



**Draft benchmarking report on medium
and long-term electricity transmission
capacity allocation rules**

An ERGEG Public Consultation Paper

Ref: E09-ERI-23-03

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Abstract

This document E09-ERI-23-03 is an ERGEG (draft) benchmarking report on medium and long-term electricity transmission capacity allocation rules.

This document will allow ERGEG to identify best practices and to further improve the level of harmonisation of long-term products. This work is a step forward to establish a single European set of auction rules for medium and long-term capacity rights.

Target audience

For this consultation, the feedback from energy suppliers and traders will be particularly valuable, but also the responses from gas/electricity customers, gas/electricity industry, consumers representative groups, network operators, Member States, academics and other interested parties are sought.

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How to respond to this consultation

Deadline: **14 May 2010**

Comments should be sent by e-mail to Benchmark_LT_auction_rules@erggeg.org

All responses except confidential material will be published on the website www.energy-regulators.eu.

Treatment of Confidential Responses

In the interest of transparency, ERGEG

- i) will list the names of all respondents (whether confidential or not) or, alternatively, make public the number (but not the names) of confidential responses received;
- ii) requests that any respondent requesting confidentiality submit those confidential aspects of their response in a “confidential appendix”. ERGEG will publish all parts of responses that are not marked confidential.

For further information on ERGEG’s rules, see ERGEG Guidelines on Consultation Practices.

Related Documents

CEER/ERGEG documents

- “ERI Coherence and Convergence Report. An ERGEG conclusions paper”, 15 February 2008, Ref. E08-ERI-12-04, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/ERI%20Coherence%20and%20Convergence/CD/E08-ERI-12-04_CCR-CP_2008-02-15.pdf
- “Second ERI Coherence and Convergence Report. An ERGEG conclusion paper “, 11 March 2009, Ref. E08-ERI-19-04, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/2008%20ERI%20Coherence%20and%20Convergence/CD/E08-ERI-19-04
- “Safeguarding the move to a single EU energy market. ERGEG Regional Initiatives Progress Report – November 2009, Ref. , http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/Progress_Reports/2009/RI_Annual_Reports/RI%20Progress%20Report%2016%2010%202009.pdf
- “The Regional Initiatives – Europe’s key to energy market integration. ERGEG Regional Initiatives Annual Report – February 2008, Ref. , http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/Progress_Reports/2008/RI_Annual_Reports/RI_annual%20report_Feb2008.pdf
- ERGEG Regional Initiatives Annual Report. Progress and Prospects – March 2007, Ref., http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/Progress_Reports/2007/RI_Annual_Reports/RegionalInitiatives%20annual%20report_0.pdf
- “Firmness of nominated transmission capacity”, an ERGEG document, 15 July 2008, Ref. E08-EFG-29-05, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPERS/Electricity/2008/E08-EFG-29-05_FirmnessTransmissionCapacity_2008-07-15.pdf
- “New version of IFE rules. Public consultation Conclusions paper, ERI SW REM, 23 September 2008, Ref. E08-ERI-SW-RCC-05-03b, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/South-West/Final%20docs/E08-ERI-SW-RCC-05-03b%20IFE_%20rules_%20pc_%20conclusion_%20final.pdf
- European Energy Regulators’ 2010 Work Programme, 10 December 2009, Ref. C09-WPDC-18-03, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/C09-WPDC-18-03_public-WP2010_10-Dec-09.pdf

External documents

- “Congestion Management Guidelines annexed to Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity, European Commission, as amended on 9 November 2006, Ref. Commission Decision 2006/770/EC, <http://www.example.com/reference>
- Orden ITC/1549/2009 – Modifica la Orden de 30 de diciembre de 2005, sobre régimen para la realización de intercambios intracomunitarios e internacionales de energía eléctrica, Ministerio de Industria, Turismo y Comercio, 10 June 2009, <http://www.boe.es/boe/dias/2009/06/13/pdfs/BOE-A-2009-9840.pdf>

Executive summary

Objective

This report has the objective of comparing and identifying the best practices of ERGEG's Regional Initiatives concerning medium and long-term electricity transmission capacity allocation rules. Using this document, ERGEG will be able to identify next steps in this topic to work towards the harmonisation in long-term products. Indeed, a single European set of auction rules for medium and long-term capacity rights would facilitate cross-border trade on a long term basis.

Key messages

The report, after introducing the topic of long-term interconnection capacity rights, contains an overview of the current situation region by region. For this exercise, 21 interconnections have been analysed. The main findings are separately explained in a cross-regional basis.

The report draws a picture of how the long-term cross-border capacity rights are designed and what difficulties market players face in practice when they try to trade electricity on a long-term basis from one country to another crossing several interconnections.

Conclusions

The report highlights a certain degree of convergence of long-term auction rules (on the twenty one borders that have been taken into account in this study) notably in terms of conditions for participation in the auctions, the characteristics of allocated products and the functioning of secondary markets.

However, we still see a need for further harmonisation with regard to firmness of both allocated and nominated capacities. Other topics, such as the right level of capacities to allocate at the long-term timeframe should be addressed.

The harmonisation of long-term allocation rules should continue to be a priority within regions and across regions. The different regions should continue working in the direction of the 2009 Project Coordination Group target model.

1. Introduction

1.1. Background

1.1.1. Importance of the topic

In order to go towards the European Single Electricity Market cross-border interconnections play an important role. In this sense the medium and long-term products have a special importance due to the great volume of electricity that they represent in the cross-border exchanges. Besides, it facilitates long-term trade between market players located in different countries.

1.1.2. Objective and purpose of this paper

The purpose of this Consultation Paper is to seek stakeholders' views on medium and long-term electricity transmission capacity allocation rules.

This report has the objective of comparing and identifying the best practices of ERGEG's regions concerning medium and long-term electricity transmission capacity allocation rules. Using this document, ERGEG will be able to identify next steps in this topic to work towards harmonisation in long-term products. Indeed, a single European set of auction rules for medium and long-term capacity rights would facilitate cross-border trade on the long-term basis.

1.2. Questions for Public Consultation

In addition to inviting relevant stakeholders and market participants to respond generally to this consultation and participate in the discussions on this document, ERGEG seeks the opinion of the respondents on a number of specific issues related to the scope and applicability of the document.

The respondents are therefore invited to reply and provide comments on the following questions:

1. Do you think that an important degree of convergence has been reached in terms of conditions for participation in the auctions, the characteristics of allocated products and the functioning of secondary markets?
2. Do you think that a special attention should be paid by ERGEG on lack of harmonisation of auction rules, lack of firmness of both allocated and nominated capacities and long-term financial capacity products not allocated by TSOs?
3. What share of the available transmission capacity should be allocated on long-term basis and what should be reserved for short-term allocations? Please, give your justification for the proposed shares.
4. What concrete improvement in long-term auction rules would you propose?
5. What are the main difficulties, concerning auction rules, for trading electricity on a long-term basis from one country to another crossing several interconnections?

6. How do you see the development of auction platforms and what would you consider the most efficient solution for the internal electricity market (a more centralised approach or the current decentralised one) taking into account the developments on the solutions for day-ahead and intraday timeframes?
7. Any other comments.

2. Long-term interconnection capacity auction rules

2.1. An introduction on long-term interconnection capacity

1. With the aim of promoting an integrated electricity market in the European Union, a high degree of attention has to be paid by regulators and policy-makers to the allocation of cross-border capacity. Cross-border interconnections play a critical role in allowing the creation of a single internal electricity market and the integration of those markets which still remain primarily domestic in nature.
2. In particular, for the purposes of this report, the focus will be on long and medium-term interconnection capacity. Long and medium-term capacity enhances cross-border exchanges of electricity by allowing parties to alleviate the risks associated with the existing short-term volatility of price differentials between interconnected markets. Therefore, the efficient and optimal allocation of cross-border capacity is a key element towards the improvement of competition in the European electricity market.
3. The Congestion Management Guidelines annexed to Regulation 1228/2003, as amended by the Commission decision 2006/770/EC, mandates for congestion management methods to be market-based, in order to facilitate cross-border trades, and for allocation of capacity by means of explicit or implicit auctions.

In addition, the Guidelines recommend some further characteristics of congestion management methods and capacity allocation procedures. This is the case, for instance, for the issue of firmness of transmission capacity rights and for the application of the Use-It-Or-Lose-It (UIOLI) or of the Use-It-Or-Sell-It (UIOSI) principles. Similarly, the same holds for dispositions regarding the existence of a secondary market for transmission rights.

4. In the first and second ERI Coherence and Convergence Reports¹, ERGEG identified target mechanisms for congestion management from long-term to intraday timeframe. All respondents to the public consultation share ERGEG's view that there is an urgent need to implement at least within regions a **common allocation platform with a common set of rules**.
5. This benchmarking report will allow ERGEG to identify best practices and to further improve the level of harmonisation of long-term products. This work could be a step towards the establishment of a single European set of auction rules for long and medium-term capacity rights. Furthermore, this report will provide an important input to the ERGEG work on draft

¹http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/2008%20ERI%20Coherence%20and%20Convergence/CD

http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/ERI%20Coherence%20and%20Convergence/CD/E08-ERI-12-04_CCR-CP_2008-02-15.pdf

framework guideline on capacity allocation and congestion management as envisaged in the European energy regulators Work Programme for 2010².

2.2. An overview of actions recently undertaken by regions on long-term (LT) interconnection capacity allocation rules

6. As it was highlighted in previous Regional Initiatives annual Progress Reports³ and ERI Coherence and Convergence Reports⁴, almost all the European regions have been working on the improvement and harmonisation of allocation rules for long-term interconnection capacity. Indeed, improvement and harmonisation of auction rules are included among the priorities of most of the regions (Central-West, Central-East, Central-South, South-West and France-UK-Ireland).
7. Works of the European regions on long-term allocation rules were addressed on some particular issues, such as: a single auction office/platform within each region; the firmness of capacity rights and the effective functioning of secondary markets for the exchange of transmission rights.
8. With regards to the set-up of a regional single auction office/platform, it is important to highlight that the Central-West and Central-East regions have already established their own auction office to provide centralised services to other TSOs in the region (CAO for the CEE region and CASC for the CWE region). When implementing medium and long-term explicit auctions with a single allocation platform/office, the objective is to reduce transaction costs for market participants and TSOs, and to foster cross-border trading and competition.
9. As to the firmness of capacity rights, ERGEG issued on July 2008 its paper on “Firmness of nominated transmission capacity”⁵ and is currently dealing with firmness of allocated transmission capacity before the nomination stage. The objective of this activity is to identify a set of rules to be possibly applied uniformly in each region, in order to reduce differences among countries and to foster harmonisation.
10. With a view to develop effective secondary markets for transmission rights, most of the regions have focused on the application of the Use-It-Or-Sell-It (UIOSI) principle. Under the UIOSI rule, long-term capacity that is not nominated may be automatically re-sold on the market, and the previous right holder receives the resale price.

² European Energy Regulators’ 2010 Work Programme, 10 December 2009, Ref. C09-WPDC-18-03, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/C09-WPDC-18-03_public-WP2010_10-Dec-09.pdf

³ http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/Progress_Reports#

⁴ http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/ERI%20Coherence%20and%20Convergence/CD/E08-ERI-12-04_CCR-CP_2008-02-15.pdf and http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/2008%20ERI%20Coherence%20and%20Convergence/CD/E08-ERI-19-04

⁵ Firmness of nominated transmission capacity, 15 July 2008, Ref. E08-EFG-29-05, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPERS/Electricity/2008/E08-EFG-29-05_FirmnessTransmissionCapacity_2008-07-15.pdf

11. After mentioning the main actions undertaken by each region to improve long-term capacity allocation, it can be easily inferred that these initiatives enhance the degree of harmonisation within each region. Nevertheless, regulators need to have a close look at the whole European market dynamics. Indeed, the ultimate goal is to integrate regional markets into a single one, as such inter-regional coordination and harmonisation is a prerequisite to more quickly and easily achieving the final objective.
12. In this framework, a benchmarking report on long-term cross-border capacity allocation rules is useful to closely follow developments in each area, to highlight main existing differences between rules applied to each border and to set out appropriate recommendations to further enhance regional and inter-regional harmonisation of allocation rules.
13. Almost all the rules applied at European congested borders have a similar architecture dealing first with general conditions, then specifying the product features from long-term to shorter term. For its first benchmarking report on the long-term allocation rules ERGEG chooses to focus on the following points:
 - Capacity allocated in the long-term (LT) timeframe;
 - Participation at LT capacity auctions;
 - Format of LT capacity auction;
 - Nomination and firmness;
 - The existence of secondary trading;
 - Force majeure definition obligations and responsibilities of parties.

3. Main findings on a regional basis

3.1. South-West region

The South-West (SW) region only comprises two borders: the French-Spanish interconnection and the Portuguese-Spanish interconnection. As regards long-term transmission capacity rights, the two borders are managed differently.

The Portuguese-Spanish border is the internal border of MIBEL, which is a single wholesale market managed by a market splitting mechanism since July 2007, therefore providing a single day-ahead price when there is no congestion and two price areas when congestion exists. As regards long-term cross-border capacity rights, the MIBEL Board of Regulators proposed as of March 2006 the implementation of physical transmission rights (PTRs), however, in 2009, the Spanish Ministry of Industry (responsible for approving the allocation rules in Spain) proposed instead a financial hedging mechanism for the price risk derived from the market splitting.

This hedging mechanism is regulated by Order ITC/1549/2009, of 10 June 2009, and developed by Resolution of 16 June 2009, of the State Secretariat of Energy:

- The Order defines three kinds of products: 1) forward contracts (financial transmission rights (FTR)-obligation) covering exports from Spain to Portugal; 2) option contracts (FTR-option) covering exports from Spain to Portugal), and 3) option contracts (FTR-option) covering exports from Portugal to Spain.
- The Resolution approves the time horizon and the number of contracts of each type offered by the Spanish power system, subject to the limit of its assigned maximum available transfer capacity, periodically calculated and provided by TSOs, as stated by the Order. Quantities, periods and products offered in the auctions of financial contracts related to the interconnection between Spain and Portugal, hold or to be held during the year 2009 are as follows: 100 MW for 2009S2, 200 MW for 2010S1 and 200 MW for 2010Y; all contracts type #1 (obligations), base-load. The first auction, held on 29 June 2009, yielded a 2,01 Eur/MW price⁶.
- Sell offers posed by market participants can be added on top of the number of contracts offered by the Spanish power system in each of the auctions.

As this new product only exists since July 2009 and given that the scope of this document is restricted to PTRs, it has not been included in the current report.

The French-Spanish border is managed through explicit auctioning of PTRs in several timeframes: annual, monthly, daily and intraday. The set of rules applicable since 1 June 2009 is the so called "IFE rules" version 3 (capacity allocation rules for the France-Spain interconnection)⁷, elaborated and approved within the context of the ERI SW region. The

⁶ For auction results as well as for supply and demand aggregated curves, see:

http://www.subastasdifprecios.omel.es/en/pdfs/Results_DifPreciosAuction_29_6_2009.pdf
http://www.subastasdifprecios.omel.es/es/xls/Curvas_agregadas_29062009.xls

⁷ New version of IFE rules. Public consultation conclusions paper, ERI SW REM, Ref. E08-ERI-SW-RCC-05-03b, 23 September 2008, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/South-West/Final%20docs/E08-ERI-SW-RCC-05-03b%20IFE_%20rules_%20pc_%20conclusion_%20final.pdf

features of the IFE rules are quite coherent with the auction rules in the CWE and other ERI regions.

Unless otherwise stated, the following applies only to the French-Spanish border:

- Capacity allocated in the long-term timeframe

Borders	Average capacity allocated at all timeframes MW (*)	Average capacity allocated in LT (annual, monthly or others) MW (*)	Percentage of products allocated in LT timeframe
FR-ES	1345	431	32%
ES-FR	490	174	36%
PT-ES	10	0	0%
ES-PT	1071	0	0%

(*)In 2008, the annual capacity offered in the sense ES->FR (100 MW) is available not throughout the whole year but in the following periods: 01/01/2008 - 31/03/2008, 16/05/2008 - 31/08/2008, 16/11/2008-31/12/2008.

- Participation at LT capacity auctions

In order to participate, the participant must complete and sign the IFE Statement of Acceptance and provide two bank guarantees. The addition of the two bank guarantees must be at least 100.000 Euro. When the amount of current invoices is higher than the bank guarantee amount, a new guarantee equal to this amount is requested.

The conditions for the bank issuing guarantees are to be established in Spain, in Europe or in Switzerland or in Norway. Furthermore the bank should not be the participant itself or control its participant and should have a long-term financial rate at least A+ (Standard & Poor's) or A1 (Moody's).

The participant must also meet the following requirements in respect to the grid access:

- Signing a participation agreement in the I/E Rules with RTE, needed to conduct imports or exports to or from the French power system;
- Complying with the Spanish normative regarding import and/or export operations in the Spanish system.

- Format of LT capacity auction

Before running the auctions, the TSOs publish the capacities that will be auctioned and the day of the auction no later than five working days before the annual auction session and no later than two working days for the monthly auction session.

Only base-load products are auctioned in both timeframes (annual and monthly). Products could be continuous or discontinuous. In case of discontinuous products, the dates of interruption are specified in the auction specification.

The annual and the monthly auctions are run in one round.

Bids contain whole MW units, and bid prices in Eur/MWh expressed to a maximum of two decimal places. A maximum of ten bids for an auction can be submitted.

Marginal price is applied for all LT auctions.

Data resulting from the auctions are published no later than four hours after closure of the annual auction and no later than two hours after closure of the monthly auction on the TSOs' websites. Participants are informed of the results by electronic message.

The payment is done on a monthly basis after the use of the capacities.

- Nomination and firmness

One counterparty in each system should be designated by the participant and the participant will ensure that the nomination counterparty in each system has not been previously designated by another participant (A-to-B-and-only-B).

In the usage of annual and monthly PTRs agents must nominate to TSOs their firm intention to use PTRs in accordance with the nomination rules described in:

- The I/E Rules for nominations with RTE;
- The Operating Procedures points 3.1 and 4.1 for nominations with REE.

At 16h00, two working days before the day concerned by the capacity, the TSOs send to participant a recap of acquired capacities in the long-term auctions.

The deadline for nomination of long-term capacities is 07h45 day D-1.

Nominated capacities become physically firm and cannot be curtailed except in case of force majeure.

In case of curtailment before nomination of both monthly and yearly PTRs, participant is compensated at positive day-ahead market spread (i.e. the importing market hourly price minus exporting market hourly price) for all PTR reductions with caps:

- The first cap applies to the day-ahead market spread and is different for each direction (70 Eur/MWh ES→FR; 24 Eur/MWh FR→ES).
- The second cap applies to the total monthly amount of compensations. This cap is defined for each month as the sum of monthly auctions revenue and 1/12th of annual auctions revenue.

In case of force majeure, participants are reimbursed at PTRs' price paid in the auctions.

The caps mentioned in the point above have been implemented for the first time in the 3rd version of the IFE rules. The purpose of these caps is to cover most of the market spread values observed in a previous period and to avoid an excessive risk for consumers (amount of compensations cannot be higher than the corresponding congestion revenue). These values

shall be reviewed and adapted periodically to comply with these objectives. In fact, one of the goals pursued by regulators is to suppress these caps once market coupling is implemented and wholesale price references are reliable enough as well as the liquidity.

- The existence of secondary trading

The products allowed to be transferred by the participants through secondary trading are PTRs allocated through annual and monthly auctions or resulting from previous PTR transfers.

The minimum volume to be transferred is 1 MW over one hour. The deadline to notify a transfer is 12h00 of D-2 (working days), D being the delivery day. This service is organised by TSOs and is free of charge.

The transferor remains responsible for the payment of capacities initially acquired by paying the marginal price of the auction where the capacity has been initially acquired. In case of curtailments the compensation scheme applies in favour of the beneficiary (the agent who receives a PTR transfer).

On the resale side the minimum volume for PTR resale capacities is 1 MW over 1 month. The deadline to notify a resale is by 12h00 D-7 calendar days, D being here the date of monthly auction.

There is also an automatic resale in place: yearly and monthly capacities not nominated are automatically resold to the daily auction (UIOSI).

In both cases of the resale (on request or automatic), the price received by the reseller is the marginal price of the monthly or the daily auction where the capacity is effectively resold. This service is organised by TSOs and is free of charge.

In case of cancelation of day-ahead auction, resellers (either on request or automatic) are compensated at the day-ahead market spread with the same caps applied to compensations due to curtailments (see paragraph on nomination and firmness).

- Force majeure definition obligations and responsibilities of parties

“Force Majeure” means any not foreseeable event or situation beyond the reasonable control of the TSO and not due to a fault of such TSO which cannot reasonably be avoided or overcome, and which makes it impossible for one or both TSOs to fulfil, temporarily or definitively, its or their obligations hereunder in accordance with the terms of the IFE rules.

The party, which invokes a force majeure event, shall send the other party, as soon as it is aware or should reasonably have been aware of this event, a notification describing the nature of the event of force majeure and its probable duration. The obligations of such parties shall be suspended from the date of receipt of the aforementioned notification.

The parties can in no circumstances be held responsible or held liable to pay any compensation for damage suffered, due to the non-performance or faulty performance of all or part of their

obligations, when such non-performance or faulty performance is due to an event of force majeure.

3.2. Central-West region

In the Central-West (CW) region, system operators created in December 2008 a common subsidiary, the Capacity Allocation Service Company for the Central West-European Electricity Market (CASC-CWE) which is an auction platform to facilitate cross-border exchanges in the region. The operation of CASC-CWE started with 2009 auctions, using the three sets of rules currently in place through the region (one for the Dutch borders, one for the French-German border and one for the Belgian-French border). The single set of harmonised rules for the region, featuring all the functionality of the CASC platform, was approved by regulators of the region in September 2009 and entered into force on the 1st November 2009. It should be noticed that the relevant TSOs will continue to be in charge of nominations.

- Capacity allocated in the long-term timeframe

Borders	Average volume allocated at all timeframes MW	Average volume allocated in LT (annual, monthly or others) MW	Percentage of products allocated in LT timeframe
BE-FR	890	579	65%
FR-BE	2152	1,467	68%
BE-NL	1008	781	77%
NL-BE	1178	781	66%
FR-DE	3796	1,468	38%
DE-FR	4527	1,574	34%
DE-NL	2351	1,368	58%
NL-DE	3727	1,368	36%

- Participation at LT capacity auctions

Prior to its participation in the auctions and/or in the secondary trading, a participant must sign a declaration of acceptance stating that he shall comply with all provisions contained in the CWE auction rules and must provide financial guarantee.

In addition, to participate in the auction and/or in the secondary market, the participant shall:

- have signed the participant's financial agreement;
- have an EIC Code (Energy Identification Code);
- undertake to behave as a professional, preventing from any action which may lead to the damaging or reduction in effectiveness of the auction tool and/or information system;
- not be under a payment incident.

The bank guarantee consists of a business account that will be opened by the participant at the bank selected by the Joint Auction Office, allowing the Joint Auction Office to withdraw money in respect of the allocated capacities directly from that business account. To participate in an auction, the business account of the participants have to be credited with the amounts necessary for each auction (except for the annual auction, for which market participants have to provide only 1/6th of the amount before the auction). The business account remains the property of the Joint Auction Office.

- Format of LT capacity auction

Before running the auctions, CASC publishes the capacities that will be auctioned and the day of the auction no later than ten working days before the yearly auction session and no later than two working days for the monthly auction session.

Only base-load and continuous products are auctioned in both timeframes (annual and monthly).

The annual and the monthly auctions are run in one round, except on the Dutch borders where two rounds are organised for the yearly auction.

Bids contain whole MW units, and bid prices expressed in Eur/MWh to a maximum of two decimal places. A maximum of twenty bids for an auction can be submitted.

Marginal price is applied for all LT auctions.

Data resulting from the yearly and the monthly auction are published no later than thirty minutes after closure of the yearly auction on the joint auction office website. Participants are informed of the results by electronic message.

The payment is done on a monthly basis after the use of the capacities.

- Nomination and firmness

One counterparty (or the user himself) must be designated in each system.

At 14h00, two working days before the day concerned by the capacity, the auction office send to the participant a recap of acquired capacities in auctions and secondary trading that can be nominated.

The nomination of monthly and yearly capacities is done no later than 8h15 on D-1 to both TSOs of each border.

The held capacities are firm except in the event of a force majeure or reduction for reasons linked to the safety of the power system. A compensation equal to 110% of the marginal price of the initial auction at which this capacity was allocated for a reduction for reasons linked to the safety of the power system, or a reimbursement equal to 100% of the marginal price of the initial auction at which this capacity was allocated for a reduction in the event of a force majeure.

Once nominated, capacities become physically firm, except in case of force majeure, on the French-Belgian border in both directions, on the Dutch-Belgian border in both directions and on the French-German border in the direction France to Germany.

At the Dutch-German border in both directions, and at the French-German border in the direction Germany to France, exchange programmes (i.e. nominated capacities) may also be reduced by the TSOs for “reasons linked to the safety of the power system”. In such cases, compensation for participants whose exchange programs have been reduced is determined by the price spread of the relevant day-ahead, intraday or balancing markets (depending on the time when reduction was announced), thus providing financial firmness of nominated capacities.

- The existence of secondary trading

Participants can resale their held capacities or transfer it to another participant.

The yearly and monthly capacity held may be transferred free of charge, two hours after the results have been notified to the participant. The minimum volume of a transfer is one MW over one hour. This service is organised by TSOs.

The deadline for a participant to notify a transfer is at 12h00 no later than two working days before the day to which the capacity relates. The response time of the Joint Auction Office to the transferor and/or the beneficiary following a transfer notification is up to thirty minutes.

The participant which has acquired capacity at the auctions must fulfil its financial obligations towards the Joint Auction Office, even if he transfers all or part of its capacity.

Yearly product may be resold at the monthly auctions. The resale notification must be made by the reseller to the Joint Auction Office no later than 12h00, four working days before the day of the monthly auction. The minimum volume of a capacity for resale is one MW over one month.

There is also an automatic resale in place: yearly and monthly capacities not nominated are automatically resold to the daily allocation (UIOSI).

In both cases of the resale (on request or automatic), the price received by the reseller is the marginal price of the auction at which that capacity was resold. This service is organised by the TSOs and is free of charge.

- Force majeure definition obligations and responsibilities of parties

"Force Majeure" means any unforeseeable event or situation beyond the reasonable control of a party, and not due to a fault of such party, which cannot reasonably be avoided or overcome, and which makes it impossible for such party to fulfil temporarily or definitively, its obligations hereunder in accordance with the terms of the CWE auction rules.

The party, which invokes force majeure, shall send the other party a notification describing the nature of the force majeure and its probable duration. The obligations of a party subject to the force majeure, with the exception of confidentiality obligations, shall be suspended from the beginning of the force majeure. Allocated capacities that have been paid for and which become subject to a force majeure are reimbursed for the period of that force majeure.

The party can in no circumstances be held responsible or held liable to pay any compensation for damage suffered, due to the non-performance or faulty performance of all or part of its obligations, when such non-performance or faulty performance is due to a force majeure. The party, which invokes force majeure, shall make every possible effort to limit the consequences and duration of the force majeure.

3.3. Central-East region

A Common Auction Office (CAO) was formally established during summer 2008 in Freising (near Munich, Germany) and will serve as a central contact point for market participants for the capacity allocations in the region on eight borders. The TSOs and CAO elaborated a single version of auction rules for the entire region and the Central-East region regulators held a public consultation for these rules in October and November 2009 to give market participants the opportunity to provide their feedback on the draft version which should be considered for the final version valid for all borders of the region. The CEE regulators conducted at the end of November 2009 a detailed evaluation considering all comments received from market participants and proposed necessary amendments of the auction rules to the Central Allocation Office which will enter into force at a point in time which still needs to be defined.

- Capacity allocated in the long-term timeframe (examples)

Borders	Average volume allocated at all timeframes MW	Average volume allocated in LT (annual, monthly or others) MW	Percentage of products allocated in LT timeframe
AT-HU	427	304	71%
CZ-AT	459	275	60%
AT-SI	482	313	65%

- Participation at LT capacity auctions

Only market participants who declare their full and complete knowledge and acceptance of the valid and effective auction rules as published at the website of CAO may take part in the auction process. In order to ensure payments, secure the access to transmission capacities and the use of PTR, CAO requires three different (financial) risk management instruments. The sum of the value of the risk management instruments determines the credit limit of each auction participant and will be calculated by the CAO. Availability of the necessary credit limit is a prerequisite for market participants for being considered in the auction process and each market participant is responsible for providing a sufficient amount.

The risk management instruments are:

- Bank guarantee issued by a bank with a long-term credit rating: The bank guarantee will be taken into account in the credit limit with the maximum amount of fulfilment;

- Deposit on account of CAO;
- Deposit on escrow account of an auction participant at a bank chosen by CAO.

For participation in the auction process, the auction participant may choose any defined risk management instruments or a combination thereof. The auction participant is obliged to deliver the bank guarantee in original to CAO on the last working day before the day on which the deadline for the yearly or monthly auction process takes place, in order for the bank guarantee to be included into the calculation of the credit limit. To take part in the yearly auction the market participant has to provide an amount of 1/12th of total auction participants' bids value during the yearly auction process. For monthly auctions the participants have to provide the amounts necessary (total auction participants' bids value).

- Format of LT capacity auction

The CAO plans to flow-based capacity allocations for all relevant borders in the region and publishes in the ePortal, which is available for each registered auction participant, the capacity parameters (AMF, PTDF) for LT auctions. So far it was planned to introduce the new auction methodology in March 2010. However since TSOs face problems in defining the common grid model and the calculation the further proceedings and timing are to be modified.

Standard products (base- and peak-load) are allocated in LT auctions.

Each bid submitted in a yearly or monthly auction process must contain an identification of the user, a specification of the source-sink pair, the year and month to which the bid refers, the bid prices in Eur/MW and the amount of PTR to be allocated in MW without decimals. The minimum amount of a single bid is 1 MW and the maximum amount of a bid is 50 MW.

The auction prices are computed out of an optimisation algorithm which is maximising the overall social welfare within the region. Within this algorithm so called shadow prices are used which represent the increase of the objective function value (i.e. market value) connected with marginal increase of the inequality constraints (AMF, export limit).

The results of the yearly auction processes will be published on the CAO website at the day of the auction until 18h00 CET. For monthly auctions the results will be published until 15h00 CET at the day of the auction. The individual auction results of the specific auction process will be provided for each auction participant on the ePortal.

The payment for LT auctions is to be done on a monthly basis for the following month in advance.

- Nomination and firmness

The nominations of monthly and yearly capacities have to be done no later than 6h30 CET D-1 by delivery to the source and sink TSO in accordance with national market rules valid at the time of delivery. Concerned TSOs compare and match delivered schedules.

Nominated capacities are firm except for reductions (curtailment) due to emergency situations linked to the secure operation of the grid. Curtailments shall only be applied in emergency

situations where the transmission system operator must act in an expeditious manner and re-dispatching or countertrading is not possible. Any such procedure shall be applied in a non-discriminatory manner. Except in cases of “Force Majeure”, market participants who have been allocated capacity shall be compensated for any curtailment at the price paid in the initial allocation.

- The existence of secondary trading

Only allocated capacities from LT auction process may be subject of a transfer or a return to CAO and the TSOs. A transfer or return of capacity allocated in the daily auction process will not be accepted. These services are provided by the CAO and are free of charge.

The capacity holder is allowed to transfer the allocated capacity to another auction participant supported by a self-service on the CAO webpage on an hourly basis and for different amounts of capacity. The deadline for a participant to notify a transfer in the ePortal is no later than at 12h00 CET two working days before the day to which the capacity relates to. The receipt of the confirmation at the ePortal is the decisive criterion in meeting the time limit.

The participant which has initially acquired capacity in the auctions must fulfil his financial obligations towards CAO, even if he transfers all or part of its capacity. Apart from that all rights and obligations are transferred together with the capacity.

The notification of return of the allocated capacity shall be submitted by an auction participant to the ePortal by 12h00 CET two working days before the deadline for publishing AMF and PTDFs. An auction participant who returned capacity via CAO is entitled to receive per each returned MW and hour financial compensation equal to the auction price determined at the relevant monthly auction process, however according to the initial draft version the compensation may not exceed the original payment (auction price) for reservation of 1 MW and hour of the returned capacity paid by auction participant. Market participants and regulators do request a compensation mechanism without this limit.

For yearly and monthly capacities not nominated there is also an automatic resale to the daily allocation in place (not yet in the initial version but recommended by regulators after the public consultation).

- Force majeure definition obligations and responsibilities of parties

“Force Majeure” describes according to the definition in the auction rules “sudden unforeseen conditions and/or events and/or circumstances which, or the results of which, are beyond the reasonable control of a party and which cannot be prevented or overcome with reasonable foresight and diligence and which in the professional assessment of the party 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 its significant part and which cannot be solved by measures which are from a technical, financial and/or economic point of view reasonably possible for the party. In particular “Force Majeure” may lead to Emergency Situations.”

Capacity allocated in the auction process may be curtailed for any individual or all hours of a day in emergency situations where the CEE TSO must act in an expeditious manner and re-dispatching or countertrading is not possible. The curtailment procedure (differentiation between

curtailment of allocated PTRs and curtailment of nominated PTRs) should be initiated by the TSO which informs CAO about changed grid conditions. The CAO then immediately informs the auction participants on the date, the duration and the extension of curtailment.

In the case of “Force Majeure” as the origin of an emergency situation auction participants do not have the right to receive compensations from CAO or the TSOs. In other emergency situations each auction participant whose PTR has been curtailed will be compensated by CAO in the form of liquidated damages, 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 the auction participant (auction price).

3.4. Central-South region

The Central-South region includes seven interconnections between Member States (Italy-France, Italy-Austria, Italy-Slovenia, Italy-Greece, France-Germany, Austria-Germany and Austria-Slovenia) and four interconnections between Member States and Switzerland. Only mechanisms in place on the Italian interconnections (to Member States and Switzerland) are described in this chapter. Other interconnections between Member States are treated by overlapping regions.

A common auction office for explicit auctions in the Central-West and Central-South regions is currently being explored with a view to fulfil the common allocation procedure requirement in the EU’s mandatory Congestion Management Guidelines.

Since 2008, capacity allocation rules for the described borders have been harmonised in a common document.

- Capacity allocated in the long-term timeframe

Borders	Average volume allocated at all timeframes MW (*)	Average volume allocated in LT (annual, monthly or others) MW (*)	Percentage of products allocated in LT timeframe
France – Italy	2928	2316	79%
Austria – Italy	216	203	94%
Slovenia – Italy	375	325	87%
Switzerland – Italy	1945	1289	66%
Italy – Greece	861	500	58%

(*) The data takes into account discontinuous products.

- Participation at LT capacity auctions

Participants to LT capacity auctions must:

- complete and sign the “Statement of Acceptance” of auction rules:

- provide one bank guarantee for each exporting country (i.e. one for export to several countries from Italy, or two for importing to Italy from two different neighbour countries);
- meet grid access requirements.

For all interconnections/directions, the minimum bank guarantee for participation in LT auctions is 50 000€. For all LT export capacities from Italy, the minimum guarantee level for PTR holders is the sum of 1/12th of all outstanding debts resulting from yearly auctions and all outstanding debts from monthly auctions. For holders of LT capacities from France to Italy, the minimum guarantee is 500 000€, and from Greece to Italy, 1/4th of debts resulting from yearly auctions.

For auctions on LT capacities on the interconnection between Italy and Slovenia, an extract from the court register of companies must be provided.

For auctions on LT capacities from Italy to other countries, the bank guarantee must be subject to Italian law and be provided by a bank with a registered office located in a Member State of the European Union having a subsidiary duly established in Italy.

For auctions on LT capacities to Italy:

- from France, the bank guarantee must be provided by a solvable credit institution located in Europe, Switzerland or Norway, having a long-term financial rate at least A+ or A1. The credit institution cannot be the user itself or controlling the user;
- from Austria, an Austrian business account must be opened that can be used to collect automatically invoices for LT auctions;
- from Greece, the bank guarantee must be subject to Greek law and be issued by a bank legally operating in a member state of the EU;
- from Slovenia, the bank guarantee must be subject to Slovenian law;
- from Switzerland, the bank guarantee must be provided by a credit institution rated A- by a rating agency. Moreover, it must allow for automatic collection in Swissgrid's favour.

- Format of LT capacity auction

Annual (monthly) capacity auctions are announced on the auction operator's website five (two) calendar days before the auction takes place on all the Italian borders. The ATC and the type of products to be auctioned are announced for annual and monthly capacity auctions. The capacities are sold in one round.

Annual base-load products are sold on all borders and in both directions. Continuous annual base-load products are sold on the Italian borders to France, Slovenia and Switzerland in both directions. In addition, discontinuous annual base-load (without August) products are sold from France, Slovenia and Switzerland to Italy, from Italy to Greece and on the Italian-Austrian border (both directions).

Annual peak-load and off-peak-load products are only sold from Greece to Italy.

Monthly capacities are sold as:

- Base-load from France to Italy and from Italy to all the other interconnected countries;

- Peak-load in both directions on all the Italian interconnections except from Italy to Greece;
- off-peak-load on all the Italian interconnections in the export directions (seen from the Italian side), as well as in the import direction from France.

All these monthly products are continuous.

Bids for annual or monthly capacities must contain whole MW units and bid values must be in Eur/MWh with maximum two decimals. A maximum of ten bids can be submitted for each auction. The deadline for submitting bids is fixed in the auction specifications.

Marginal price is applied for all LT auctions.

Auction results for annual and monthly capacities are communicated to participants no longer than two hours after gate closure on all borders and in all directions except for capacities from Slovenia to Italy, where results are communicated thirty minutes after gate closure. Results are communicated by e-mail.

Shortly after, the results, as well as the name of the holders, are published on the auction website.

The payment is done on a monthly basis before the use of the capacities, except in the direction France to Italy.

- Nomination and firmness

On all borders except France-Italy, several counterparties may be registered for annual and monthly capacities (A-to-N). For capacities from France to Italy, one single counterparty may be registered (A-to-B-and-only-B), and from Italy to France the capacity holder must designate himself (A-to-A).

On the French-Italian border, programming authorisations are sent about 16h00 two days before execution.

The nomination of monthly and yearly capacities is done no later than 8h30 on D-1 to TERNA for TERNA side, no later than 07h00 on D-1 to RTE, HTSO, ELES and Swissgrid for their respective sides and no later than 07h15 to APG for APG side.

Allocated capacities can be curtailed for network security reasons up to 35 days or 840 hours each year, or even more in case of force majeure. In any case, the capacity holder will be compensated 100% of the price paid, except for holders of capacities from France to Italy, who are compensated at 110% for curtailments caused by network security reasons (100% for force majeure). Curtailment is calculated separately for each product, and held capacities are curtailed on a *pro rata* basis.

Except on the Austrian-Italian border, capacities are physically firm after nomination (except in case of force majeure).

- The existence of secondary trading

Annual and monthly capacities can be resold or transferred to a beneficiary. The minimum volume for a transfer or resale is 1 MW over one hour.

Transfer and resale are free of charge and are organised by the TSOs. In both cases, the initial capacity holder remains responsible for the payment of the transferred capacities.

Transfers must be notified by the transferor before D-2 12h00. The beneficiary must accept the transfer within four hours. For capacities from France to Italy, the auction operator needs approximately one hour to respond to the transferor and/or beneficiary following a transfer notification, except downgraded mode.

In case of curtailment, the beneficiary is compensated in the same way as any other capacity holder.

Annual capacities can be resold as monthly capacities on request. On most interconnections/directions, the resale must be notified three working days before monthly auction specifications are published. The exceptions are yearly capacities from France to Italy (seven working days before the day of the monthly auction) and from Slovenia to Italy (two days before the publication of monthly auction specifications).

Both annual and monthly capacities which are not nominated are automatically resold as daily capacities (UIOSI). If the daily auction is cancelled, the resellers are compensated up to 100% of the clearing price of the auction at which the curtailed PTRs were originally acquired, except for capacities from France to Italy, which are compensated at 110% of the weighted average of the clearing prices of yearly and monthly auctions at which the non-nominated capacities were acquired.

Resellers receive the clearing price of the auction through which their capacities were resold.

- Force majeure definition, obligations and responsibilities of parties

In CSE, force majeure is defined as any unforeseeable event or situation beyond the reasonable control of a party, and not due to a fault of such party, which cannot reasonably be avoided or overcome, and which makes it impossible for such party to fulfil temporarily or definitively, its obligations hereunder in accordance with the terms of the auction rules.

The obligations, duties and rights of a party subject to the force majeure (except for confidentiality) shall be suspended from the beginning of the event for such period as it is reasonable having regard to the effect of the impediment.

The party which invokes force majeure can in no circumstances be held responsible or held liable to pay any compensation for damage suffered, due to the non-performance or faulty performance of all or part of its obligations, when it is due to force majeure.

3.5. Northern region

Within the Nordic region, there are different concepts with regard to the longer term hedging products provided:

- Explicit capacity auctions for long and medium-term allocations are used on the interconnector between Germany and Denmark-West. Consequently only this border is described in this section and a short description of the financial instruments applied on other borders is given.
- On the other borders (Denmark-East to Germany, Denmark-Norway, Denmark-Sweden, Sweden-Finland, Norway-Sweden and Sweden-Germany), yearly and monthly hedging products are provided by the financial markets and can be traded e.g. on the Nordic power exchange Nord Pool.
- At the Nordic financial electricity market, the underlying reference for the future and forward contracts are the prices at Nord Pool Spot's day-ahead auction market (Nord Pool Spot is the Nordic electricity exchange, where electricity is traded day-ahead and intraday through implicit auctions).

Every afternoon, Nord Pool Spot publishes the so-called system price. For each hour of the following day, Nord Pool Spot quotes a system price. The system price is the theoretical, common wholesale electricity price we would have in the Nordic area, if there were no grid bottlenecks.

Also, for each hour of the next day and for each Nordic bidding area, Nord Pool Spot publishes an area price. This is the price at which energy is actually traded in the area on the wholesale market.

The system price is used as the underlying reference for the standard Nordic financial contracts. The point is for example that a Finnish retailer and a Swedish producer can agree to enter into a financial contract using the system price as the underlying reference, as the system price is a "fair" underlying reference for both parties.

However, for example for the Finnish retailer, this is an imperfect hedge. If the retailer wants a better hedge, he needs to hedge against the additional risk that there is a difference between the system price and the local area price. In order to do this, the retailer can enter into a contract for difference (CfD). For example, a CfD for Finland is a financial forward contract hedging against the risk that there turns out to be a difference between the system price and the Finnish area price.

Hence, in order to have a good hedge, a Nordic player needs two financial contracts: a contract hedging against the system price and a CfD. In total, the two financial contracts provide the player with a hedge against his area price.

- Capacity allocated in the long-term timeframe

Borders	Average volume allocated at all timeframes MW	Average volume allocated in LT (annual, monthly or others) MW	Percentage of products allocated in LT timeframe
Germany-Denmark West	950/1500	200, 200 and residual	Minimum 26% Maximum 42%

- Participation at LT capacity auctions

For participating in the long-term auctions, the participant must sign an acceptance of the auction rules. The participant must have a balance responsible agreement with TPS and ENDK.

For participating in the explicit auctions no financial guarantees must be provided. However for the balance responsible contracts guarantees are necessary. The party must present a bank guarantee of DKK 2,000,000 to ENDK to become balance responsible. Financial guarantee in Germany depends on the value of the respective company (company ranking, risk assessment).

- Format of LT capacity auction

The deadlines, rules and capacities (incl. possible reductions) offered are announced two weeks before the yearly auction and one week before the monthly auction on the web and by mail to all registered participants.

Only base-load and continuous products are offered.

Bids must be with maximum 1 decimal in MW and with 2 decimals in Eur/MWh. There is no limit to number of bids and all bids are individual.

Marginal price is applied for all LT auctions.

The results are normally published on the webpage within two hours. All participants are informed about the results normally within the same time.

The payment is done on a monthly basis after the use of the capacities.

- Nomination and firmness

For the use of capacity a one-to-one relationship must be defined.

Immediately after the respective auction session, a programming authorisation is sent to the participant reminding the capacities that can be nominated.

Nomination must be made prior to 08h30 the day ahead to TPS.

Transaction curtailment procedures shall only be used in emergency situations where the TSO must act in an expeditious manner and redispatching or countertrading is not possible. Any such procedure shall be applied in a non-discriminatory manner. Except in cases of “Force-Majeure”, market participants who have been allocated capacity shall be compensated for any curtailment. Compensation equals to 110% for a reduction for reasons linked to the safety of the power system or to 100% for a reduction in the event of a force majeure. No consequential losses shall be taken into account for this purpose. Pro-rata reduction in curtailment situations is applied.

- The existence of secondary trading

Only transfers of capacity are possible. The minimum volume for a PTR transfer is 0.1 MW. Transfer should be notified one week before the day of operation. The deadline for the TSO to respond to the transferor and the beneficiary is as soon as the transfer is integrated in the IT-system. This service is organised by the TSOs and is free of charge.

No resale is allowed.

- Force majeure definition obligations and responsibilities of parties

Under Danish statutory law there is no definition of force majeure. Consequently the contractual substance of force majeure clauses varies. In general, force majeure will mean any not foreseeable event or situation beyond the reasonable control of the parties and not due to a fault of such party which cannot reasonably be avoided or overcome, and which makes it impossible for one or both of the parties to fulfil, temporarily or definitively, their contractual obligations.

3.6. France-UK-Ireland region

The region comprises two Direct Current interconnectors (cable) the IFA and Moyle interconnections. The Interconnexion-France-Angleterre (IFA) is currently the only interconnector in the France-UK-Ireland (FUI) region connecting two Member States and subject to the requirements of EU legislation and the Congestion Management Guidelines (CMGs). A joint mechanism for the allocation and use of long-term interconnection capacity has been in place on IFA since April 2001. Recent improvements on the IFA include the introduction of a new capacity management system (CMS) in October 2009 in charge of the allocation and the nomination for the account of NGIL and RTE. At this occasion a new set of rules was implemented and approved by the regulators.

The Moyle Interconnector is located within the UK, but links the BETTA and SEM markets. While it is not classified as an interconnector under EU legislation, Moyle has implemented some of the EU requirements for interconnectors such as third part access rights. Under its licence Moyle makes capacity available to the market in accordance with access arrangements which are subject to the approval of NIAUR.

- Capacity allocated in the long-term timeframe

Borders	Average volume allocated at all timeframes MW	Average volume allocated in LT (annual, monthly or others) MW	Percentage of products allocated in LT timeframe
UK-FR	2000MW	Calendar year: 550 Financial year:350 Seasonal:300 Quarterly:300 Monthly:300 Daily:200	90%
UK (GB – NI)	450MW Winter/410MW Summer GB – NI, 80 MW NI – GB	GB – NI: 2 and 3 years: 40 MW Annual:160 MW Monthly: 60 MW NI- GB: 2 and 3 years: 0 MW Annual: 30 MW Monthly: 10 MW	100% (Capacity unsold in any auction will be made available in the shorter term auctions for the relevant period – i.e. unsold annual capacity will be made available for the monthly auctions).

- Participation at LT capacity auctions

On IFA, to be eligible to participate in the auctions, the secondary market and the nominations process, a participant must be a party to an “IFA User Agreement” with the operators and have provided payment security.

The participant must also meet the following requirements in respect to the grid access by being a party to the following agreements:

- i. Use of System Interconnector Agreement with NGET; and
- ii. the Framework Agreement established under CUSC;
- iii. a Framework Agreement as defined in the Balancing and Settlement Code; and
- iv. an Accord de Participation with RTE.

A payment security in the form of credit cover must be in the amount calculated below, in Euros and must be in the form of a letter of credit; and/or a cash deposit in a deposit account established and notified by the operators.

Whatever the form of the payment security is, an auction credit limit is calculated for each user in respect of each auction. A user will only be able to participate in an auction if its auction credit limit, in respect of that auction, is greater than zero.

In the case of long-term auctions with a product period greater than one month, one month of potential maximum commitment associated with the bid will be considered (e.g. in an auction

with a product period of a year where the auction credit limit is 100 Euros, bids will be permitted up to a level that create a total product period commitment of 1,200 Euros).

The conditions for the bank issuing the payment security is as follows: banks which have a long term debt rating of not less than A by Standard and Poor's Corporation or by Moody's Investors Service Inc., or such other bank or banks as the operators may approve, and which shall be available for payment at a branch of the issuing bank as specified by the issuing bank, provided that the branch so specified shall be located within the boundaries of the mainland of Great Britain.

On Moyle, bidders must have signed up to the Moyle Interconnector Capacity Framework Agreement (MICFA), available on the website

Bidders must have signed the Moyle Interconnector Framework Deed and a Transmission Use of System (TUoS) with SONI, Bidders are required to have signed a Connection Use of System agreement with National Grid. The Moyle Interconnector owner is granted access to the systems via its connection agreements with each system operator. Bidders are required to have assigned to the Balancing Settlement Code in BETTA and the Trading and Settlement Code in the SEM.

Unless otherwise agreed by Moyle at its sole discretion, if at the beginning of any capacity period, the capacity holder does not have an approved credit rating, then by the date of commencement of the capacity period (or such later date as is agreed by Moyle at its sole discretion) the capacity holder must provide the security cover. If the capacity holder is required to provide security cover, it must deliver to Moyle and subsequently maintain security against payment default in the form of a letter of credit; or a cash deposit in an interest bearing joint deposit account; or such other form as Moyle agrees (which may, if agreed by Moyle include a parent company guarantee from an entity that has an approved credit rating ("Guarantor") in favour of Moyle.

The amount of bank guarantees to be provided is the capacity costs for the next 3 months. The Payment in advance of use of PTR for annual capacity is payment monthly in advance and for monthly capacity it is payment monthly in arrears.

- Format of LT capacity auction

On IFA, the following long-term products are auctioned: calendar annual; financial annual; seasonal (six months period: winter period from October to March inclusive, summer period from April to September inclusive); quarterly (three months period: January to March inclusive, April to June inclusive, July to September inclusive, October to December inclusive); calendar month; and weekend (Saturday and Sunday).

The operators publish, before the 1 December, a provisional calendar with the dates of all long-term auctions for the following calendar year.

Five days before the day when a long-term auction is planned, the operators shall publish an initial auction specification defining the date of auctions and the offered capacities. The number of units auctioned in a long-term auction will include a proportion of the available interconnector capacity not already allocated to users and units available for resale.

Only base-load and continuous products are auctioned in all timeframes. Auctions are generally run in two rounds.

Bids contain whole MW units, and bid prices in Eur/MWh expressed to a maximum of two decimal places. A maximum of twenty bids for an auction can be submitted.

Marginal price is applied for all LT auctions.

Preliminary results of the long-term auction are published two hours after the end of the bidding period on the CMS. The final results are published on the CMS thirty minutes after the end of the period dedicated for checking the auction results. The payment is done on a monthly basis after the use of the capacities.

Moyle offers its available capacity to the market in long-term (1-3 years) and short-term (monthly at present) auctions. Capacity is sold on the terms of a standard contract (“the Moyle Interconnector Capacity Framework Agreement”). The terms of the auctions are set out in the “Invitation to Bid” documents published in advance each month by SONI.

Users bidding for monthly capacity on the Moyle Interconnector can bid for either standard capacity, which reserves a specified amount of MWs for the month, or non-standard capacity which reserves a minimum amount of MWh for the month, with any additional usage charged per MWh on a pay-as-you-go basis. The monthly capacity is sold in standard blocks of 5 MW. The non-standard product was introduced to encourage the use of the interconnector at a time when the interest in using Moyle was low.

SONI acts as auction agent for Moyle. All potential capacity holders must enter into an agreement with Moyle before their bid can be considered. The auction is a manual process, with paper bids being submitted by courier or post to SONI before 10am on the day of the auction. Bids are opened by SONI in the presence of a representative of NIAUR.

To facilitate the use of Moyle if market conditions change in the short-term potential capacity users may apply to Moyle to purchase unsold capacity within the month. If the offer price is greater than or equal to the average price paid at auction then Moyle may bi-laterally agree a sale. If the offer price is less than the average price paid at auction (or the reserve price if no bids were received) then Moyle may bi-laterally agree a sale but only after inviting offers from other potential interested parties and allocating available capacity on the basis of the highest price (value to Moyle) offered first.

Only base-load and continuous products are auctioned in all timeframes. There are three rounds for annual capacity and one round for monthly capacity.

Timing of auctions is set by Moyle for annual (or 2/3 year) period at least four weeks before (though not earlier than five months before) and for monthly auction periods at least five days (though not earlier than one month) in advance.

- Nomination and firmness

On IFA, the operators are notified of their long-term Interconnector Capacity Entitlement (ICE) for contract day D in each direction at 16h15 on the day D-2.

Unit holders can submit long-term nominations for the contract day D, from opening of the gate at 16h30 on the day D-2 until gate-closure at 09h30 on day D-1. Participants should nominate to one operator only.

Both allocated and nominated capacities can be curtailed. The capacities are curtailed pro rata for all users in the following order: intraday nominations, daily nominations and long-term nominations.

Unit holders will be credited in full for the unit price of curtailed units where practicable. If there is a capacity shortage in any settlement period in a given direction leading to the curtailment of the long-term unit holder, the corresponding curtailed units will be credited to the unit holder at a price based on the weighted-average price of the units within its long-term ICE for that settlement period.

It should be noticed that on IFA the market participants are responsible for losses, consequently they have to increase their injection according to the losses factor.

On Moyle, total capacity holdings for each participant is sent by the interconnector administrator to the Market Operator (SEMO) by TD-1 10h00. The information is also available via the Moyle Interconnector Trading System (MITS).

Participants must provide the interconnector administrator with the BM units (BETTA) and participant ID (SEM).

On the Moyle, nominated capacities cannot be curtailed except if the interconnector ATC changes due to operational reasons.

If (a) the ATC is reduced below the Nominal Transfer Capacity (NTC) for more than 24 consecutive hours by reason of the occurrence of an outage event; and (b) the quantity of electricity (“Reduced Quantity”) transferred across the Moyle Interconnector for the capacity holder in any trading period is less than the quantity (“Nominal Quantity”) which would have been so transferred if the available transfer capacity had not been reduced by such outage event, the capacity holder shall be entitled to a rebate of the capacity charges (“Rebate in Capacity Charges”) applicable to each trading period during which the available transfer capacity is reduced by the outage event (for so long as such reduction continues).

- The existence of secondary trading

On IFA, capacity transfer of a unit holder’s rights to use units is permitted. Units are being subject to capacity transfer across whole hours and in at least one hour of one contract day. At least one unit is being subject to capacity transfer and shall be whole number. This service is organized by the TSOs and is free of charge.

Any long-term unit for the contract day D can be subject to a capacity transfer notice until 15h30 on the day D-2.

The user to whom the capacity transfer was made is treated as the unit holder of those units, however, the original unit holder is obliged to pay for the capacity that has been the subject of a capacity transfer.

A unit holder may make a resale request for a forthcoming long-term auction. The resale request must be for resale of units with a product period that wholly includes the product period of the units being offered in the relevant forthcoming long-term auction. The deadline to notify a resale is 30 minutes before the final specification of another long-term auction.

LT capacity rights are subject to UIOSI (automatic resale) if they are not nominated as detailed above.

The price at which resale units are sold is the marginal price of the auction specified in the resale request. This service is organised by the TSOs and is free of charge.

There are no secondary trading provisions on **Moyle** other than by novation or assignment subject to conditions and consent of Moyle owner to be obtained at least three days prior to the first trading day of the transfer. Only products not sold at auction are offered for resale. Capacity holders cannot return unwanted capacity already bought for resale.

- Force majeure definition obligations and responsibilities of parties

On IFA, force majeure means, in relation to the operators or a user, any unforeseeable event or any situation which is beyond the reasonable control of that person, and not due to a fault of such person, which cannot be reasonably avoided or overcome, and which makes it impossible for such person to fulfil temporarily or permanently its obligations under these rules.

The operators (either individually or jointly) or a user, which invokes force majeure, shall promptly send to the other a notification describing the nature of force majeure, its probable duration and must continue to furnish reports with respect thereto with reasonable frequency during the period of force majeure. The person invoking the force majeure shall make every possible effort to limit the consequences of the force majeure.

The obligations of a party subject to force majeure shall be suspended from the beginning of force majeure, with the exception of the confidentiality provisions.

The consequences of force majeure which is not subject to any discussion or litigation between the operators and the user, are:

- i. the person invoking force majeure cannot be held responsible to pay compensation for any damage suffered, due to the non-performance or partial performance of all or any of its obligations during the force majeure and when such non-performance or partial performance is due directly to force majeure;
- ii. the acquired units which have been entirely paid and become subject to force majeure are reimbursed for the duration of the force majeure.

On Moyle, force majeure means in relation to a party, any event or circumstance, or series of events or circumstances, beyond the reasonable control of that party (provided that lack of funds shall never be interpreted as a cause beyond the reasonable control of a party), which could not have been avoided through the use of "Good Industry Practice", and which has the result that the party is unable to perform any or all of its obligations under the capacity

framework agreement or any capacity contract. Force majeure includes: (a) war (whether declared or undeclared), (b) revolution, riot, insurrection, public demonstration or other civil commotion; (c) acts of terrorism, sabotage, criminal damage or threat of such acts; (d) nuclear explosion, radioactive or chemical contamination or ionising radiation; (e) act of God, any effect of the natural elements, including lightning, flood, wind, storm, unusually heavy or prolonged rain or accumulation of snow or ice; and (f) strikes and labour disputes, provided that any change in market conditions affecting the price of electrical capacity or any change in the electricity markets of Northern Ireland, the Republic of Ireland and/or Great Britain shall not constitute force majeure.

Obligations in relation to force majeure exist to the extent a party is unable to perform those obligations by reason of the force majeure event.

The non-performing party must use all reasonable efforts to remedy its inability to perform and to mitigate the effects of any event of force majeure. The non-performing party must give the other party prompt written notice describing the circumstances of force majeure, including the nature of the event and its expected duration, and must continue to furnish regular reports during the period that is affected by the event of force majeure. The non-performing party must afford the other party reasonable opportunity for obtaining further information about the circumstance of force majeure and the steps the non-performing party is taking to remedy or mitigate the effects

As soon as practicable after the occurrence of the force majeure event the parties must discuss how best to continue to perform their obligations as far as possible in accordance with the capacity framework agreement and any capacity contracts.

An event of force majeure does not excuse either party from its payment obligations.

3.7. Baltic region

As there is no congestion in the Baltic electricity networks congestion management procedures are not developed.

4. Main findings on a cross-regional basis

The previous part highlighted the main principles of the allocation of long-term physical transmission rights in the electricity regional initiatives.

There are currently 28 congested interconnections in the seven Regional Initiatives. On 21 borders long-term congestion allocation mechanisms are in place allocating physical transmission rights (PTRs), with a UIOSI feature for 19 of them.

This overview considered the mechanisms applied on 21 borders in Europe: the French-Spanish interconnection in the SWE region, the France-UK interconnection and the Moyle interconnection in the FUI region, the four borders of the CWE region, the five borders of Italy in the CSE region, the German-Denmark West border in the Northern region and eight borders in the Central-East region.

4.1. Participation at LT capacity auctions

Whatever borders are considered, participants must sign a statement of acceptance of the rules, must provide financial guarantee and must also meet requirements in respect to the grid access.

The form of the financial guarantee varies with the borders; it could be a bank guarantee (in SWE and CSE regions) or a deposit on a business account (on CWE borders and on IFA) or both or a combination of them (in CEE).

Regarding the bank guarantee, the amount varies from 50k€ to 500k€. However, in general the same principle is applied for all borders: the amount of the collateral has to be adjusted to cover the amount of invoices.

Regarding the business account, the same principle is applied: the business account of the participants has to be credited with the amount necessary for each auction (except for the annual auctions where generally only a part of the amount is needed).

4.2. Format of LT capacity auctions

Characteristic	No. of borders	Additional details
Only one round to allocate yearly capacity	16	Two rounds are applied on Dutch borders and on IFA.
Base-load annual products are traded	21	
Peak load and off-peak load annual products are traded	1	From Greece to Italy only.
Base-load monthly products are traded	21	In CSE region: base-load products are available only from Italy to all interconnected countries (but both directions from France).
Peak load monthly products	12	CSE: in both directions on all.

Characteristic	No. of borders	Additional details
are traded		
Off-peak load monthly products are traded	5	In CSE on all the Italian interconnections in the export directions as well as in the import direction from France.
Continuous products (i.e. without interruptions: products are offered for all hours of all days in a period)	21	Note in the direction Spain to France the annual product can be discontinuous but period of unavailability are specified ex ante.
Discontinuous products	6	Depending on the direction in the CSE region.
Marginal price is applied	20	
Pay-as-bid is applied	1	
UIOSI	19	Planned in the final rules in CEE.
Other type of products	1	On IFA financial annual, seasonal, quarterly and week-end products are also allocated.

The long-term products have almost the same principles: they are auctioned in one or two rounds and in all auctions marginal price is applied.

The percentage of capacities allocated in long-term timeframe varies from 32% on the French-Spanish interconnection to 100% on Moyle. Only the CAO in the Central-East region is elaborating flow-based capacity allocations.

Generally, the long-term products are allocated on an annual and monthly basis. Only on Moyle interconnection, multi-annual products are allocated. There are also seasonal and quarterly products allocated on IFA.

Generally base-load and continuous products are sold. On the French-Spanish border and on several borders in the Central-South region discontinuous products are allocated notably when continuous products can't be offered by TSOs. There are also peak load and off peak products available on several borders in the Central-South region.

The payment of the acquired rights is done on a monthly basis and after the use of the capacities except in the Central-South region (depending on the direction) and in the Central-East region where the payment is done in advance of use.

4.3. Nomination and firmness

Characteristic	No. of borders	Additional details
Capacity can be curtailed before nomination	21	
- Curtailment compensation based on market-price differential	1	On IFE, caps on the compensation are applied.
- Curtailment compensation based on initial price paid	20	Depending on the borders, participants are reimbursed (100% of the initial price paid) or compensated (110% of the initial price paid).
Capacity can be curtailed after nomination	14	
- Curtailment compensation based on market-price differential	2	On the Dutch-German border (in both directions) and on the French-German border in the direction Germany to France.
- Curtailment compensation based on initial price paid	12	Depending on the borders, participants are reimbursed (100% of the initial price paid) or compensated (110% of the initial price paid).
Limitation of the number of curtailments	5	On Italian borders, curtailments are allowed up to 35 days or 840 hours.

Before the nomination, reductions are always possible on all borders. Only on the French-Spanish border, a compensation based on the price differential is provided. On other borders the participants are compensated by receiving 110% of the initial price paid or simply reimbursed.

On fourteen of the borders analysed, the capacities could be curtailed after the nomination stage. However, only on the Dutch-German border (in both directions) and on the French-German border (in the direction Germany to France) a compensation making the participant indifferent between using its capacity right and being curtailed is provided. In the FUI and CEE regions and on the Austrian-Italian border, any reductions in capacities are reimbursed at the initial purchase price and no additional compensation is provided.

On all these borders, there is no possibility for TSOs to buy back allocated capacities on the secondary market in order to improve the firmness of allocated capacities and avoid reductions.

In conclusion, the degree of firmness varies from one border to another as well before and after the nomination stage. Several points are worth being addressed:

- the harmonisation of the firmness before the nomination notably the compensation applied and the degree of firmness (e.g. the number of curtailments days);
- the harmonisation of firmness after the nomination towards physical firmness: indeed, physical firmness is applied on almost all borders. This is particularly important in the context of the ongoing development of market coupling in the day-ahead timeframe.

Regarding the nomination, it should be highlighted that the time to nominate the capacities varies (the earliest time is on the Italian border for capacities to Italy due to the early gate closure of the power exchange).

The participants nominate their use of the acquired capacities to both TSOs, except on IFA where there is a single point of contact for the nomination.

A full harmonisation of the time of nomination is certainly difficult for users except if there is harmonisation of the nomination process of TSOs, but it is one of the harmonisation requirements from the Congestion Management Guidelines. However the implementation of a single point of contact for nomination at regional or cross-regional level could be costly and should be carefully studied taking into account the probable evolution of long-term rights towards financial transmission rights (FTR).

4.4. The existence of secondary trading

Except on Moyle, the products allocated could be transferred to another participant or could be resold in the forthcoming auctions. Except on the German-Denmark West border, the resale could be on request or automatic (UIOSI), in both cases the price received by the reseller is the marginal price of the auction at which that capacity is resold.

Regarding the transfers, on all borders the initial holder remains responsible of the payment of the acquired capacities. It has to be noticed that the response of TSOs is different on the borders (the shortest deadline is 30 minutes).

The analysis shows that secondary trading is in most cases in place. It is organised by the TSOs, free of charge and seems to be not extremely complicated – but it seems to be used in a limited number of cases. ERGEG considers it is worth looking into the reasons for that.

The publication by TSOs of capacity holders could help to improve transfers in secondary markets. Also the development of a harmonised and anonymous platform for capacity transfers should be assessed. It could be also a tool to allow TSOs to buy back allocated capacities in order to avoid curtailments (as highlighted in section 4.3).

4.5. Force majeure definition obligations and responsibilities of parties

The definition, the obligations and responsibilities is not harmonised within and between regions. This topic should be further analysed in 2010 by ERGEG.

5. Conclusions and recommendations

Since the launch of the Regional Initiatives, almost all regions have been working on the improvement and harmonisation of allocation rules for long-term interconnection capacity. These have been identified as priorities in the CSE, SWE, FUI, CWE and CEE regions.

ERGEG has also identified in the ERI Coherence and Convergence Reports a target mechanism for the long-term allocation: a common allocation platform with a common and harmonised set of rules.

Currently only the CEE and CWE regions have implemented a common allocation platform (CASC-CWE and CAO) and only the CWE region has adopted a single set of harmonised rules. Such developments are ongoing in the CEE region, where the regional auction rules will enter into force in March 2010. In the CSE region, efforts have been concentrated on implementing a common set of auction rules for the Italian borders with specific appendices related to each border. However more harmonisation is needed in order to achieve one single set of rules for all the borders.

There were improvements in 2009 with the implementation of new allocation rules on several borders: on the interconnection France-Spain in the SWE region, on IFA in the FUI region and on all the borders of the CWE region.

This benchmarking report is based on twenty one borders in six regional initiatives SWE, CWE, CSE, Northern, Central-East and FUI regions. For this benchmarking report, ERGEG has chosen to study in particular the conditions for participation in long-term auctions, the format of long-term auction (i.e. the type of products auctioned), the firmness before and after nomination, the functioning of the secondary markets, and the force majeure definition obligations and responsibilities.

It highlights a convergence of long-term auction rules on the twenty-one borders that have been taken into account in this study notably in terms of conditions for participation in the auctions, the characteristics of allocated products and the functioning of the secondary market (see sections 4.2 and 4.4). The cross-regional part highlighted main differences in the level of capacities allocated in the long-term timeframe, and in the availability of continuous products. According to ERGEG, discontinuous products are acceptable if and only if the periods of interruptions are clearly specified in the auction rules. Nevertheless it should be noted that the allocation of non-standardised cross-border products on certain borders does impede regional and cross-regional market integration and competition. The right level of capacities to allocate at long-term timeframe should be addressed.

According to ERGEG, the development of a harmonised and anonymous platform for capacity transfers should be assessed as an improvement of the secondary market, the possibility for TSOs to buy back capacities on such platforms as well as the possibility for users to acquire capacities on a multi-annual basis could also be considered.

However, there is a potential for harmonisation on firmness of both allocated and nominated capacities (see section 4.3). Following the position Paper on Firmness of nominated transmission capacities⁸ and taken into account the forthcoming extension of market coupling in

⁸ Ref. E08-EFG-29-05, 15 July 2008.

several regions, physical firmness may be recommended by ERGEG for firmness of nominated capacity. Even though physical firmness is the preferred approach for nominated capacity, financial firmness is also an acceptable solution in the context of explicit auctions. For firmness of allocated capacities, ERGEG will continue working on a position paper in 2010.

A work on the force majeure definitions, obligations and responsibilities should be planned by ERGEG in 2010. And what is more, the work on the draft framework guideline on capacity allocation and congestion management will address the forward market and its arrangements for long-term allocation of transmission capacity as well as the allocation of transmission capacity and the congestion management for day-ahead and intraday timeframes. This benchmarking report will feed into the work on draft framework guideline on capacity allocation and congestion management by providing information on the arrangements currently applied for allocating long and medium-term capacity.

ERGEG encourages regions to pursue the harmonisation of the long-term allocation rules within regions and across regions. This could be facilitated by implementing a common allocation platform at regional level or between regions. ERGEG considers that the merging of regions on that specific topic, the allocation of long-term products, could deliver results in the future.

ERGEG also encourages regions to continue working on the improvement of the nature of the allocated products by studying the implementation of Financial Transmission Rights (FTR), which are also addressed in the target model identified by the Project Coordination Group in 2009.

ERGEG should be watchful of the development of non-coordinated products such as the one implemented on the Portuguese-Spanish border by the Spanish Ministry. In this context, the MIBEL Regulators' Council (formed by Spanish and Portuguese energy and financial regulatory authorities) will present to their respective Governments a coordinated proposal on the most suitable and feasible product to be implemented on this border.

The regional report on the use and the management of the interconnection that the SWE, CSE, CWE and FUI regions are about to publish could help ERGEG to assess the efficiency of the products allocated and could be useful to discuss further improvements of the mechanisms currently in place.

Annex I – ERGEG

The European Regulators for Electricity and Gas (ERGEG) was set up by the European Commission in 2003 as its advisory group on internal energy market issues. Its members are the energy regulatory authorities of Europe. The work of the CEER and ERGEG is structured according to a number of working groups, composed of staff members of the national energy regulatory authorities. These working groups deal with different topics, according to their members' fields of expertise.

This report was prepared by the Electricity Regional Initiative Task Force of the Regional Initiatives Working Group.

Annex II – List of abbreviations

Term	Definition
AMF	Available maximum flow
AT	Austria
ATC	Available transmission capacity
BE	Belgium
BETTA	British Electricity Trading and Transmission Arrangements (market)
BM unit	Balancing Mechanism unit
CAO	Common Auction Office
CASC	Capacity Allocation Service Company
CE	(ERGEG) Central-East electricity region
CfD	Contract for difference
CMG	Congestion Management Guidelines
CMS	Capacity management system
CS	(ERGEG) Central-South electricity region
CUSC	Connection and use of system code (National Grid)
CW	(ERGEG) Central-West electricity region
CZ	Czech Republic
DE	Germany
DKK	Danish Kroner
EIC	Energy Identification Code
ELES	Electrical Wholesalers Pty Ltd
ENDK	Energie-Kompetenzzentrum der Kantone (Switzerland)
ERGEG	European Regulators Group for Electricity and Gas
ERI	(ERGEG) Electricity Regional Initiative
ES	Spain
EU	European Union
FR	France
FTR	Financial transmission rights
FUI	(ERGEG) France-UK-Ireland electricity region
GB	Great Britain

Term	Definition
HTSO	Hellenic Transmission System Operator
HU	Hungary
ICE	Interconnector capacity entitlement
IFA	INterconnexion France Angelterre
LNG	Liquified natural gas
LT	Long-term
MIBEL	Mercado Ibérico de Electricidad (Iberian Electricity Market)
MICFA	Moyle Interconnector capacity framework agreement
MITS	Moyle Interconnector Trading System
MS	(EU) Member State
NGIL	National Grid Interconnectors Limited
NI	Northern Ireland
NIAUR	Northern Ireland Authority for Utility Regulation
NL	The Netherlands
NRA	National Regulatory Authority
NTC	Net transfer capacity
PT	Portugal
PTDF	Power transfer distribution factors
PTR	physical transmission rights
REE	Red Eléctrica de Espana
RTE	Réseau de transport d'électricité
SEM	Single Electricity Market (wholesale electricity market operating in the Republic of Ireland and Northern Ireland)
SEMO	Single Electricity Market Operator (SEM market operator)
SI	Republic of Slovenia
SONI	System Operator for Northern Ireland
SW	South-West electricity region
TPS	transpower stromübertragungs gmbh (Germany)
TSO	Transmission System Operator

Term	Definition
TUoS	Transmission Use of Systems
UIOLI	Use-it-or-lose-it
UIOSI	Use-it-or-sell-it
UK	United Kingdom