



28 October 2011

**Rules for Coordinated Auction
of Transmission Capacity
in the CEE-Region**

(hereinafter *Auction Rules*)

Effective as of 28 November 2011

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Definitions

Terms used in these *Auction Rules* shall have the following meanings unless otherwise defined.

Allocated Physical Transmission Right (“Allocated PTR”) – The *Promise of PTR* notified to the *Auction Participant* in yearly or monthly *Auction Processes* becomes *Allocated PTR* when payment of the invoiced amount has been made in accordance with Sections 8 and 9 respectively 10. In case of daily *Auction Processes* the *PTRs* awarded to the *Auction Participant* in the *Auction Process* become *Allocated PTR* when *CAO* notifies the *Auction Process* results to the *Auction Participant*.

Auction Algorithm – A process defined in Section 3 and Annex 5 respectively Annex 6 that determines the *Winning Bids* and the *Auction Price*.

Auction Participant – An individual or a legal entity taking part in the *Auction Process*, identified with a unique *EIC-Code* and successfully registered at *CAO* in accordance with the procedure set forth in Article 2 of the *Registration Form*.

Auction Price – A price in EUR determined for an individual *Source-Sink Pair* in accordance with Section 3 and Annex 5 respectively Annex 6, to be paid by each *Auction Participant* for each MWh of *Promise of PTR* in yearly or monthly *Auction Process* or to be paid by each *Auction Participant* for each MWh of *Allocated PTR* in daily *Auction Process*.

Auction Process – The (explicit) auction on *PTRs* adopted by *CEE TSOs* in order to allocate the available electricity transmission capacities in the *CEE Region* and carried out by *CAO* according to these *Auction Rules*. *CAO* organises yearly, monthly and daily *Auction Processes*, i. e. *Auction Processes* for yearly, monthly and daily *PTRs*.

Available Maximum Flow (“AMF”) – The remaining part of *NMF* on a network element in combination with a critical outage which is available for the current *Auction Process* after previous phases of *Auction Process*. *AMF* is calculated by *CAO* according to the methodology agreed by *CEE TSOs* and published by *CAO* on its website (www.central-ao.com).

Bid – *Auction Participant's* request for a *PTR* reservation (*Bid Amount*) at a specified price (*Bid Price*) submitted for an individual *Source-Sink Pair* via the *ePortal* in the *Auction Process*.

Bid Amount – The requested amount of *PTR* reservation in MW (integral part of a *Bid*).

Bid Price – The price in EUR which *Auction Participant* is willing to pay for one (1) MWh of *PTR* reservation (integral part of a *Bid*).

Capacity Agreement Identification (“CAI”) – Unique identification code assigned to each *PTR* by *ePortal* during the *Auction Process* or the process of *PTR* transfer. The identification code is used also when the use of the *PTR* is nominated to a *TSO* (see https://www.entsoe.eu/fileadmin/user_upload/edi/library/schedulev3r3/documentation/ess-guide-v3r3.pdf).

CEE Region – The region comprising the following seven (7) countries: Austria, Czech Republic, Germany, Hungary, Poland, Slovakia, Slovenia.

CEE TSOs – Transmission System Operators participating in the coordinated *Auction Process*, i. e. *APG, CEPS, ELES, TENNET, MAVIR, PSEO, SEPS, a.s.* and *50HzT*.

CET/CEST – Central European Time respectively Central European Summer Time, depending which applies.

CAO Central Allocation Office GmbH (“CAO”) – The legal entity contractually bound by the *Auction Rules* and as commission agent of the *CEE TSOs* responsible for assigning *PTRs* to the *Auction Participant* through the coordinated *Auction Process* within *CEE Region*.

ČEPS, a.s. (“CEPS”) – with registered office at 101 52 Praha 10, Elektrarenska 774/2, Czech Republic, and incorporated in the Commercial Register kept by the Municipal Court in Prague, Section B, Entry 5597, with the Company Identification No. 25702556.

Congestion – A situation in which the *Interconnections* linking *Control Areas/Control Blocks*, cannot accommodate all physical flows resulting from cross-border transactions requested by market participants due to a lack of capacity on the interconnectors and/or within *Control Areas/Control Blocks* concerned.

Control Area (“CA”) – A coherent part of the interconnected transmission system operated by a single *TSO*. A *Control Area* may be a coherent part of a *Control Block*.

Control Block – A coherent part of the interconnected transmission system which comprises one or more *Control Areas*.

Credit Limit – The sum in EUR of the value of all risk management instruments (*Bank Guarantee, Deposit*; see Article 4.2) provided by the *Auction Participant*.

Curtailement – The reduction of *PTR* in *Emergency Situations*, where *CEE TSOs* must act in an expeditious manner and redispatching or countertrading is not possible.

D-1 – Refers to the day, one (1) calendar day prior to the day when the delivery/transmission of electricity using the *Allocated PTR* takes place, i. e. the calendar day before the delivery/transmission of electricity with the use of the *Allocated PTR* takes place.

D-2 – Refers to the day, two (2) calendar days prior to the day when the delivery/transmission of electricity using the *Allocated PTR* takes place, i. e. two (2) calendar days before the delivery/transmission of electricity with the use of the *Allocated PTR* takes place.

D-3 – Refers to the day, three (3) calendar days prior to the day when the delivery/transmission of electricity using the *Allocated PTR* takes place, i. e. three (3) calendar days before the delivery/transmission of electricity with the use of the *Allocated PTR* takes place.

Directive 2003/54/EC – The English version of Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity.

Directive 2009/72/EC – The English version of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing *Directive 2003/54/EC*.

EIC-Code – Energy Identification Code Scheme serving to clear the identification of legal entities in a cross-border trade (see <https://www.entsoe.eu/index.php?id=73>).

Elektro-Slovenija, d.o.o. (“ELES”) – with its registered office at Hajdrihova ulica 2, SI – 1000 Ljubljana, Slovenia, and incorporated in the Court Register kept by Ljubljana District Court under the Company Identification No. 5427223.

Emergency Situation – Conditions and/or events and/or circumstances under which fulfillment of *CAO's* and/or *CEE TSOs'* obligations as set forth by the *Auction Rules* becomes impossible, partially impossible or extremely difficult. This particularly refers to states in which a secure and stable operation of (a) given *Control Area(s)/Control Block(s)* is endangered. An *Emergency Situation* may also be a result of *Force Majeure* being a reason for overloading of critical network elements, not fulfilling the n-1 criterion, stability problems, voltage problems, balancing problems in which a *CEE TSO* is not able to balance its *Control Area*.

ePortal – An electronic web-based trade portal operated by *CAO* and available on www.central-ao.com. Daily, monthly and yearly *Auction Processes* and other services provided by *CAO* are carried out through the *ePortal*.

ENTSO-E – European Network of Transmission System Operators for Electricity – association of *TSOs* covering past activities of several predecessor associations including UCTE and ETSO (see <http://www.entsoe.eu>).

Export Limit – The maximum total volume of export transactions for a *Market Area* which forms an additional constraint to an optimisation algorithm in the *Auction Process* as set forth in Section 3 and Annex 5. An *Export Limit* of a *Market Area* will be introduced based on the request of the *CEE TSOs* responsible for the operation of the *Control Areas* belonging to the respective *Market Area*. An *Export Limit* can be defined by the concerned *CEE TSOs* for the respective *Market Area* in accordance with the rules adopted for this purpose and approved by the relevant national regulatory authority. The reasons for the introduction of an *Export Limit* shall be published by the relevant *CEE TSOs* on their websites.

Force Majeure – Sudden unforeseen conditions and/or events and/or circumstances which, or the results of which, are beyond the reasonable control of *CEE TSOs* and which cannot be prevented or overcome with reasonable foresight and diligence and which in the professional assessment of *CEE TSOs* put under risk the security of supply, provision or transmission of electricity, or the technical safety of (a) given *Control Area(s)/Control Block(s)* or a significant part thereof and which cannot be solved by measures which are from a technical, financial and/or economic point of view reasonably possible for *CEE TSOs*. In particular *Force Majeure* may lead to *Emergency Situation*. The following events are examples of *Force Majeure* only when and to the extent that they make impossible or cause to be extremely

difficult the fulfillment of an obligation: natural disasters such as flood, fire, earthquake or epidemic; social events whether declared officially or not, such as war, civil war, curfew, embargo, boycott, looting, riot, public disorder, terrorist actions and illegal demonstrations; regardless of whether lawful or unlawful, strike, slow-down of work, occupation of workplace and similar labour actions.

Framework Contract – The contract concluded between the *Auction Participant* and *CAO* consisting of the filled in *Registration Form* which refers to the *Auction Rules* and which is submitted by the *Auction Participant* and accepted by *CAO*.

Interconnection or Interconnections – A set of *Interconnectors*.

Interconnector – An electricity transmission line which crosses or spans a border between *Control Areas/Control Blocks* and which connects the national transmission systems of the *Control Areas/Control Blocks*.

Import Limit – Maximum total volume of import transactions for a *Market Area* which forms an additional constraint to an optimisation algorithm of the *Auction Process* as set forth by Section 3 and Annex 5. An *Import Limit* of a *Market Area* will be introduced based on the request of the *CEE TSO* responsible for operation of the *Control Areas* networks belonging to the respective *Market Area*. An *Import Limit* can be defined by the concerned *CEE TSOs* for the respective *Market Area* in accordance with the rules adopted for this purpose and approved by the relevant national regulatory authority. The reasons for the introduction of an *Import Limit* shall be published by the relevant *CEE TSOs* on their websites.

Market Area – A coherent part of the interconnected transmission system consisting of one or more *Control Area(s)* constituting single electricity price area most of the time. There are five market areas in *CEE Region*: CZ+SK (CEPS+SEPS, a.s.), DE+AT (50HzT, APG, TENNET), HU (MAVIR), PL (PSEO), SI (ELES).

MAVIR Hungarian Transmission System Operator Company Ltd. („MAVIR“) – with its registered office at 1031 Budapest, Anikó u. 4, Hungary, incorporated in the Commercial Register kept by Budapest Court of Justice with the Company Identification No. 01-10-044470.

Net Maximum Flow (“NMF”) – The maximum additional power flow on a network element in combination with a critical outage that can result from all commercial transactions within the *CEE Region*, taking into account technical limits, security standards, natural flows and security margins (determined separately for both directions).

Nominated PTR – *Allocated PTR* announced to be used for transmission of electricity by market participant(s) according to Section 12.

Notice Board – A web space in *ePortal*, giving possibility to an *Auction Participant* to offer/demand *Allocated PTRs* directly to/from other *Auction Participants*.

Net Transfer Capacity (“NTC”) – The maximum exchange program between two *Control Areas*, compatible with security standards applicable in both areas.

Offered Capacity – The electricity transmission capacity offered and guaranteed by concerned *CEE TSOs* on a *Technical Profile* in a given direction for a specific *Reservation Period*.

Physical Transmission Right (“PTR”) – The right to use electricity transmission capacities in the *CEE Region* for exchange of electricity from *Source CA* to *Sink CA*.

Power Transfer Distribution Factors (“PTDF”) – A set of load-flow factors expressing the influence of transmission from *Source CA* to *Sink CA* (transmission on *Source-Sink Pair*) on a power flow at a critical network elements in combination with critical outages.

Preliminary Auction Price – The preliminary result of an *Auction Process* with regard to the *Auction Price* before risk management evaluation in accordance with Article 6.3 Paragraph 2.

PTDF matrix – A set of *PTDFs* expressing the influence of commercial exchanges between all possible pairs of *Source CA* and *Sink CA* within the *CEE Region* to all critical element/critical outage combinations.

Promise of Physical Transmission Right (“Promise of PTR”) – By notification of the *Auction Process* result of yearly or monthly *Auction Processes*, the *Auction Participant* gains the promise of *CAO* that, by settlement of the payment in accordance with Sections 8 and 9 respectively 10 the notified *PTR* shall be allocated.

PSE Operator S.A. (“PSEO”) – with registered office at Warszawska 165, 05-520 Konstancin-Jeziorna, Poland, national court register number: No. KRS 0000197596, District Court for the Capital City of Warsaw, 14th Commercial Department of the National Court Register.

Registration Form – The Registration Form published on *CAO's* website (www.central-ao.com).

Regulation 1228/2003/EC – The English version of Regulation 1228/2003/EC of the European Parliament and of the Council of 26 June 2003 on the conditions for access to the network for cross-border exchanges in electricity including Decision 2006/770 EC, amending the Annex to Regulation 1228/2003/EC on conditions for access to the network for cross-border exchanges in electricity.

Regulation 714/2009/EC – The English version of Regulation 714/2009/EC of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing *Regulation 1228/2003/EC*. This *Regulation 714/2009/EC* shall apply instead of *Regulation 1228/2003/EC* as of 3 March 2011.

Reservation Period – The Period of time covered by the *PTR* which is subject of allocation in the *Auction Process*.

Slovenská elektrizačná prenosová sústava, a.s. (“SEPS, a.s.”) – with registered office at Mlynské nivy 59/A, 824 84 Bratislava, Slovakia, incorporated in the Commercial Register kept by the District Court in Bratislava, Section Sa, Entry 2906/B, with Company Identification No. 35829141.

Sink CA – The *Control Area* in which the cross-border electricity exchange is nominated as an import.

Source CA – The *Control Area* in which the cross-border electricity exchange is nominated as an export

Source-Sink Pair – The combination of *Source CA* and *Sink CA* showing the direction of commercial exchange (see Annex 5 Article A3 and Annex 6 Article A3).

Technical Profile – A set of *Interconnectors* and/or facilities which have a common technical limit and represent the limits for commercial transactions on congested *Interconnectors* or parts of a national transmission system. *Technical profiles* are agreed by *TSOs* and each consists of one or more *Source-Sink Pairs* as attached in Annex 6.

TenneT TSO GmbH (“TENNET”) – with registered office at Bernecker Straße 70, 95448, Bayreuth, Germany, commercial register Bayreuth HRB 4923.

Time Stamp – The *ePortal* system time assigned to a message when it leaves and/or comes into the *ePortal*. The *Time Stamp* is definitive when settling disputes about messages meeting deadlines.

Total Auction Participant’s Bids Value – In the yearly and monthly *Auction Processes*, the *Total Auction Participant’s Bids Value* is calculated during *Bids* evaluation as a sum of all *Auction Participant’s* liabilities resulting from preliminary results of the *Auction Process* increased by VAT if applicable.

$$\text{Number of hours} * \sum_{\text{Source-Sink Pairs}} (\text{Allocation Price} * \text{Promised PTR})$$

Total Auction Participant’s Bids Value Concerning Daily Auction Process – In the daily *Auction Process* the *Total Auction Participant’s Bids Value Concerning Daily Auction Process* is calculated as a sum of maximum values of all *Bids* placed by *Auction Participant*, separately for individual *Source Sink Pair* increased by VAT if applicable. *Bids* placed by *Auction Participant* are sorted in descending order according to the individual *Bid Price* (merit order) for the given *Source-Sink Pair*. *Bid* (1) is the *Bid* with the highest *Bid Price*; *Bid* (n) is the *Bid* with the lowest *Bid Price*.

$$\sum_{\text{Source-Sink Pairs}} \text{Max} \left(\text{Bid Price (1)} * \text{Bid Amount (1)} ; \text{Bid Price (2)} * \sum_{i=1}^2 \text{Bid Amount (i)} ; \dots \right. \\ \left. \dots ; \text{Bid Price (n - 1)} * \sum_{i=1}^{n-1} \text{Bid Amount (i)} ; \text{Bid Price (n)} * \sum_{i=1}^n \text{Bid Amount (i)} \right)$$

Total Maximum Flow (“TMF”) – The maximum active power flow on an assessed network element defined by the technical limit of an element.

TSO – Refers to Transmission System Operator.

User – An individual entitled to use the *ePortal* in the name of *Auction Participant*.

Utilisation (utilised) – the utilised part of the *Auction Participant’s Credit Limit*, blocked by his participation in the *Auction Process*, in accordance with Sections 4 and 8ff, which cannot be used to ensure any other transactions/participations in the *Auction Process* and cannot be returned to the *Auction Participant*.

50Hertz Transmission GmbH (“50HzT”) – with its registered office at Eichenstrasse 3A, 12435 Berlin, Germany, Commercial Register: Amtsgericht Charlottenburg, HRB 84446.

VERBUND-Austrian Power Grid AG (“APG”) – with its registered office at A-1220 Vienna, Wagramer Straße 19, IZD-Tower, Austria, commercial register FN 177696 v HG Wien.

Winning Bid – A *Bid* which has not been excluded from evaluation due to risk management requirements and which has been successfully evaluated according to Section 3 and Annex 5 respectively Annex 6 as having a *Bid Price* which is higher or equal to *Auction Price*.

Working Day – The calendar days from Monday to Friday, with the exception of German public holidays in the state of Bavaria (see Annex 11).

3M EURIBOR – The three-month interest rate at which euro interbank term deposits within the euro zone are offered by one prime bank to another prime bank (see <http://www.euribor.org>).

Unless context requires otherwise, any wording in the *Auction Rules* denoting the singular also applies to the plural as logic requires, and vice versa. Furthermore, the same principle of inclusion applies to references of gender.

Section 1 – General

Article 1.1 – Considerations

(1) The demand for cross-border electricity exchange between the *CEE TSOs* is usually higher than the available electricity transmission capacities at *Interconnectors* in the *CEE Region*. Therefore, according to *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*, a market-based mechanism has to be adopted to allocate electricity transmission capacities between *CEE TSOs* to market participants.

(2) In order to prevent overloading and to avoid discrimination in allocating electricity transmission capacities at *Interconnections* between *CEE TSOs*, the *CEE TSOs* decided to organise a coordinated allocation procedure.

(3) As the vast majority of electricity delivery in the *Control Areas* of the concerned *CEE TSOs* is based on over the counter bilateral contracts, *CEE TSOs* decided to carry out an explicit allocation procedure.

(4) *CEE TSOs* intend to introduce stepwise a coordinated flow-based allocation of cross-border electricity transmission capacities at *Interconnections* between *CEE TSOs* as a flow-based method deals efficiently with interdependent physical flows. Until this aim is reached, the coordinated NTC assessment method similar to as it was used in the past in local allocation processes in the *CEE Region* may be also applied as an interim solution.

Article 1.2 – General Principles

(1) *CEE TSOs* agreed to introduce a common regional electricity transmission capacity allocation procedure within the *CEE Region* to allocate *PTRs* to market participants. The aim of this coordinated *Auction Process* is to offer market participants a market based, transparent, and non-discriminatory procedure for electricity transmission capacity allocation.

(2) Due to the technical constraints in the *CEE TSOs* transmission networks, electricity transmission capacity can be limited. When calculating the *AMF* values for network elements of the interconnected CEE network and the *PTDF matrixes* for the flow-based method respectively when calculating the *Offered Capacity* for the NTC method *Congestion* either on interconnectors or in the *CEE TSOs* transmission network is taken into consideration. The methodology for the computation of *AMF* and *PTDF* matrixes for the flow-based method respectively the methodology for the coordination of the *Offered Capacities* for the NTC method agreed by *CEE TSOs* shall be published on the website of *CAO*.

(3) The *Auction Rules* are set up in accordance with European law, in particular *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*, compulsory national law of the *CEE TSOs* origin countries, and regulations set forth by the national regulatory authorities, if and to the extent they are not in contradiction to above mentioned *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*.

(4) *PTRs* allocated in the *Auction Process* are established, i. e. all *CEE TSOs* have committed themselves vis-à-vis *CAO* to make available the electricity transmission capacities corresponding to the respective *PTRs* with the exception of cases described in Section 15.

(5) The physical flows in both directions over critical network elements resulting from fixed and guaranteed schedules – notified to concerned *CEE TSOs* in accordance with Article 12.2. Paragraph 3 letter a) – are netted for purpose of calculation and allocation of daily *PTRs*.

Article 1.3 – The Central Allocation Office

CEE TSOs have jointly established an independent company “*CAO Central Allocation Office GmbH*” (“*CAO*”), which provides the service of a capacity allocation office. *CAO* is responsible for carrying out the *Auction Process* in accordance with *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC* and these *Auction Rules*.

Article 1.4 – Scope of the Auction Rules

(1) These *Auction Rules* contain the terms and conditions for the allocation of the *PTR* for an individual *Source-Sink Pair* as set forth in Section 3 and Annex 5 respectively Annex 6.

(2) The *Auction Participant* is bound by the *Auction Rules* as of the conclusion of the *Framework Contract*, i. e. the moment of confirmation of *CAO* of the submitted *Registration Form*. The *Auction Rules* regulate the requirements that must be fulfilled by the *Auction Participant* in order to participate in the *Auction Process*, describe the *Auction Process* (including the determination of *Auction Price* as a result of *Auction Process*), and the conditions for using the *Allocated PTR*.

(3) Grid access rules are not covered by the scope of these *Auction Rules*. Moreover, grid access is not granted by the *Auction Process* results. Grid access conditions for each *CEE TSO* are listed in Article 12.1. Paragraph 2.

Article 1.5 – General Contractual Situation and General Rights and Obligations

(1) Within the framework of the *Auction Process* there will be only a contractual relation between *CAO* and the *Auction Participant*. In general, *CAO* is obliged to make the *Allocated PTR* available to the *Auction Participant*. In exchange, the *Auction Participant* is obliged to fulfil its payment obligations.

(2) *CEE TSOs* have committed themselves vis-à-vis *CAO* to make the electricity transmission capacity available to the extent it has been allocated to the *Auction Participant* as *PTRs*, with the exception of cases described in Section 15, to accept the results of the common *Auction Process* and to reserve the electricity transmission capacities in order to enable the use of *Allocated PTRs* by the *Auction Participant*. Each *CEE TSO* has committed itself to carry out the transmission services in accordance with their individual respective prerequisites and in accordance with the legal requirements applicable to them (see Section 12).

(3) By notification of the *Auction Process* results resulting from the yearly and/or monthly *Auction Process*, the *Auction Participant* gains a promise of *CAO* that, through settling payment in accordance with Section 8 and 9 respectively 10, the *PTR* shall be allocated in accordance with the notified *Auction Process* results, with exception of cases described in

Section 15, i. e. the *Auction Participant* gains the *Promise of PTR*. In daily *Auction Processes*, the *PTR* is allocated to the *Auction Participant* by notification of the *Auction Process* results.

Section 2 – The Auction Process and Requirements for Participation

Article 2.1 – The Auction Process

(1) In the *CEE Region PTRs* are allocated to market participants by way of explicit auctions. *CAO* publishes information regarding the available electricity transmission capacities by publication of *AMF* and *PTDF* values in case of the flow-based method and by publication of the *Offered Capacity* in case of the NTC method. The corresponding *Auction Processes* are then organised in the *ePortal*. Each *Auction Participant* fulfilling the requirements for participating in the *Auction Process* may place *Bids* in the *ePortal* until the relevant deadline for placing *Bids* in the specific *Auction Process* expires.

(2) After the relevant deadline for placing *Bids* in the specific *Auction Process* has expired *CAO* will evaluate the *Bids* on the basis of the *Auction Algorithm* defined in Section 3 and Annex 5 respectively Annex 6.

(3) *CAO* will match during the individual *Auction Process* the *Credit Limit* of the *Auction Participant* in order to secure payments of the *Auction Participant*. If the *Credit Limit* is not sufficient the *PTRs* will be awarded to another *Auction Participant* according to the *Auction Algorithm*. The results of the *Auction Process* will be notified to the *Auction Participant*.

(3) In case of yearly and monthly *Auction Processes* only *Promised PTRs* will be allocated to the *Auction Participant*. These will become *Allocated PTRs* when the necessary payments are performed.

Article 2.2 – Different Types of Auction Processes

(1) *CAO* organises yearly, monthly and daily *Auction Processes*, i. e. *Auction Processes* for yearly, monthly and daily *PTRs*.

- For the yearly *Auction Process* the *Reservation Period* starts on the 1st day and ends on the last day of a calendar year. In yearly *Auction Processes* *PTRs* with a steady amount of MW throughout the *Reservation Period* are allocated, except in case of a reduction of the *Offered Capacities* according to Article 6.7.
- For the monthly *Auction Process* the *Reservation Period* starts on the 1st day and ends on the last day of a calendar month. In monthly *Auction Processes* *PTRs* with a steady amount of MW throughout the *Reservation Period* are allocated, except in case of a reduction of the *Offered Capacities* according to Article 6.7.
- For the daily *Auction Process* the *Reservation Period* lasts through each individual hour throughout 24 hours of a calendar day (23 respectively 25 hours when daylight savings time changes). In daily *Auction Processes* *PTRs* with different amounts of MW per hour of the *Reservation Period* are allocated.

(2) All available capacity will be made subject of the *Auction Process*. The electricity transmission capacities will be attributed to the relevant yearly, monthly and daily *Auction Processes* at the maximum amount available within the entire *Reservation Period*.

Article 2.3 – Requirements for Participation in the Auction Process

(1) In order to participate in the *Auction Process*, market participants have to file a successful registration with CAO (part of the *Framework Contract*) as *Auction Participants* according to the procedure set forth in Article 2 of the *Registration Form*, which is published on the website of CAO (www.central-ao.com).

(2) Only *Auction Participants* who by submitting the *Registration Form* declare legally binding and unconditionally their full and complete knowledge and acceptance of the valid and effective *Auction Rules* as published at the website of CAO (www.central-ao.com) and that do not engage in any action or behaviour that could affect competition in the *Auction Process* or which aims at gaming or which in any other way disrupts or threatens to disrupt the *Auction Process*, or the transparency, cost effectiveness or fairness of the *Auction Process*, may take part in the *Auction Process*.

(3) With regard to the fact that the *Auction Process* is executed in the *ePortal*, *Auction Participants* interested in participating in the *Auction Process* are also obliged to fulfil prerequisites for access to the *ePortal* which are specified in Article 5.3.

(4) An *Auction Participant* who has been declared bankrupt or insolvent or granted suspension of payment, or against whom a petition of bankruptcy, insolvency or suspension of payment has been filed, or who has unfulfilled and due payment obligations against CAO, does not qualify for participation in yearly, monthly and daily *Auction Process*. Therefore, an *Auction Participant* whose financial situation deteriorates considerably, i. e. who has been declared bankrupt or insolvent or granted suspension of payment, or against whom a petition of bankruptcy, insolvency or suspension of payment has been filed has to inform CAO thereof without delay. In the event the *Auction Participant* does not comply with its aforementioned information obligation, CAO reserves the right to terminate the contractual relations to the *Auction Participant*.

(5) By signing and submitting the *Registration Form* to CAO, the market participant authorizes CAO to verify the market participant's respective statements.

Section 3 – Algorithm of Regional Coordinated Auction Process and Determination of the Auction Price

Article 3.1 – General Description

(1) As already stated under Article 1.4 *CEE TSOs* intend to introduce stepwise a coordinated flow-based allocation of cross-border electricity transmission capacities at Interconnections between *CEE TSOs* as a flow-based method deals efficiently with interdependent physical flows. Until this aim is reached, the coordinated NTC assessment method similar to as it was used in the past in local allocation processes in the *CEE Region* may be also applied as an interim solution. Furthermore, the NTC method may be applied exceptionally as a fall-back solution (see Article 7.5). For avoidance of doubt as soon as flow-based method introduced into daily respectively monthly and yearly *Auction Processes* a change back to the NTC method, with exception of a fall-back solution applied according to Article 7.5, is considered as a change of the *Auction Rules* and requires unanimous consensus of *CEE TSOs* and national regulators in the *CEE Region*.

(2) At the beginning NTC method will be applied for daily, monthly and yearly *Auction Processes* (see Annex 6). As soon as appropriate, *CAO* will introduce the flow-based method for daily respectively for monthly and yearly *Auction Processes*. Prior to the introduction of the flow-based method *CAO* needs to obtain the corresponding approval of *CEE TSOs* and national regulators in the *CEE Region*. *CAO* shall publish in the *ePortal* information on the introduction of the flow-based method at the latest thirty (30) calendar days prior to the deadline for the delivery of *Bids* to the affected *Auction Process*.

(3) *CAO* performs the *Auction Process* by using an optimisation function aiming at maximisation of the social welfare. The function is accompanied with a set of constraints presented in Annex 5 for the flow-based method and Annex 6 for the NTC method.

(4) For yearly and monthly *Auction Processes* the *AMF* and *PTDF* matrixes for the flow-based method respectively the *Offered Capacities* for the NTC method shall be published in the *ePortal*, according to the deadlines set forth in Annex 2. For daily *Auction Processes* the *AMF* and *PTDF* matrixes for the flow-based method shall be published in the *ePortal* by 07:45 *CET/CEST* on *D-1* respectively the *Offered Capacities* for the NTC method shall be published in the *ePortal* by 09:00 *CET/CEST* on *D-1*.

Article 3.2 – The Process of Determination of the Auction Price and Winning Bids

(1) All *Bids* received by *CAO* in the *ePortal* relating to a specific *Auction Process*, independent of the *Source-Sink Pair* to which the individual *Bids* relate, are evaluated with use of the optimization algorithm set forth in Annex 5 for flow-based method and Annex 6 for NTC method.

(2) The optimization algorithm set forth in Annex 5 for the flow-based method and in Annex 6 for the NTC method will determine the *Auction Price* and the corresponding *Winning Bids*.

Section 4 – Financial Requirements and Risk Management

Article 4.1 – General Provisions

(1) *CAO* is obliged to require risk management instruments to secure the access to electricity transmission capacities and the use of *PTR* and to avoid a misuse of the *Auction Participant's* rights. Secure allocation is a prerequisite for effective competition in the EU internal electricity market.

(2) The risk management instruments serve to ensure payments resulting from the yearly, monthly, and daily *Auction Processes*. Only two (2) risk management instruments are accepted in the *Auction Processes*, i. e. a bank guarantee and/or a deposit on the bank account of *CAO* (for details see Article 4.2).

(3) The sum of the value of the risk management instruments an *Auction Participant* provides determines the *Auction Participant's Credit Limit* (for details see Article 4.4). *Auction Participant's Bids* will only be considered in the *Auction Process* if the necessary *Credit Limit* is available (for details see Article 6.3 and 7.3). Sections 8 to 11 specify all the circumstances under which *CAO* is entitled to exercise the risk management instruments.

(4) The *Auction Participant* is responsible for securing a sufficient amount of his *Credit Limit* in order to prevent his *Bids* from being excluded from the *Auction Process* due to risk management requirements as set forth in Article 6.3.

(5) The only accepted currency for risk management instruments is EUR.

Article 4.2 – Accepted Risk Management Instruments

CAO will accept the following risk management instruments:

(1) A bank guarantee issued by a bank with a long-term credit rating of “BBB-” (S&P) or “Baa3” (Moody’s) or “BBB-” (Fitch/IBCA) or higher securing overdue payment obligation resulting from the *Auction Process* (hereinafter “**Bank Guarantee**”).

- a) The *Bank Guarantee* will be taken into account in the *Credit Limit* with the maximum amount of fulfilment.
- b) Details concerning the *Bank Guarantee* are specified in Annex 3.
- c) A *Bank Guarantee* will be rejected and not recognised for the purpose of the *Credit Limit* by *CAO* if *CAO* assesses the *Bank Guarantee* to be incomplete according to the prerequisites specified by Annex 3 for the purpose of the *Auction Process*. *CAO* will immediately inform the *Auction Participant* about the rejection of the *Bank Guarantee* by e-mail.

(2) A deposit provided to the bank account of *CAO* (hereinafter “**Deposit**”).

- a) The *Deposit* will be taken into account in the *Credit Limit* with its full amount.
- a) Details concerning the *Deposit* are specified by Annex 4.
- b) The *Deposit* can only serve as a hedging instrument and not as an advance payment.

- c) The *Auction Participant* is entitled to receive interests for the *Deposits* credited to the bank account of *CAO* in the amount defined by a respective decree regarding the interest rates issued by the bank where the *Deposit* is placed.

Article 4.3 – Replacement, Extension and Return of Risk Management Instruments

(1) For participation in the *Auction Process*, the *Auction Participant* may choose any defined risk management instruments, i. e. *Bank Guarantee*, *Deposit* or a combination thereof.

(2) *Bank Guarantees* or *Deposits* may be replaced or extended with an additional *Bank Guarantee* or *Deposit*.

(3) *Bank Guarantees* or *Deposits* which are not *Utilised* and/or which were not exercised will be returned on *Auction Participant's* written request fourteen (14) calendar days after the receipt of the request at the latest. In this situation, the *Credit Limit* is decreased by the amount of *Bank Guarantee* or *Deposit* which *Auction Participant* requested to be returned, one (1) calendar day after the receipt of the request. The request for return of *Deposit* shall contain the following payment details: amount of *Deposit* to be returned, bank account no., IBAN, name and address of the bank and BIC/SWIFT code.

Article 4.4 – Calculation of the Value of the Credit Limit

(1) *CAO* will calculate the *Credit Limit* as the sum of the value of all risk management instruments provided by the *Auction Participant* and accepted by *CAO* constituting the maximum limit for the value of *PTRs* that can be attributed to the *Auction Participant* in the *Auction Process* (see also examples of *Credit Limit* calculation in Annex 14).

(2) The value of the *Credit Limit* is calculated for each *Auction Participant* as follows:

a) Before the yearly and monthly *Auction Process* as a sum of the following:

- i. The maximum value of the *Bank Guarantees* provided by the *Auction Participant* to *CAO* if they fulfil the requirements according to Article 4.2 Paragraph 1 and Annex 3.

The *Auction Participant* is obliged to deliver the *Bank Guarantee* in original to *CAO* by 12:00 *CET/CEST* (noon) on the last *Working Day* before the day on which the deadline 2Y for the yearly *Auction Process* falls respectively by 12:00 *CET/CEST* (noon) on the last *Working Day* before the day on which the deadline 2M for the monthly *Auction Process* falls, in order for the *Bank Guarantee* to be included into the calculation of the *Credit Limit*. Deadlines are specified in Annex 2.

- ii. The amount of *Deposits* provided by the *Auction Participant* to *CAO* if they fulfil the requirements according to Article 4.2 Paragraph 2 and Annex 4.

The *Auction Participant* is obliged to credit a *Deposit* on *CAO's* bank account at the latest one (1) *Working Day* before the day on which the deadline 2Y for the yearly *Auction Process* respectively the deadline 2M for the monthly *Auction Process* falls, in order for the *Deposit* to be included into the calculation of the *Credit Limit*. Deadlines are specified in Annex 2.

- b) Before the daily *Auction Process* as a sum of the following:
- i. The maximum value of the *Bank Guarantees* provided by the *Auction Participant* to *CAO* if they fulfil the requirements according to Article 4.2 Paragraph 1 and Annex 3.

The *Auction Participant* is obliged to deliver the *Bank Guarantee* in original to *CAO* by 12:00 *CET/CEST* (noon) on the last *Working Day* before the day he places *Bids* in the daily *Auction Process*, in order for the *Bank Guarantee* to be included into the calculation of the *Credit Limit*.

- ii. The amount of *Deposits* provided by the *Auction Participant* to *CAO* if they fulfil the requirements according to Article 4.2 Paragraph 2 and Annex 4.

The *Auction Participant* is obliged to credit a *Deposit* on *CAO's* bank account at the latest, one (1) *Working Day* before he places *Bids* in the daily *Auction Process*, in order for the *Deposit* to be included into the calculation of the *Credit Limit*.

Article 4.5 – Utilisation of the Credit Limit

(1) *CAO* will *Utilise* the *Auction Participant's Credit Limit* according to the following rules:

- For the yearly *Auction Process*, the *Credit Limit* is *Utilised* at an amount of one-twelfth (1/12) of the *Total Auction Participant's Bids Value* resulting from the yearly *Auction Process*. After the notification of the *Auction Process* results to the individual *Auction Participant* (see Article 6.4), the *Credit Limit* is *Utilised* at an amount of one-twelfth (1/12) of the *Auction Participant's* total financial liability resulting from *Promises of PTR* assigned to this *Auction Participant* in the relevant yearly *Auction Process*. The *Utilised* part will be released after settling the entire payment obligations (twelve (12) monthly payments) resulting from the yearly *Auction Process*.
- For the monthly *Auction Process*, the *Credit Limit* is *Utilised* at an amount of the *Total Auction Participant's Bids Value* resulting from the monthly *Auction Process*. After the notification of the *Auction Process* results to the individual *Auction Participant* (see Article 6.4), the *Credit Limit* is *Utilised* at an amount of the *Auction Participant's* total financial liability resulting from *Promises of PTR* assigned to this *Auction Participant* in the relevant monthly *Auction Process*. The *Utilised* part will be released after settling the payment obligation resulting from monthly *Auction Process*.
- For the daily *Auction Process*, the *Credit Limit* is *Utilised* at an amount of the *Total Auction Participant's Bids Value Concerning Daily Auction Process*. On the day of the daily *Auction Process* aggregated results publication and notification (see Article 7.4), *CAO* will *Utilise Auction Participant's Credit Limit* by the amount equal to its total financial liability resulting from *PTR* assigned to this *Auction Participant* in the relevant daily *Auction Process*. The *Utilised* part will be released after settling the payment obligation resulting from the daily *Auction Process*.

(2) For evaluation of the *Credit Limit* which is not *Utilised* in yearly and monthly *Auction Processes* for the individual *Auction Participant* the *Utilised Credit Limit* resulting from its participation in daily *Auction Process* is calculated at 12:00 *CET/CEST* (noon) on the

day on which the deadline 2Y for the yearly and 2M for the monthly *Auction Processes* falls.

- (3) CAO will *Utilise* the *Credit Limit* up to the amount of unpaid *Auction Participant's* liabilities, including VAT if applicable.
- (4) In case there is insufficient *Credit Limit*, e. g. due to the change of the *Auction Participant's* registered place for taxation during the year, the *Auction Participant* is obliged to increase the *Credit Limit* within fifteen (15) calendar days since the *Auction Participant* was informed about the insufficient *Credit Limit* by CAO by e-mail. Otherwise CAO will suspend *Auction Participant's* participation in future *Auction Processes*.

Section 5 – ePortal

Article 5.1 – General Provisions

- (1) *CAO* will organize and execute coordinated *Auction Processes* of the yearly, monthly and daily *PTRs* electronically in the user environment of the *ePortal*.
- (2) The *ePortal* is established for the sole purpose of executing the *Auction Processes*.
- (3) *CAO* will provide the *Users* with documentation of the *ePortal* and operational instructions for using the *ePortal* and *User's* support, including the hours of operation.
- (4) *CAO* reserves the right to change operationally a business day regime, such as closure times in the event that technical problems arise, especially the following: a general collapse of the internet, a collapse of all internet connections of the *ePortal*, a collapse of *ePortal* (servers, database or *ePortal* application error) or a comparable problem in data exchange between *CAO* and *CEE TSOs*. All *Users* of the *ePortal* will be informed by notification published in the *ePortal* or on *CAO* webpage or by e-mail, without undue delay, of the actual operational situation.
- (5) All the time data specified in *Auction Rules* – especially deadlines for data transfer, announcement of results, etc. – are consistent with *ePortal* system time. The user environment also works with *ePortal's* system time.
- (6) *Users* are prohibited from posting or transmitting to or from the *ePortal* and to or from the *Notice Board* any material that is illegal or technically harmful.

Article 5.2 – Bidding Procedure in the ePortal

- (1) In order to participate in the *Auction Process* the *Auction Participant* shall submit *Bids* to the *ePortal*.
- (2) *Bids* which do not fulfil the requirements stated in the Article 6.2 and the other provisions of the *Auction Rules* shall be excluded.
- (3) The receipt of *Bids* at the *ePortal* confirmed by assigned *Time Stamp* and confirmation is the decisive criterion in meeting the relevant time limit. Data will be allowed for the *Auction Process* only if the data has reached the *ePortal* server by the deadlines specified in Article 6.2 Paragraph 2 for the yearly and monthly *Auction Process* and in Article 7.2 Paragraph 2 for the daily *Auction Process*. Receipt will be confirmed by the *ePortal*. After the relevant deadline, all data sent to the *ePortal* will be rejected due to expiration of the deadline.
- (4) Already submitted *Bids* may be modified or withdrawn by the *Auction Participant* before expiration of the deadline for delivery of *Bids*. Any modification of a submitted *Bid* is considered as a declaration of withdrawal of the already submitted *Bid* and submission of a new *Bid*. Furthermore the modification of a *Bid* results in losing the time priority of the original *Bid*. A new *Time Stamp* is assigned to the modified *Bid* upon receipt of the new *Bid*.

(5) After entry or modification of *Bids* the *Auction Participant* receives a confirmation. Should there be a failure in entering or modifying *Bids*, *Bids* will be rejected, and the *Auction Participant* will be informed about the reason(s) of refusal by a message in the *ePortal*. The last accepted and confirmed modification of the *Bid* or set of *Bids* shall be binding for the *Auction Participant*.

(6) The *Auction Price* and the corresponding *Winning Bids* are selected in accordance with the *Auction Algorithm* as set forth in Section 3 and Annex 5 respectively Annex 6.

Article 5.3 – Access to the ePortal

(1) Each *User* is required to use only electronic certificates which comply with requirements specified in Annex 9 of the *Auction Rules* for the purposes of accessing the *ePortal* and executing business transactions via the *ePortal*.

(2) The *Auction Participant* which registered a *User* for the purposes of the execution of business transactions via the *ePortal* with an electronic signature other than the electronic certificate specified in Annex 9 irrevocably undertakes to indemnify, and hold fully and effectively harmless, the *CAO*, all other *Auction Participants*, each *User* and *CEE TSOs* and their employees and agents (Indemnified Person or Indemnified Persons) from and against any and all liability, loss, claims, demands and/or expenses whatsoever and howsoever arising, which any of them shall incur, at any time, and which arise in connection with any of the *Users'* use of its electronic signature in connection with executing business transactions via the *ePortal*, save to the extent demonstrably caused by a material breach of the *Auction Rules* by the Indemnified Person or Indemnified Persons.

(3) After the *Auction Participant* becomes registered by *CAO* (see *Registration Form*), its user accounts can be established in the *ePortal*. The *Auction Participant* shall submit completely filled application form (see Annex 8) to *CAO* for establishing and modifying the *User* accounts for all its *Users*. The application form shall also be signed by the *User* that submits to the obligations and rules of conduct set forth in these *Auction Rules*. All the sections of the application form must contain complete and true information. At the same time, the *User* shall for registration submit to the e-mail address of *ePortal* operators (see Annex 1) an e-mail signed with an electronic certificate containing identification of *Auction Participant's User*. *CAO* will establish a user account or shall modify a user account within three (3) *Working Days* after the receipt of the application form.

(4) Each new *User* or an old *User* with a modified user account is informed about an establishment or modification of his user account by e-mail, to the contact address provided in the application form. E-mail information sent by *CAO* will include an entry key consisting of a user name (login) and a new password in case of a new user account. *User* shall keep this information as confidential. The *Auction Participant* shall be liable for any direct and indirect damages resulting from any culpable and unauthorised disclosure of such information by the *User*. *CAO* is not liable for any unauthorised use of entry key comprising *User* name and password.

(5) *CAO* shall be entitled to verify the information stated in the application form sent by potential *Users* and not to establish user account in case of any discrepancy in the data provided, or a suspicion thereof. *CAO* shall be entitled to prevent the *User* from accessing the *ePortal* in case it finds any discrepancy such as, but not limited to, the following: False

information about the *User* or the certificate, expiration of *User*'s certificate, or expiration of the *Framework Contract* between *CAO* and *Auction Participant* being represented by this *User*.

(6) *User* of the *ePortal* shall execute business transactions and configurations of its user account in the user environment. The user environment provides in particular:

- Information on *ePortal* system time.
- Messages from *CAO* (e. g. the confirmation of executed operations).
- The set of commands for executing operations.
- Credit limit information.

Article 5.4 – Notice Board

(1) The *Notice Board* supports the possibility of *PTRs* exchange via secondary market as defined by *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*.

(2) The *Notice Board* is however only a tool for publishing the notices. The *Notice Board* is not directly connected to other functionalities of the *ePortal* (excluding the identity of *Auction Participant*), therefore:

- Notices of willingness to sell or purchase *PTR* and/or any other information published by the *User* of an *Auction Participant* are not verified by *CAO* and *CAO* does not take any responsibility for the information published on the *Notice Board*.
- The *Notice Board* does neither replace the “Transfer” module of the *ePortal* described in Section 13 nor the “Return” procedure described in Section 14. Any negotiated *PTR* transfer (with or without *Notice Board* usage) is valid only if notified to *CAO* by transferor and confirmed by transferee in accordance with Section 13 of the *Auction Rules*.

(3) A notice includes the following information:

- date of publication,
- validity period of the offer,
- *Reservation Period*,
- *Source-Sink Pair*;
- volume of *PTR*;
- identification of *Auction Participant*;
- type of notice (purchase/sale/general);
- space for comments;
- contact information (e. g. a contact phone number, e-mail).

(4) The functionality of the *Notice Board* is available only via web forms (in the *ePortal*), therefore the corresponding data flows cannot be exchanged via web services.

(5) Notwithstanding Article 18.1 *CAO* excludes any liability for any direct, indirect or consequential loss or damage incurred by any *User* in connection with the *Notice Board* or in connection with the use, inability to use, or results of the use of the *Notice Board*, any websites linked to it and any materials posted on it. This does not affect *CAO's* liability for death or personal injury arising from negligence, nor *CAO's* liability for fraudulent misrepresentation, nor any other liability which cannot be excluded or limited under applicable law.

(6) *CAO* reserves the right to delete:

- Any notice not relevant for the purpose of the *Notice Board*.
- Vulgarisms or wordings insulting any other *User/s* and/or other person/s.

The decisions to delete the notice can be based on generally accepted ethic standards. In case of any such deletion made, *CAO* will provide sufficient reasoning to the respective *Auction Participant*.

Article 5.5 – Data Security and Protection

(1) Commercial data transferred from the *User* to the *ePortal* via the internet is secured by means of encryption (SSL). Every *User* has to have his own personal certificate to access the system. For every business data exchange, the standard PKI (Public key infrastructure) is used. This mechanism enables the authorization of transactions and retrospective identification of persons who entered data into the *ePortal* or who executed specific operations. All operations done via the *ePortal* system are registered with the information of the responsible *User* and *Time Stamp*.

(2) Each *Auction Participant* undertakes to follow all the security rules specified in the *Auction Rules*. In particular, the *Auction Participant* undertakes to make sure that:

- The *ePortal User* entitled to submit *Bids* keeps his private key in a manner so that no other person can get access to the key;
- The *ePortal User* entitled to submit *Bids* shall use his private key and a certificate exclusively in line with the *Auction Rules* for communication;
- The *ePortal User* entitled to submit *Bids* shall inform *CAO* immediately of any disclosure or possible disclosure of his private key.

Section 6 – Specific Rules for the Yearly and Monthly Auction Process

Article 6.1 – General Provisions

(1) CAO will organise and execute coordinated yearly and monthly *Auction Processes*, i. e. *Auction Processes* for yearly and monthly *PTRs*.

(2) The yearly and monthly *Auction Processes* will be executed electronically in the user environment of the *ePortal*.

(3) The *AMF* and *PTDF* matrixes for the yearly and monthly flow-based *Auction Processes* respectively the *Offered Capacity* for yearly and monthly *NTC Auction Processes* will be published in the *ePortal* and on CAO's website (www.central-ao.com).

(4) The yearly and monthly *Auction Processes* will be organised according to the dates provided in Annex 2.

(5) For yearly and monthly *Auction Processes*, the *Auction Participant* is entitled to submit, in total, as many *Bids* for all *Source-Sink Pairs*, independently from each other, as its *Credit Limit* which is not *Utilised* enables. The *Credit Limit* which is not *Utilised* is checked after evaluation of the *Bids* (see Article 6.3).

Article 6.2 – Bids for the Reservation of PTR in the Yearly and Monthly Auction Process

(1) Each *Bid* submitted in a yearly or monthly *Auction Process* must contain the following unambiguous and legible specifications:

- a) identification of the *User*;
- b) specification of the *Source-Sink Pair*;
- c) year or month to which the *Bid* refers;
- d) the following specifications of the *Bid*:
 - i. amount of *PTR* to be allocated in MW without decimals (minimum amount of a single *Bid* is 1 MW).
 - ii. *Bid Price* in EUR/MWh with two (2) decimals (*Bid Price* has to be equal to or exceed zero).

(2) The *Auction Participant* shall deliver its *Bids* in the *ePortal* by deadline 2Y for the yearly and 2M for the monthly *Auction Processes* (deadlines are specified in Annex 2), with the exception of a change of closure times in situations described in Article 5.1 Paragraph 4.

Article 6.3 – Results of the Yearly and Monthly Auction Process and Evaluation of the Bids

(1) All *Bids* which fulfil the requirements set forth in Article 6.2 will be evaluated and a *Preliminary Auction Price* will be determined in accordance with the rules stated in Section 3 and Annex 5 respectively Annex 6.

(2) For each *Auction Participant* the *Total Auction Participant's Bids Value* will be checked with the part of the *Auction Participant's Credit Limit* which is not *Utilised*. If one-twelfth (1/12) of the *Total Auction Participant's Bids Value* regarding the yearly *Auction Process* rounded to two (2) decimal places respectively the entire *Total Auction Participant's Bids Value* regarding the monthly *Auction Process* rounded to two (2) decimal places exceeds the part of the *Auction Participant's Credit Limit* which is not *Utilised*, all *Auction Participant's Bids* shall be excluded and shall not be assessed in the relevant *Auction Process*.

(3) If an *Auction Participant's Bids* are excluded according to the previous Paragraph, *Bids* evaluation procedure will be repeated without the excluded *Bids*.

Article 6.4 – Publication and Notification of the Results of the Yearly and Monthly Auction Process

(1) CAO publishes the results of the yearly and monthly *Auction Processes* on CAO's website (www.central-ao.com) for each *Source-Sink Pair* by deadline 3Y for yearly and 3M for monthly *Auction Processes* (deadlines are specified in Annex 2). The publication of the *Auction Process* results for each *Source-Sink Pair* comprises the following data:

- total *Promise of PTR* in MW;
- total requested *PTR* in MW;
- *Auction Price* in EUR/MWh;
- number of *Auction Participants* in the *Auction Process*;
- number of *Auction Participants* who placed at least one *Winning Bid* in the *Auction Process*;
- list of delivered *Bids* without identification of the *Auction Participants*.

(2) After the publication of the results on CAO's website (www.central-ao.com) CAO notifies the results of the specific *Auction Process* to the *Auction Participants* in the *ePortal*. The data is available by 15:00 *CET/CEST* on deadline 3Y for the yearly and 3M for the monthly *Auction Process* (deadlines are specified in Annex 2), with exception of a change of this time closure in situations described in Article 5.1 Paragraph 4. CAO provides the following data (but only to such an *Auction Participant* that this data refers to) separately for and to each *Auction Participant*:

- *CAI* code;
- *Promise of PTR* for *Reservation Period* in MW;
- *Source-Sink Pair*;
- *Auction Price* in EUR/MWh;

- due Amount for *Promises of PTR* in EUR, rounded to two (2) decimal places.

Article 6.5 – Promised and Allocated PTRs

The *Promise of PTR* notified to the *Auction Participants* in yearly or monthly *Auction Processes* according to Article 6.4 Paragraph 2 becomes *Allocated PTR* when fulfilling the payment conditions stated in Sections 8 and 9 respectively 10.

Article 6.6 – Alternative Rules in Case of Technical Problems

(1) *CAO* reserves the right to change closure times according to Article 5.1 Paragraph 4 in case of technical problems with the *ePortal* identified by *CAO*.

(2) The specific rules for yearly and monthly *Auction Processes* organised electronically in the user environment of the *ePortal* regulated in this Section may be replaced by alternative rules specified by Annex 7 in case a change of closure times according to Paragraph 1 will not be sufficient in order to organize yearly or monthly *Auction Process*.

(3) Information about the implementation of alternative yearly and monthly *Auction Process* according to Annex 7 will be published by 12:00 *CET/CEST* (noon) on the last *Working Day* before the day on which the deadline 2Y for yearly and 2M for monthly *Auction* falls (deadlines are specified in Annex 2). Information shall be published on *CAO's* website (www.central-ao.com). Furthermore, *CAO* will inform all *Auction Participants* on implementation of alternative yearly and monthly *Auction Process* by message in *ePortal* and by e-mail.

Article 6.7 – Reduction of the Offered Capacity for Reason of Planned Outages (in particular for Reason of Maintenance Works)

(1) The *Offered Capacities* in yearly and monthly *Auction Processes* are steady for the *Reservation Period*. Accordingly, in yearly and monthly *Auction Processes* *PTRs* with a steady amount of MW throughout the *Reservation Period* are allocated. However, in case the NTC method applies *CAO* reserves the right to offer *Offered Capacities* in yearly or monthly *Auction Processes* with a reduced amount of MW on specific calendar days. Therefore, in those *Auction Processes* *PTRs* with a reduced amount of MW on specific calendar days will be allocated. The reduction mechanism and further details of the reduction process are set forth below and in Annex 15.

(2) If the *Offered Capacities* in a yearly or monthly *Auction Process* will be reduced according to Paragraph 1 and Annex 15, *CAO* announces – in the *ePortal* on the date of *Offered Capacity* publication for the affected yearly respectively monthly *Auction Process* – that *Offered Capacities* with a reduced amount according to Paragraph 1 and Annex 15 will be the subject of the *Auction Process*. The announcement shall include an exact specification of the date, duration and level of reduction of the *Offered Capacities*.

(3) The fact that *PTRs* with a reduced amount of MW will be subject of a yearly respectively monthly *Auction Process* has no influence on the specification each *Auction Participant* has to file according Article 6.2 Paragraph 1 when submitting a *Bid* for this *Auction Process*. In

particular, the *Auction Participant* shall only specify the amount of *PTR* without the planned reduction.

(4) For the avoidance of doubt, in the event of a reduction of *Offered Capacities* pursuant to this Article 6.7 the *Auction Participant* shall not have the right to claim compensation from *CAO* and/or *CEE TSOs* due to the reduction of *Offered Capacities* and consequently the reduction of *PTRs*.

Section 7 – Specific Rules for the Daily Auction Process

Article 7.1 – General Provisions

- (1) CAO will organise and execute coordinated daily *Auction Processes*, i. e. *Auction Processes* for daily *PTRs*.
- (2) The daily *Auction Processes* will be executed electronically in the user environment of the *ePortal*.
- (3) The *AMF* and *PTDF* matrixes for the daily flow-based *Auction Processes* will be published in the *ePortal* and on CAO's website (www.central-ao.com) by 07:45 *CET/CEST* on *D-1* respectively the *Offered Capacity* for daily *NTC Auction Processes* will be published in the *ePortal* and on CAO's website (www.central-ao.com) by 09:00 *CET/CEST* on *D-1*.
- (4) The daily *Auction Processes* will be held daily (Monday – Sunday) on *D-1*.
- (5) For daily *Auction Processes*, the *Auction Participant* is entitled to submit, in total, as many *Bids* for all *Source-Sink Pairs*, independently from each other, as its *Credit Limit* which is not *Utilised* enables. The *Credit Limit* which is not *Utilised* is checked after evaluation of the *Bids* (see Article 7.3).

Article 7.2 – Bids for the Reservation of PTR in the Daily Auction Process

- (1) Each *Bid* submitted in a daily *Auction Process* must contain the following unambiguous and legible specifications:
- a) identification of the *User*;
 - b) specification of the *Source-Sink Pair*;
 - c) date and hour to which the *Bid* refers;
 - d) the following specifications of the *Bid*:
 - i. amount of the *PTR* to be allocated in MW without decimals (minimum amount of a single *Bid* is 1 MW).
 - ii. *Bid Price* in EUR/MWh with two (2) decimals (*Bid Price* has to be equal to or exceed zero).
- (2) The *Auction Participant* shall deliver its *Bids* in the *ePortal* by 09:30 *CET/CEST* on *D-1*, with the exception of a change of the time closure in situations described in Article 5.1 Paragraph 4.

Article 7.3 – Results of the Daily Auction Process and Evaluation of the Bids

- (1) All *Bids* which fulfil the requirements set forth in Article 7.2 will be evaluated and the *Auction Price* will be determined per hour in accordance with the rules stated in Section 3 and Annex 5 respectively Annex 6.
- (2) *Bids* submitted by *Auction Participant* are accepted separately in delivery sequence, up to the level of its *Credit Limit* which is not *Utilised*. Each *Bid* delivered exceeding the *Auction*

Participant's Credit Limit which is not *Utilised* shall be excluded and shall not be assessed in this daily *Auction Process*.

Article 7.4 – Publication and Notification of the Results of the Daily Auction Process

(1) CAO publishes only aggregated results of the daily *Auction Process*. Publication takes place by 09:45 CET/CEST on *D-1*, unless a change of closure time as described in Article 5.1 Paragraph 4 occurs. CAO will announce the *Auction Process* results through the *ePortal* and on its website (www.central-ao.com). The publication of the *Auction Process* results for each *Source-Sink Pair* and for each hour comprises the following data:

- total *Allocated PTR* in MW;
- total requested *PTR* in MW;
- *Auction Price* in EUR/MWh;
- number of *Auction Participants* in the *Auction Process*;
- number of *Auction Participants* who placed at least one *Winning Bid* in the *Auction Process*;
- list of delivered *Bids* without identification of the *Auction Participants*.

(2) After the publication of the results on CAO's website (www.central-ao.com) CAO notifies the results of the specific *Auction Process* to the *Auction Participant* in the *ePortal*. The data is available by 09:45 CET/CEST on *D-1*, unless a change of closure time as described in Article 5.1 Paragraph 4 occurs. CAO provides the following data (but only to such an *Auction Participant* that this data refers to) separately for and to each *Auction Participant*:

- *CAI* code
- *Allocated PTR* for each hour of the *Reservation Period* in MW;
- *Source-Sink Pair*;
- *Auction Price* for each hour in EUR/MWh;
- due amount for *Allocated PTR* in EUR, rounded to two decimal places.

(3) When CAO notifies the *Auction Process* results to the *Auction Participant* according to Paragraph 2, the *Auction Participant* immediately receives *Allocated PTR* to the extent notified to him.

Article 7.5 – Alternative Rules in Case of Technical Problems

(1) In case of technical problems with the calculation of *AMF* and *PTDF* matrixes for the flow-based method identified by CAO, the NTC method could be used exceptionally in the daily *Auction Process*.

(2) Information about such an exceptional change of the applied *Auction Algorithm* will be published by 08:30 CET/CEST on *D-1*. Information shall be published on CAO's website (www.central-ao.com). Furthermore, CAO will inform the *Auction Participant* about the

alternative method applied in the daily *Auction Process* by message in the *ePortal* and by e-mail.

Article 7.6 – Cancellation of a Daily Auction Process

(1) *CAO* shall undertake all reasonable efforts to avoid situations when the daily *Auction Process* are not organised or cancelled.

(2) However, if the *AMF* and *PTDF* matrixes in case of the flow-based method respectively the *Offered Capacities* in case of the NTC method cannot be published by 09:15 *CET/CEST* on *D-1* due to any operational change (see Article 5.1 Paragraph 4) or if the alternative daily *Auction Process* according to Article 7.5 is not sufficient in order to organize the daily *Auction Process*, the daily *Auction Process* will not be carried out and the *Auction Participant* shall not have the right to claim for compensation. All *Users* of the *ePortal* will be informed, without undue delay, of the actual operational situation.

(3) If the results of daily *Auction Process* are not published until 10:15 *CET/CEST* on *D-1* due to any operational change (see Article 5.1 Paragraph 4), this daily *Auction Process* will be cancelled and no compensation may be claimed by the *Auction Participant*. All relevant *Users* of the *ePortal* will be informed, without undue delay, of the suspension of the system *ePortal*.

Section 8 – General Rules for Payment

Article 8.1 – General Provisions

(1) Any payment collected by *CAO* through the *Auction Process* will at any time be treated as the property of the relevant *CEE TSO*.

(2) The relevant currency for invoicing is EUR.

Article 8.2 – Amount Due to be Paid

(1) *CAO* will invoice the *Auction Participant* the price for the *Promise of PTRs* in case of yearly and monthly *Auction Processes* respectively for the *Allocated PTRs* in case of daily *Auction Processes*, rounded to two (2) decimal places plus any applicable taxes, duties or other charges.

(2) Bank fees of the sender bank will be covered by the sender. Bank fees of the receiving bank will be covered by the beneficiary. Bank fees of the intermediary bank (if applicable) will be covered by the *Auction Participant*.

(3) The price for the *Promises of PTRs respectively for the Allocated PTRs* covers only the right to use the allocated capacity and does not include any use of the transmission system. This must be agreed separately with the concerned *CEE TSOs*.

Article 8.3 – Invoicing

(1) Original invoices are sent to the *Auction Participant* by post, messenger/courier or personally. Copies of invoices are sent by fax or e-mail, at the latest, one (1) *Working Day* after issue date of the invoice.

(2) Subject of the invoice is the “Reservation of Physical Transmission Rights”.

Article 8.4 – Due Time of Payment and Delayed Payment

(1) Invoices have to be paid no later than on the due date stated on the invoice, free of charge and without deduction.

(2) In case of delayed payment, the creditor is entitled to charge interest rates on the amount due for each day which has commenced for the whole period of delay. Daily interest rate is set regularly on the first *Working Day* of each calendar month as a fixed amount equalling $(3M \text{ EURIBOR} + 3 \text{ percentage points})/365$.

Article 8.5 – Date of Payment and Information on Received Payments

(1) Date of payment or settlement of payment is the date upon which the given amount is credited to the bank account of *CAO*.

(2) Information on payments received is processed – as a basic principle – by *CAO* until 07:45 *CET/CEST* on the day following the day payment was realised according to Paragraph 1. Based on information on payments settled by the *Auction Participant*, a related *utilised* part of the *Credit Limit* of the *Auction Participant* will be released (see Article 4.3).

(3) If the data on payments received is not processed by 07:45 *CET/CEST* of the day following the day payment was realised according to Paragraph 1 because of any technical difficulties faced by *CAO*, the amount due will be considered as paid for the purpose of releasing the *utilised* part of the *Credit Limit* based on a corresponding request of the *Auction Participant*. However, if it turns out later on, that the conditions for release were actually not fulfilled, Article 4.5 Paragraph 3 applies correspondingly.

Article 8.6 – Identification of Payment

(1) The *Auction Participant* shall always, when executing a payment, indicate the payment identification number, which is the number of the invoice.

(2) Each payment is identified by the payment identification number. The payments shall match the amount of the debt (i. e. the amount indicated on the relevant issued invoice).

(3) In case the paid amount or the payment identification number differs from the invoiced data, the debt is considered as unpaid until its final manual clearance. The processing deadline of 07:45 *CET/CEST* (see Article 8.5 Paragraph 2) is not relevant for *CAO* in this case.

Article 8.7 – Offset and Withholding

The *Auction Participant* shall not be entitled to offset any amount, or withhold any debts arising in connection with obligations resulting from an *Auction Process*, against any claims of *CAO*, whether or not arising out of an *Auction Process*. Nevertheless, the right to offset and the right to withhold are not excluded in case the *Auction Participant's* claim against *CAO* is established by a legally binding judgement or uncontested.

Article 8.8 – VAT Mode

(1) As according to EU legislation services provided by *CAO* to *Auction Participant* are considered as “services connected to transmission respectively to transport of electricity between EU member states”, the following VAT mode will be used:

- “Reverse charge mechanism” – in case the *Auction Participants* declare their VAT registration in an EU Member State (with the exception for the companies registered in Germany). In this mode, the *Auction Participants* must provide *CAO* with their European VAT number and are obliged to settle the VAT with the respective national tax office.
- VAT treatment as regulated by German legislation – in case the *Auction Participants* declare their VAT registration in Germany, *CAO* will charge German VAT on the payment and will show it separately on the invoice.
- In the event the *Auction Participant* declare their VAT registration in a state which is not an EU Member State, or do not declare any VAT registration and

- can prove that according to local VAT legislation a reverse charge mechanism applies *Auction Participants* are obliged to settle the VAT with the respective national tax office
- *CAO* is subject to local VAT of *Auction Participants* jurisdiction, *CAO* will issue an invoice following these local VAT rules.

In the event that the tax authorities of the country of *Auction Participants* establishment assess local VAT at the level of *CAO* which had not been invoiced so far, *Auction Participant* and *CAO* agree that *Auction Participant* will reimburse such additional local VAT to *CAO* based on a respective revised invoice to be raised by *CAO* to *Auction Participant* showing local VAT as a separate line item in addition to the net invoice amount. Furthermore *Auction Participant* agrees to indemnify *CAO* for any interest levied by the tax authorities on the additional VAT.

In the event that the German tax authorities assess German VAT at the level of *CAO*, the Parties agree that *Auction Participant* will reimburse such additional German VAT to *CAO* based on a respective revised invoice to be raised by *CAO* to *Auction Participant* showing German VAT as a separate line item in addition to the net invoice amount. Furthermore, *Auction Participant* agrees to indemnify *CAO* for any interest levied by the German tax authorities on the additional VAT.

(2) Each *Auction Participant* is obliged to provide *CAO* with information for justifying whether or not he has a permanent establishment in Germany for VAT purposes. Any changes throughout the year concerning the permanent establishment shall be made known promptly to *CAO*. The *Auction Participant* shall be liable with respect to any sanctions, penalties, or charges that may be imposed by German financial authorities on *CAO* for incorrect tax treatment.

Section 9 – Specific Rules for Payment for Yearly Auction and Corresponding Risk Management Mechanisms

Article 9.1 – Payments and Instalments

- (1) The price for the yearly *PTR* for a particular *Source-Sink Pair* will be invoiced in twelve (12) equal monthly amounts/instalments each rounded to two (2) decimals.
- (2) The monthly invoice is issued by the deadline 4Y for the relevant month (see Annex 2). The due date of the payment shall be the deadline 5Y for the relevant month (see Annex 2).
- (3) Each monthly amount is to be paid in advance. Each monthly amount has to be paid based on the invoice issued by *CAO*.
- (4) The *Auction Participant* is entitled to ask *CAO* after a successful yearly *Auction Process* for an earlier invoice at any time, but under the consideration of a necessary handling time.
- (5) Following the payment of each monthly amount, the respective *Promise of PTR* is allocated for the following calendar month on the date of deadline 5Y for the relevant month (for deadlines see Annex 2) to the *Auction Participant*.
- (6) If the payment is not settled by the deadline 5Y (see Annex 2), *CAO* will inform the *Auction Participant* on the following *Working Day* by fax or by e-mail that the payment of the invoice has not been credited to *CAO's* bank account and remind the *Auction Participant* of the payment.

Article 9.2 – Delayed Payment and Loss of PTR

- (1) If a payment for the yearly *PTR* for a particular *Source-Sink Pair* is not received by the deadline 6Y for the relevant month (for deadlines see Annex 2) *CAO* immediately exercises the *Bank Guarantee and/or Deposit* (see Article 4.2 Paragraph 1 and 2). If in this case the *Credit Limit* – if necessary – is not increased by the last *Working Day* of the same month to the extent that one-twelfth (1/12) of the total liability of the *Auction Participant* resulting from the relevant yearly *Auction Process* is covered by the *Credit Limit* which is not *Utilised*, the *Auction Participant* loses the *Promise of PTR* gained in the yearly *Auction Process* for the rest of the remaining months of the year and *CAO* terminates the *Framework Contract* with the *Auction Participant* with immediate effect and excludes the *Auction Participant* from further *Auction Processes*. Furthermore the *Auction Participant* is obliged to pay per each MWh times the difference between the price to be paid according to the original contract (i. e. *Auction Price* of respective yearly *Auction Process*) and *Auction Price* determined at the relevant monthly *Auction Process* to which the unused capacity is returned if such *Auction Price* in the relevant monthly *Auction Process* is lower than the original yearly *Auction Price*. The corresponding payment is invoiced on a monthly basis.
- (2) *CAO* is obliged to notify the *Auction Participant* of the exertion of the *Bank Guarantee and/or Deposit* and – if applicable – of the fact that the *Credit Limit* needs to be increased in order to avoid the loss of the *Promise of PTR*.

(3) The *PTRs* released by the loss of *Promise of PTR* according to Paragraph 1 will be made available for subsequent *Auction Processes*.

(4) The *Promise of PTR* notified to the *Auction Participant* in the yearly *Auction Process* becomes *Allocated PTR* for given month when the settlement of the invoiced amount has been achieved via payment (see Article 2.1 Paragraph 3) or via exercise of the *Bank Guarantee/Deposit*.

Section 10 – Specific Rules for Payment for Monthly Auction and Corresponding Risk Management Mechanisms

Article 10.1 – Invoicing

- (1) The price for monthly *PTR* for a particular *Source-Sink Pair* will be invoiced with the monthly amount.
- (2) The invoice is issued by the deadline 4M for the relevant month (see Annex 2). The due date of the invoice shall be the deadline 5M for the relevant month (see Annex 2).
- (3) Each amount is to be paid in advance. Each amount has to be paid based on the invoice issued by *CAO*.
- (4) Following the payment of the invoiced amount, the respective *Promise of PTR* will be allocated on the deadline 5M for the relevant month (see Annex 2) to the *Auction Participant*.
- (5) If the payment is not settled by the deadline 5M (see Annex 2), *CAO* will inform the *Auction Participant* on the following *Working Day* by fax or by e-mail that the payment of the invoice has not been credited to *CAO's* bank account and remind the *Auction Participant* of the payment.

Article 10.2 – Delayed Payment

- (1) If the payment for the monthly *PTR* for a particular *Source-Sink Pair* is not received by the deadline 6M for the relevant month (see Annex 2) *CAO* immediately exercises the *Bank Guarantee/Deposit* (see Article 4.2 Paragraph 1 and 2).
- (2) *CAO* is obliged to notify the *Auction Participant* in case the *Bank Guarantee/Deposit* has been exercised.
- (3) The *Promise of PTR* notified to *Auction Participant* in the monthly *Auction Process* becomes *Allocated PTR* when settlement of the invoiced amount has been achieved via payment (see Article 2.1 Paragraph 3) or exercise of the *Bank Guarantee/Deposit*.
- (4) The participation of the *Auction Participant* in *Auction Processes* will be suspended and refused until the *Credit Limit* – if necessary – is increased according to Article 4.3.

Section 11 – Specific Rules for Payment for Daily Auction and Corresponding Risk Management Mechanisms

Article 11.1 – Invoicing

- (1) The price for daily *Allocated PTRs* will be invoiced on a monthly basis. The amount is to be paid retroactively for the preceding month.
- (2) The invoice is issued for all financial obligations resulting from daily *Auction Processes* by the deadline 1D for the relevant month (see Annex 2). The due date of the invoice shall be the deadline 2D for the relevant month (see Annex 2).
- (3) The amount has to be paid based on the invoice issued by *CAO*.
- (4) If the payment is not settled by the deadline 2D (see Annex 2), *CAO* will inform the *Auction Participant* on the following *Working Day* by fax or by e-mail that the payment of the invoice has not been credited to *CAO's* bank account and remind the *Auction Participant* of the payment.

Article 11.2 – Delayed Payment

- (1) If the payment for the daily *Allocated PTR* for a particular *Source-Sink Pair* is not received by the deadline 3D for the relevant month (see Annex 2) *CAO* immediately exercises the *Bank Guarantee/Deposit*.
- (2) *CAO* is obliged to notify the *Auction Participant* in case the *Bank Guarantee/Deposit* has been exercised.
- (3) The participation of *Auction Participant* in *Auction Process* will be suspended and refused until the *Credit Limit* – if necessary – is increased according to Article 4.3.

Section 12 – Use of the Allocated PTR

Article 12.1 – National Commercial Terms and Conditions

(1) The *Allocated PTR* may only be used by market participants, including the *Auction Participant*, if the market participant(s) fulfil(s) the prerequisites for transmission network use for given *Source-Sink Pair* (see Paragraph 2). Prerequisites may be fulfilled either by one market participant in both concerned *Control Areas* or by two market participants (each market participant will fulfil prerequisites in one of the concerned *Control Areas*).

(2) The *CEE TSOs* set the following individual unconditional prerequisites for using their electricity transmission networks according to the *Allocated PTR*:

- **On APG side** – Recognition by the Austrian Regulatory authority as representative of a balance group or membership of a recognized Austrian balance group.
- **On CEPS side** – A valid and effective Agreement concerning the Accession to Trading Terms and Conditions for Cross-border Transmission through the Transmission System in the Czech Republic.
- **On ELES side** – A valid and effective balance group contract signed with Slovenian Market Operator (*Auction Participant* has to be recognized as Balance responsible party) or signed and effective Contract for Settlement of Imbalances with a Balance responsible party in Slovenia.
- **On MAVIR side** – A valid and effective system usage contract with *MAVIR* and a valid and effective balancing contract signed with *MAVIR* (*Auction Participant* has to be recognized as Balance responsible party) or signed and effective balance membership contract with a Balance responsible party in Hungary.
- **On PSEO side** – A valid and effective agreement for transmission services defining in particular cross – border exchange participation conditions.
- **On SEPS, a.s. side** – A valid and effective Agreement on Electricity Transmission through Connecting Lines, Agreement on Assessment and Settlement of Deviations.
- **On TENNET side** – A valid and effective balancing contract with *TENNET*.
- **On 50HzT side** – A valid and effective balancing contract with *50HzT*.

(3) *CEE TSOs* have reserved their rights to change their respective national commercial requirements for the use of the *Allocated PTR* determined in this Article, Paragraph 2 and *CAO* reserves the right to adjust the *Auction Rules* based on the changes introduced by *CEE TSOs*. In this event amendment of *Auction Rules* is carried out according to Section 16.

Article 12.2 – Scheduling / “Use It or Sell It” and “Use It or Lose It” Principles

(1) The use of the *Allocated PTR* for the given *Source-Sink Pair* in compliance with the requirements stated in the *Auction Rules* takes place by delivery of fixed schedules to the *CEE TSO* of the *Source CA* and to the *CEE TSO* of the *Sink CA* in accordance with individual national market rules of concerned *CEE TSOs* valid at the time of delivery. The so called “m:n” system / cross-nomination, which enables to nominate in parallel on one border several schedules with several counterparties, applies.

(2) Concerned *CEE TSOs* compare and match delivered individual fixed schedules. The comparison is followed by a correction cycle enabling adjustments of mismatched schedules by market participants.

(3) The time limits are as follows:

- a) In case of *Allocated PTR* from the yearly and monthly *Auction Processes*, the schedules must have been received by the relevant *CEE TSOs* by 17:00 *CET/CEST* on *D-2*.

In case of a mismatch modifications of schedules are allowed during the correction cycle. Modified schedules must have been received by the relevant *CEE TSOs* until 18:00 *CET/CEST* on *D-2* and must be in compliance with the rules published by the relevant *CEE TSOs*. After this deadline modifications are no longer allowed.

The use of *Allocated PTR* from the yearly and monthly *Auction Processes* is based on the principle “use it or sell it” with exception of specific cases as indicated in Article 12.3. This means that *Allocated PTR* which is not used by fixed schedules or confirmed as *PTR* to be reserved for deliveries of balancing energy (see Article 12.3) will be considered returned in accordance with Section 14. The return will take place with immediate effect after the fixed schedules were confirmed by the relevant *CEE TSOs* and to the extent the *Allocated PTR* was not used.

The physical electricity transmission capacity released by the return of *Allocated PTR* will be made available to all *Auction Participants* in the corresponding daily *Auction Process* unless there are technical constraints for making such capacity available (see Article 14.2 Paragraph 3 and Annex 16) or the relevant daily *Auction Process* is cancelled according to Article 7.6.

- b) In case of *Allocated PTR* from daily *Auction Processes*, the schedules must have been received for the following calendar day within the following timeframe:

<i>APG</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>CEPS</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>ELES</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>MAVIR</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>PSEO</i>	by 13:30 <i>CET/CEST</i> on <i>D-1</i>
<i>SEPS, a.s.</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>TENNET</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>
<i>50HzT</i>	by 14:30* <i>CET/CEST</i> on <i>D-1</i>

(*Schedule for Source-Sink Pair where *PSEO* is *Source CA* or *Sink CA* must be delivered by 13:30 to both respective *CEE TSOs*.)

In case of a mismatch modifications of schedules are allowed during the correction cycle. Modified schedules must have been received by the relevant *CEE TSOs* until 14:15 *CET/CEST* on *D-1* in case of a *Source-Sink Pair* where *PSEO* is *Source CA* or *Sink CA* respectively until 15:30 *CET/CEST* on *D-1* in case of other *Source-Sink Pairs*. After this deadline modifications are no longer allowed.

The use of *Allocated PTR* from daily *Auction Processes* is based on the principle “use it or lose it” with exception of specific cases as indicated in Article 12.3. This means that *Allocated PTR* which is not used by fixed schedules or confirmed as *PTR* to be reserved for deliveries of balancing energy (see Article 12.3) will irrevocably fall back to the *CEE TSOs*. This will take place with immediate effect after the fixed schedules were confirmed by the relevant *CEE TSOs* and to the extent the *Allocated PTR* was not used. Section 14 does not apply and no compensation in whatever form may be claimed.

The physical electricity transmission capacity which was not allocated in the daily *Auction Process* and the physical electricity transmission capacity released because *Allocated PTR* allocated in a daily *Auction Process* fell back to *CEE TSOs* may be further used by concerned *CEE TSOs*.

Article 12.3 – Use of the Allocated PTR for Deliveries of Balancing Energy

(1) In order to extend the possibilities of *CEE TSOs* to ensure a safe and reliable operation of the electricity transmission systems, i. e. to also ensure the firmness of *PTRs*, specific rules for *Allocated PTRs* used for deliveries of balancing energy have been adopted. Use of this procedure by individual *CEE TSOs* depends on the needs given by portfolio of ancillary services providers and national legislation.

(2) *Allocated PTRs* allocated in yearly and monthly *Auction Processes* or *Allocated PTRs* allocated in daily *Auction Processes* notified by the *Auction Participant* as reserved for balancing energy deliveries (see Paragraph 4) and confirmed by the concerned *CEE TSO* to be reserved for balancing energy deliveries (see Paragraph 4 and 5) are not subject of the principle “use it or lose it” (see Article 12.2 Paragraph 3 Letter a) and Letter b)). In case that the *Auction Participant's* notification is not confirmed by the concerned *CEE TSOs* in time (see Paragraph 4 and 5), the *Allocated PTR* remains with the *Auction Participant* and is subject of the principle “use it or sell it” respectively “use it or lose it” (see Article 12.2 Paragraph 3 Letter a) and Letter b)).

(3) The *Auction Participant* has to submit a notification of *Allocated PTR* reservation for balancing energy deliveries through the *ePortal*. Receipt of notification will be confirmed by the *ePortal*.

(4) The notification according to Paragraph 3 should be confirmed in the *ePortal* by concerned *CEE TSO* in order to confirm that the *Allocated PTR* is subject to balancing energy delivery. The confirmation by the concerned *CEE TSOs* shall be send:

- within four (4) hours since the notification was submitted to the *ePortal* and by 12:00 *CET/CEST* on *D-2* at the latest if the reserved *Allocated PTR* was allocated in yearly or monthly *Auction Process*;

- within thirty (30) minutes since the notification was submitted to the *ePortal* and by 10:15 *CET/CEST* on *D-1* at the latest if the reserved *Allocated PTR* was allocated in daily *Auction Process*.

(5) Receipt of the *CEE TSO's* confirmation at the *ePortal* is the decisive criterion in meeting the time limit. Receipt of confirmation will be confirmed by the *ePortal*.

(6) The *Allocated PTR* can be reserved for deliveries of balancing energy on an hourly basis.

(7) The *PTR* reserved for deliveries of balancing energy is subject of priority *Curtailment* in the case that the process of *Curtailment* of *Nominated PTR* applies as set forth in Article 15.4.

Section 13 – Transfer of Allocated PTR

Article 13.1 – General Provisions

(1) The transfer of *Allocated PTR* will be supported by the *ePortal* for *Allocated PTR* allocated in yearly or monthly *Auction Processes*. *Allocated PTR* allocated in daily *Auction Processes* may not be transferred to other *Auction Participants*.

(2) Only *Allocated PTR* can be a subject of a transfer.

(3) Both *Auction Participants*, i. e. transferor and transferee, have to fulfil the prerequisites for accessing the *ePortal* as stated in Articles 5.2 and 5.3.

Article 13.2 – The Process of Transfer of Allocated PTR

(1) The *Auction Participant*, who holds *Allocated PTR*, is allowed to transfer the *Allocated PTR* to another *Auction Participant* on a self-service basis.

(2) *Allocated PTR* can be transferred on an hourly basis.

(3) The *Auction Participant* who intends to transfer *Allocated PTR* may offer an *Allocated PTR* transfer in any time period, and any amount, through the *ePortal* to other *Auction Participants*.

(4) The transfer of *Allocated PTR* should be confirmed in the *ePortal* by the transferee within four (4) hours since the offer was placed and by 12:00 *CET/CEST* (noon) on *D-2* at the latest; otherwise, the transfer is cancelled and the *Allocated PTR* remains with the transferor.

(5) Transferred *Allocated PTR* will receive a new *CAI* code in the *ePortal*.

(6) The *ePortal* provides information to the *Auction Participant* about the *Allocated PTR* allocated to him. All *Allocated PTR* transfer history will be stored in the *ePortal*.

(7) The receipt of an offer for a transfer of *Allocated PTR* submitted by the transferor and the receipt of the confirmation submitted by the transferee will be confirmed by *CAO* automatically.

(8) The receipt of the confirmation (submitted according to Paragraph 4 by transferee) at the *ePortal* is the decisive criterion in meeting the time limit.

Article 13.3 – Legal Consequences of a Transfer of Allocated PTR

Both *Auction Participants*, i. e. transferor and transferee, accept that all rights and obligations resulting from these *Auction Rules* (with exception of the payment obligation regarding the allocation of *PTR*) are transferred together with the *Allocated PTR*. This includes the right for compensation according to Sections 14 and 15.

Section 14 – Return of Allocated PTR (Resale)

Article 14.1 – General Provisions

(1) The *Auction Participant*, who holds *Allocated PTR* allocated in yearly and/or monthly *Auction Processes*, may return the *Allocated PTR* via *CAO* to *CEE TSOs* by not using the *Allocated PTR* in due time (see Article 12.2 Paragraph 3 Letter a)).

(2) A return of *Allocated PTR* allocated in daily *Auction Processes* shall not be accepted (see Article 12.2 Paragraph 3 Letter b)).

Article 14.2 – The Process of Return of Allocated PTR

(1) *Allocated PTR* allocated in yearly and/or monthly *Auction Processes* which is not used by fixed schedules in due time and not confirmed as *PTR* to be reserved for deliveries of balancing energy in due time (see Article 12.3) is considered to be returned by the *Auction Participant* via *CAO* to *CEE TSOs* (see Article 12.2 Paragraph 3 Letter a)).

(2) An *Auction Participant* who returned *Allocated PTR* via *CAO* to *CEE TSOs* according to Article 12.2 Paragraph 3 Letter a) is entitled to receive per each returned MW and hour of returned *Allocated PTR* a financial compensation equal to the *Auction Price* determined in the daily *Auction Process* the *Allocated PTR* is returned to (including the *Auction Price* being 0 (zero) because of no congestion), unless Paragraphs 3, 4 or 5 apply.

(3) Paragraph 2 does not apply if, due to technical constraints, at one or more *Source-Sink Pair(s)* not all physical electricity transmission capacity released by the return of *Allocated PTR* can be made available in the corresponding daily *Auction Process*. The concerned *Auction Participant* will in this case receive a financial compensation per each returned MW and hour as follows:

- a) To the extent that the physical electricity transmission capacity released by the return of his *Allocated PTR* could be made available in the corresponding daily *Auction Process* a financial compensation equal to the *Auction Price* determined in the daily *Auction Process* the physical electricity transmission capacity is returned to (including the *Auction Price* being 0 (zero) because of no congestion);
- b) to the extent that the physical electricity transmission capacity released by the return of his *Allocated PTR* could not be made available in the corresponding daily *Auction Process* a financial compensation equal to the original payment (*Auction Price*) for the reservation of one (1) MW and hour of the returned *Allocated PTR* paid by the *Auction Participant*.

Details of the mechanism for the calculation of the financial compensation in this case are set forth in Annex 16.

(4) Paragraph 2 does not apply if the relevant daily *Auction Process* is cancelled according to Article 7.6 or if the NTC method applies and the *Offered Capacity* on the relevant *Technical*

Profile is equal to 0 (zero) MW in the relevant daily *Auction Process*. The concerned *Auction Participant* is in these cases entitled to receive per each returned MW and hour a financial compensation equal to the original payment (*Auction Price*) for the reservation of one (1) MW and hour of the returned *Allocated PTR* paid by the *Auction Participant*.

(5) In case a *Source-Sink Pair* is excluded from the daily *Auction Processes* as a consequence of the introduction of market coupling as capacity allocation method (see Article 16.1 Paragraph 5) the financial compensation according to Paragraph 2 and Paragraph 3 Letter a) based on the *Auction Price* determined in the daily *Auction Process* is replaced by a financial compensation equal to the difference between day-ahead prices of the two concerned power exchanges.

Article 14.3 – Payment of Compensation by CAO

(1) *CAO* shall pay the compensation according to Article 14.2 twenty (20) *Working Days* after the receipt of the invoice issued by the *Auction Participant*.

(2) The *Auction Participant* shall issue an invoice based on the information made available by *CAO* in the ePortal and for all cases of return having occurred in the preceding month. The information provided by *CAO* will contain per *Auction Participant* a list of returned *Allocated PTRs* and will specify the amount of compensation to be invoiced. Subject of the invoice shall be "Compensation for resale of the *Allocated PTR*".

(3) All *Allocated PTR* return history will be stored in the *ePortal*.

(4) Compensation will be paid monthly based on the invoice for all cases of return having occurred in the preceding month.

(5) The following VAT mode will be used:

- “Reverse charge mechanism” – in case *Auction Participants* declare their VAT registration in a EU Member State except for the companies registered in Germany. In this mode, *CAO* will settle the VAT with German tax office.
- VAT mode as given by German legislation – in case *Auction Participants* declare their VAT registration in Germany. In this mode, *Auction Participant* will charge VAT on the payment and will show it separately on the invoice.
- *Auction Participants* declare their VAT registration in a state which is not an EU Member State, or do not declare any VAT registration. In this mode, *Auction Participant* will issue the invoice considering the respective national VAT regime.

(6) The *Auction Participant* can conclude with *CAO* a separate agreement on a self-billing process with regard to return of *Allocated PTRs*.

Section 15 – Curtailment of the PTR

Article 15.1 – General Provisions

(1) Concerned *CEE TSOs* have committed themselves vis-à-vis *CAO* to make available the *PTR* with the exception of cases set forth in this Section.

(2) *PTR* allocated in the *Auction Processes* may be object of *Curtailment* for any individual or all hours of a day in *Emergency Situations* where *CEE TSO(s)* must act in an expeditious manner and redispatching or countertrading is not possible. *Curtailment* of *PTR* allocated in yearly or monthly *Auction Processes* that is announced by *CAO* by the relevant deadlines set forth in Article 15.2 will be carried out by *CAO* according to the rules set forth in this Section. Any other *Curtailment* announced by *CEE TSOs* after the relevant deadlines set forth in Article 15.2 will be carried out by the individual *CEE TSO(s)* according to *CEE TSOs'* individual rules. If *PTR* is curtailed by the individual *CEE TSO(s)*, *CAO* shall not be subject to any claims for compensation or claims for damages.

(3) All *PTRs* allocated in the *Auction Processes* – independently if *Promised PTR* or *Allocated PTR* – are equally object of *Curtailment*. *PTRs* reserved for the delivery of balancing energy are however curtailed prior to other *PTRs* in case of *Curtailment* of *Nominated PTRs*.

Article 15.2 – The Process of Curtailment in General

(1) *Curtailment* may be applied in two regimes:

a) *Curtailment of Allocated PTRs*

Curtailment may be performed in cases when *CEE TSO(s)* identify(ies) the risk that the *Allocated PTRs* cannot be guaranteed due to the occurrence of an *Emergency Situation* where *CEE TSO(s)* must act in an expeditious manner and redispatching or countertrading is not possible, see Article 15.1 Paragraph 2.

Curtailment announcement shall be published by 16:00 *CET/CEST* on *D-2* in case the *NTC* method is used in the daily *Auction Process* and by 16:00 *CET/CEST* on *D-3* in case the flow-based method is used in the daily *Auction Process*. Only *Allocated PTRs* allocated in yearly and monthly *Auction Processes* are object of *Curtailment*.

Curtailment procedure shall be initiated by *CEE TSO(s)* which inform(s) *CAO* about the changed grid/system conditions. The necessity of *Curtailment* of *Allocated PTRs* shall be confirmed by a *CEE TSO*.

b) *Curtailment of Nominated PTRs*

PTRs allocated in yearly and monthly *Auction Process* and nominated to *CEE TSO(s)* as fixed schedules according to Article 12.2 Paragraph 3 Letter a) may be subject of *Curtailment* in cases when *CEE TSO(s)* identify(ies) via daily security evaluation the risk that the *Nominated PTRs* cannot be guaranteed due to the occurrence of an *Emergency Situation* where the *CEE TSO(s)* must act in an expeditious manner and redispatching or countertrading is not possible, see Article 15.1 Paragraph 2.

Curtailement announcement shall be published between 22:00 CET/CEST on *D-2* and 07:30 CET/CEST on *D-1* in case the flow-based method is used in the daily *Auction Process*. *Curtailement* of *Nominated PTRs* by *CAO* according to this Section 15 is not applicable in case the NTC method is used in the daily *Auction Process*.

(2) *Curtailement* is announced by *CAO* based on the decision of *CEE TSO(s)*. *CAO* informs immediately all *Auction Participants* by a message in the *ePortal* about date, duration and extension of *Curtailement* and about the possible need for new submission of corrected electricity exchange schedules for the affected *Source-Sink Pair(s)*.

(3) *CAO* shall notify about *Curtailement* by e-mail without undue delay each *Auction Participant* whose *Allocated PTR* (acquired by its participation in *Auction Process* or via *PTR* transfer) or *Nominated PTR* has been curtailed. *CAO* shall also attempt to inform such an *Auction Participant* about the same by phone.

(4) If the situation in the electricity transmission network is improved before the announced end of *Curtailement*, electricity transmission capacities respectively the corresponding *PTRs* released by the earlier end of *Curtailement* will be offered in the daily *Auction Process*.

(5) The *Auction Participant* whose *Allocated PTR* or *Nominated PTR* has been curtailed shall be compensated in accordance with Article 15.5.

Article 15.3 – Curtailement of Allocated PTRs

(1) *CAO* will perform the *Curtailement* of the yearly and monthly *Allocated PTRs* with the use of the *Auction Algorithm* set forth in Article A4 of Annex 5 in case the flow-based method was used in the monthly *Auction Process* where the *Allocated PTRs* which will be subject of *Curtailement* have been allocated. In this case the *Curtailement* is organized as follows:

a) For each *Source-Sink Pair* *CAO* determines the highest price *Bids* from yearly and monthly *Auction Processes* up to the total amount of **allocated** yearly and monthly *PTRs* for the respective *Source-Sink Pairs* (see examples in Annex 14). These selected *Bids* are then evaluated within an auxiliary auction process using the *Auction Algorithm* under the new grid conditions (updated *PTDF* matrix and/or *AMF* and/or *Export Limit* and/or *Import Limit*). Such approach ensures that only the already *Allocated PTRs* are assessed and therefore the total amount of *Allocated PTRs* for given *Source-Sink Pair* will be equal or lower than the original one.

b) *Curtailement* ratio per *Source-Sink Pair* is the following proportion:

$$\text{Ratio of curtailement } (x, y) = \frac{d_{ao}(x, y) - d_{au}(x, y)}{d_{ao}(x, y)}$$

Where: x zone as source of a *PTR* (*Source CA*)
y zone as sink of a *PTR* (*Sink CA*)
 $d_{ao}(x, y)$ Total *Allocated PTR* per *Source-Sink Pair* from original *Auction Process*

$d_{au}(x, y)$ Total Allocated PTR per *Source-Sink Pair* evaluated within auxiliary process (see Letter a)

c) Proportional *Curtailment* of PTRs with the use of curtailment ratio will be applied to yearly and monthly *Allocated PTRs*. Any *Allocated PTR* which remains with the *Auction Participant* after the proportional *Curtailment* will be rounded down to entire MWs.

(2) CAO will perform the *Curtailment* of yearly and monthly *Allocated PTRs* with the use of the pro-rata principle in case the NTC method was used in the monthly *Auction Process* where the *Allocated PTRs* which will be subject of *Curtailment* have been allocated. In this case the *Curtailment* is organized as follows:

a) Curtailment ratio per *Source-Sink Pair* is the following proportion:

$$\text{Ratio of curtailment (x, y)} = \frac{d_{ao}(x, y) - d_{amax}(x, y)}{d_{ao}(x, y)}$$

Where: x zone as source of a PTR (*Source CA*)
 y zone as sink of a PTR (*Sink CA*)
 $d_{ao}(x, y)$ Total *Allocated PTR* per *Source-Sink Pair* from original *Auction Process*
 $d_{amax}(x, y)$ Maximum permissible Total *Allocated PTR* per *Source-Sink Pair* provided by respective TSO to CAO

b) Proportional *Curtailment* of PTRs with the use of curtailment ratio will be applied to yearly and monthly *Allocated PTRs*. Any *Allocated PTR* which remains with the *Auction Participant* after the proportional *Curtailment* will be rounded down to entire MWs.

Article 15.4 – Curtailment of Nominated PTRs

(1) CAO will perform the *Curtailment* of yearly and monthly *Nominated PTRs* with the use of the *Auction Algorithm* set forth in Article A4 of Annex 5 in case the flow-based method will be used in the daily *Auction Processes* which are organized in the *Reservation Period* of the *Allocated PTRs* which will be subject of *Curtailment*. In this case the *Curtailment* is organized as follows:

a) For each *Source-Sink Pair* CAO determines the highest price *Bids* from yearly and monthly *Auction Process* up to the total amount of **nominated** yearly and monthly *PTRs* for the respective *Source-Sink Pairs* (see examples in Annex 14). These selected *Bids* are then evaluated within an auxiliary auction process using *Auction Algorithm* under the new grid conditions (updated *PTDF* matrix and/or *AMF* and/or *Export Limit* and/or *Import Limit*). Such approach ensures that only the nominated *PTRs* are considered and therefore the total amount of *Allocated PTRs* for given *Source-Sink Pair* will be equal or lower than the nominated amount.

b) Curtailment ratio per *Source-Sink Pair* is the following proportion:

$$\text{Ratio of curtailment } (x, y) = \frac{d_{no}(x, y) - d_{nu}(x, y)}{d_{no}(x, y)}$$

Where:	x	zone as source of a <i>PTR</i> (<i>Source CA</i>)
	y	zone as sink of a <i>PTR</i> (<i>Sink CA</i>)
	$d_{no}(x, y)$	Total nominated <i>PTR</i> per <i>Source-Sink Pair</i> provided to <i>CAO</i> by <i>TSOs</i>
	$d_{nu}(x, y)$	Total <i>PTR</i> per <i>Source-Sink Pair</i> to be confirmed by <i>TSOs</i> in scheduling process evaluated within auxiliary process (see Letter a)

c) Proportional *Curtailment* of *PTRs* with the use of curtailment ratio will be applied to yearly and monthly *Nominated PTRs*. Nominations to be confirmed by *CEE TSOs* after the proportional *Curtailment* will be rounded down to entire *MWs*.

Article 15.5 – Compensation for *PTR* Curtailment with Liquidated Damages

(1) In the case of *Curtailment* according to Article 15.3, excluding the case of *Force Majeure* where the *Auction Participant* has no right to get any compensation, each *Auction Participant* whose *PTR* has been curtailed will be compensated by *CAO* with a lump sum consisting of a compensation for each curtailed *MW* of the *Allocated PTR* and for each hour of the *Curtailment*, equalling the original price paid for the reservation of *PTR* by *Auction Participant* (*Auction Price*).

(2) In the case of *Curtailment* according to Article 15.4, excluding the case of *Force Majeure* where the *Auction Participant* has no right to get any compensation, each *Auction Participant* whose *PTR* has been curtailed will be compensated by *CAO* with a lump sum consisting of a compensation for each curtailed *MW* of the nominated *PTR* and for each hour of the *Curtailment*, equalling the original price paid for the reservation of *PTR* by *Auction Participant* (*Auction Price*).

(3) *CAO* will also without undue delay inform each relevant *Auction Participant* about scope of *Curtailment* and about the amount of compensation to be paid.

Article 15.6 – Payment of Compensation by *CAO*

(1) *CAO* will issue a credit note for the compensation with return of the consideration for the cancelled reservation service which equals the original price paid by the *Auction Participant* for the original reservation services.

(2) *CAO* will issue a credit note by third (3rd) *Working Day* of respective calendar month for all cases having occurred in the preceding month.

(3) Bank account no., *IBAN*, name and address of the bank and *BIC/SWIFT* code provided by *Auction Participant* to *CAO* during the registration process will be used.

(4) The amount shall be settled by the 20th *Working Day* after sending of the credit note to the *Auction Participant*.

The following VAT mode will be used:

- “Reverse charge mechanism” – in case *Auction Participants* declared their VAT registration in an EU Member State except for the companies registered in Germany. In this mode, *CAO* will issue the credit note showing a negative net amount without VAT. The reverse-charge-mechanism which applied by billing for the original reservation services, will be cancelled.
- VAT mode as given by German legislation – in case *Auction Participants* declared their VAT registration in Germany. In this mode, *CAO* will issue the credit note showing a negative net amount, negative VAT amount and negative gross amount.
- *Auction Participants* declare their VAT registration in a state which is not an EU Member State, or do not declare any VAT registration. In this mode, *CAO* will issue the credit note considering the respective national VAT regime.

Section 16 – Changes of the Auction Rules

Article 16.1 – General Provisions

(1) The *Auction Rules* and thereby the contractual relationship between *Auction Participant* and *CAO* can be changed.

(2) The *Auction Participant* will be informed well in advance about such changes (see Article 16.2).

(3) By participating in the *Auction Process* after the *Auction Participant* was informed about the changes and/or adaptations of the *Auction Rules* and after these changes and/or adaptations of the *Auction Rules* came into force (see Article 16.2), the *Auction Participant* accepts the changed, i. e. the valid and effective version of the *Auction Rules*. Without prejudice to the previous sentence the changed *Auction Rules* form the contractual basis for all future *Auction Processes* as of the moment when they come into force (see Article 16.2).

(4) These *Auction Rules* and their respective changes or modifications with exception of changes according to Article 16.1. Paragraphs 5 and 6 are adopted unanimously by *CEE TSOs* and *CAO*. These *Auction Rules* and their respective changes are – if required by national or EU law – subject of regulatory authorities' approval before they become valid, as well. The regulatory authorities of the *CEE Region* jointly, each *CEE TSO* and *CAO* have the right to request changes of the *Auction Rules*.

(5) In the event *CEE TSOs* introduce market coupling as capacity allocation method on a border belonging to *Source-Sink Pairs* listed in Article A3 Paragraph 2 of Annex 5 and/or listed in Article A3 Paragraph 2 of Annex 6, the concerned *Source-Sink Pair* is excluded from the daily *Auction Processes* regulated by these *Auction Rules* in principle as of the time of the implementation of the respective market coupling. This change requires only the decision of the concerned *TSOs* and is subject to respective regulatory authorities' approval before it becomes valid.

(6) In the event of any change to the respective national commercial requirements as listed in Article 12.1 Paragraph 2 the *CEE TSO* which wishes to change its requirements has to inform the respective other *CEE TSOs* of the requested change which are then obliged to consent without undue delay to the respective change in Article 12.1 Paragraph 2 of these *Auction Rules*.

Article 16.2 – Information of the Auction Participants about Changes

(1) Prospective changes in the *Auction Rules* concerning yearly *Auction Processes* and the corresponding yearly *PTRs* have to be published on the website of *CAO* (www.central-ao.com) thirty (30) calendar days, at the latest, before the changes come into force. Furthermore, *CAO* will send an e-mail to the *Auction Participant* announcing the prospective changes in the *Auction Rules* concerning yearly *Auction Processes* and the corresponding yearly *PTRs* thirty (30) calendar days, at the latest, before the changes come into force. The prospective changes will be valid only for yearly *Auction Processes* and the corresponding yearly *PTRs* organized respectively allocated after the changes come into force. However, this

does not apply to changes of the respective timeframes/gate closures specified in the *Auction Rules*.

(2) Prospective changes in the *Auction Rules* concerning monthly *Auction Processes* and the corresponding monthly *PTRs*, which come into force for the forthcoming monthly *Auction Process* and the corresponding monthly *PTRs* at the earliest, have to be published on the website of CAO (www.central-ao.com) at the latest, thirty (30) calendar days before the changes come into force. Furthermore, CAO will send an e-mail to *Auction Participant* announcing the prospective changes in the *Auction Rules* concerning monthly *Auction Processes* and the corresponding monthly *PTRs* by deadline 2M (deadlines are specified in Annex 2), at the latest.

(3) Prospective changes in the *Auction Rules* concerning daily *Auction Processes* and the corresponding daily *PTRs* have to be published on the website of CAO (www.central-ao.com), at the latest, thirty (30) calendar days before the changes come into force. Furthermore, CAO will send an e-mail to the *Auction Participant* announcing the prospective changes in the *Auction Rules* concerning daily *Auction Processes* and the corresponding daily *PTRs* thirty (30) calendar days, at the latest, before the changes come into force.

Article 16.3. – Changes of the Auction Rules due to Regulatory Requirements

To avoid problems related to the potential abuse of dominant position of any market player, the European Commission or the relevant regulatory and/or competition authorities, may impose additional restrictions in general or on an individual company on account of market dominance by common decision. The relevant regulatory and/or competition authorities are the authorities of Central Eastern Europe region countries (see *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*). CAO reserves the right to introduce such restrictions in the course of the year. Any such restriction has to be published on the website of CAO (www.central-ao.com) thirty (30) calendar days, at the latest, before the changes come into force. Furthermore, CAO will send an e-mail to *Auction Participant* announcing the prospective changes in the *Auction Rules* thirty (30) calendar days, at the latest, before the changes come into force.

Section 17 – Termination

Article 17.1 – Prerequisites for the Termination of the Framework Contract

(1) The *Auction Participant*, not wishing to participate in any further *Auction Processes*, may submit a written note of deregistration, i. e. termination of the *Framework Contract*, to *CAO*, if the following prerequisites are fulfilled:

- a) *Auction Participant* no longer holds any *PTRs* for a date after the termination of the *Framework Contract* becomes effective and
- b) *Auction Participant* has fulfilled all its obligations towards *CAO* that have been due and/or payable at the time of submission of the note of deregistration.

A note of deregistration delivered to *CAO* without the above-mentioned prerequisites being fulfilled is null and void.

(2) The note of deregistration has to be delivered to *CAO* in writing by *post*, messenger/courier or personally and is effective on the fifth (5th) *Working Day* after the delivery to *CAO*. A note of deregistration sent by other means, e. g. e-mail or fax, is null and void.

(3) Obligations towards *CAO* which came into existence before the termination of the *Framework Contract* becomes effective but which become due and/or payable only after submission of the note of deregistration survive the termination of the *Framework Contract* until they are fulfilled.

Article 17.2 – Termination for Good Cause

(1) Article 17.1 does not preclude the right of the contractual parties to terminate the *Framework Contract* or any individual contract relating to a specific *PTR* for reason of good cause (*aus wichtigem Grund*). A good cause exists if taking into consideration all circumstances and weighing the mutual interests a contractual party cannot be expected to continue the contractual relations due to a substantial breach of the contractual obligations by the other party. A reason for the termination of the contractual relations for good cause can be for example the continuous breach of important contractual obligations or fraudulent behaviour by one party.

(2) If the good cause consists in the breach of a contractual obligation by one party, the contractual relations may be terminated by the other party only after a specified period for remedial action – ten (10) *Working Days* – has expired or a warning notice was unsuccessful.

(3) The note of termination for reason of good cause must be submitted to the other party within two weeks after the facts establishing the good cause became known. A note of termination submitted later than this is null and void.

(4) The note of termination has to be delivered to the other party in writing by *post*, messenger/courier or personally and is effective on the fifth (5th) *Working Day* after the delivery. A note of termination sent by other means, e. g. e-mail or fax, is null and void.

(5) The termination of the *Framework Contract* for reasons of good cause has immediate effect. The individual contracts the parties entered into under the *Framework Contract* and relating to individual *PTRs* allocated in the *Auction Process* will be affected as follows:

a) If the *Framework Contract* is terminated for reasons of good cause the individual contracts relating to individual *Promise of PTRs* allocated in the *Auction Process* are also terminated, i. e. the mutual contractual obligations with regard to *Promise of PTRs* cease to exist. The relevant *PTR(s)* will be returned to the *Auction Process*.

b) If the *Framework Contract* is terminated for reasons of good cause the individual contracts relating to individual *Allocated PTRs* allocated in monthly or daily *Auction Process* will be executed.

c) If the *Framework Contract* is terminated for reasons of good cause the individual contracts relating to individual *Allocated PTRs* allocated in yearly *Auction Process* will be executed only until the end of the month for which the corresponding instalment has been paid. The *PTR(s)* for the remaining months of the year will be returned to the *Auction Process*.

Article 17.3 – Automatic Termination of the *Framework Contract*

(1) *CAO* has the right to ask in writing for an update or resubmission of any part of the registration documentation (see Article 3 Paragraph 3 of the *Registration Form*).

(2) In case the *Auction Participant* does not fulfil *CAO's* request for an update or resubmission of the entire or a part of the registration documentation by delivering the requested materials to *CAO* within thirty (30) calendar days after submission of the request, the *Framework Contract* between the *Auction Participant* and *CAO* is terminated automatically. In this case Article 17.2 Paragraph 5 applies correspondingly.

Section 18 – Miscellaneous

Article 18.1 – Liability

(1) The following provisions on liability apply to all claims on damages against *CAO* irrespective of the legal basis unless explicitly stated otherwise in these *Auction Rules*:

a) Regarding damages arising from death, bodily injury or damage to health which result from an intentional or negligent breach of duty by *CAO*, its statutory representatives or its auxiliary persons (*Erfüllungsgehilfen*) as well as regarding any other damages resulting from an intentional conduct of the aforementioned, *CAO* is liable pursuant to the statutory provisions.

b) As regards any other damages not covered by Paragraph 1 above the following contractual exemptions and limitations of liability apply:

(i) *CAO's* liability is restricted to foreseeable damages which are typical for the kind of contract.

(ii) Furthermore, unless the liability is based on a breach of essential contractual duties i. e. duties the performance of which actually allow for a proper performance of the contract and which the *Auction Participant* may generally expect to be complied with (*wesentliche Vertragspflichten*),

- in the event of gross negligence *CAO's* liability is excluded with regard to indirect damages as for example loss of profit or loss of production as well as for pure economic loss.

- in the event of simple negligence (*einfache Fahrlässigkeit*) *CAO's* liability is excluded.

(2) The provisions on liability for damages arising in connection with the *Notice Board* (see Article 5.4 Paragraph 5), the provisions regarding the compensation for return of *PTR* (see Article 14.3) and regarding the compensation in the event of *Curtailment* (see Article 15.5) remain unaffected. Furthermore, any statutory limitation or exclusion of liability remains unaffected.

Article 18.2 – Change of the List of Authorised Representatives

(1) Each *Auction Participant* may change its list of authorised representatives (Attachment 1 to the *Registration Form*).

(2) In order to change the list of authorised representatives the *Auction Participant* has to deliver a validly-signed notification of change to the fax number of *CAO* (see Annex 1).

(3) *CAO* will confirm the registration of the change or send a refusal note of registration of the change to the *Auction Participant*, at the latest, two (2) *Working Days* after the receipt of the relevant *Auction Participant's* notification of change. The confirmation or refusal note will be

sent by fax to the fax number of the *Auction Participant* set forth in the *Auction Process*. If *CAO* refuses to register the change, the reason will be provided in the refusal note.

(4) The change becomes valid on the day of the delivery of the confirmation to the *Auction Participant*.

(5) The contact persons of *CAO* appointed for communication are listed in Annex 1 of the *Auction Rules*. *CAO* has the right to change its list of contact persons.

(6) *CAO* shall announce any change in the list of its contact persons on the *ePortal* and inform *Auction Participant* by e-mail or by fax thereof. The new contact details of *CAO* will be considered official on the *Working Day* following the transmission of the e-mail or the fax.

Article 18.3 – Communication

(1) These *Auction Rules* are set up and all related notices, legal procedures, and communications hereunder, and the dispute settlement procedures provided in Article 18.5 Paragraph 2 of the *Auction Rules*, shall be carried out in English, to the extent permitted by rules of public policy relating directly or indirectly to these procedures.

(2) Unless stated otherwise in these *Auction Rules*, e-mail service shall be deemed effective at the time when the electronic message is demonstrably confirmed to the sender as delivered to the recipient or the recipient acknowledges the receipt thereof.

(3) In the event of difficulties in using e-mail, notices may be sent by fax, hand delivery, courier or post; and the delivery will be deemed as confirmed on the date of a provable receipt of delivery. Without prejudice to the previous sentence, in case of any uncertainty, the *Auction Participant* respectively *CAO* is entitled to ask the sending party to repeat the effort.

(4) The entire communication with the *ePortal* will be archived by *CAO*. Telephone communication between *CAO* employees and *ePortal Users* will be monitored and recorded by *CAO*. Each *Auction Participant*, as well as *CAO*, undertakes herein not to dispute or claim as invalid any action executed via the *ePortal* in accordance with these *Auction Rules*, on the basis that the respective acts have been done in the form of an electronic data exchange. Furthermore, each *Auction Participant*, as well as *CAO*, state that they shall consider *CAO* data logs from the databases of *CAO* and/or any recordings of telephone conversations between *CAO* and an *ePortal User*, made in line with these *Auction Rules*, to be reliable evidence, unless it is proved otherwise.

(5) A *Time Stamp* is attached to every message leaving the *ePortal* or received by the *ePortal*. The *Time Stamp* uses the system time as that from the *ePortal*.

(6) If the *ePortal* or the website (www.central-ao.com) is suspended, all relevant *Users* of the *ePortal* will be informed, without undue delay, of the suspension of the *ePortal*.

(7) Annex 10 determines communication with *Users* of the *ePortal* in extraordinary situations.

Article 18.4 – Data Security and Protection

(1) Regarding data security and protection in the context of the use of the *ePortal* see Article 5.5.

(2) CAO is entitled to process all data of the *Auction Participant* and the *Auction Process* and to send it to *CEE TSOs* and to publish it according to the terms of these *Auction Rules*.

(3) CAO and *CEE TSOs* are entitled to disclose data (i) if such a disclosure is required by *CEE TSOs'* national laws or EU legislation (ii) upon the order of any court or administrative authority, (iii) upon the request or demand of, or pursuant to any regulation of, any regulatory authority, (iv) to the extent reasonably required in connection with the exercise or any remedy hereunder, (v) to a party's legal counsel or independent auditors, provided they are legally or contractually (non-disclosure agreement concluded for such purpose with the same party) bound to a corresponding confidentiality duty, and (vi) to any permitted assignee hereunder, provided that such person agrees in writing to be bound by confidentiality provisions of these *Auction Rules*.

Article 18.5 – Applicable Law, Dispute Resolution and Venue

(1) These *Auction Rules* shall be governed by and construed in accordance with the laws of Germany without recourse to German private international law as well as by EU law, particularly *Directive 2003/54/EC* respectively *Directive 2009/72/EC* and *Regulation 1228/2003/EC* respectively *Regulation 714/2009/EC*. For the avoidance of doubt, the application of the UN Convention on the International Sale of Goods shall be excluded.

(2) In the event of any dispute or differences arising from the *Auction Rules* and its Annexes or related to its violation, termination or becoming null or void, the parties concerned shall endeavour to reach an amicable settlement. In particular, *Auction Participant* is entitled to initiate the examination procedure described in further detail in Annex 12. In any case the claimant is obliged to describe and present its claim in detail including the identification of the respective Article/Paragraph of the *Auction Rules*. However, in the event that such a settlement is not reached within thirty (30) days of first notification of the reason for the disputes, then all disputes arising in connection with the *Auction Rules* shall be resolved by a three-person Arbitral Tribunal appointed in accordance with the rules of arbitration of the United Nations Commission of International Trade Law (Uncitral Rules). All costs and expenses incurred in connection with any arbitral proceedings hereunder shall be borne by the losing party, except as provided otherwise in the arbitral award.

(3) Munich shall be the venue for dispute resolutions between or among CAO and the *Auction Participant*.

(4) The rights of the *Auction Participant* under Article 23 Paragraph 5 *Directive 2003/54/EC* respectively *Directive 2009/72/EC* remain untouched by this Article 18.5. Accordingly, the *Auction Participant* may refer in accordance with *Directive 2003/54/EC* respectively *Directive 2009/72/EC* and the relevant national law a complaint to the relevant national regulatory authority.

Article 18.6 – Auction Rules' Validity and Effectiveness

(1) The *Auction Rules* are valid and effective for the auction of *PTRs* for each *Source-Sink Pair* mentioned in Section 3 and Annex 5 respectively Annex 6.

(2) The *Auction Rules* and its prospective changes (see Section 16) are – if required by any *CEE TSO's* national laws – subject of relevant *CEE TSO* regulatory authorities approval before they become valid.

(3) If any provision of these *Auction Rules* is declared – in an arbitral, judicial or regulatory decision – to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected. The same applies in case of an existing gap in these *Auction Rules*.

Article 18.7 – Annexes

(1) The following annexes shall constitute an integral part of these *Auction Rules*:

Annex 1	Address and List of Contacts of the <i>CAO</i>
Annex 2	<i>Auction Process</i> Schedule
Annex 3	Bank Guarantee – Requirements
Annex 4	Deposit – Requirements
Annex 5	Algorithm of Flow-based <i>Auction Process</i> and Determination of the <i>Auction Price</i>
Annex 6	Algorithm of <i>NTC Auction Process</i> and Determination of the <i>Auction Price</i>
Annex 7	Alternative Yearly and Monthly <i>Auction Process</i>
Annex 8	Form for Set up/Modification of the <i>ePortal</i> User Account
Annex 9	Requirements on Electronic Certificates
Annex 10	Communication with <i>Users</i> of the <i>ePortal</i> in Extraordinary Situations
Annex 11	List of German Public Holidays
Annex 12	Examination Procedure
Annex 13	List of Information Published by <i>CAO</i>
Annex 14	Examples of <i>Bids</i> evaluation, <i>PTRs' Curtailment</i> and <i>Credit Limit</i> evaluation
Annex 15	Reduction of the <i>Offered Capacity</i> for Reason of Planned Outages
Annex 16	Return of Allocated <i>PTR</i>

(2) Changes in Annex 1 are announced according to Article 18.2 Paragraph 6.

(3) Annex 2 and Annex 11 shall be regularly updated for each calendar year. Section 16 shall not apply to the update of Annex 11.

Annex 1

Address and List of Contacts of the CAO

Mail, courier and personal messages must be delivered by *Auction Participants* to the *CAO* at the following address:

**CAO Central Allocation Office GmbH
Gute Änger 15
85356 Freising
Germany**

Auction Participants have to submit application form for set up/modification of the *ePortal User* account (see Annex 8) to the above-mentioned address of *CAO* or to the following fax number:

+49(0) 8161 49005-550

CAO accepts the submitted documents only on *Working Days* between 07:30 and 17:00.

Allocation Participants may use for other communication with *CAO* following contacts:

Allocation ePortal Helpdesk – User support

	Landline Phone No.	Mobile Phone No.	e-mail
Working Days 07:00 – 17:00	+49(0) 8161 49005-555	+49(0) 151 42660522	helpdesk@central-ao.com
Weekends & German Public Holidays 07:00 – 15:00	NA	+49(0) 151 42660522	helpdesk@central-ao.com
Contact Person	Margit Lanz , Dereje Woregna , Christian Plauert , Mark Csete , Fei Liu		

Auction Process Supervision

Contact Person	Landline Phone No.	Mobile Phone No. *	e-mail
David Myska	+49(0) 8161 49005-151	+49(0) 171 5568174	David.Myska@central-ao.com
Jan Radesinsky	+49 (0)8161 490 05-121	+49 (0)171 5502624	Jan.Radesinsky@central-ao.com

* Only for emergency cases.

Annex 2

Auctions Process Schedule

(Payment Schedule)

Yearly Auction Process 2012

Publishing AMFs and PTFs respectively Offered Capacity	Closing date for submitting Bids 12:00 (CET/CEST)	Publishing results until 15:00 (CET/CEST)
Deadline 1Y	Deadline 2Y	Deadline 3Y
16.11.2011	30.11.2011	30.11.2011

	Issuing invoices	Due date of invoices	Expiration of payment period
	Deadline 4Y	Deadline 5Y	Deadline 6Y
January	30.11.2011	13.12.2011	22.12.2011
February	20.12.2011	10.01.2012	18.01.2012
March	20.01.2012	09.02.2012	16.02.2012
April	20.02.2012	08.03.2012	15.03.2012
May	20.03.2012	10.04.2012	17.04.2012
June	19.04.2012	10.05.2012	17.05.2012
July	21.05.2012	12.06.2012	19.06.2012
August	20.06.2012	12.07.2012	19.07.2012
September	20.07.2012	09.08.2012	16.08.2012
October	20.08.2012	11.09.2012	18.09.2012
November	20.09.2012	11.10.2012	18.10.2012
December	23.10.2012	13.11.2012	20.11.2012

Monthly Auction Process 2012

	Publishing AMFs and PTDFs respectively Offered Capacity	Closing date for submitting Bids 12:00 (CET/CEST)	Publishing results until 15:00 (CET/CEST)	Issuing invoices	Due date of invoices	Expiration of payment period
	Deadline 1M	Deadline 2M	Deadline 3M	Deadline 4M	Deadline 5M	Deadline 6M
January	06.12.2011	13.12.2011	13.12.2011	13.12.2011	22.12.2011	30.12.2011
February	03.01.2012	10.01.2012	10.01.2012	10.01.2012	19.01.2012	27.01.2012
March	02.02.2012	09.02.2012	09.02.2012	09.02.2012	20.02.2012	28.02.2012
April	06.03.2012	13.03.2012	13.03.2012	13.03.2012	22.03.2012	30.03.2012
May	03.04.2012	11.04.2012	11.04.2012	11.04.2012	19.04.2012	27.04.2012
June	02.05.2012	09.05.2012	09.05.2012	09.05.2012	22.05.2012	30.05.2012
July	05.06.2012	12.06.2012	12.06.2012	12.06.2012	21.06.2012	29.06.2012
August	03.07.2012	10.07.2012	10.07.2012	10.07.2012	19.07.2012	27.07.2012
September	02.08.2012	09.08.2012	09.08.2012	09.08.2012	21.08.2012	29.08.2012
October	04.09.2012	11.09.2012	11.09.2012	11.09.2012	20.09.2012	27.09.2012
November	02.10.2012	09.10.2012	09.10.2012	09.10.2012	18.10.2012	25.10.2012
December	06.11.2012	13.11.2012	13.11.2012	13.11.2012	22.11.2012	29.11.2012

Daily Auction Process 2011/2012

	Issuing invoices	Due date of invoices	Expiration of payment period
	Deadline 1D	Deadline 2D	Deadline 3D
November 2011	01.12.2011	14.12.2011	21.12.2011
December 2011	03.01.2012	17.01.2012	24.01.2012
January 2012	01.02.2012	15.02.2012	23.02.2012
February 2012	01.03.2012	14.03.2012	22.03.2012
March 2012	02.04.2012	16.04.2012	24.04.2012
April 2012	02.05.2012	15.05.2012	23.05.2012
May 2012	01.06.2012	15.06.2012	22.06.2012
June 2012	02.07.2012	17.07.2012	24.07.2012
July 2012	01.08.2012	14.08.2012	22.08.2012
August 2012	03.09.2012	18.09.2012	25.09.2012
September 2012	01.10.2012	16.10.2012	23.10.2012
October 2012	02.11.2012	15.11.2012	22.11.2012
November 2012	03.12.2012	17.12.2012	24.12.2012
December 2012	02.01.2013	16.01.2013	23.01.2013

Annex 3

Bank Guarantee – Requirements

In accordance with Article 4.2 Paragraph 1, CAO shall accept *Bank Guarantees* under the conditions stated below.

Quality of the guarantee bank

The bank issuing the guarantee in favour of CAO Central Allocation Office GmbH (i.e. the guarantee bank) or the financial group, the guarantee bank belongs to, must conform to at least one of the following requirements regarding its long-term credit rating:

- a) Moody's - minimum "Baa3",
- b) Fitch/IBCA – minimum "BBB-",
- c) Standard & Poor's – minimum "BBB-".

Requirements regarding the form of the guarantee

- The guarantee must be written in English (letter of guarantee)

Data required in the letter of guarantee

The following data must be stated in the letter of guarantee:

- A particular sum, i.e. the maximum amount of fulfilment,
- Currency, namely EUR,
- The beneficiary's account (CAO Central Allocation Office GmbH), to which it shall be paid, i.e.: the current account No. 10173803, BLZ 70020270, IBAN: DE91700202700010173803
- Bank's address: UniCredit Bank AG, Kardinal-Faulhaber-Str. 14, 80333 München, Germany,
- Exact identification of the guarantee bank,
- Beneficiary: CAO Central Allocation Office GmbH, Gute Änger 15, 85356 Freising, Germany, registered in the commercial register at the local court of Munich under: HRB 174719, TAX ID: 115/123/10402, VAT ID: DE 26 146 52 73,
- Exact identification of the committer (name, address, commercial/company register no., etc),
- It may contain a reference to the Uniform Rules for Demand Guarantees (no. 758) issued by the International Chamber of Commerce in Paris – however, if so, reference may not be made to Article 15 of the Uniform Rules for Demand Guarantees "Requirements for demand", i. e. Article 15 shall not apply which has to be explicitly pointed out in the letter of guarantee,
- The guarantee validity time – this is determined by the committer appropriately with respect to following requirements.

The guarantee validity time must be at least:

- for the yearly *Auction Process* – from the deadline 2Y to the deadline 6Y for December + 10 calendar days (for deadlines see Annex 2 of the *Auction Rules*),
 - for monthly *Auction Processes* – from the deadline 2M to the deadline 6M for relevant monthly *Auction Process* + 10 calendar days (for deadlines see Annex 2 of the *Auction Rules*),
 - for daily *Auction Processes* – from the date of *Auction Process* to the deadline 3D for relevant month (month to which *PTR* belongs) + 10 calendar days (for deadlines see Annex 2 of the *Auction Rules*).
- Effectiveness of the guarantee, which is given by the date of issue,
 - Conditions for a bank guarantee exercise, in particular:
 - Disbursement upon first demand (instantly) without any objections,
 - Being Irrevocable,
 - Being Unconditional,
 - Being Nontransferable,
 - A form of exercise of the beneficiary to the guarantee (bank), namely a written request (beneficiary's affirmation), sent as a registered letter together with a copy of the issued, unpaid invoice where the decisive date is the date of receipt by the bank,
 - Information that a partial and multiple fulfilment is allowed, up to the maximum amount of the sum.

Unauthorised provisions

In the letter of guarantee, the following must not be stated:

- conditions which are contrary to the requirements of the beneficiary for the letter of guarantee,
- conditions which would in a substantial manner modify the beneficiary's requirements regarding the letter of guarantee,
- anything other than the conditions stated for exercising the bank guarantee.

Example of Letter of Guarantee

Letter of Guarantee

CAO Central Allocation Office GmbH
Gute Änger 15
85356 Freising
Germany

Commercial Register at the Local Court Munich Number: HRB 174719
TAX ID: 115/123/10402
VAT ID: DE 26 146 52 73

Bank Guarantee No.

We have been informed that**name of company, address**..... (the "Committer") will participate in "Coordinated Auction of Transmission Capacity in the CEE-Region" (the "Auction Process").

The obligation to pay for the Committer's liabilities resulting from its participation in the Auction Process is to be secured by a bank guarantee.

Upon the Committer's instructions we,**Name of Bank, address**....., Id. No., registered in the Commercial Register at the Local Court in, hereby issue in your favour an irrevocable and unconditional guarantee up to the maximum amount of

EUR 00.000,00
in Words: EURO

and undertake to pay you upon receipt by us of your first demand in writing without delay or objection to your account No. 10173803, BLZ 70020270, IBAN: DE91700202700010173803 held by UniCredit Bank AG, Kardinal-Faulhaber-Str. 14, 80333 München, Germany, any amount or amounts up to the total amount guaranteed by us provided such request is in compliance with all terms and conditions of this Letter of Guarantee and contains your statement in writing to which Committer.....**name of company, address**..... your request relates (the "Request").

Your Request addressed to us at**Name of Bank, address**....., shall be delivered to us not later than the date of expiry mentioned below of this guarantee.

Your Request relative to our guarantee shall be in writing and the validity and authorization of your signatures shall be verified by your bank and shall be delivered to us by registered mail or courier.

The amount of our guarantee shall decrease by every payment made by us thereunder. The guarantee ceases to be valid upon the payment of the total amount guaranteed by us.

This guarantee will become effective on the date of its issue and is valid until**date, time**..... inclusive. Following the lapse of the date our guarantee ceases to be valid.

This guarantee also ceases to be valid following the lapse of the date of receipt by us (return to us) of this original Letter of Guarantee provided such return takes place prior to the stated date of expiry of this guarantee.

This guarantee is not assignable.

This guarantee shall be governed by the laws of the ... [and shall be subject to the Uniform Rules for Demand Guarantees, published as No. 758 by the International Chamber of Commerce in Paris, except as stated above, i. e. in particular Article 15 of the Uniform Rules for Demand Guarantees does not apply].

The return of the original of this Letter of Guarantee to us is requested after its expiry.

Annex 4

Deposit – Requirements

In accordance with Article 4.2 Paragraph 2, *CAO* shall accept money deposited to the account of *CAO* at UniCredit Bank AG, Kardinal-Faulhaber-Str. 14, 80333 München, Germany,

Account specification:

Account No.	10174168
BLZ	70020270
BIC	HYVEDEMMXXX
IBAN	DE33700202700010174168

In case of deposit, the *Auction Participant* shall use its VAT number as payment identification number.

If the *Auction Participant* fails to pay for the reservation of the *PTR* in accordance with Section 8 to 11, the *CAO* shall use these resources to cover the overdue payment.

Based on a written instruction from the *Auction Participant*, the *CAO* shall transfer the not *Utilised* part of the deposit back to the *Auction Participant*.

Annex 5

Algorithm of Flow-based Auction Process and Determination of the Auction Price

Article A1 – General Description

(1) Flow based capacity *Auction Process* is based on maximum flow approach, i. e. in the *Auction Process* maximum feasible power flows on individual network elements that represent network constraints are considered. Such network element may be internal and/or cross-border lines and/or transformers.

(2) Based on grid models provided by *CEE TSOs*, *CAO* creates a merged common grid model and computes *AMF* values for each network element considered as critical for evaluation of maximum flows. *AMF* represents available maximum flow, i. e. the additional power flow that can additionally burden the given network elements due to the cross-border exchanges in *CEE Region* with regard to security and reliability of the network operation.

(3) *CAO* performs the *Auction Process* by using an optimisation function aiming at the maximisation of the social welfare. The function is accompanied with a set of constraints presented in Article A4. Each *CEE TSO(s)* may require introduction of an additional constraint – in form of an *Export Limit* or an *Import Limit* for the *Market Area* to which the *CEE TSO(s)* belong with regard to the minimum power reserve requirement.

(4) The influence of cross-border exchanges, i. e. *Allocated PTRs* on power flows on individual network elements is given by the *PTDF matrix* (see Article A4).

(5) The *AMF* and *PTDF* matrixes shall be published in the *ePortal*, according to the deadlines set forth in Article 3.1 Paragraph 4 of the *Auction Rules*.

Article A2 – The Process of Determination of the Auction Price

(1) All *Bids* received by *CAO* in the *ePortal* relating to a specific *Auction Process*, independent of the *Source-Sink Pair* to which the individual *Bids* relate, are evaluated with the use of the optimization algorithm set forth in Article A4.

(2) The optimization algorithm set forth in Article A4 will determine the *Auction Price* and the corresponding *Winning Bids*.

Article A3 – Reservation of PTRs and Source-Sink Pairs in Flow-based Auction Process

(1) Reservation of *PTRs* on the individual *Source-Sink Pairs* listed in Paragraph 2 is a result of the *Auction Process* based on the individual *Bid Prices* for the chosen *Source-Sink Pairs*. This process takes into account *AMF*, *PTDF* and *Import/Export Limits* as set forth in Article A4.

(2) The *Source-Sink Pairs* between *CEE TSOs (Control Areas)* set forth in the table below will be included into the *Auction Processes*. However, at the beginning only *Source-Sink Pairs* which consist of bordering *Control Areas* will be included into the *Auction Processes*. *Source-Sink Pairs* which consist of non-bordering *Control Areas* (marked by “*” in the table below) will be included into the *Auction Processes* as soon as appropriate (see Paragraph 3). *CAO* informs the *Auction Participants* on its website and in the *ePortal* as soon as possible if an individual *Source-Sink Pair* which consists of non-bordering *Control Areas* will be included in future *Auction Processes*.

APG → CEPS	CEPS → APG	ELES → APG	-
APG → ELES	CEPS → ELES*	ELES → CEPS*	TPS → CEPS
-	CEPS → TPS	ELES → TENNET*	TPS → ELES*
APG → MAVIR	CEPS → MAVIR*	ELES → MAVIR*	TPS → MAVIR*
APG → PSEO*	CEPS → PSEO	ELES → PSEO*	TPS → PSEO*
APG → SEPS*	-	ELES → SEPS*	TPS → SEPS*
-	CEPS → 50HzT	ELES → 50HzT*	-
MAVIR → APG	PSEO → APG*	SEPS → APG*	-
MAVIR → CEPS*	PSEO → CEPS	-	50HzT → CEPS
MAVIR → ELES*	PSEO → ELES*	SEPS → ELES*	50HzT → ELES*
MAVIR → TENNET*	PSEO → TENNET*	SEPS → TENNET*	-
MAVIR → PSEO*	PSEO → MAVIR*	SEPS → MAVIR	50HzT → MAVIR*
MAVIR → SEPS	PSEO → SEPS	SEPS → PSEO	50HzT → PSEO
MAVIR → 50HzT*	PSEO → 50HzT	SEPS → 50HzT*	50HzT → SEPS*

(3) *Source-Sink Pairs* which consist of non-bordering *Control Areas* will be included in the *Auction Processes* only, if the data consistency between the individual regions defined in 3.2 of the Guidelines (Annex 1 to *Regulation 1228/2003* respectively Annex 1 to *Regulation 714/2009/EC*) and the coordination of operational data exchanges by *TSOs’* service providers Swissgrid AG and Amprion GmbH is ensured.

Article A4 – Algorithm

(1) Basic Optimization

Basic algorithm is constructed as following Linear Problem (LP):

Objective Function:

$$F = \sum_{x,y,b} [p_b(x,y,b) \cdot d_a(x,y,b)],$$

Objective:

$$\max (F)$$

Where:

- x source *Control Area* of *Bid b* (*Source CA*),
- y sink *Control Area* of *Bid b* (*Sink CA*),
- b *Bid b* within the *Auction Process*,
- $d_a(x,y,b)$ accepted quantity for *Bid b*,
- $p_b(x,y,b)$ *Bid Price* for *Bid b*.

Constraints:

$$d_a(x, y, b) \leq d_b(x, y, b)$$

$$d_a(x, y, b) \geq 0$$

$$\sum_{x,y} \left(\max(0, PTDF(x, y, k)) \sum_B d_a(x, y, b) \right) \leq AMF^+(k)$$

$$\sum_{x,y} \left(\max(0, -PTDF(x, y, k)) \sum_B d_a(x, y, b) \right) \leq AMF^-(k)$$

$$\sum_Y d_a(x, y, b) \leq EL(x)$$

$$\sum_X d_a(x, y, b) \leq IL(y)$$

Where:	$d_b(x, y, b)$	requested quantity per <i>Bid</i>
	$PTDF(x, y, k)$	element of the PTDF matrix giving the influence of exchange between x and y on CBCO combination k
	$AMF^+(k)$	<i>Available Maximum Flow</i> on CBCO combination k in forward direction
	$AMF^-(k)$	<i>Available Maximum Flow</i> on CBCO combination k in reverse direction
	$EL(x)$	<i>Export Limit</i> defined for <i>Market Area</i> to which <i>Control Area</i> x belongs
	$IL(y)$	<i>Import Limit</i> defined for <i>Market Area</i> to which <i>Control Area</i> y belongs

Auction Price:

When applying the default objective function, the *Auction Prices* are derived from the dual values of the inequality constraints, called shadow prices (*SP*). Shadow prices represent an increase in the value of the objective function (i.e. welfare gain) connected with marginal increase of the constraint value. Their values are found as a solution of dual linear problem derived from the first optimization (first order conditions).

The *Auction Price* is

$$\begin{aligned} AP(x, y) &= \sum_k \left[\max(0, PTDF(x, y, k)) \cdot SP(AMF^+(k)) \right] \\ &+ \sum_k \left[\max(0, -PTDF(x, y, k)) \cdot SP(AMF^-(k)) \right] \\ &+ SP(EL(x)) + SP(IL(y)) \end{aligned}$$

where:	$AP(x, y)$	<i>Auction Price</i> for <i>Source-Sink Pair</i> " $x \rightarrow y$ ",
	$SP(AMF^+(k))$	shadow price for AMF^+ at CBCO combination k ,
	$SP(AMF^-(k))$	shadow price for AMF^- at CBCO combination k ,

$SP(EL(x))$	shadow price for <i>Export Limit</i> $EL(x)$,
$SP(IL(y))$	shadow price for <i>Import Limit</i> $IL(y)$.

(2) Enhancement of Basic Optimization

If there are two or more *Bids* with the same *Source-Sink Pair* and an identical *Bid Price*, the *Bids* are accepted in order of their individual *Time Stamp* according to the “First-Come-First-Serve Principle”. Any *Bid* modification submitted, however, results in losing the time priority of the *Bid* (being modified). A new *Time Stamp* is given to the modified *Bid* upon delivery of a valid modification.

All *Bids* are considered divisible (i.e. the *Bid Amount* can also be partially satisfied).

In case of *Bids* with *Bid Price* equal 0 EUR/MWh the *Bid Price* is replaced for optimisation algorithm purposes with a very small number not influencing the *Auction Price* calculation.

Annex 6

Algorithm of NTC Auction Process and Determination of the Auction Price

Article A1 – General

(1) NTC *Auction Process* is based on so called NTC method, i.e. in the *Auction Process* a *Ptr* is allocated on individual *Interconnection* in the *CEE Region* subject of constraints represented by the *Offered Capacity*, which further represent the technical constraints for cross-border exchange.

(2) CAO performs the NTC *Auction Process* by using similar optimization algorithm as used in *Auction Process* based on the flow-based method and aiming at the maximisation of the social welfare (see Annex 5). The optimization algorithm differs only in the definition of constraints and different list of *Source-Sink Pairs* which are included into the *Auction Process*.

(3) The *Offered Capacity* shall be published in the *ePortal*, according to the deadlines set forth in Article 3.1 Paragraph 4 of the *Auction Rules*.

Article A2 – The Process of Determination of the Auction Price

(1) All *Bids* received by CAO in the *ePortal*, related to specific *Auction Process*, independent of the *Source-Sink Pair* to which the individual *Bids* relate, are evaluated with the use of the optimization algorithm set forth in Article A4.

(2) The optimization algorithm set forth in Article A4 will determine the *Auction Price* and the corresponding *Winning Bids*.

Article A3 – Reservation of PTRs and Source-Sink Pairs in NTC Auction Process

(1) Reservation of *Ptrs* on the individual *Source-Sink Pairs* listed in Paragraph 2 is a result of the *Auction Process* based on the individual *Bid Prices* for the chosen *Source-Sink Pairs*. This process takes into account *Offered Capacities* as set forth in Article A4.

(2) In the *Auction Processes* based on the NTC method only the following *Source-Sink Pairs* between *CEE TSOs (Control Areas)* are possible

APG → CEPS	CEPS → APG	ELES → APG	APG → ELES
CEPS → TENNET	TENNET → CEPS	APG → MAVIR	MAVIR → APG
CEPS → PSEO	PSEO → CEPS	CEPS → 50HzT	50HzT → CEPS
SEPS → MAVIR	MAVIR → SEPS	PSEO → SEPS	SEPS → PSEO
50HzT → PSEO	PSEO → 50HzT		

Article A4 – Algorithm

(1) Basic Optimization

Basic algorithm is constructed as following Linear Problem (LP):

Objective Function:

$$F = \sum_{x,y,b} [p_b(x,y,b) \cdot d_a(x,y,b)],$$

Objective:

$$\max (F)$$

Where:

x	source <i>Control Area</i> of <i>Bid b</i> (<i>Source CA</i>),
y	sink <i>Control Area</i> of <i>Bid b</i> (<i>Sink CA</i>),
b	<i>Bid b</i> within the <i>Auction Process</i> ,
$d_a(x,y,b)$	accepted quantity for <i>Bid b</i> ,
$p_b(x,y,b)$	<i>Bid Price</i> for <i>Bid b</i> .

Constraints:

$$d_a(x,y,b) \leq d_b(x,y,b)$$

$$d_a(x,y,b) \geq 0$$

For *Technical Profile* consisting of single *Source-Sink Pair*

$$\sum d_a(x,y,b) \leq ATC_{x \rightarrow y}$$

For *Technical Profile* consisting of two *Source-Sink Pairs*

$$\sum d_a(x_1,y,b) + \sum d_a(x_2,y,b) \leq ATC_{x_1,x_2 \rightarrow y}$$

$$\sum d_a(x,y_1,b) + \sum d_a(x,y_2,b) \leq ATC_{x \rightarrow y_1,y_2}$$

For *Technical Profile* consisting of three *Source-Sink Pairs*

$$\sum d_a(x_1,y,b) + \sum d_a(x_2,y,b) + \sum d_a(x_3,y,b) \leq ATC_{x_1,x_2,x_3 \rightarrow y}$$

$$\sum d_a(x,y_1,b) + \sum d_a(x,y_2,b) + \sum d_a(x,y_3,b) \leq ATC_{x \rightarrow y_1,y_2,y_3}$$

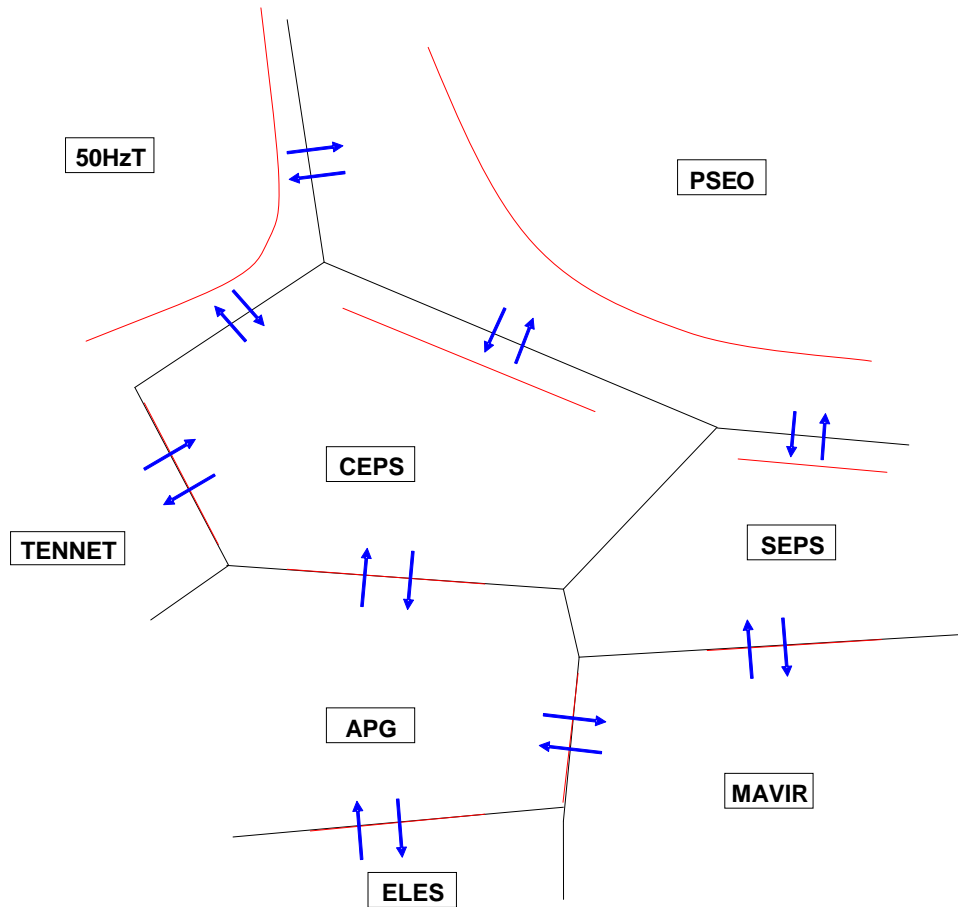
Where: $d_b(x, y, b)$ requested quantity per *Bid*
 $ATC_{x \rightarrow y}$ Offered Capacity on a *Technical Profile* for direction from *Control Area x* to *Control Area y*.
 $ATC_{x \rightarrow y_1, y_2}$ Joint Offered Capacity from one *Control Area x* to two *Control Areas y₁* and *y₂*. Similarly $ATC_{x_1, x_2 \rightarrow y}$, $ATC_{x_1, x_2, x_3 \rightarrow y}$, $ATC_{x \rightarrow y_1, y_2, y_3}$ are joint Offered Capacities between two or more *Source-Sink Pairs*.

Specification of Technical profiles

In the *NTC Auction Process* the following *Technical Profiles* are considered

Technical profile name	Source(s)	Sink(s)
APG→MAVIR	APG	MAVIR
MAVIR→APG	MAVIR	APG
APG→ELES	APG	ELES
ELES→APG	ELES	APG
APG→CEPS	APG	CEPS
CEPS→APG	CEPS	APG
SEPS→MAVIR	SEPS	MAVIR
MAVIR→SEPS	MAVIR	SEPS
TENNET →CEPS	TENNET	CEPS
CEPS→ TENNET	CEPS	TENNET
CEPS→PSEO	CEPS	PSEO
PSEO→CEPS	PSEO	CEPS
SEPS→PSEO	SEPS	PSEO
PSEO→SEPS	PSEO	SEPS
50HzT→CEPS+PSEO	50HzT	CEPS+PSEO
CEPS+PSEO→50HzT	CEPS+PSEO	50HzT
PSEO→50HzT+CEPS+SEPS	PSEO	50HzT+CEPS+SEPS
50HzT+CEPS+SEPS→PSEO	50HzT+CEPS+SEPS	PSEO

Technical Profiles overview



Determination of Auction Prices

When applying the default objective function, the *Auction Prices* are derived from the dual values of the inequality constraints, called *shadow prices* (*SP*). Shadow prices represent an increase in the value of the objective function (i.e. welfare gain) connected with marginal increase of the constraint value. Their values are found as a solution of dual linear problem derived from the first optimization (first order conditions).

The *Auction Price* is

$$\begin{aligned}
 AP(x, y) = & SP(ATC_{x \rightarrow y}) + \\
 & + SP(ATC_{x \rightarrow y, p}) + SP(ATC_{x \rightarrow y, p, q}) + \\
 & + SP(ATC_{x, m \rightarrow y}) + SP(ATC_{x, m, n \rightarrow y})
 \end{aligned}$$

Where:

$AP(x, y)$	<i>Auction Price</i> for Source-Sink Pair " $x \rightarrow y$ ",
$SP(ATC_{x \rightarrow y})$	shadow price for limit $ATC_{x \rightarrow y}$
$SP(ATC_{x \rightarrow y, p})$	shadow price for limit $ATC_{x \rightarrow y, p}$
$SP(ATC_{x \rightarrow y, p, q})$	shadow price for limit $ATC_{x \rightarrow y, p, q}$

$SP(ATC_{x,m \rightarrow y})$	shadow price for limit $ATC_{x,m \rightarrow y}$
$SP(ATC_{x,m,n \rightarrow y})$	shadow price for limit $ATC_{x,m,n \rightarrow y}$
m, n, p, q	<i>Control Areas</i> other than x and y

(2) Enhancement of Basic Optimization

If there are two or more *Bids* with the same *Source-Sink Pair* and an identical *Bid Price*, the *Bids* are accepted in order of their individual *Time Stamp* according to the “First-Come-First-Serve Principle”. Any *Bid* modification submitted, however, results in losing the time priority of the *Bid* (being modified). A new *Time Stamp* is given to the modified *Bid* upon delivery of a valid modification.

All *Bids* are considered divisible (i.e. the *Bid Amount* can also be partially satisfied).

In case of *Bids* with *Bid Price* equal 0 EUR/MWh the *Bid Price* is replaced for optimisation algorithm purposes with a very small number not influencing the *Auction Price* calculation.

Annex 7

Alternative Yearly and Monthly Auction Process

The specific rules for yearly and monthly *Auction Process* organized electronically in the *User* environment of the *ePortal* regulated by Section 6 may be replaced by alternative rules specified below in this Annex in case of technical problems with *ePortal* identified by *CAO*. Information about implementation of alternative yearly and monthly *Auction Process* according to this Annex will be published by 12:00 *CET/CEST* (noon) on the last *Working Day* before the day on which the deadline 2Y for yearly and 2M for monthly *Auction Process* falls (for deadlines see Annex 2). Information shall be published on *CAO's* website (www.central-ao.com). Furthermore *CAO* will inform all *Auction Participants* on implementation of alternative yearly and monthly *Auction Process* to by message in the *ePortal* and by e-mail.

Bids for the Reservation of PTR

In order to participate in the yearly or monthly Auction Process, Bids must be submitted as follows:

- In closed and sealed envelopes marked with the following words
 - Yearly Auction Process – DO NOT OPEN UNTIL DEADLINE
 - Monthly Auction Process – DO NOT OPEN UNTIL DEADLINE.
- By fax. *CAO* does not accept any responsibility for the security and legibility of data transmitted by fax. *CAO* will, without undue delay, confirm by fax message those *Bids* delivered in time. Only confirmed *Bids* will be considered in the *Auction Process*.

Bids have to be delivered to the *CAO's* address (see Annex 1) or to *CAO's* fax numbers specified on Attachment C of this Annex, by the deadline 2Y for the yearly *Auction Process* or deadline or 2M for the monthly *Auction Process* (deadlines are specified in Annex 2).

Each Bid Sheet (shown in Attachment of this Annex) must contain the following unambiguous and legible specifications:

- a) Identification of the *Auction Participant* submitting the *Bids* (name of the *Auction Participant*, unique *EIC-Code*), name of the person authorised by the *Auction Participant* in the Registration Form who submits the *Bids*.
- b) Specification of the *Source-Sink Pair*.
- c) *Bids* with following specifications:
 - i. Amount of *PTR* to be allocated in MW without decimals (minimum amount of a single *Bid* is 1 MW).
 - ii. *Bid Price* in EUR/MWh with two (2) decimals (*Bid Price* has to be equal to or exceed zero).

iii. For one *Source-Sink Pair*, each *Auction Participant* can submit only one *Bid Sheet* with a maximum of 20 *Bids*.

d) The signature of the person whose name is entered in the *Bid Sheet*.

The *Bid Sheets/Bids* specifying all data mentioned above must be submitted, without any reservation, in the format shown in Attachment A (Yearly Auction) or Attachment B (Monthly Auction) of this Annex. The *Bid Sheets/Bids* are binding and cannot be modified after their delivery. The *Auction Participant* may withdraw his *Bid Sheet*. If *Bid Sheets* are submitted in a sealed envelope, the entire envelope has to be withdrawn (which is only possible if the envelope can be identified by *CAO*). A declaration of withdrawal has to be received by *CAO* in writing by the deadline 2Y for the yearly *Auction Process* or deadline 2M for the monthly *Auction Process* (deadlines are specified in Annex 2). *CAO* will, without undue delay, confirm by fax message the withdrawal that was delivered in time. Only confirmed withdrawals will become effective.

Bid Sheets or individual *Bids* (the *Bids* are valid independent of each other) which do not fulfill the requirements specified above of this Annex shall be excluded and shall not be included among the assessed *Bid Sheets/Bids*. In case of two *Bid Sheets* with different *Bids* submitted for the same *Source-Sink Pair* by one *Auction Participant*, both *Bid Sheets* shall be excluded and shall not be included among the assessed *Bid Sheets*.

The *Auction Participant* is responsible for the evidence of the timeliness of the delivery of *Bids* or declarations of withdrawal to *CAO*.

Notification of the Results of an Auction Process

CAO will notify each *Auction Participant* whose *Bid* was included in a specific *Auction Process* by the deadline 3Y for the yearly *Auction Process* or deadline 3M for the monthly *Auction Process*, for each *Source-Sink Pair and Reservation Period* on which his *Bids* were evaluated, of the following information by fax message (deadlines are specified in Annex 2):

- *CAI code*;
- *Promise of PTR* to the *Auction Participant* in MW;
- *Auction Price* in EUR/MWh;
- Due Amount for *Promises of PTR* in EUR, rounded to two decimal places.

Exemption:

In case the *Bids* of an *Auction Participant* were excluded from the evaluation, *CAO* will send him, without undue delay, only the refusal note including reason of excluding.

CAO publishes the results of yearly or monthly *Auction Process* on *CAO's* website (**www.central-ao.com**) for each *Source-Sink Pair*:

- Total *Promise of PTR* in MW;
- Total requested *PTR* in MW;
- *Auction Price* in EUR/MWh;

- Number of *Auction Participants* in the *Auction Process*;
- Number of *Auction Participants* who placed at least one *Winning Bid* in the *Auction Process*;
- List of delivered *Bids* without identification of the *Auction Participants*.

Algorithm

Application of the alternative yearly or monthly *Auction Process* specified by this Annex has no impact on application of *Auction Algorithm* as defined by Section 3 and Annex 5 respectively Annex 6 and has no impact on rules for evaluation of *Bids* as set forth by Article 6.3 of *Auction Rules*.

Attachment A

This form shall be delivered to the address of CAO or to one of the following fax numbers: +49(0) 8161 49005-551, +49(0) 8161 49005-552.

Bid Sheet
For yearly Auction Process – year

Name of the Auction Participant	
EIC-Code of the Auction Participant	
Name of the person authorized to submit the Bid	

Source CA	
Sink CA	

Bid No.	MW	EUR/MWh	Bid No.	MW	EUR/MWh
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

Date:

Signature

Attachment B

This form shall be delivered to the address of CAO or to one of the following fax numbers: +49(0) 8161 49005-551, +49(0) 8161 49005-552.

Bid Sheet
For monthly Auction Process – *month/year*

Name of the Auction Participant	
EIC-Code of the Auction Participant	
Name of the person authorized to submit the Bid	

Source CA	
Sink CA	

Bid No.	MW	EUR/MWh	Bid No.	MW	EUR/MWh
1			11		
2			12		
3			13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

Date:

Signature

Attachment C

In case that alternative yearly or monthly *Auction Process* according to Annex 7 is used *Auction Participants* have to submit *Bid Sheets* (Attachment A or Attachment B) to the address of *CAO* (see Annex 1) or to one of the following fax numbers:

+49(0) 8161 49005-551 +49(0) 8161 49005-552

The above mentioned fax numbers are designated exclusively for *CAO* for submitting of *Bid Sheets* in case of alternative *Auction Process* in accordance with Annex 7 and may not be used for other communication. Any *Bids* submitted to another *CAO's* fax number shall be null and void and shall be not included among assessed *Bids*.

This form shall be delivered to the address of the CAO
or to the fax number +49(0) 8161 49005-550.

Annex8

Form for Set up/Modification of the ePortal User Account

Name of the Auction Participant	
EIC-Code of the Auction Participant	
Name of the person authorized to submit the form	

The *Auction Participant* requests [] setup / [] modification* of an *ePortal* user account for the following representative of the *Auction Participant*:

User first name, last name:			
Telephone/Mobile:		E-mail:	
With valid certificate No.:		Valid until:	
Issuing authority:			

* Check off correct information;

On the basis of the *Auction Rules*, the content of which is known to the aforementioned person, the person is authorized to perform operations in the *ePortal* in accordance with the *Users* rights, and in such a case, represents the *Auction Participant* specified above.

The aforementioned person is also authorised to submit to the CAO the *Bids* in accordance with Annex 7 in case of alternative yearly/monthly *Auction Process* use.

Date: _____

Date: _____

Signature *Auction Participant*
(person authorized to represent the
Auction Participant)

Signature *User*

Annex 9

Requirements on Electronic Certificates

1. For the purpose of accessing the *ePortal* and executing business by means of it, each *User* must have one or two certificates fulfilling the conditions specified below.
2. It is possible to use one certificate for both accessing and executing business by means of the *ePortal*; or, two separate certificates – one for accessing the *ePortal* and one for executing business transactions via the *ePortal* is also acceptable.
3. Each certificate used in the *ePortal* must be either:
 - a) A qualified certificate within the meaning of Directive 1999/93/EC (on electronic signatures), or
 - b) A different certificate than that specified in 3.a) above, provided the following conditions are met.
 - i) The *Auction Participant* which registered the *User* using the certificate different than that specified in 3.a) above confirms and undertakes that the certification service provider issuing the certificate fulfils the following criteria:
 - (1) Published certification policy (CP) prepared in accordance with RFC 3647 or RFC 2527; the certificate must contain a reference to the current version of the CP;
 - (2) There have been Face to Face registration procedures, meaning that during the process of verifying identity for the purposes of issuing the certificate, the applicants must have personally met with the certification service provider or a trustworthy third party (*e.g.*, an employee of a trust center, notary public, or another similar official) and must present some generally recognized state-issued identification document (*e.g.*, an identity card, a passport, driver's license, etc.);
 - (3) A regular external audit has been executed and directed (at a minimum) at the compliance of its own processes with the published CP;
 - (4) There is a Regular Fast Revocation Process: the CA issues CRLs with a validity period under or equal to 24 hours;
 - (5) The cryptographical algorithms and parameters used are in compliance with Algorithms and Parameters for Secure Electronic Signatures (ESI Special Report SR 002 176, March 2003); AND
4. Each certificate used in the *ePortal* must also meet the following conditions:
 - a) The certificate is RFC 3280 compliant;
 - b) The version of certificate is X.509 v3;
 - c) The public key of the certificate must be intended for the RSA algorithm; and
 - d) The Key Usage extension is defined as critical.
5. Certificates used for accessing the *ePortal* must be intended:
 - a) for user authentication against the web server,
 - b) for the SSL communication, and

- c) for symmetric key exchange using the RSA algorithm.
- 6. Certificates used for the execution of business transactions via the *ePortal* must be intended for the verification of the advanced electronic signatures within the meaning of Directive 1999/93/EC (on electronic signatures).
- 7. All the electronic certificates used to communicate with the *ePortal* must successfully pass tests operated by the *CAO*. A list of certification service providers whose certificates have successfully passed the tests are published on the official webpage of the *CAO*: www.central-ao.com.
- 8. Conditions of communication between the *Auction Participant* and *CAO* via the Web services interface of *ePortal* with use of PSEUDONYM-type electronic certificate are specified by statement in Attachment of this Annex. Statement shall be delivered to *CAO* by *Auction Participant* as pre-requisite for use of PSEUDONYM-type electronic certificate.

Attachment

**Specific conditions regarding the use
of the PSEUDONYM-type electronic certificate**

This statement specifies the conditions of communication between the *Auction Participant* and *CAO* via the Web services interface of *ePortal*.

I.

Auction Rules, Section 5 specify the conditions of use of electronic certificates.

This notification is made only with the intention to allow the *Auction Participant* to communicate with the *ePortal* while using the PSEUDONYM-type certificate.

II.

As a PSEUDONYM-type certificate is considered a certificate that meets the technical conditions specified in the Annex 9 of the *Auction Rules* and unlike the procedures applied in the contractual relationships it does not identify a specific *User* but it only identifies and recognizes the *Auction Participant* as a legal person.

III.

The *Auction Participant* declares that has implemented a technical device - communication server (web services client) for the purposes of communication with *ePortal* by means of web services in order to carry out the transactions and to accept obligations specified in the *Auction Rules*, while using the PSEUDONYM-type certificate, as the *Auction Participants's* sole communication site, to be operated continuously 7 days a week, 24 hours a day.

IV.

As of the signature date of this document by the *Auction Participant's* representative, all of the *Auction Participant's* transactions in connection with the use of *ePortal* identified by its the PSEUDONYM-type certificate:

No.: _____ issued by.: _____
bind the *Auction Participant* as if performed by any of all the Authorized representatives as nominated in the Attachment 1 of the Registration Form.

Date:

Name & Signature

Annex 10

Communication with Users of the ePortal in Extraordinary Situations

The *CAO* advises the *Users* using the *ePortal* of possible deviations from the routine operation. The *CAO* is authorized to issue instructions towards the application as well as to take measures in the case of an outage of the *ePortal*.

The *Users* are obliged to immediately inform the *ePortal* Helpdesk of any observed problems and/or extraordinary conditions and all potential consequences through e-mail or by fax.

In case of a problem, which must be solved immediately, the *User* will immediately contact the *ePortal* Helpdesk by phone – see Annex 1.

The *CAO* will enter the prospective data into the *ePortal* by means of a substitute method. It will do this on the basis of a request for such an operation, if the *User* cannot do so on his own due to an outage of the *ePortal*.

The *User* shall hand over the request for entering data by a substitute method along with providing reasons, why he is not able to enter the data by ordinary means, as well as the data related to the substitute entry into the *ePortal* utilizing the following procedures and observing their order:

- Electronically, via a signed e-mail,
- If e-mail does not work, then via a fax message containing the name and signature of the *User* or the representative of *Auction Participant* authorized in the Registration Form to communicate with *CAO* on behalf of *Auction Participant*. Fax message shall be submitted to the *ePortal* Helpdesk fax number (see Annex 1).

Data handed over by a substitute method must be delivered in the format valid for a specific case – i.e. in the form of an XML file or MS Excel pattern. The MS Excel pattern is available to be downloaded on the *CAO* web site www.central-ao.com.

The *CAO* shall have the right to identify the *User* at the moment when the *ePortal User* is supplying the *CAO* with operational or commercial data and requires that data to be entered into the *ePortal* on his behalf by means of the substitute method. Unless the *User* or the person authorized by the *User* clearly identifies himself, the *CAO* shall be entitled not to perform the substitute data entry. The *User* is also obliged to provide the *CAO* with a telephone number, which he can use in case of a necessary communication, and to provide the cooperation needed. The *CAO* subsequently enters the data into the *ePortal* on behalf of the *User* and informs that *User*, without needless delay, by telephone and/or via e-mail that the data was entered, and, in case the *ePortal* does not operate on the *User* side, the *User* will attach the entered data. The *ePortal User* is obliged to confirm the given data by fax and/or e-mail within 30 minutes from terminating the telephone call with the *CAO* or receiving a confirmation e-mail. The *User* is also liable for the validation of data entered on his behalf by the *CAO*.

The *CAO* bears no liability for any prospective incorrectness of entered data generated and delivered by the *User* in the agreed manner or for the rejection of that data by the *ePortal* due to its incorrectness.

Those rules are applicable only for a registered *User* of the *ePortal* (see Article 5.3).

Annex 11
List of German Public Holidays
in the state of Bavaria

3 October 2011	(Monday)
1 November 2011	(Tuesday)
25 December 2011	(Sunday)
26 December 2011	(Monday)
1 January 2012	(Sunday)
6 January 2012	(Friday)
6 April 2012	(Friday)
8 April 2012	(Sunday)
9 April 2012	(Monday)
1 May 2012	(Tuesday)
17 May 2012	(Thursday)
27 May 2012	(Sunday)
28 May 2012	(Monday)
7 June 2012	(Thursday)
15 August 2012	(Wednesday)
3 October 2012	(Wednesday)
1 November 2012	(Thursday)
25 December 2012	(Tuesday)
26 December 2012	(Wednesday)
1 January 2013	(Tuesday)
6 January 2013	(Sunday)

Note: List of public holidays is constructed according to seat of *CAO*.

Annex 12

Examination Procedure

Specific Initiative Concerning the Auction Processes

Should the *Auction Participant* come to the conclusion that the *Auction Rules* have been breached by an incorrect calculation, incorrect output from data check, or incorrect evaluation, the *Auction Participant* is entitled to initiate through the *User* the following examination procedure.

The *User* has to send a request for examination to *CAO*. The request must be delivered to one of the contacts of *CAO* (Annex 1) by signed fax message, by electronically signed e-mail, or by registered mail, and must contain the following:

- date
- identification of *Auction Participant*
- name, e-mail address and telephone number of the *User*
- brief description of the situation, i.e. the subject matter
- detailed description of the situation
- well-founded means of proof (e.g. downloads from logs, communication records, etc.)

CAO employee will confirm the receipt of such a request for examination by e-mail.

CAO shall examine the request within five (5) *Working Days* after the receipt of all necessary information as indicated above. *CAO* shall inform the *Auction Participant* about the results of the examination in writing by signed fax message, by electronically signed e-mail, or by registered mail.

CAO may however prolong the assessment period if the request requires extensive examination (involvement of third parties on *CAO*'s side – e.g. IT provider). In such case, *CAO* shall inform the *Auction Participant* about the extended assessment period by e-mail within five (5) *Working Days* after receipt of all necessary information as indicated above. *CAO* shall then examine the request at the latest within twenty (20) *Working Days*. *CAO* shall inform the *Auction Participant* about the results of the examination in writing by signed fax message, by electronically signed e-mail, or by registered mail.

The above described initiative shall not have suspensive impact on the results of the relevant daily, monthly or yearly *Auction Process*.

Annex 13

List of Information Published by CAO

I. Information made available before individual *Auction Process* (Public)

Flow-based *Auction Process*

- Product specification (e.g. *Reservation Period*)
- *AMFs* (Available Maximum Flows)
- *PTDFs* (Power Transfer Distribution Factors)
- Aggregated information on returned capacity (Use It or Sell It)
- Other specifications (such as deadlines, maximum *Bid Amount* etc.)

NTC *Auction Process*

- Product specification (e.g. *Reservation Period*)
- *Offered Capacity*
- Aggregated information on returned capacity (Use It or Sell It)
- Other specifications (such as deadlines, maximum *Bid Amount* etc.)

II. Information made available after individual *Auction Process* (Public)

- Total *Promise of PTR* in MW;
- Total requested *PTR* in MW;
- *Auction Price* in EUR/MWh;
- Number of *Auction Participants* in the *Auction Process*;
- Number of *Auction Participants* who placed at least one *Winning Bid* in the *Auction Process*;
- List of delivered *Bids* without identification of the *Auction Participants*.

III. Information made available after individual *Auction Process* (Individual)

- CAI code
- *Promise of PTR* for *Reservation Period* in MW
- *Auction Price* in EUR/MWh
- Due amount for *Promises of PTR* in EUR, rounded to two decimal places.

IV. Operational data (Individual)

- *Bids* register
- Information about *Promises of PTR / Allocated PTRs / transfers*
- Information about registered risk management instruments of *Auction Participant* and their utilisation
- Information about issued invoices and their settlement status
- Operational information / messages published by *CAO*

Annex 14

Examples of Bids Evaluation, PTRs' Curtailment and Credit Limit Evaluation

I. Example of *Bids* Evaluation under flow-based method

Simplified example of the *Auction Algorithm* applied for flow-based method is shown in following tables and figures.

Technical parameters extract

Critical Branch	Case	Source	Sink	TMF	AMF+	AMF-	CEPS -> MAVIR	CEPS -> DE_AT	MAVIR -> ELES	MAVIR -> SEPS	MAVIR -> DE_AT	PSEO -> DE_AT
LINE_00001	n-0	APG	ELES	361,6	293,8	389,3	0,0203	-0,013	0,1018	-0,0122	-0,0333	-0,0174
LINE_00003	n-0	CEPS	TENNET	1.311,50	863,3	979,5	0,0957	0,184	0,0338	-0,0127	0,0883	0,0707
LINE_00062	n-0	MAVIR	APG	190,5	10,3	272,6	-0,0399	0,0049	0,0386	0,0231	0,0448	0,012
LINE_00062	n-1 LINE_00054	MAVIR	APG	190,5	93,7	216,2	-0,0538	0,0065	0,0521	0,0311	0,0604	0,0162
LINE_00107	n-2 LINE_00092+LINE	PSEO	PSEO	313,60	81,10	453,40	0,0063	-0,0074	-0,0053	0,0022	-0,0137	-0,0145
LINE_00107	n-1 LINE_00106	PSEO	PSEO	313,60	31,20	503,30	0,0083	-0,0098	-0,007	0,0029	-0,0181	-0,019
LINE_00142	n-0	SEPS	MAVIR	1.360,90	805,5	1.490,00	0,1837	0,059	-0,008	-0,2866	-0,1247	0,0578
LINE_00184	n-1 LINE_00186	50HzT	50HzT	353,9	39,8	527,2	0,0005	-0,009	-0,0031	0,0011	-0,0096	-0,0178

Technical parameters consist of

- *PTDF matrix* showing the relation of the commercial flow and physical flow and
- *AMF*

Both parameters are calculated either

- for individual critical network element in base case (n-0 case)
- or for the individual critical network / critical outage combination (n-1 case)

e.g. for LINE_00062 from MAVIR to APG in base case situation AMF+ is equal to 10.3 MWs in direction from control area MAVIR to control area APG and commercial exchange of 100 MW from MAVIR to APG (DE_AT) would produce physical flow $100 \cdot 0.0448 = 4.48$ MW over this line.

Each row of the technical parameters matrix, either in base case or in (n-1) case, represents constraint of the optimization algorithm in case of flow-based method.

Considering the LINE_00062 from MAVIR to APG in base case situation is the congested element (marked by yellow colour), bids evaluation could be modelled in following way:

List of Bids

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	PTDF	Line Bid Price (EUR/MWh)	Effect on Congested Line (MW)
Bid 1	MAVIR	APG	150	1	0,0448	22,32	6,72
Bid 2	CEPS	TENNET	200	3	0,0049	612,24	0,98
Bid 3	PSEO	50HzT	200	6	0,012	500,00	2,4
Bid 4	MAVIR	ELES	100	5	0,0386	129,53	3,86
Bid 5	CEPS	MAVIR	150	5	-0,0399	INF	0
Bid 6	MAVIR	SEPS	200	2	0,0231	86,58	4,62
						Sum	18,58

Effect on Congested Line is equal to expected physical flow consequence of the *Bid* acceptance , i.e. $Bid\ Amount * PTDF$.

Line Bid Price is calculated as $Bid\ Price / PTDF$.

Sorting of Bids according to Line Bid Price/Awarded Bids

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	PTDF	Line Bid Price (EUR/MWh)	Effect on Congested Line (MW)	Awarded PTRs (MW)
Bid 5	CEPS	MAVIR	150	5	-0,0399	INF	0	150
Bid 2	CEPS	TENNET	200	3	0,0049	612,24	0,98	200
Bid 3	PSEO	50HzT	200	6	0,012	500,00	2,4	200
Bid 4	MAVIR	ELES	100	5	0,0386	129,53	3,86	100
Bid 6	MAVIR	SEPS	200	2	0,0231	86,58	3,06	132
Bid 1	MAVIR	APG	150	1	0,0448	22,32	0	0
Sum							10,3	

Bids 5, 2, 3 and 4 are fully accepted and their physical effect is 7.24 MW. Effect of full acceptance of *Bid* 6 will lead to flow 11.86 MW while the *AMF* is 10.3 MW therefore the *Bid* 6 shall be accepted only partially.

Flow to be acceptable from *Bid* 6 is equal to $10.30 - 7.24 = 3.06$. It means awarded amount of *Bid* 6 is equal to $3.06 / 0.0231$.

Shadow price is then equal to 86.58 EUR/MWh, i.e. to “line bid price” of the last accepted *Bid*.

Auction Prices are derived from shadow price according to Article A3 of Annex 5, i.e. shadow price is multiplied by relevant *PTDF* (e.g. *Auction Price* for PSEO-50HzT is equal $0.012 * 86.58 = 1.04$) :

Auction Prices

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	PTDF	Auction Price (EUR/MWh)	Awarded PTRs (MW)
Bid 5	CEPS	MAVIR	150	5	-0,0399	0,00	150
Bid 2	CEPS	TENNET	200	3	0,0049	0,42	200
Bid 3	PSEO	50HzT	200	6	0,012	1,04	200
Bid 4	MAVIR	ELES	100	5	0,0386	3,34	100
Bid 6	MAVIR	SEPS	200	2	0,0231	2,00	132
Bid 1	MAVIR	APG	150	1	0,0448	3,88	0

II. Example of *Bids* Evaluation under NTC method

Simplified example of the *Auction Algorithm* applied for NTC method is shown in following tables and figures.

Offered Capacities for Technical Profiles represents constraints of the optimization algorithm in case of NTC method.

Considering the *Offered Capacity for Technical Profile* PSEO→50HzT+CEPS+SEPS is equal to 200 MW, for *Technical Profile* CEPS+PSEO→50HzT is equal to 200 MW and for other *Technical Profiles* is unlimited, bids evaluation could be modelled in following way:

List of Bids

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)
Bid 1	PSEO	50HzT	200	4
Bid 2	CEPS	50HzT	200	3
Bid 3	PSEO	CEPS	200	2

Following the optimization algorithm specified by Article A4 of Annex 6 it is possible to evaluate maximal welfare gain to be created by awarding of *PTR* for individual *Bid*. In case of non-simultaneous evaluation:

Evaluation of the individual *Bid* maximum welfare gain (non-simultaneous)

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Max Allocated Capacity (MW)	Max Social Welfare (EUR)
Bid 1	PSEO	50HzT	200	4	200	800
Bid 2	CEPS	50HzT	200	3	200	600
Bid 3	PSEO	CEPS	200	2	200	400

In principle two approaches in evaluation exist:

1. Option 1 - by awarding of *PTR* to *Bid 1* any other *Bid* in our example cannot be *Winning Bid* as *Offered Capacity* on both considered *Technical Profiles* is used.

Option 1

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Awarded PTRs (MW)	Social Welfare (EUR)
Bid 1	PSEO	50HzT	200	4	200	800
Bid 2	CEPS	50HzT	200	3	0	0
Bid 3	PSEO	CEPS	200	2	0	0
Sum					200	800

2. Option 2 - Bid 2 and Bid 3 can be awarded in parallel.

Option 2

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Awarded PTRs (MW)	Social Welfare (EUR)
Bid 1	PSEO	50HzT	200	4	0	0
Bid 2	CEPS	50HzT	200	3	200	600
Bid 3	PSEO	CEPS	200	2	200	400
Sum					400	1000

Option 2 Solution represent the optimization *Auction Algorithm* applied by CAO and implemented in *ePortal*. Welfare gain is maximized in this case.

Option 1 represent the simple merit order principle used in past by TSOs allocating bilaterally the capacity.

Awarded Bids and Auction Prices

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Awarded PTRs (MW)	Auction Price (EUR)
Bid 1	PSEO	50HzT	200	4	0	5
Bid 2	CEPS	50HzT	200	3	200	3
Bid 3	PSEO	CEPS	200	2	200	2
Sum					400	

Bid 2 created a shadow price for *Technical Profile* CEPS+PSEO→50HzT, *Bid 3* for *Technical Profile* PSEO→50HzT+CEPS+SEPS. Shadow prices for *Technical Profiles* are equal to respective *Bid Price* in this example.

Auction Price for *Source-Sink Pair* PSEO-CEPS is equal to shadow price for *Technical Profile* PSEO→50HzT+CEPS+SEPS, i.e. 2 EUR/MWh. *Auction Price* for *Source-Sink Pair* CEPS-50HzT is equal to shadow price for *Technical Profile* CEPS+PSEO→50HzT, i.e. 3 EUR/MWh. *Auction Price* for *Source Sink Pair* PSEO-50HzT is equal to sum of both shadow prices as both constraints limit that *Source-Sink Pair*.

II. Example of *PTRs' Curtailment* under flow-based method

Example 1 – Curtailment of Allocated *PTRs*

Assuming the example of *Bids* evaluation in Article I of this Annex and the situation when the *AMF* was decreased from 10.3 MW to 7 MWs following process would apply:

1. *Auction Algorithm* is used again for re-evaluation of *Winning Bids* under the changed technical conditions.

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	PTDF	Line Bid Price (EUR/MWh)	Effect on Congested Line (MW)	Awarded <i>PTRs</i> (MW)
Bid 5	CEPS	MAVIR	150	5	-0,0399	INF	0	150
Bid 2	CEPS	TENNET	200	3	0,0049	612,24	0,98	200
Bid 3	PSEO	50HzT	200	6	0,012	500,00	2,4	200
Bid 4	MAVIR	ELES	100	5	0,0386	129,53	3,62	93
Bid 6	MAVIR	SEPS	132	2	0,0231	86,58	0	0
Sum							7,00	

2. Based on re-evaluation of *Winning Bids* curtailment ratio is evaluated for individual *Source-Sink Pair* i.e. in this case *PTRs* allocated at MAVIR-SEPS are curtailed from 132 MW to 0 MW, at MAVIR-ELES from 100 MW to 93 MW.
3. Curtailed 132 MW at MAVIR-SEPS is compensated by price 2 EUR/MWh, 7 MW at MAVIR-ELES is compensated by 3.34 EUR/MWh – i.e. by original *Auction Price*.

Example 2 – Curtailment of Nominated *PTRs*

Assuming the example of *Bids* evaluation in Article I of this Annex, the situation when the *AMF* was decreased from 10.3 MW to 1 MW and when *PTR/Bid 4* was nominated in amount 50 MW, *PTR/Bid 6* was nominated in amount 100 MW and the rest of *PTRs* in full amount following process would apply:

1. *Auction Algorithm* is used again for re-evaluation of *Winning Bids* up to the level of nominated *PTRs* under the changed technical conditions.

	Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	PTDF	Line Bid Price (EUR/MWh)	Effect on Congested Line (MW)	Awarded <i>PTRs</i> (MW)
Bid 5	CEPS	MAVIR	150	5	-0,0399	INF	-5,99	150
Bid 2	CEPS	TENNET	200	3	0,0049	612,24	0,98	200
Bid 3	PSEO	50HzT	200	6	0,012	500,00	2,4	200
Bid 4	MAVIR	ELES	50	5	0,0386	129,53	1,93	50
Bid 6	MAVIR	SEPS	100	2	0,0231	86,58	1,66	72
Sum							0,99	

2. Netting is applied in curtailment of *Nominated PTRs* therefore the *PTR/Bid 5* decrease the assessed flow.
3. For individual *Source-Sink Pair* curtailment ratio is evaluated i.e. in this case *PTRs* allocated at MAVIR-SEPS are curtailed from 100 MW to 72 MW. *PTRs* at MAVIR-ELES border are considered in amount on nominated *PTRs* what lead to higher efficiency of the process.
4. 132MW allocated at MAVIR-SEPS is considered only in nominated amount 100 MW, i.e. curtailed 28 MW at MAVIR-SEPS is compensated by price 2 EUR/MWh – i.e. by original

Auction Price. Nominated amount at MAVIR-ELES border was not curtailed therefore there is no compensation for this border.

III. Example of Credit Limit Usage

Bank guarantee: 25,000 EUR. Validity period: from 20 November 2010 to 24 December 2011.

Auction Results for Bids of Auction Participant in the yearly Auction Process:

Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Auction Price (EUR/MWh)
PSEO	50HzT	50	0.40	0.30
CEPS	SEPS	20	0.30	0.20
CEPS	TENNET	50	0.20	0.10
TENNET	CEPS	30	0.10	0.50

Credit Limit which is not *Utilised* is equal to 25,000 EUR.

The Auction Participant's Credit Limit which is not *Utilised* is checked with the outstanding liability given by the result of the *Auction Process* after the evaluation of the *Bids*.

Outstanding liability (*Total Auction Participant's Bid Value*) given by the result of the *Auction Process* is equal to $(50*0.30 + 20*0.20 + 50*0.10)*365*24/12 = 17,520$ EUR

The Credit Limit which is not *Utilised* must be equal to at least 17,520 EUR + VAT (in this example: 19%) – fulfilled.

After the *Auction Process* the part of the *Credit Limit* equal to 20,848.8 EUR is *utilised* as long as all of the *Auction Participant's* payments resulting from the yearly *Auction Process* are settled.

Bids of Auction Participants for monthly Auction Process for April

Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Auction Price (EUR/MWh)
PSEO	CEPS	20	0.20	0.02
CEPS	50HzT	40	0.10	0.01
PSEO	SEPS	20	0.05	0.00

Credit Limit which is not *Utilised* is equal to 25,000 EUR – 20,848.8 EUR = 4,151.2 EUR.

The Auction Participant's Credit Limit which is not *Utilised* is checked with the outstanding liability given by the result of the *Auction Process* after the evaluation of the *Bids*.

Outstanding liability (*Total Auction Participant's Bid Value*) given by the result of the *Auction Process* is equal to $(20*0.02 + 40*0.01 + 20*0)*30*24 = 576$ EUR

The Credit Limit which is not *Utilised* must be equal to at least 576 EUR +VAT (in this example: 19%) – fulfilled.

After *Auction Process* the part of *Credit Limit* equal to 685.44 EUR is *utilised*.

Credit Limit which is not *Utilised* is equal to 3,465.76 EUR.

Auction Participant has not taken part in any other monthly *Auction Process* in this example and has not participated in daily *Auction Process* by the date of monthly *Auction Process* for April.

Payment of *Auction Participant* resulting from the monthly *Auction Process* for April will be credited to the account of *CAO* e.g. on 18th March 2011, so in the time period from April *Auction Process* results publication date to 18th March 2011 part of *Credit Limit*, which can be used for ensuring of daily *Auction Processes* payments is 3,465.76 EUR. From 19th March 2011 it is 4,151.2 EUR.

Bids of *Auction Participant* for daily *Auction Process* for 12th May 2010

Source	Sink	Bid Amount (MW)	Bid Price (EUR/MWh)	Auction Price (EUR/MWh)
PSEO	CEPS	30	6	1.50
CEPS	50HzT	10	10	2.75
CEPS	50HzT	10	4	2.75
PSEO	CEPS	15	3	1.50
PSEO	CEPS	25	2	1.50

Total Auction Participant's Bid Value Concerning Daily Auction Process =
 = Max [30*6 ; (30 + 15)*3 ; (30 + 15 + 25)*2] + Max [10*10 ; (10 + 10)*4] =
 = Max [180 ; 135 ; 240] + Max [100 ; 80] = 240 + 100 = 340 EUR

The Credit Limit which is not Utilised has to be equal at least 340 EUR + VAT (in this example: 19%) – fulfilled.

After *Auction Process* the part of *Credit Limit* equal to 404.6 EUR is *utilised*.

Credit Limit which is not *Utilised* is equal to 4,151.2 EUR – 404.6 EUR = 3,746.6 EUR.

The 3,746.6 EUR cannot be used for ensuring daily *Auction Process* payments in December 2011 due to the necessary validity period of the bank guarantee for ensuring the daily *Auction Processes* for capacities of December 2011.

Annex 15

Reduction of the Offered Capacity for Reason of Planned Outages (NTC Method)

Article A1 – Procedure Description

If CAO announces according to Article 6.7 Para. 2 of the *Auction Rules* that *Offered Capacities* with a reduced amount of MW will be the subject of a yearly respectively monthly *Auction Process*, in the first step the *Auction Algorithm* will be used for evaluation of *Bids* provided by *Auction Participants* with regard to the respective *Auction Process* in accordance with Articles 6.1 to 6.6 and Annex 6. In the second step *PTRs* to be assigned to *Auction Participants* will be reduced on specific dates. The results of an *Auction Process* published by CAO on its website according to Article 6.4 Para. 1 *Auction Rules* will only contain information on the basic amount of *PTR*, i. e. irrespective of the reduction.

Article A2 – Calculation of Reduction

For given day, for which at least one reduction is defined, the level of reduction is determined by following procedure:

- a) The reduction coefficients for all considered *Technical Profiles* and directions are determined according to the formula:

$$RC_P = \text{Min} [OC_P / AC_P ; 1]$$

RC_P - coefficient of reduction on *Technical Profile P*

OC_P - value of reduced *Offered Capacity* announced for given reduction period and *Technical Profile P*

AC_P – *PTR* to be assigned to the *Auction Participants* at the *Technical Profile P* in case no reduction period announced.

- b) Reduction coefficient RC_P is applicable to all *Source-Sink Pairs* related to a given *Technical Profile P* and direction. Within a *Source-Sink Pairs*, any *Capacity* to be allocated is reduced using the reduction coefficient RC_P . From the set of all *Technical Profiles* and directions related to given *Source-Sink Pair*, **the RC_P with minimum value will be used for reduction of *PTRs***. As the minimum reduction coefficient is selected, none of the remaining *Technical Profiles* and directions can cause further reduction.

- c) In case of application of reduction – use of RC_P on one *Technical Profile* – can affect reduction on other *Technical Profiles*. Therefore the reduction procedure proceeds from the minimum reduction coefficient RC_P and the reduction coefficients are recalculated according to the formula:

$$RC_{P\text{Reduced}} = \text{Min} [(OC_P - AC_{P1}) / AC_{P2} ; 1]$$

$RC_{P\text{Reduced}}$ - coefficient of reduction on *Technical Profile P* applicable only to *Source-Sink Pairs*, for which no reduction has been performed yet

OC_P - value of reduced *Offered Capacity* announced for given reduction period and *Technical Profile P*

AC_{P1} - *PTRs* assigned at the *Source-Sink Pairs* related to *Technical Profile P* and other *Technical Profile*, for which the reduction has been performed already

AC_{P2} - PTRs assigned at the *Source-Sink Pairs* related to *Technical Profile P*, for which no reduction has been performed yet

Promised PTR in reduction period for each *Auction Participant* is determined by following way: The *PTR* assigned to *Auction Participant* according to Article 6.1 to 6.6 of *Auction Rules* on the individual *Source-Sink Pair* is multiplied by reduction coefficient value. The resulting value is rounded down to an integer.

Above described procedure of *PTRs* reduction is applied for all days, for which a reduction is announced.

Article A3 – Example

Technical Profile	Offered Capacity (MW)	Reduced Offered Capacity in reduction period (MW)	Promise of PTR (MW)	Reduction Coefficient
P		OC_P	AC_P	RC_P
PSEO → 50HzT+CEPS+SEPS	110	66	110	0,6
PSEO→SEPS	50	25	50	0,5

Reduction coefficient for *Technical Profile* PSEO →50HzT+CEPS+SEPS would be equal to $66/110 = 0,6$

The process of reduction begins by use of the reduction coefficient with minimum value:

Technical Profile	Reduction Coefficient
PSEO→SEPS	0,5

The only one *Source-Sink Pair* related to the *Technical Profile* PSEO→SEPS is PSEO→SEPS. The reduction coefficient is applied to all *Auction Participants*, whose *Bids* were allocated on this *Source-Sink Pair*, e.g.:

Auction Participant	Source	Sink	Assigned PTR (MW)	Reduction Coefficient	Capacity after reduction (MW)	Promise of PTR (MW)
A1	PSEO	SEPS	23	0,5	11,5	11
A2	PSEO	SEPS	27	0,5	13,5	13

Total Promise of PTR in reduction period on *Source-Sink Pair* PSEO→SEPS would be 24 MW.

The reduction coefficient for *Technical Profile* PSEO → 50HzT+CEPS+SEPS would be recalculated:

Technical Profile	Reduced Offered Capacity in reduction period (MW)	Promise of PTR (MW)	Promise of PTR (MW)	Reduction Coefficient
P	OC_P	AC_{P1}	AC_{P2}	RC_{PReduced}
PSEO → 50HzT+CEPS+SEPS	66	24	60	0,7

Reduction coefficient for *Technical Profile* PSEO → 50HzT+CEPS+SEPS applicable to *Source – Sink Pairs* PSEO → 50HzT and PSEO → CEPS would be equal to $(66 - 24)/60 = 0,7$.

Annex 16

Return of Allocated PTR

– Financial Compensation in Case of Article 14.2 Paragraph 3 –

Article A1 – Reason for Reduced Physical Electricity Transmission Capacity

Due to the technical constraints in the *CEE TSOs'* transmission networks, the physical electricity transmission capacity, released by the return of *Allocated PTR* may have to be reduced when calculating the *AMF* values for network elements of the interconnected CEE network and the *PTDF* matrixes for the flow-based method or when calculating the *Offered Capacity* for the *NTC* method respectively.

Article A2 – Calculation of the Financial Compensation in Case of Article 14.2 Para. 3

(1) In case the electricity transmission capacity, released by the return of *Allocated PTR* cannot be fully considered in the corresponding daily *Auction Process*, the financial compensation for each *Auction Participant* per concerned individual *Source-Sink Pair* has two components. The sum of both components is the financial compensation the *Auction Participant* will receive.

a) First component: The *Allocated PTR* returned by the *Auction Participant* according to Section 14 of the *Auction Rules* on the concerned *Source-Sink Pair* is multiplied by the reduction coefficient value (see Paragraph 2). The resulting value is rounded down to an integer and multiplied by the *Auction Price* determined in the relevant daily *Auction Process*.

b) Second component: The *Allocated PTR* returned by the *Auction Participant* according to Section 14 of *Auction Rules* on the concerned individual *Source-Sink Pair* is multiplied by the reduction coefficient value (see Paragraph 2) deducted from 1 ($1 - RC_R$). The resulting value is rounded up to an integer and multiplied by the original price (*Auction Price*) for the reservation of the returned *Allocated PTR*.

(2) It will be determined as follows per concerned *Source-Sink Pair* which amount of the returned *Allocated PTR* will be compensated by the daily *Auction Price* and which amount of the returned *Allocated PTR* will be compensated by the original price (*Auction Price*) for the reservation of the returned *Allocated PTR*.

a) In case of the flow-based method applied in the daily *Auction Process*:

$$\begin{aligned}
 CP_m(x, y) = & \sum_k \left[\max(0, PTDF(x, y, k)) * SP(AMF^+(k)) * \min\left(\frac{AMF^+(k)}{\sum_{x,y} [\max(0, PTDF(x, y, k)) * d_r(x, y)]}, 1\right) \right] + \\
 & + \sum_k \left[\max(0, -PTDF(x, y, k)) * SP(AMF^-(k)) * \min\left(\frac{AMF^-(k)}{\sum_{x,y} [\max(0, -PTDF(x, y, k)) * d_r(x, y)]}, 1\right) \right] + \\
 & + SP(EL(x)) * \min\left(\frac{EL(x)}{\sum_y d_r(x, y)}, 1\right) + SP(IL(y)) * \min\left(\frac{IL(y)}{\sum_x d_r(x, y)}, 1\right)
 \end{aligned}$$

where:	x	source <i>Control Area</i> ,
	y	sink <i>Control Area</i> ,
	$PTDF(x, y, k)$	element of the PTDF matrix giving the influence of exchange between x and y on CBCO combination k
	$AMF^+(k)$	<i>Available Maximum Flow</i> on CBCO combination k in forward direction
	$AMF^-(k)$	<i>Available Maximum Flow</i> on CBCO combination k in reverse direction
	$EL(x)$	<i>Export Limit</i> defined for <i>Market Area</i> to which <i>Control Area</i> x belongs
	$IL(y)$	<i>Import Limit</i> defined for <i>Market Area</i> to which <i>Control Area</i> y belongs
	$d_r(x, y)$	Total returned <i>PTR</i> for <i>Source-Sink Pair</i> " $x \rightarrow y$ "
	$SP(AMF^+(k))$	shadow price for AMF^+ at CBCO combination k ,
	$SP(AMF^-(k))$	shadow price for AMF^- at CBCO combination k ,
	$SP(EL(x))$	shadow price for <i>Export Limit</i> $EL(x)$,
	$SP(IL(y))$	shadow price for <i>Import Limit</i> $IL(y)$,
	$CP_m(x, y)$	compensation price for <i>Source-Sink Pair</i> " $x \rightarrow y$ " calculated solely from daily auction income.

b) In case of the NTC method or market coupling applied in the daily *Auction Process*:

$$\begin{aligned}
 CP_m(x, y) = & SP(ATC_{x \rightarrow y}) * \min\left(\frac{ATC_{x \rightarrow y}}{d_r(x, y)}, 1\right) + SP(ATC_{x \rightarrow y, p}) * \min\left(\frac{ATC_{x \rightarrow y, p}}{d_r(x, y) + d_r(x, p)}, 1\right) + \\
 & + SP(ATC_{x \rightarrow y, p, q}) * \min\left(\frac{ATC_{x \rightarrow y, p, q}}{d_r(x, y) + d_r(x, p) + d_r(x, q)}, 1\right) + SP(ATC_{x, m \rightarrow y}) * \min\left(\frac{ATC_{x, m \rightarrow y}}{d_r(x, y) + d_r(m, y)}, 1\right) + \\
 & + SP(ATC_{x, m, n \rightarrow y}) * \min\left(\frac{ATC_{x, m, n \rightarrow y}}{d_r(x, y) + d_r(m, y) + d_r(n, y)}, 1\right)
 \end{aligned}$$

where:	$ATC_{x \rightarrow y}$	<i>Offered Capacity</i> on a <i>Technical Profile</i> for direction from <i>Control Area</i> x to <i>Control Area</i> y .
	$ATC_{x \rightarrow y_1, y_2}$	Joint <i>Offered Capacity</i> from one <i>Control Area</i> x to two <i>Control Areas</i> y_1 and y_2 . Similarly $ATC_{x_1, x_2 \rightarrow y}$, $ATC_{x_1, x_2, x_3 \rightarrow y}$, $ATC_{x \rightarrow y_1, y_2, y_3}$ are joint <i>Offered Capacities</i> between two or more <i>Source-Sink Pairs</i> .
	$SP(ATC_{x \rightarrow y})$	shadow price for limit $ATC_{x \rightarrow y}$
	$SP(ATC_{x \rightarrow y, p})$	shadow price for limit $ATC_{x \rightarrow y, p}$
	$SP(ATC_{x \rightarrow y, p, q})$	shadow price for limit $ATC_{x \rightarrow y, p, q}$
	$SP(ATC_{x, m \rightarrow y})$	shadow price for limit $ATC_{x, m \rightarrow y}$
	$SP(ATC_{x, m, n \rightarrow y})$	shadow price for limit $ATC_{x, m, n \rightarrow y}$
	m, n, p, q	<i>Control Areas</i> other than x and y

$$RC_R(x, y) = \frac{CP_m(x, y)}{AP_D(x, y)}$$

where: $RC_R(x, y)$ coefficient of released capacity reduction

Article A3 – Example for FBA method

Two Auction Participants returned PTR to a daily Auction Process (no other PTR return):

Auction Participant	Source	Sink	Resold PTR (MW)	Original Auction Price (EUR/MWh)
A1	PSEO	50HzT	100	2.60
A2	PSEO	50HzT	30	2.60

Total returned PTR for PSEO-50HzT Source-Sink Pair is 130 MW.

Daily technical parameters extract

Critical Branch	Case	Source	Sink	TMF	AMF+	AMF-	CEPS -> MAVIR	CEPS -> DE_AT	MAVIR -> ELES	MAVIR -> SEPS	MAVIR -> DE_AT	PSEO -> DE_AT
LINE_00001	n-0	APG	ELES	361.6	293.8	389.3	0.0203	-0.013	0.1018	-0.0122	-0.0333	-0.0174
LINE_00003	n-0	CEPS	TENNET	1,311.50	863.3	979.5	0.0957	0.184	0.0338	-0.0127	0.0883	0.0707
LINE_00062	n-0	MAVIR	APG	190.5	4.1	272.6	-0.0399	0.0049	0.0386	0.0231	0.0448	0.0380
LINE_00062	n-1 LINE_00054	MAVIR	APG	190.5	93.7	216.2	-0.0538	0.0065	0.0521	0.0311	0.0604	0.0162
LINE_00107	n-2 LINE_00092+LINE	PSEO	PSEO	313.60	81.10	453.40	0.0063	-0.0074	-0.0053	0.0022	-0.0137	-0.0145
LINE_00107	n-1 LINE_00106	PSEO	PSEO	313.60	31.20	503.30	0.0083	-0.0098	-0.007	0.0029	-0.0181	-0.019
LINE_00142	n-0	SEPS	MAVIR	1,360.90	805.5	1,490.00	0.1837	0.059	-0.008	-0.2866	-0.1247	0.0578
LINE_00184	n-1 LINE_00186	50HzT	50HzT	353.9	39.8	527.2	0.0005	-0.009	-0.0031	0.0011	-0.0096	-0.0178

For LINE_00062 from MAVIR to APG in base case situation AMF+ is equal to 4.1 MW in direction from control area MAVIR to control area APG. Above mentioned returned PTRs from PSEO to 50HzT (DE_AT) will release for this critical branch/critical outage physical flow 130*0.0380 = 4.94 MW. As AMF is lower than released flow this means the physical electricity transmission capacity, released by the return of Allocated PTR has been reduced due to the technical constraints.

For LINE_00142 from SEPS to MAVIR in base case situation AMF+ is equal to 805.5 MW in direction from control area SEPS to control area MAVIR. Above mentioned returned PTRs from PSEO to 50HzT (DE_AT) will release for this critical branch/critical outage physical flow 130*0.0578 = 7.51 MW. This means the physical electricity transmission capacity, released by the return of Allocated PTR has not been reduced.

The daily Auction Process result example:

Constraint	Shadow Price (EUR/MWh)
LINE_00062 n-0	45.00
LINE_00142 n-0	36.00

All other dual values/shadow prices are equal to 0.

Source	Sink	Auction Price [EUR/MWh]
PSEO	50HZT	3.79

Compensation calculation is applied as follows:

$$CP_m(x, y) = \sum_K \left[\max(0, PTDF(x, y, k)) * SP(AMF^+(k)) * \min\left(\frac{AMF^+(k)}{\sum_{x,y} [\max(0, PTDF(x, y, k)) * d_r(x, y)]}, 1\right) \right] +$$

$$+ \sum_K \left[\max(0, -PTDF(x, y, k)) * SP(AMF^-(k)) * \min\left(\frac{AMF^-(k)}{\sum_{x,y} [\max(0, -PTDF(x, y, k)) * d_r(x, y)]}, 1\right) \right] +$$

$$+ SP(EL(x)) * \min\left(\frac{EL(x)}{\sum_Y d_r(x, y)}, 1\right) + SP(IL(y)) * \min\left(\frac{IL(y)}{\sum_X d_r(x, y)}, 1\right)$$

$$CP_m(PSEO, 50HzT) =$$

$$= \max(0, PTDF(PSEO, 50HzT, k1)) * SP(AMF^+(k1)) * \min\left(\frac{AMF^+(k1)}{\max(0, PTDF(PSEO, 50HzT, k1)) * d_r(PSEO, 50HzT)}, 1\right) +$$

$$+ \max(0, PTDF(PSEO, 50HzT, k2)) * SP(AMF^+(k2)) * \min\left(\frac{AMF^+(k2)}{\max(0, PTDF(PSEO, 50HzT, k2)) * d_r(PSEO, 50HzT)}, 1\right)$$

$$CP_m(PSEO, 50HzT) = 0.0380 * 45 * \min\left(\frac{4.1}{4.94}, 1\right) + 0.0578 * 36 * \min\left(\frac{805.5}{7.51}, 1\right) = 3.50 \text{ EUR/MWh}$$

$$RC_R(PSEO, 50HzT) = \frac{CP_m(PSEO, 50HzT)}{AP_D(PSEO, 50HzT)} = \frac{3.50}{3.79} = 0.92$$

Reduction coefficient applicable to compensation of returned PTRs on *Source-Sink Pair* PSEO-50HzT is equal to 0.92 and individual *Auction Participant's* compensation is calculated as follows:

$$Compensation(A1) = 92 * 3.79 + 8 * 2.60 = 369.48 \text{ EUR}$$

$$Compensation(A2) = 27 * 3.79 + 3 * 2.60 = 336.33 \text{ EUR}$$

Article A4 – Example for NTC method

Two *Auction Participants* returned PTR to a daily *Auction Process* (no other PTR return):

Auction Participant	Source	Sink	Resold PTR (MW)	Original Auction Price (EUR/MWh)
A1	PSEO	50HzT	100	2.60
A2	PSEO	50HzT	30	2.60

Total returned PTR for PSEO-50HzT *Source-Sink Pair* is 130 MW.

Released capacities considered in the daily *Auction Process* are reduced:

Technical Profile	Offered Capacity (MW)
PSEO → 50HzT+CEPS+SEPS	100
CEPS+PSEO→50HzT	246

The daily *Auction Process* result example:

Source	Sink	Auction Price [EUR/MWh]
PSEO	50HzT	7.65

Technical Profile	Shadow Price (EUR/MWh)
PSEO → 50HzT+CEPS+SEPS	7.13
CEPS+PSEO→50HzT	0.52

Offered Capacity on Technical Profile PSEO → 50HzT+CEPS+SEPS is 100 MW, i.e. smaller than returned *PTR*, therefore total compensation is calculated as follows:

$$\begin{aligned}
 CP_m(x, y) = & SP(ATC_{x \rightarrow y}) * \min\left(\frac{ATC_{x \rightarrow y}}{d_r(x, y)}, 1\right) + SP(ATC_{x \rightarrow y, p}) * \min\left(\frac{ATC_{x \rightarrow y, p}}{d_r(x, y) + d_r(x, p)}, 1\right) + \\
 & + SP(ATC_{x \rightarrow y, p, q}) * \min\left(\frac{ATC_{x \rightarrow y, p, q}}{d_r(x, y) + d_r(x, p) + d_r(x, q)}, 1\right) + SP(ATC_{x, m \rightarrow y}) * \min\left(\frac{ATC_{x, m \rightarrow y}}{d_r(x, y) + d_r(m, y)}, 1\right) + \\
 & + SP(ATC_{x, m, n \rightarrow y}) * \min\left(\frac{ATC_{x, m, n \rightarrow y}}{d_r(x, y) + d_r(m, y) + d_r(n, y)}, 1\right)
 \end{aligned}$$

$$\begin{aligned}
 CP_m(PSEO, 50HzT) = & \\
 = & SP(ATC_{PSEO \rightarrow 50HzT, CEPS, SEPS}) * \min\left(\frac{ATC_{PSEO \rightarrow 50HzT, CEPS, SEPS}}{d_r(PSEO, 50HzT) + d_r(PSEO, CEPS) + d_r(PSEO, SEPS)}, 1\right) + \\
 & + SP(ATC_{PSEO, CEPS \rightarrow 50HzT}) * \min\left(\frac{ATC_{PSEO, CEPS \rightarrow 50HzT}}{d_r(PSEO, 50HzT) + d_r(CEPS, 50HzT)}, 1\right)
 \end{aligned}$$

$$CP_m(PSEO, 50HzT) = 7.13 * \min\left(\frac{100}{130}, 1\right) + 0.52 * \min\left(\frac{246}{130}, 1\right) = 6.00 \text{ EUR/MWh}$$

$$RC_R(PSEO, 50HzT) = \frac{CP_m(PSEO, 50HzT)}{AP_D(PSEO, 50HzT)} = \frac{6.00}{7.65} = 0.78$$

Reduction coefficient applicable to compensation of returned *PTRs* on *Source-Sink Pair* PSEO-50HzT is equal to 0.78 and individual *Auction Participant's* compensation is calculated as follows:

$$\text{Compensation}(A1) = 78 * 7.65 + 22 * 2.60 = 653.90 \text{ EUR}$$

$$\text{Compensation}(A2) = 23 * 7.65 + 7 * 2.60 = 194.15 \text{ EUR}$$