, the daily advance payment notification which covers the amount payable to the Market Operator for an invoicing period by the Market Participant or the amounts payable by the Market Operator to the market participant regarding the day ahead balancing processes, shall be announced by the Market Operator to the central settlement bank and the related market participant by 14:30 hours on daily basis following completion of the balancing activities.

(2) The advance payment notification issued by the Market Operator to market participants shall include the following items:

a) The breakdown of market participants' receivables and energy volumes regarding their sales to the system within the context of day ahead balancing on a settlement period basis,

b) The breakdown of market participants' payables and energy volumes regarding their purchases from the system within the context of day ahead balancing on a settlement period basis.

(3) The advance payment notification issued by the Market Operator to central settlement bank shall include the following items

a) The breakdown of market participants' receivables regarding their sales to the system within the context of day ahead balancing

b) The breakdown of market participants' payables regarding their purchases from the system within the context of day ahead balancing

## Settlement notifications

**ARTICLE 132/A** - <sup>218</sup> (1) The preliminary settlement notifications including the amounts to be paid by market participants to the Market Operator or by the Market Operator to market participants for each invoicing period as a result of settlement calculations, shall be issued to the

<sup>&</sup>lt;sup>216</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>217</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>218</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

related market participants via MMS on the 6th day of the month following the invoicing period, and the final contract notifications on the 11th day of the month following the invoicing period.

(2) The preliminary settlement notifications issued by the Market Operator to market participants shall include the following items:

a) The breakdown of market participants' receivables and energy volumes regarding their sales to the system within the context of day ahead balancing on a settlement period basis,

b) The breakdown of market participants' payables and energy volumes regarding their purchases from the system within the context of day ahead balancing on a settlement period basis,

c) The breakdown of energy volumes and receivables regarding the offers accepted within the context of balancing power market on a settlement period basis

ç) The breakdown of energy volumes and receivables regarding the bids accepted within the context of balancing power market on a settlement period basis,

d) The breakdown of contract notification volumes of the related market participant on a settlement period basis,

e) The breakdown of transmission system supply volume on a settlement period and trade zone basis,

f) The breakdown of transmission system withdrawal volume on a settlement period and trade zone basis.

(3) The information indicated in items (a) and (b) of the second clause of this Article shall be included in the settlement notifications issued to market participants participating in the day ahead balancing, the information indicated in items (c) and (ç) shall be included in the settlement notifications issued to market participants participating in balancing power market, and the information indicated in items (d), (e) and (f) shall be included in settlement notifications issued to market participants participants.

(4) The final settlement notifications issued by the Market Operator to market participants shall include the following items:

a) The breakdown of market participants' receivables and energy volumes regarding their sales to the system within the context of day ahead balancing on a settlement period basis,

b) The breakdown of market participants' payables and energy volumes regarding their purchases from the system within the context of day ahead balancing on a settlement period basis,

c) Market operation fee that will be accrued to market participants regarding day ahead balancing operations,

ç) The breakdown of energy volumes and receivables regarding the offers accepted within the context of balancing power market on a settlement period basis,

d) The breakdown of energy volumes and receivables regarding the bids accepted within the context of balancing power market on a settlement period basis,

e) Market operation fee that will be accrued to market participants regarding balancing power market operations,

f) The breakdown of receivables regarding the energy surplus on a settlement period and trade zone basis,

g The breakdown of payables regarding the energy deficit on a settlement period and trade zone basis,

ğ) Retrospective correction item,

h) Net residual balance adjustment item,

1) Share of receivables not paid on time,

i) Market operation fee that will be accrued to market participants regarding settlement of imbalance transactions,

j) The breakdown of related market participant's contract notification volumes on a settlement period basis,

k) The breakdown of settlement supply volumes on a settlement period and trade zone basis,

l) The breakdown of settlement withdrawal volumes on a settlement period and trade zone basis.

(5) The information indicated in items (a), (b) and (c) of the fourth clause of this Article shall be included in the settlement notifications issued to market participants participating in the day ahead balancing, the information indicated in items (d), (e) and (f) shall be included in the settlement notifications issued to market participants participating in balancing power market, and the

information indicated in remaining items shall be included in settlement notifications issued to market participants characterized as balance responsible party.

(6) The amounts indicated in the final settlement notifications issued by the Market Operator as a result of settlement shall include the taxes and charges required by the legislation.

## **Corrections regarding settlement notifications**

**ARTICLE 132/B** –  $^{219}$  (1) The objections of market participants regarding the material errors in preliminary and final settlement notifications have to be filed by  $16:^{00}$  hours on the 12th day of the month in which the notification has been made so that the objections can be evaluated within the framework of the transactions in the related invoicing period. In case the objections are accepted by the Market Operator by  $16:^{00}$  hours on the 14th day of the month, the invoices shall be prepared according to the corrected notification volumes. In case the evaluation of objections cannot be concluded by  $16:^{00}$  hours on the 14th day of the month, the process specified in Article 133 shall be applied. In case the objection is rejected, the market participant shall be informed within this period

#### Invoicing

**ARTICLE 132/C** - <sup>220</sup>(1) The Market Operator shall prepare invoices within 7 days following the 15th day of the month in which the notifications are made, according to the amounts indicated in the valid final settlement notifications or according to the corrected amounts if the objections made to final settlement notifications are accepted. The invoice announcement date in the MMS shall be considered as the invoice notification date.

(2) A single invoice for day ahead market activities, balancing power market activities and settlement of imbalances shall be prepared and the invoices of the market participants participating in the relative market activities shall be sent to them by the Market Operator.

(3) From the 15th day of the month in which the notifications have been made, the Market Operator shall send the information on receivables / payables based on invoices issued in regard of the relative market activities of the market participant to the central settlement bank.

(4) The market participants to whom payments will be made shall prepare their invoice and send to the Market Operator within seven days from the 15th day of the month in which the notifications have been made until the end of the month, according to the amounts indicated in the valid final settlement notifications or according to the corrected amounts if the objections made to final settlement notifications are accepted, for day ahead market activities, balancing power market activities and settlement of imbalances.

#### **Payment and collection**

**ARTICLE 132/Ç**  $-^{221}$  (1) Daily advance notifications sent by the Market Operator to the market participants on daily basis regarding the day ahead activities shall be paid by the market participants through the mediatory banks to the account of the Market Operator at the central settlement bank by no later than 15:00 hours on the following work day.

(2) Amounts specified in the daily advance payment notifications regarding the day ahead balancing activities which are required to be paid by the Market Operator to the market participants shall be paid from the account of the Market Operator at the central settlement bank through mediatory banks by no later than 17:00 hours on the following day.

(3) Payments to be made by the market participants to the Market Operator regarding the daily advance payment notifications sent on the work day before the weekend or official holiday, shall be made by no later than 15:00 hours on the first work day after the weekend or the official holiday.

(4) Payments to be made by the Market Operator to the market participants regarding the daily advance payment notifications sent on the work day before the weekend or official holiday, shall be made by no later than 17:00 hours on the first work day after the weekend or the official holiday.

<sup>&</sup>lt;sup>219</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>220</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>221</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

(5) Payments to be made by the market participants to the Market Operator regarding the daily advance payment notifications sent on the weekends or official holidays, shall be made by no later than 15:00 hours on the second work day after the weekend or the official holiday.

(6) Payments to be made by the Market Operator to the market participants regarding the daily advance payment notifications sent on the weekends or official holidays, shall be made by no later than 17:00 hours on the second work day after the weekend or the official holiday.

(7) Receipts obtained electronically from the central settlement bank regarding the payments made by the Market Operator and the market participant shall be valid as payment collection receipts and the related part of the invoice sent to the market participants or the Market Operator regarding settlement at the end of the month shall be considered as being paid in advance.

(8) Amounts of the invoices sent to the market participants regarding settlement shall be paid no later than on the sixth work day following notification of the invoice by the market participants to the account of the Market Operator at the central settlement bank through the intermediary banks with the advance payments related with day ahead balancing activities being deducted from the total invoice amount.

(9) The amounts of the invoices sent by the market participants to the Market Operator shall be paid no later than on the seventh work day after the invoice notification date according to the invoice notification date and order from the account of the Market Operator at the central settlement bank through the intermediary banks with the total of the advance payments related with day ahead activities being deducted from the total invoice amount.

(10) The central settlement bank shall notify the service charges required to be paid by the participants for the collateral management and cash exchange services provided, on monthly basis. Service charges notified to the market participants by the central settlement bank shall be paid to the central settlement bank on the sixth work day following notification of said amount.

(11) Market participants shall work with one bank regarding the advance and invoice payments to be made to them by the central settlement bank, however, they can work with several banks in the payments they make to the central settlement bank. Market participants shall notify the central settlement bank and the Market Operator of the intermediary bank that they shall work with regarding the advance and invoice payments to be made to them by the central settlement bank in writing and shall notify the Market Operator as soon as possible in the event of change of said bank.

(12) In the event of an unexpected failure in the computer, software or technological infrastructure used with regards to the collaterals and the advance/invoice payments by the central settlement bank and the intermediary banks and determination of the fact that the processes required to be completed in line with the provisions of this Regulation shall not be possible within the designated period, the intermediary bank shall notify the central settlement bank and the central settlement bank shall notify the Market Operator promptly. In said case, the Market Operator shall designate new periods for completion of the processes and shall notify said changes to the related market participants.

(13) Sanctions applicable to the parties in the event of failure in fulfilment of the liabilities by the central settlement bank, intermediary bank and the Market Operator regarding collateral and payment processes as a result of the reasons stipulated under paragraph 12 of this article, shall be included into the agreements made between the parties.

## Default in advance payments

**ARTICLE 132/D**  $- ^{222}$  (1) In the event of failure of the market participant making the related advance payment until 15:00 hours on the work day following day on which the day ahead activity is realized, it shall be considered that the market participant is in default.

(2) In the event of the market participant having a cash collateral in TL in excess of the total collateral amount required to be presented and said collateral amount in excess of the total amount required being sufficient to cover the debt of the related participant regarding the related advance payment notification, the debt of the participant shall be covered from the cash collateral automatically and the participant shall not fall into default.

(3) In the event of failure of the market participant in making said advance payment in the designated time and the related amount not being covered by the cash collateral in excess of the total

<sup>&</sup>lt;sup>222</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

collateral, default interest shall be applied to the amount not covered. The default interest rate applied to the participant shall be 50% of the interest rate determined pursuant to Article 51 of the Law No. 6183 of the Procedure for collection of Public Debts for payments made after 15:00 hours on the work day following the day on which the day ahead balancing activity is realized and the interest rate determined as specified in the same article for payments made after 17:00 hours on the work day following the day on which the day ahead balancing activity is realized. Costs related with the default interest shall be invoiced to the related market participants as of the end of each month.

(4) Income obtained by the Market Operator with regards to the default interest required to be paid by the market participant for the payments made after 15:00 hours on the work day following the day on which the day ahead balancing activity is realized, shall be reflected to the other market participants at the rate of net zero balance correction coefficient at the end of the month.

(5) In the event of the Market Operator not making the advance payment to the market participants by 17.00 hours on the related day, default interest shall be applied to the amount required to be paid. Default interest rate applied to the Market Operator shall be interest rate determined according to Article 51 of the Law No. 6183 of the Procedure for collection of Public Debts. Amounts related with default interest shall be invoiced to the Market Operator at the end of each month.

(6) In the event of failure of the market participant in making said advance payment by 15:00 hours at the latest and the related amount not being covered by the cash collateral of the participant in excess of the total collateral, the debts of the participant shall be deducted from the collateral without requiring a notification.

(7) The warning for supplementation of the collateral, which is reduced pro rata to the advance amount that has not been paid, to the required collateral level by the next day, shall be made by the Market Operator no later than 16:00 hours and the participant shall be required to complete the collateral letters by 10:30 on the next work day or by 11:00 hours for collaterals other than the collateral letters.

(8) In the event of failure of the market participant in completing the collateral in the specified time period, the offer presented by the related market participant for the next day shall not be evaluated in the scope of day ahead balancing.

(9) Default interest shall not be applied to the Market Operator and the market participant in the event of liabilities related with the payments and collaterals not being fulfilled in the periods designated in Article 132/Ç as a result of unexpected failure of the computer, software or technological infrastructure used by the Market Operator and/or the central settlement bank and the failures related with the central settlement bank being reported with acceptable reasons to the Market Operator.

(10) The minimum default base and default interest to be applied to the market participant shall be notified through the MMS by the Market Operator. Default interest shall not be applied for amounts below the minimum default base.

## Default in payments

**ARTICLE 132/E** - <sup>223</sup> (1) In case the market participant fails to pay the invoiced amount within 6 working days following the invoice notification date, a default interest rate shall be applied to payable amount. This default interest rate shall be determined in line with the provisions of Article 51 of Law Regarding Procedures for the Collection of Public Receivables, No. 6183, dated 21/7/1953. Amounts regarding default interest shall be invoiced at the end of the every month to the relevant market participants.

(2) In case Market Operator fails to pay the invoiced amounts to the market participants within 7 working days following the invoice notification date, a default interest rate shall be applied to payable amount. This default interest rate shall be determined in line with the provisions of Article 51 of Law Regarding Procedures for the Collection of Public Receivables. Amounts regarding default interest shall be invoiced at the end of the every month to the Market Operator.

(3) In case the market participant fails to pay the invoiced amount within 6 working days following the invoice notification date, the market participant shall be deemed to be in default.

<sup>&</sup>lt;sup>223</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

Without prejudice to other legal rights, the following procedures shall be applied for the market participants in default:

a) The collateral provided by the market participant shall be cashed by the central settlement bank with the Market Operator being notified, as much as the unpaid invoice amount, in deduction of its payables.

b) The warning to the market participant to complete the collateral cashed by central settlement bank, as much as the unpaid invoice amount to reach the baseline collateral amount, shall be made by 16:00 hours at the latest by the Market Operator and the market participant shall be required to complete the collateral letters by 10:30 hours on the next working day and the collaterals other than collateral letters by 11:00 hours.

c) In the event of a market participant who has been called for collateral not presenting sufficient amount of collateral, the related participant cannot continue the activities in the scope of day ahead planning, day ahead market and balancing power market.

(4) Despite such warning, in case the market participant fails to complete the required collateral amount in 5 working days from being in default;

a) Excluding the eligible consumers who are included into the portfolio of the market participant and who do not belong to the same legal entity and the non-eligible consumers who are supplied by the related distribution company, information shall be provided by the Market Operator for disconnection of the related participant from the system regarding all settlement aggregation units included into its portfolio, which shall be sent to the related distribution company if connected to the system from distribution and to TEIAŞ in the event of connection through transmission.

b) The Authority shall be promptly notified about the market participant and required sanctions are applied by the Authority in scope of the article 11 of the law.

c) The contract notifications, where the market participant is the seller, shall be cancelled, and the related parties shall be notified of the situation

ç) The registration of the eligible consumers, who are registered under the account of the market participant, shall be deleted and the related eligible consumers shall be notified of the situation

d) By the due date of the following invoicing period, the outstanding amount of the collateral in excess of the due payables shall be returned to the market participant

e) In case the amount of collateral does not recover all due payables of the market participant to the Market Operator, the non-collected amounts shall be passed through to other market participants in the ratio of net residual balance adjustment amount under share of receivables not paid on time,

f) Default interest shall continue to be applied on the receivables not paid on time and exceeding the collateral amount and other legal proceedings shall be commenced for collection,

g) In case the receivables that passed through to other market participants is collected at a future date, all the collected amounts are passed through according to ratio that the debt is apportioned to the market participants to which the non-collected amounts was passed through.

(5) Default interest shall not be applied to the Market Operator and the market participant in the event of liabilities related with the payments and collaterals not being fulfilled in the periods designated in Article 132/Ç as a result of unexpected failure of the computer, software or technological infrastructure used by the Market Operator and/or the central settlement bank and the failures related with the central settlement bank being reported with acceptable reasons to the Market Operator.

(6) The minimum default base and default interest to be applied to the market participant shall be notified through the MMS by the Market Operator. Default interest shall not be applied for amounts below the minimum default base.

## Failure in paying the service commission to the central settlement bank

**ARTICLE 132/F** -  $^{224}$  Provisions applicable in the event of failure of the market participant in paying the monthly service commission within a period of six working days as of the notification date shall be arranged in the agreement to be signed between the market participant and the central settlement bank.

<sup>&</sup>lt;sup>224</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

## SECTION FOURTH<sup>225</sup> Objections and Corrections

#### Objections

**ARTICLE 133** - (1) Market participants may object to the settlement notifications or invoices of the invoicing period and Market Operator may object to invoices. Objections to invoices shall be filed to the Market Operator or market participant in writing, in  $60^{226}$  days from the invoice notification date. Objections filed after mentioned date are not considered. Reasons of objections shall be indicated in objection applications.

(2) The objections of market participants to settlement notifications and/or invoices shall not remove the obligation to pay the invoice in full.

(3) Depending on the reason of objection, the Market Operator shall investigate the justifiability of the objection in consultation with the relevant units of TEIAS or with the related distribution license holder legal entity if the objection is related to supply-withdrawal metering values, in consultation with the System Operator if the objection is related to offer / bid instruction records, and through reviewing registry information and settlement calculations in other cases.

(4) Material errors shall be brought to conclusion by relevant market participant or Market Operator immediately and objections except for the ones regarding material errors, shall be brought to conclusion by the Market Operator within 20 working days. In case the objection is deemed rightful and/or if Market Operator detects an error without any objection, the appropriate corrective actions shall be taken.

(5) Disagreements on the judgement reached by the Market Operator are examined by the Authority upon the applications of the market participants

#### Corrections

**ARTICLE 134** - (1) In case the objections filed by the market participants regarding the settlement notifications or invoices are deemed rightful by the Market Operator as a result of the evaluation, Market Operator shall make the required corrections. Following the conclusion of objection, notification in writing regarding correction shall be filed to the related market participant by Market Operator, including the detailed energy volumes and prices. The payment due to or from the Market Participant(s) as a result of the correction shall be included as the retrospective correction item in the invoice notification corresponding to the third<sup>227</sup> invoicing period following the notification in writing regarding correction is filed. Retrospective correction item is determined in a way that all the settlement of imbalance transactions are repeated regarding the invoicing period in which the correction is made and effect of the correction on all the participants is evaluated.

(2) Corrections regarding the objections by Market Operator to market participants for invoices shall be implemented by the relevant market participant. Together with the objection applications regarding invoices by Market Operator, invoice sent by the relevant market participant is returned. Invoice, corrected by the relevant market participant, shall be sent again to Market Operator.

#### PART EIGHT Other Provisions, Provisional Articles and Final Provisions SECTION ONE Other Provisions

## <sup>228</sup>Abuse of the dominant position and concerted actions

<sup>&</sup>lt;sup>225</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>226</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>227</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>228</sup> Inserted by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

**ARTICLE 135** - (1) Interferences to start investigation by Competition Authority on legal entities who are suspected of abuse of dominant position regarding any organized wholesale electricity market activity undertaken as part of this Regulation; are initiated upon the submission of the report regarding abuse of dominant position by TEIAS to the Authority or directly by the Authority.

(2) Participants and/or balancing entities, which are detected as abusing the dominant position by the Competition Authority, can be banned at most for 3 months by Board decision to bid for organized wholesale electricity markets undertaken as part of this Regulation.

#### Data to be provided to market participants

**ARTICLE 136** - (1) Data and information that increases the predictability and supports the activities regarding organized wholesale electricity market shall be announced to the market participants at the end of the day by the System Operator and Market Operator. The data and information to be published shall at least include total generation and consumption volumes, exchange volumes between trade zones and between neighbouring areas, day ahead market price and volume of transactions, balancing power market price and volume of transactions on the basis of purpose, reservoir levels per trade zone, and total availability of transmission lines and balancing entities, system constraints and the reason for its occurrence, and includes other data determined by the Authority.

(2) The commercially confidential data as specified in Right to Obtain Information Law No. 4982 dated on the 9/10/2003 shall not be subject to this provision.

#### Failure to fulfil obligations

**ARTICLE 137** - (1) In case legal entities fail to fulfil their obligations under this Regulation, the System Operator and Market Operator shall warn the related legal entities in writing to eliminate the violation immediately by MMS. <sup>229</sup> In case the violations are not eliminated within 15 days following the notification date, the System Operator or Market Operator shall prepare a report detailing the violation, and shall submit it to the Authority.

 $(2)^{230}$  In case the Authority detects a violation on review of the report sent by system operator or market operator and/or in the scope of findings on infringement of rules, sanctions shall be imposed on the related market participant pursuant to Article 11 of the Law.

#### Transfer and assignment

**ARTICLE 138** - (1) The transfer and assignment of obligations under the scope of this Regulation, except for the formation of Balance Responsible Group, shall not be valid against the System Operator and Market Operator. The transfer and assignment of the rights under the scope of this Regulation might be accepted subject to the approval of System Operator and/or Market Operator.

## Notification

**ARTICLE 139 -** (1) The procedures mentioned in the Market Participation Agreement and Day Ahead Market Participation Agreement shall be applied in all notifications and invoices under this Regulation.

#### Force majeure

**ARTICLE 140** - (1) The provisions of this Regulation shall continue to be implemented in cases of force majeure indicated in the Electricity Market License Regulation published in the Official Gazette No. 24836 dated 4/8/2002.

#### Confidentiality

**ARTICLE 141** - (1) Within the framework of the provisions of this Regulation, the System Operator and/or Market Operator shall take the necessary measures to preserve the confidentiality of the information and documents provided by market participants.

<sup>&</sup>lt;sup>229</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>230</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

#### **Abolition of Regulation**

**ARTICLE 142** – (1) Electricity Market Balancing and Settlement Regulation published in the Official Gazette No. 25632 dated 3/11/2004 is abolished.

#### SECTION TWO Provisional Articles and Final Provisions

#### **Build Operate, Build Operate Transfer and Transfer of Operating Rights plants**

**PROVISIONAL ARTICLE 1** – (1) Register update procedures regarding generation facilities selling electricity energy to TETAS as part of available contracts and models of Build Operate, Build Operate Transfer and Transfer of Operating Rights are made by TETAS.

(2) Rights and obligations regarding works and transactions imposed in this Regulation related to participation in the balancing mechanism, submission of the offers and bids and notification of daily generation schedules of the balancing entities within this scope, belong to TETAS.

(3) Accepted offers and bids of the aforementioned balancing entities, electricity energy purchase and sales volumes and settlement volumes are recorded into TETAS's settlement account, and receivables and payables regarding aforementioned volumes are accrued to TETAS.

## **Registry update**

**PROVISIONAL ARTICLE 2** - (1) The registry of market participants that have been registered to Market Operator, pursuant to the Electricity Market Balancing and Settlement Regulation published in the Official Gazette No. 25632 dated 03/11/2004 shall continue to be valid. In case registries are required to be updated within the framework of this Regulation, market participants shall provide the necessary information and documents to Market Operator and shall complete their registry update procedures within 2 month, at the latest, following the publication of this Regulation in the context of virtual implementation. Following the completion of the registry update, market participants may participate in a balance responsible group or change their balance responsible groups.

## Beginning of the implementation

**PROVISIONAL ARTICLE 3** - <sup>231</sup>(1) The activities that will be executed pursuant to this Regulation shall be implemented without any physical results and without the obligation of invoicing and payment until 1/10/2009, 00:00 hours within the context of virtual implementation. During the first 2 months of the virtual implementation, development of profiling, rearrangement of the bilateral contracts on hourly basis, and development of required infrastructure and capacity by all participants and distribution license holder legal entities are completed. During the last 3 months of the virtual implementation, balancing and settlement procedures are implemented without any physical results and without the obligation of invoicing and payment. Tasks, responsibilities and activities to be carried out by relevant parties regarding the virtual implementation will be announced by TEİAŞ to all relevant parties until the completion of registry update procedures.

 $^{232}(2)$  Until 1/10/2009, the Regulation mentioned in Article 142 is continued to be implemented.

(3) Settlement and invoicing transactions and objections to these transactions that are made as part of the Regulation mentioned in Article 142 are concluded within the context of aforementioned Regulation.

## <sup>233,234</sup>Collateral and advance payments

**PROVISIONAL ARTICLE 4** - (1) Until the infrastructure of collateral mechanism is established and becomes operational, failure of market participants to provide the collateral does not prevent participation to the relevant organized wholesale electricity market activities. Failure to provide the collateral shall not remove the payment obligation of market participants and balance

<sup>&</sup>lt;sup>231</sup> Amended by the regulation published in the Official Gazette No. 27363 dated 01 October 2009.

<sup>&</sup>lt;sup>232</sup> Amended by the regulation published in the Official Gazette No. 27363 dated 01 October 2009.

<sup>&</sup>lt;sup>233</sup> Amended by the regulation published in the Official Gazette No. 27555 dated 07 April 2010.

<sup>&</sup>lt;sup>234</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

responsible parties regarding the activities in the scope of this Regulation. Activities regarding establishment of infrastructure of collateral mechanism and its implementation are completed until 28<sup>th</sup> February 2011. <sup>235</sup> Collateral and advance payments mechanism shall come into force simultaneously with the day ahead market becoming functional.

 $(2)^{236}$  Minimum collateral shall be requested from the participants in the first 4 days on which the collateral mechanism comes into force.

 $(3)^{237}$  Provisions of Article 129 shall not be applicable until the invoice notification date for the first invoicing term following the date on which the collateral mechanism has come into force.

#### Day ahead planning

**PROVISIONAL ARTICLE 5** - (1) Day ahead balancing shall be executed by the day ahead planning until when the infrastructure of day ahead market is established and becomes operational. The date when day ahead market becomes effective is announced at least 1 month beforehand by Board Decision.

(2) During the period when the day ahead planning is effective, contract notifications and changes that are mentioned in the Article 88 and 89 of this Regulation are completed by the market participant whose is the seller until  $10:^{30}$  hours on the day before the day before the day that includes the settlement period when the bilateral contract <sup>238</sup>constituting the basis for settlement is valid and by 11:30 hours by the buying market participant<sup>239</sup>.

(3) In the phase of transition to day ahead market from day ahead planning, registry procedures regarding the participation in day ahead market shall be completed in accordance with the provisions regarding the registration of market participants, within the time frame that will be declared by Market Operator.

## Meter positions of the balancing entities

**PROVISIONAL ARTICLE 6-**<sup>240</sup>(1) On the date of publication of this Regulation, balancing entities whose meters are not on the position which enables the metering of the relevant balancing entity separately, shall change the position of their meters pursuant to the provisions of the relevant legislation and in such a way so as to allow separate metering of the relevant balancing entity until 31<sup>st</sup> December 2010 in order to continue operation as balancing entity. Generation facilities that do not change the position of their meters in the given period can only continue their activities as settlement aggregation entities as of until 31<sup>st</sup> December 2010.

#### **Determination of trade zones**

**PROVISIONAL ARTICLE 7** - (1) In case it requires that System Operator manages the transmission constraints based on day ahead market for the first time, trade zones that will be valid in day ahead market are determined by System Operator and shall be announced to Market Operator and market participants at least 6 months before they become operational.

**PROVISIONAL ARTICLE 8**  $- {}^{241}(1)$  TEIAS and distribution license holder legal entities shall complete the actions regarding installation of AMR system until 1st April 2012. Provisions regarding reading meters mentioned in sixth and seventh clauses of Article 81 of this Regulation are applied to TEIAS and distribution license holder legal entities which cannot complete actions regarding installation of AMR system by the end of this period.

## Principles and procedures regarding determination of the trade zones

<sup>&</sup>lt;sup>235</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>236</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>237</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>238</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>239</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>240</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>241</sup> Amended by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

**PROVISIONAL ARTICLE 9** – (1) Principles and procedures regarding determination of the trade zones are determined by TEIAS and proposed to the Authority until  $1/6/2010^{242}$ .

Loss coefficient calculation methodology PROVISIONAL ARTICLE 10 –<sup>243, 244</sup>.

## Principles regarding determination of the tag value of offer and bid instructions within the context of balancing power market

**PROVISIONAL ARTICLE 11** – (1) Principles and procedures regarding determination of the tag value of offer and bid instructions within the context of balancing power market are determined by TEIAS within 2 months following the publication of this Regulation and it is announced to market participants via TEIAS's official web site.

## <sup>245</sup>AMRS registration of existing meters

**PROVISIONAL ARTICLE 12-** (1) A period of three months shall be granted to the responsible legal entities as of notification of the situation in order to fulfil their tasks and responsibilities pursuant to this procedure and principles regarding the meters that are included into the AMRS Scope pursuant to the Procedure and Principles related with Scope of Automatic Meter Reading Systems and Determination of thee Meter Values, of which the registration has been made on said date following placement into operation of the AMRS system by the related distribution company. At the end of said period, necessary tests shall be conducted with regards to communication of the meters with AMRS by the distribution company. The testing of the remote communication hardware to be provided on the meters pursuant to these procedure and Principles related with Scope of Automatic Meter Reading Systems and Determination of thee Meter Values shall also be realized in this phase. In the event of failure in related test, the registration of the meters not included into the AMRS system shall be deleted. Participant whose meter registration is deleted shall be taken into registration as of 00:00 hours on the first day of the month following the month in which the liabilities have been fulfilled.

(2) A period of three months shall be granted to the related parties for fulfilment of their tasks and liabilities specified pursuant to this procedure and principles for the meters which have been registered previously and which are required to be included into the AMRS system scope installed by TEIAŞ pursuant to Procedure and Principles related with Scope of Automatic Meter Reading Systems and Determination of the Meter Values. Necessary testing processes shall be realized at the end of said period by TEIAŞ for establishment of communication with AMRS by TEIAŞ. In the event of failure in related test, the registration of the meters not included into the AMRS system shall be deleted. Participant whose meter registration is deleted shall be taken into registration as of 00:00 hours on the first day of the month following the month in which the liabilities have been fulfilled.

## <sup>246</sup>Meter registration in the period in which AMRS is not installed

**PROVISIONAL ARTICLE 13-** (1) Whether the party responsible for providing the remote communication hardware on the meter pursuant to Procedure and Principles related with Scope of Automatic Meter Reading Systems and Determination of the Meter Values has fulfilled said responsibility in the event of AMRS not being installed and operated by the distribution company, shall be evaluated during the tests related with establishment of communication with AMRS following installation of the AMRS. In meter registrations to be made until the AMRS is installed, the first index determination protocol and the test report of the metering system shall be deemed sufficient.

<sup>&</sup>lt;sup>242</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009. <sup>243</sup> Amended by the regulation published in the Official Gazette No. 27418 (repeated) dated 26 November 2009.

<sup>&</sup>lt;sup>244</sup> Abolished by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.

<sup>&</sup>lt;sup>245</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>246</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

(2) Distribution companies holding retail sales license, intending to sell energy with bilateral agreements in exclusion of the retail sales price lists approved by the committee in the scope of retail sale agreement to the eligible consumers in its region, shall apply to the Market Operator by 31/11/2010 in order to have the settlement aggregation units registered for the consumers that are required to be registered pursuant to ARTICLE 30/A and to which energy is supplied. Market Operator shall complete the registrations related with said applications by 30/4/2011.

## <sup>247</sup>Risk Coefficient

**PROVISIONAL ARTICLE 14 -** (1) The risk coefficient applicable on the date on which this regulation comes into force is 1.5.

## <sup>248</sup>Minimum cash collateral amount

**PROVISIONAL ARTICLE 15 -** (1) Minimum cash guarantee rate used in the calculation of minimum cash amount calculations required to be presented for day ahead activities by the participants, which is in force on the date of enforcement of this Regulation is 50%.

## <sup>249</sup>Collateral letter amount

**PROVISIONAL ARTICLE 16 -** (1) The ratio of the collateral letter required to be presented by the participants, in force on the date of enforcement of this Regulation shall be maximum 25% of the total collateral amount.

## <sup>250</sup>Minimum collateral amount calculations

**PROVISIONAL ARTICLE 17 -** (1) Fixed collateral amount (STT\_1) which is in force on the date of enforcement of this regulation to be used in calculation of minimum collateral amount shall be 200.000 TL in the event of the market participant being a legal entity with a retail, wholesale sales license or a legal entity holding a generation, auto-producer or auto-producer group license having a total maximum exchange capacity of 1000 MW and more in the system utilization agreement signed.

(2) The fixed collateral amount (STT\_2), which is in force on the date of enforcement of this regulation, which shall be used in the minimum collateral amount shall be 10.000 TL in the event of the market participant being a legal entity holding a generation, auto-producer or auto-producer group license having a total maximum exchange capacity of 50 MW and less in the system utilization agreement signed.

(3) The fixed collateral amount (TT\_KGUC), which is in force on the date of enforcement of this regulation, which shall be used in the minimum collateral amount shall be 200 TL/MW in the event of the market participant being a legal entity holding a generation, auto-producer or auto-producer group license having a total maximum exchange capacity between 50 MW and 1000 MW in the system utilization agreement signed.

## <sup>251</sup>Minimum default base and minimum default interest amount

**PROVISIONAL ARTICLE 18 -** (1) The minimum default base shall be applied as 50 TL and the minimum default interest amount shall be applied as 5 TL until it is notified otherwise by the Market Operator through MMS in the scope of Article 137 of this Regulation.

## <sup>252</sup>Determination of bank that shall operate as the central settlement bank

**PROVISIONAL ARTICLE 19** – (1) A central settlement bank agreement with a term of five years shall be been signed between the Market Operator and IMKB Takas ve Saklama Bankası A.Ş., as the central settlement bank to be used by the market participants in a period of one month as of the publication date of this Regulation in order to fulfil the tasks of the central settlement bank, specified

<sup>&</sup>lt;sup>247</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>248</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>249</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>250</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>251</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

<sup>&</sup>lt;sup>252</sup> Inserted by the regulation published in the Official Gazette No. 27751 dated 06 November 2010.

in this Regulation and to ensure operation of the collateral mechanism and effecting of timely and correct payment and to provide for continuous cash flow.

## <sup>253</sup>Restriction Management in the Day Ahead Planning Scope

**PROVISIONAL ARTICLE 20 -** (1) System restrictions that are probably possible for the day ahead, specified in first paragraph of Article 36 of this Regulations and second paragraph of Article 44 shall not be entered into the day ahead planning nodule by the System Operator until the day ahead market becomes functional and the system sale and system purchase offers in the scope of day ahead planning shall be evaluated without the systems restrictions taken into consideration. Restriction management shall be evaluated in the scope of balancing power market including said restrictions.

**Effectiveness ARTICLE 143** - (1) This Regulation shall take effect as of its date of publication.

**Enforcement ARTICLE 144 -** (1) This Regulation shall be enforced by the President.

<sup>&</sup>lt;sup>253</sup> Inserted by the regulation published in the Official Gazette No. 27852 dated 20 February 2011.