



**Compliance with Electricity
Regulation 1228/2003
- An EREG Monitoring Report**

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Executive Summary

The European Commission has requested the European Regulators Group for Electricity and Gas (ERGEG) to prepare a report on ERGEG's experience with the Member States' compliance with the Regulation (EC) 1228/2003 (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, hereafter "Regulation"), in cooperation with the European Commission. ERGEG has assessed the compliance with the obligations under the Regulation in the areas of Inter Transmission System Operator Compensation (ITC) mechanism, Transmission Tarification (TT), Congestion Management (CM) and within that scope transparency and new interconnectors.

The Regulation provides for binding guidelines on ITC mechanism, Transmission Tarification and Congestion Management. With the entry into force of the Regulation on the 1st of July 2004, the first Guidelines on Congestion Management (annexed to the Regulation) became legally binding and on the 1st of December 2006, the amended Congestion Management Guidelines took legal effect. The Regulation requires parallel adoption of ITC and Transmission Tarification Guidelines, but the difficulties with deciding on the appropriate ITC scheme have postponed the process. ITC Guidelines and Guidelines on Transmission Tarification have not been adopted so far. It is important for the development of the internal electricity market to have the guidelines on the two remaining issues adopted as soon as possible in order to have binding EU rules for the network access charges (Transmission Tarification Guidelines) and Inter-TSO Compensation (ITC Guidelines).

The ITC scheme has been run on a voluntary basis by the European Transmission Network Operators' (ETSO). The latest ETSO agreement on ITC mechanism was accomplished on 27th of May 2007 to cover the time period of June-December of 2007. The voluntary ETSO schemes applied have not fully complied with the Regulation, with the major sources of non-compliance being (i) the applied cost basis, i.e. not taking into account the Long Run Average Incremental Costs (LRAIC), and (ii) the fees that have been set for nominated export to the non-participating countries and for nominated import from the non-participating countries within the EU, in so far these fees have not been socialized among the transmission network customers.

ERGEG has prepared in 2005 draft Guidelines on Transmission Tarification. As tariff structures may vary across the countries and also within a country, the approach applied in the draft TT Guidelines has been to propose the harmonisation of G charges at transmission network level and to introduce a specific range for the G charge with dedicated categories for continental Europe, Nordel, UK and Irish systems.

The G charges in the Member States already fulfil to a high extent the harmonisation requirement of the draft TT Guidelines by falling within the range set for the fees for generators. However, the requirement of removal of international supply transaction based charges in the draft TT Guidelines is not presently fulfilled because of the fees for non-participating EU countries set in the voluntary ETSO ITC scheme.

The Regulation provides the general principles for managing congestion, while the Congestion Management Guidelines lay down more detailed rules including transparency requirements. In general the allocation procedures at the different borders are applied for all the available transmission capacity as required by the CM Guidelines. However, long term capacity reservations exist at the Swiss borders, at the Poland – Slovakia border and Slovakian side at the Slovakia – Hungary border.

According to the CM Guidelines, the congestion management methods shall be market-based. Explicit and implicit auctions are considered for that purpose. Furthermore, for intra-day trade continuous trading may be used. Explicit auctions are used at most of the European borders for long-term allocation of capacity and these are also used for short-term day-ahead allocation in continental Europe. Implicit auctions with market splitting or market coupling are used (or will be used) for short-term allocations (day-ahead and/or intraday) at interconnections between Nordic countries, in continental Europe between France, Belgium and the Netherlands and linking Nordic market with the continental Europe.

The CM Guidelines require that capacity allocation is coordinated and implemented using common allocation procedures among those TSOs having mutual affect on their grids. In this respect the regions defined in the CM Guidelines do not fully comply with the Guidelines.

Only a few TSOs publish all relevant information related to network availability, access and use together with a report on congestions and its future management. Publication of data is not yet coordinated within regions. TSOs have published general information on the auction mechanism but detailed information of these mechanisms is rarely published. The same applies for capacity calculation: only general or partial descriptions of capacity calculations have been published. Only a few TSOs publish annually the evolution of transmission infrastructure for the longer term while some TSOs publish this information bi-annually or less regularly. All TSOs publish at least available capacity for daily auctions and allocated capacity but publication of monthly, weekly and intra-day capacity forecasts varies depending on the market design. Only some TSOs publish ex-ante information on planned outages and ex-post unplanned outages of generation units larger than 100 MW.

ERGEG will continue to monitor the compliance with the CM Guidelines and prepare a second compliance report in year 2008. Furthermore, ERGEG will continue the work on the CM Guidelines to provide recommendations on interpretations and, where necessary, recommendations on amendments to the CM Guidelines. The recommendations will be a subject of a separate document and will be delivered to the EC as an ERGEG advice during the year 2008.

According to Article 7 of the Regulation, new direct current interconnectors or significant increases of capacity of the existing interconnectors may, upon request, be exempted from certain provisions of the Regulation. So far only one exemption has been granted on that basis, to a direct current interconnector connecting Estonia with Finland in February 2005.

1. Introduction

The European Commission has requested¹ the European Regulators Group for Electricity and Gas (ERGEG) to prepare a report on ERGEG's experience with the Member States' compliance with the Regulation (EC) 1228/2003 (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 electricity², hereafter "Regulation"), in cooperation with the European Commission. The Regulation came into force on the 1st of July 2004 at the same time with the Directive 2003/54/EC of the European Parliament and of the Council concerning common rules for the internal market in electricity (hereafter "Directive").

The Regulation aims at setting non-discriminatory rules for cross-border exchanges in electricity, thus enhancing competition within the internal electricity market, whilst taking into account the specific characteristics of national and regional markets.

It covers the following areas:

- Inter-TSO compensation mechanism (Article 3)
- Charges for access to networks (Article 4)
- Provision of information on interconnection capacities (Article 5)
- Congestion Management (Article 6)
- New interconnectors (Article 7)

The Regulation warrants the Commission to adopt and amend Guidelines on Congestion Management, Inter-TSO Compensation and Transmission Tarification. The first version of the CM Guidelines was annexed to the Regulation.

The amended CM Guidelines (Commission decision of 9th November 2006 amending the Annex to the Regulation) came into force on 1st of December 2006. They contain detailed rules on the management and allocation of available transfer capacity of interconnections between national systems as well as transparency provisions.

According to the Regulation (Article 9), the regulatory authorities referred to in Article 23(1) of the Directive shall ensure compliance with the Regulation and the Guidelines adopted under the Regulation. Additionally, where appropriate, the regulatory authorities shall cooperate with each other and with the Commission when fulfilling the aims of the Regulation.

ERGEG has prepared this first Compliance Report during the first half of 2007. Regulators have reviewed the compliance of Member States, regulators and TSOs with the obligations of the Regulation, and present the results in this report. The Compliance Report follows the same structure as the Regulation – taking also into account the requirements laid down in the amended Congestion Management Guidelines: it covers the status, development and compliance in the areas of Inter-TSO Compensation, Transmission Tarification, Congestion Management including transparency and new interconnectors.

¹ A letter from the European Commission DG TREN to ERGEG on the 17th of October 2006, "Compliance with Regulation 1775/2005 and 1228/2003.

² OJ L 176 of 15.7.2003

2. Inter-TSO Compensation Mechanism

2.1. The Methods Applied During 2002 - 2007

It is an inherent feature of the interconnected power systems that injections and withdrawals of electricity originating from one TSO, cause physical power flows through the other TSOs' grids which are interconnected with the originating one.

The Regulation requires that TSOs shall be compensated for costs incurred as a result of hosting cross-border flows of electricity caused by the other TSOs. Payment of compensation is to come from those TSOs where the flows originate from and where the flows end. Article 3 of the Regulation provides that the European Commission may adopt Guidelines on the Inter-TSO Compensation through a Comitology process.

So far the Inter-TSO Compensation mechanism has been run on a voluntary basis. Table 2.1 maps the countries having TSOs participating in the voluntary scheme in years 2002 – 2007. In 2002 major progress was achieved when individual fees for imports, exports and transits ("pancaking") were abolished. ETSO has been developing further the voluntary model and the related agreements.

The latest agreement on inter-TSO compensation mechanism was signed on the 27th of May 2007 to cover the period of June-December 2007. The agreement was signed by the TSOs in a majority of EU Member States and a number of non-member countries. The new countries to join the agreement were Estonia, Albania, Bulgaria, Bosnia and Herzegovina, Croatia, FYROM (Former Yugoslav Republic of Macedonia), Montenegro, Romania and Serbia. The agreement was a landmark given that the formerly separate schemes and funds of ETSO and SETSO (South-East Europe Transmission System Operators) were joined for the first time. However, six TSOs of EU Member States opted to stay outside the 2007 agreement: Czech Republic, Latvia, Lithuania, Ireland, Slovakia and United Kingdom.

The 2007 interim ITC solution is based on compensation for costs for both infrastructure and losses and contains separate models for calculating compensation for these both components. The nominated imports and exports from perimeter countries (countries not participating in the scheme), are charged a fixed fee of 1.41 € per MWh.

Table 2.1 – Countries where TSOs have participated in voluntary, interim Inter-TSO Compensation mechanism

March 2002 to December 2002	2003	2004	January 2005 to May 2007	June 2007 to December 2007
Austria° Belgium France Germany Italy Luxembourg** Netherlands Portugal Spain Switzerland	Austria Belgium Czech Republic France Germany Greece* Hungary* Italy Luxembourg** Netherlands Portugal Slovakia* Slovenia Spain Switzerland	Austria Belgium Czech Republic Denmark Finland France Germany Greece Hungary Italy Luxembourg** Netherlands Norway Poland^ Portugal Slovakia Slovenia Spain Sweden Switzerland	Austria Belgium Czech Republic Denmark Finland France Germany Greece Hungary Italy Luxembourg** Netherlands Norway Poland Portugal Slovakia Slovenia Spain Sweden Switzerland	Albania Austria Belgium Bosnia and Herzegovina Bulgaria Croatia Denmark Estonia Finland France FYROM Germany Greece Hungary Italy Luxembourg** Montenegro Netherlands Norway Poland Portugal Romania Serbia Slovenia Spain Sweden Switzerland

°joined 1 May 2002

*joined 1 July 2003

^joined 1 July 2004

**implicitly included in scheme via participation of German ITC Party

2.2. The Amounts of Compensations Paid and Received During 2004 - 2006

The total amount of the compensations within the ITC scheme is dependent on the number of countries and TSOs participating in the scheme, the amount of the cross-border flows and the underlying costs of the networks used. From the year 2004 the number of TSOs involved in the ITC compensation mechanism remained the same until the interim scheme in 2007, when the TSOs from SETSO joined the agreement.

Table 2.2 presents the ex-post calculation of the 2004 – 2006³ net results for compensations country by country. These figures include also the adjustments where compensation has been paid by the Swiss party to the others due to the Swiss reserved use of capacity on borders

³ Ex-post values for year 2006 are preliminary.

during the years 2004 - 2006. The value of the compensation fund has been around 350 - 400 million euros depending on the cost of network and the amount of cross border flows.

Table 2.2 – Ex-post calculation of ITC amounts for years 2004 – 2006³. Figures present ex-post net results after reconciliation in million euros. Negative sign shows that TSOs from a given country have to pay and positive sign that TSOs shall receive the amount of money shown in the table

Country	2004	2005	2006
Austria	20,08	21,37	19,79
Belgium	0,87	1,77	0,98
Czech Republic	-4,29	3,02	6,96
Denmark	7,41	12,21	7,26
Finland	-4,14	-18,16	-8,85
France	-53,92	-52,03	-56,06
Germany	31,64	37,50	40,50
Greece	2,73	0,78	1,48
Hungary	2,86	6,70	5,47
Italy	-60,06	-67,33	-52,86
Netherlands	-16,60	-21,51	-24,08
Norway	-17,57	-18,92	-16,60
Poland	0,34	-5,47	-3,24
Portugal	-5,21	-5,46	-3,08
Slovakia	8,45	9,05	10,57
Slovenia	7,94	6,85	6,14
Spain	13,49	15,76	17,12
Sweden	-3,62	-2,52	-1,33
Switzerland	69,59	76,39	49,82

2.3. Compliance of ETSO Voluntary Schemes with the Regulation

In 2004 ERGEG developed eight criteria to assess the Inter-TSO Compensation mechanism. The ETSO voluntary scheme during the years 2004 – 2006 has been reviewed in the light of these criteria⁴.

⁴ ERGEG Comparison of the proposal of Guidelines on Inter TSO Compensation with the CEER criteria for long-term Inter-TSO Compensation mechanism. August 10th, 2004, www.ergereg.org

The first criterion set by ERGEG provides that any method adopted must comply with the Regulation the Directive. The method must, inter alia:

- Form a basis for compensation for costs incurred as a result of hosting cross-border flows of electricity
- Determine the magnitude of cross-border flows on the basis of the physical flows of electricity
- Account for the compensation that shall be paid by the Transmission System Operators from which cross-border flows originate and the systems where those flows end
- Take into account the benefits that the network incurs as result of hosting cross-border flows
- Be established on the basis of the forward looking Long-Run Average Incremental Costs (LRAIC) taking into account losses, new infrastructure and existing infrastructure
- Shall use recognised standard costing methodologies when establishing costs incurred

Generally, the ETSO voluntary schemes were applied to costs incurred hosting cross-border flows, they have used physical flows to define magnitude of cross-border flows and they have set payments for those TSOs where cross-border flows originate from and where the flows end. However, the extent to which these requirements are and should be taken into account to form a consistent ITC framework and to comply with the Regulation has given rise to divergent views among regulators and ETSO members.

In all the ETSO schemes so far, regulated costs of the existing grids have only been used omitting the forward looking long run average incremental cost (LRAIC). Regulated costs have been approved by national regulators where appropriate. In order to comply with the Regulation, any method should also apply LRAIC and recognised standard-costing methodologies when establishing costs incurred.

The Article 4.5 of the Regulation stipulates that there shall be no specific network charge on individual transactions for declared transits of electricity. Due to the fact that the TSOs of some Member States have not joined the ETSO voluntary interim Inter-TSO compensation mechanism agreement for year 2007, a fee of 1.41 euros per MWh will be charged on the interconnections to those TSOs. In principal, the TSOs not participating in the scheme have two alternative solutions to collect the fees. It is possible to socialise the cost and collect it from all the transmission customers, or alternatively, to impose the fee on those market participants who have declared exports or imports. The second option, when applied among the EU Member States contradicts with the Regulation and in particular Article 4.5, which prohibits specific network charges on individual transactions for declared transits of electricity. Accordingly, the outcome of the ETSO interim Inter-TSO Compensation scheme is not complying with the Regulation.

2.4. The Status of Preparation of the ITC Guidelines

During the last few years a number of methods to be applied in the ITC Guidelines have been discussed. The Commission has commissioned studies to assess and compare various methods to be applied in order to find an appropriate mechanism for Inter-TSO Compensation. The results of different studies have been contradictory and it has appeared that a technically and economically viable method is difficult to achieve.

ETSO has continued efforts to improve the inter-TSO compensation scheme. In 2006, a new method – Improved Modelling for Infrastructure Cost Allocation (IMICA) – was introduced. It was also reviewed by regulators together with other alternatives for the mechanism. In late spring 2006 ERGEG prepared and consulted the draft ITC Guidelines based on the IMICA method.

In October 2006 ERGEG informed the Commission that it is not appropriate to submit a formal ERGEG advice to the Commission at that point of time. However, ERGEG remained at the Commission's disposal in all questions emerging from the process of preparation of the ITC Guidelines.

ETSO has continued the development and analysis during the year 2007. As a result an "interim ITC mechanism", has been adopted for the voluntary agreement until the end of year 2007. ETSO is currently working on proposal for method starting from the year 2008.

3. Charges for Access to the Networks

3.1. Tarification Systems

One of the objectives of the Regulation is to harmonize the transmission tarification systems. Currently the transmission tarification systems as well as the charges for access to the transmission networks differ across the Member States. To avoid distortions of competition at least some degree of harmonisation of the charges for access to networks by the generators is needed. Harmonisation of the generators' fee is considered to be more relevant than the consumers' (load) fee, as the generation of electricity and the location of generation plants is more responsive to price signals.

The Regulation requires that charges applied by network operators for access to networks shall be transparent, take into account the need for network security, reflect actual costs incurred insofar as they correspond to those of an efficient and structurally comparable network operator and be applied in a non-discriminatory manner. Additionally, charges shall not be distance-related.

Transmission charging systems in the Member States are different but they are in general built on comparable schemes and components, which are applied in a non-discriminatory way. The basic cost elements of the network tariffs are operational costs and capital costs related to transmission activity. In some Member States transmission tariffs can include costs of primary, secondary and tertiary reserves and other ancillary services (Ireland, Germany, Lithuania, Luxembourg, France, Austria, Poland, Denmark, Latvia, Slovenia and Hungary) and some form of stranded costs (Poland and Hungary).

In all cases where a TSO is participating in the Inter-TSO Compensation scheme the compensations – both paid as well as received – are included into the tariff cost base. The inclusion of stranded costs elements directly in the transmission network tariffs, is the only element that can be seen as not complying with the Regulation when reflecting the costs incurred from network operations.

Transmission tariffs in the Member States reflect most of the requirements of the Regulation given that they are entry-exit tariff systems rather than being distance-based. In some countries

a zonal tariff system (Great Britain, Romania and Greece) or a nodal tariff system (Norway, Sweden) is applied.

The application of the voluntary interim Inter-TSO Compensation scheme in year 2007 has implied that the perimeter countries not participating in the interim ITC agreement, either EU or non-EU Member States, are charged a fee for nominated exports and imports thus creating a transaction relation to network charges. Furthermore, no charges related directly to electricity cross-border trade are in place in national transmission tariff systems. The only fees applied to cross-border trade are congestion related.

The transmission charges may be imposed on generators (G charge) and on load (L charge). The Regulation does not set any absolute values or shares for charges to be applied to producers and consumers of electricity. However, charges borne by producers shall be lower than the proportion borne by consumers. The allocation of these charges in all Member States fulfils the criteria that the majority of the charges fall on load rather than on generation. In 12 Member States generators are charged for the access to the electricity transmission network (see Figure 3.1⁵). In the remaining countries, mainly continental European ones, G charges are set to zero.

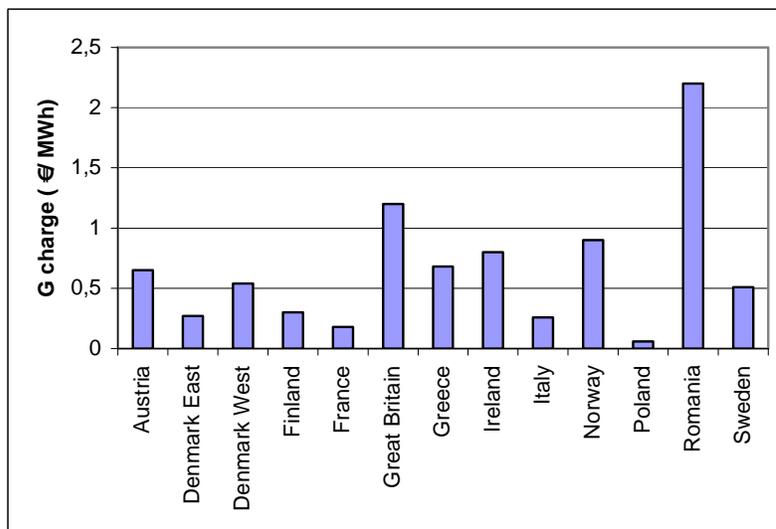


Figure 3.1 – Average G charge (> 0) paid by producers in Europe

Article 4.2 of the Regulation warrants the provision of locational signals to producers and consumers of electricity. Some countries have introduced systems providing locational signals (Great Britain, Norway, Sweden, Romania, Ireland and Greece).

⁵ Values are from questionnaire among ERGEG in spring 2007 and ETSO report “ETSO Overview of transmission tariffs in Europe: Synthesis 2006”

3.2. Guidelines on Transmission Tarification

Under Article 8.3 of the Regulation the European Commission is empowered to set binding guidelines that shall determine appropriate rules leading to a progressive harmonisation of the underlying principles for the setting of charges applied to producers and consumers under national tariff systems including among other things the provision of appropriate and efficient locational signals.

ERGEG prepared draft Guidelines on Transmission Tarification in early 2005 and sought views of the stakeholders through a public consultation procedure. The draft Guidelines were finalised taking into account the results of the consultation procedure. However, due to the delay in adoption of the ITC Guidelines, the Guidelines on Transmission Tarification have been postponed as Article 8.1 requires that both issues are covered in a single draft measure to be adopted through Comitology.

The draft Guidelines on Transmission Tarification provide for some degree of harmonisation of average G charges paid by generators for access to networks considering them more important than L charges in terms of development of undistorted competition.

As tariff structures may vary considerably across the countries and also within a country depending on the voltage level and region, the approach applied in the draft Guidelines has been to propose the harmonisation of G charges at transmission network level and to introduce a specific range for the G charge for each Member State. The categories for G charges are continental Europe (UCTE), Nordel, UK and Irish systems. It has been envisaged that the ranges will be reviewed at a later stage as well as the other networks to be covered by the Guidelines.

The G charges in the Member States already fulfil quite well the harmonisation requirement of the draft Guidelines by falling within the range set for the fees for generators. However, the requirement of removal of international supply transaction based charges in the draft Guidelines is not presently fulfilled because of perimeter fees set in the voluntary ETSO interim ITC scheme⁶.

4. Congestion Management

4.1. Introduction

It is a feature of the interconnected European electric power system that interconnections linking national transmission networks cannot accommodate all physical flows requested by market participants. Additionally, transmission lines within a country may be congested and not able to satisfy all the needs for transmitting electricity.

⁶ ERGEG has prepared a document on reporting to the European Commission on TSO charging structures and values of annual national G. The report has been approved by ERGEG in December 2006 and according to it in the first year of implementation of the Guidelines national regulators shall give the report on structure and the G value from the previous year – as an indicative value – by the end of February. However, the regulators have committed themselves to prepare the first report on charging structure and G values during the first half of the year 2007. This is to be carried out in the context of the annual benchmarking report.

The Regulation gives in its Annex the general principles for congestion management. It stipulates, *inter alia*, that network congestion shall be addressed with non-discriminatory market based solutions and non-transaction based methods, which do not involve a selection between the contracts of market participants. Additionally, use-it-or-lose-it (UIOLI) or use-it-or-sell-it (UIOSI) principle is to be applied for the allocated capacity and netting of the capacity requirements is to be used to maximise the capacity of the lines.

More detailed rules on congestion management have been defined in the amended Congestion Management Guidelines. The key objective of the CM Guidelines is to ensure effective access to transmission systems for the purpose of cross-border transactions. The amended Congestion Management Guidelines entered into force on the 1st of December 2006. In comparison with the initial CM Guidelines annexed to the Regulation, the amended CM Guidelines provide for more detailed rules on congestion management methods, transparency, coordination, timeframes and use of congestion income and specify the regions within EU where common coordinated congestion methods shall be applied.

In analysing the compliance with the CM Guidelines, the actual situation in relation to the treatment of the interconnections of the EU Member States and Switzerland is not clear, both from the legal and from the practical perspective⁷. ERGEG considers it therefore important and necessary to get a detailed advice on the treatment of these interconnections and issues from the EC as soon as possible.

Based on the experience from preparing this first report ERGEG will continue to monitor the compliance with the CM Guidelines by preparing the second compliance report to be presented at the Florence Forum in 2008. Furthermore, ERGEG will continue the work on the CM Guidelines to provide recommendations on interpretations and when necessary recommendations on amendments to the CM Guidelines. The practical experiences gained within the ERGEG Electricity Regional Initiative (ERI) projects are to be exploited. The recommendations will be a subject of a separate document and will be delivered to the EC as an ERGEG advice during the year 2008.

4.2. Congestion Management Methods

Congestion management methods, which are applied if structural congestions exist, shall ensure that the physical power flows associated with all allocated capacity comply with network security standards. There are only a few congested interconnections in the EU where permanent congestion management procedure is not applied. These are mainly merchant lines which existed before the accession to the EU (e.g. Poland-Sweden, Sweden-Germany), or merchant lines having been granted an exemption (Finland-Estonia), or interconnections between the EU Member States and non-EU Member States (e.g. Switzerland-France, Finland-Russia).

At the border between Northern Ireland and the Republic of Ireland a permanent procedure is in place, but a full integration of national markets is foreseen in November 2007. After the integration, this interconnection will be treated as a part of a single integrated control area (transmission system).

⁷ Some further details of interconnection between EU MS and Switzerland are listed in the Appendix I.

According to the CM Guidelines congestion management methods shall be market-based. Explicit and implicit auctions are allowed for this purpose. Furthermore, for intra-day trade continuous trading may be used. Explicit auctions are used at most of the European borders for long-term allocation of capacity and these are also used for short-term day-ahead allocation in continental Europe. Implicit auctions with market splitting or market coupling are used (or will be used in short) for short-term allocations (day-ahead and/or intraday) at the interconnections between Nordic countries, in continental Europe between France, Belgium and the Netherlands and linking Nordic market with the continental Europe. In the Nordic area, all the available transmission capacity is allocated by day-ahead implicit auctions.

Moreover, it is also possible to use both methods – explicit and implicit - at the same interconnection, such as annual and monthly explicit auctions combined with day-ahead implicit auction. Figure 4.1 presents a summary of day-ahead allocation methods across EU⁸.

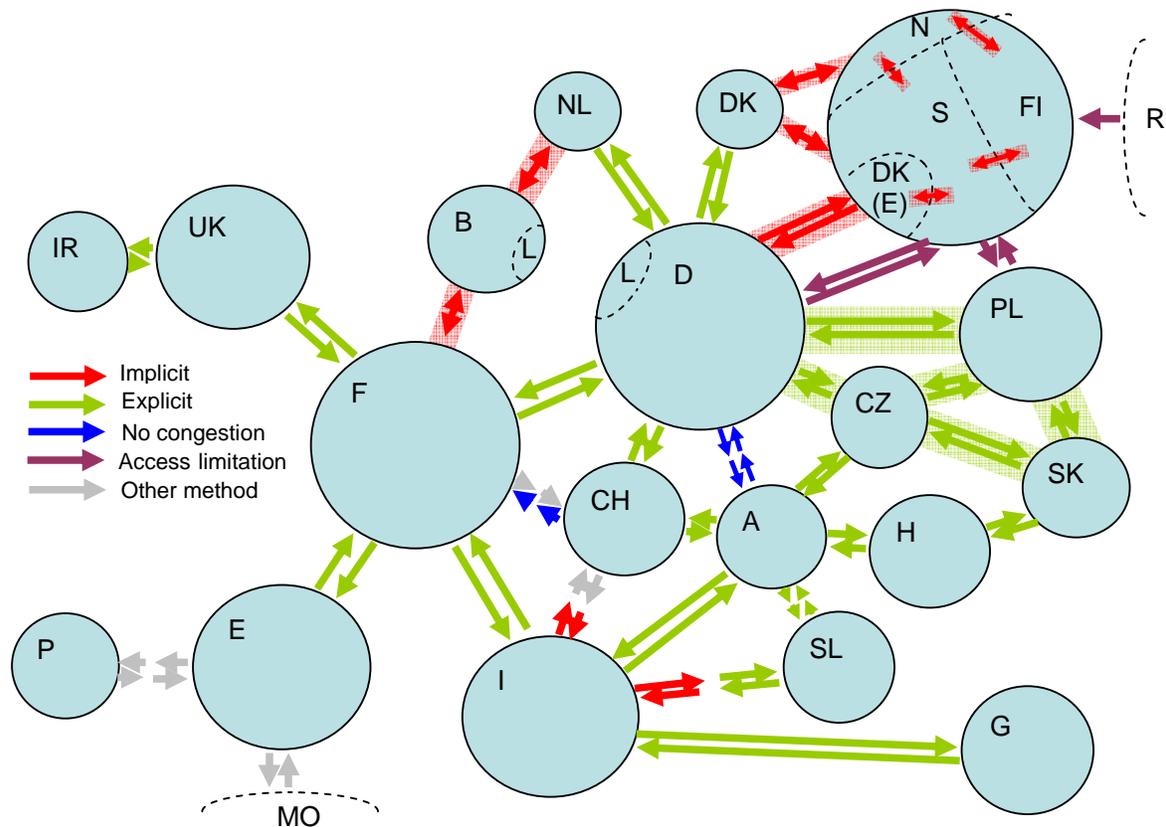


Figure 4.1 – Day-ahead transmission capacity allocations across Europe (updated June 2007)

⁸ Figure has been adapted from EC report “Report on the experience gained in the application of the Regulation (EC) No 1228/2003 Regulation on Cross-Border Exchanges in Electricity” dated 15.5.2007.

In general the allocation procedures at the different borders are applied for all the available transmission capacity. However, long term capacity reservations exist at the Swiss borders, at the Poland – Slovakia border and at the Slovakia – Hungary border⁹.

Basically, three different approaches exist for capacity distribution to different allocation timeframes:

- To maximise the transmission capacity available in the yearly auction, like e.g. in the CEE region, on Italian interconnections to Greece, Switzerland, Slovenia and France (only direction to Italy) and the interconnection between France and the UK
- To deliver all the transmission capacity for daily allocation, e.g. Nordic countries and Kontek cable between Denmark and Germany
- A split of the transmission capacity between the different timeframes (e.g. 1/3 in annual, 1/3 in monthly and 1/3 in daily auction), e.g. interconnection Germany-France, Denmark –Germany, France – Spain and Portugal-Spain

In any case, the capacity distribution to different timeframes has to be submitted for review to regulatory authorities, which has not been the case so far in all borders.

As already mentioned, according to the CM Guidelines TSOs shall optimise the degree to which transmission capacity is firm. In addition, a compensation for curtailment is required, except in cases of force majeure. Still, it appears that in most cases, market players are not compensated but only reimbursed (i.e. paid only 100%). In those cases where compensation schemes exist, the market players are most often compensated at 110% of the auction price. Exceptions are found at the borders between Hungary and Austria, Slovenia and Austria as well as Italy and Austria, where no reimbursement at all is due for curtailments due to maintenance¹⁰.

The “use-it-or-lose-it” (UIOLI) principle of transmission capacity is applied at most of the European congested interconnections where longer term explicit auctions are in place as required by the CM Guidelines. Exceptions are found at borders where there is no firm nomination for long and medium-term products (e.g. on the France-UK interconnector). Furthermore, “use-it-or-sell-it” (UIOSI) or “use-it-or-get-paid-for-it” is applied at some borders. The UIOLI and UIOSI mechanisms are not needed in cases of a single timeframe or in cases of only implicit auctions like within the Nordic area.

Throughout Europe different deadlines for nominations of long-term allocations are applied both within the regions and across the interconnections between the regions. The earliest deadline for nominations is 7:15 am and the latest deadline is 9:30 am. In most cases there is one common deadline for nominations at a certain border. The nomination deadlines for day-ahead capacities also differ from country to country. The earliest deadline for day-ahead allocated transmission rights is at noon and the latest deadline is 3:30 pm.

⁹ Hungary has amended the governmental regulation according to which from 1st of January 2008 the long-term reservations are eliminated at the Hungarian side of the Slovakia-Hungary border. Long-term reservations of 300 MW on the Slovak side of the borders with Poland and Hungary exist.

¹⁰ For the purpose of this report, the term “reimbursement” is used when 100% are paid and the term “compensation” when more than 100% are paid to the market participants.

Secondary trading of transmission capacity as requested by the CM Guidelines is possible at most of the interconnections with explicit auctions, where the capacity can be transferred from one participant to others. The deadlines for transferring capacities differ from one to five days in advance. Mostly, no fee is charged for secondary trading, with the exception of the Dutch borders where a 100 € fee is charged.

In most cases congestions occur at the interconnections. In case of internal congestions within a control area, redispatch (e.g. continental Europe) or countertrade (e.g. Nordic countries) either in national network or cross-border is applied to ensure firmness of transmission capacity.

On the interconnections linking Spain with France and Portugal coordinated redispatch is used as a curative measure in order to ensure firmness of nominated capacity. At the interconnection between Austria and the Czech Republic, the possibility of cross-border redispatch is presently under discussion. Cross-border countertrade is applied in Nordic countries and cross-border redispatch at the interconnections linking Italy with Austria, Greece and Switzerland. Cross-border redispatch is further sometimes applied on the interconnections linking France on the one side and Switzerland, Italy and Germany respectively, on the other side. Generally, redispatch procedures are not described with a sufficient transparency and in detail.

From Article 6.2 of the Regulation, cross-border redispatch or countertrading is mandatory for TSOs to ensure firmness of nominated capacity. This means that, wherever cross-border redispatch or countertrading would ensure firmness but neither of both is used, TSOs do not fulfil their obligation to optimize the degree of firmness of capacity (Article 2.4 of the CM Guidelines) or to make available the maximum capacity of the interconnections (Article 6.3 of the Regulation).

4.2.1. Intraday congestion management and cross-border balancing

Only three Nordic countries (Denmark, Finland and Sweden) and the French interconnections (except IFA) have already implemented cross-border intraday allocation mechanisms on the congested interconnections. These Nordic countries have implemented a continuous intraday trade whose main characteristic is the simultaneous (implicit) management of capacity and energy, which considerably facilitates efficient cross-border trade. The intraday allocation mechanisms applied on the French interconnectors are less sophisticated because they allocate capacity only and offer a limited number of intraday gate closures (between 2 and 12 depending on the interconnection).

4.3. Coordination

The CM Guidelines require in Article 3.5 that a number of issues are coordinated and implemented using common allocation procedures among those TSOs having mutual effect on their grids. In any case a high degree of coordination is needed, especially if two or more markets are to be integrated. In this respect the regions defined in the Article 3.2 of the CM Guidelines are not fully complying with the Guidelines as regards coordination.

The current practice is that TSOs coordinate the calculation of available capacities only on a bilateral basis. Therefore and for most of the time, the degree of coordination is low when each TSO computes its own transmission capacity and the minimum value of transmission capacity is

adopted. Furthermore, on some interconnections two separate auction platforms have been implemented to allocate capacity.

However, an increased level of coordination exists within the Nordel area, partly for the CEE region and for the Iberian Peninsula. A common network model for capacity calculation is an essential contribution to maximize available capacities under the condition of a secure network operation. Such a network model is currently not used in the regions defined in the CM Guidelines, but solutions are under development. Although the level of detail of a grid model depends on how meshed the grid is, it is mandatory to apply the adequate grid model and not only on a bilateral approach for capacity calculation.

Coordination in allocation of transmission capacity has gradually improved over the last years but the current practice is that most of the explicit auctions are still coordinated on a bilateral basis. A region-wide allocation and nomination regime as requested by the CM Guidelines is not yet in place.

In case of explicit auctions, obligations on capacity holders to inform TSOs on the intended use of the capacities are important in order to enable TSOs to reallocate the unused capacities. Coordination in this respect is widely in place on a bilateral basis but increased coordination has been acknowledged recently (5 TSOs in Central East Europe, Germany-Netherlands and Iberian Peninsula). In case of implicit auctions (e.g. within the Nordic region), no obligations on capacity holders to inform TSOs exist, however, the remaining capacity from the day-ahead allocation is available for the intraday and balancing market. In some cases (e.g. France-UK interconnector) holders of long and medium-term rights are not obliged to firmly nominate their rights before the day-ahead allocation.

Furthermore, timeframes and closing times are often coordinated bilaterally regarding the capacity allocation itself. Nevertheless, for other related reasons (e.g. closing times of power exchanges, schedule nomination) the timing differs between countries. It should be noted that the development of implicit auctions in Europe will require the closing times of the power exchanges to be more harmonised.

It should also be noted that the capacity distribution to different timeframes has to be submitted for review to regulatory authorities, which has not been the case on all interconnections. The structure of allocated transmission capacity products is relevant for the Internal Electricity Market. In particular capacity products from the auctions should correspond to the wholesale market products. With regard to the structure of capacity products, a reasonable coordination is in place because presently annual, monthly and daily auctions are “state of the art”, with some exceptions of e.g. weekly and quarterly products offered on the interconnection between Great Britain and France.

Dealing with a high number of different contracts for transmission capacity complicates work for market participants. Hence a harmonization of the contractual framework in a region, with a high level of compatibility between the regions, is a factor which eases market integration and market entry. The contractual framework is for the time being coordinated mainly bilaterally. Increased coordination include the Nordic countries where capacities are allocated centrally through Nord Pool, the five Central East Europe TSOs and the planned harmonized auction rules in the Central-West Europe (CWE) region. Furthermore, accounting, clearing and settlement are mainly coordinated on a bilateral basis.

Moreover, coordination shall also include the exchange of information between TSOs. The information exchange between TSOs has improved over the last years. Coordination of information and data exchange is particularly present within the Nordic region, between Germany and the Benelux countries and regarding the Iberian Peninsula. Also some countries of the CEE region are exchanging relevant data. Nevertheless most of these practices are still subject to further improvements.

4.4. Timetable for Market Operations

The Guidelines require that the allocation of the available transmission capacity shall take place sufficiently in advance and prior to each allocation the involved TSOs shall jointly publish the capacity to be allocated, taking into account capacity released from firm transmission rights, netting nominations and reduction or unavailability of capacity. Successive intra-day allocations of available transmission capacity for day D shall take place on days D-1 and D, after the issuing of the indicated or actual day-ahead production schedules.

The majority of TSOs adhere to the CM Guidelines in respect of the timetable for market operations. For access rights of long and medium term explicit allocations of capacity rights most TSOs have UIOLI/UIOSI principles in place. Most TSOs also have some form of netting of capacities in opposite directions before day-ahead and intra-day allocations. Exceptions from the netting of nominated capacities are the interconnection Hungary – Slovakia with mutual netting 50% and interconnections without opposite direction netting: GB – France, France – Belgium, Netherlands – Belgium/Germany, Italy – Switzerland/Slovenia and Poland – Sweden.

4.5. Transparency

According to the CM Guidelines TSOs are responsible for publishing all relevant information related to network availability, network access and network use. This shall also include the information on:

- Where and why congestions exists
- Methods applied to manage the congestion
- Plans for future management of the congestion

Only a few TSOs publish all relevant information related to network availability, access and use together with a report on congestions and their future management. Some TSOs have published relevant data related to network availability but this information may be missing in the intra-day market timeframe. Several TSOs have only published the report on congestions and their future management.

Publication of data is not yet coordinated within regions. For example the publication of data on network availability, access and use on Nordic market is largely coordinated, but the publication of data of interconnections from Nordic countries to continental Europe is not yet sufficiently coordinated with the Nordic data.

TSOs have published general information on the auction mechanism but detailed information of these mechanisms is rarely published. The same applies for capacity calculation: only general or partial descriptions of capacity calculations have been published. There is a need for more

detailed information on capacity calculation although national operational and planning security standards may already include general descriptions.

Article 5.5 of the CM Guidelines sets the minimum requirements for publishing cross-border information continuously for both forecast and realised values. These include

- Long-term evolution of transmission infrastructure
- Year, month, week-ahead forecasts of transmission capacity and available day-ahead and intra-day transmission capacity
- Transmission capacity already allocated as well as an indication of prices paid
- Transmission capacity used immediately after nomination
- Realised commercial and physical flows with effects of any corrective actions to solve network/system problems
- Ex-ante information on planned outages and ex-post information on planned and unplanned outages of generators larger than 100 MW

According to Article 5.7 of the CM Guidelines, TSOs shall publish the relevant information on forecast demand and on generation according to the year, month, week and day-ahead and intra-day timeframes.

Annual information on long term evolution of transmission infrastructure is not published by all TSOs. Only a few TSOs publish annually the longer-term evolution of transmission structure, while some TSOs publish this information bi-annually or less regularly.

All TSOs publish at least available capacity for day-ahead auctions. Publication of monthly, weekly and intra-day capacity forecasts varies among TSOs. Some publish only weekly forecasts, whereas others have annual and monthly forecasts. For some interconnections only available daily capacity is published before the day-ahead market - no longer-term forecasts exist for these interconnectors. All TSOs publish information on total capacity already allocated and paid for in relation to day-ahead markets.

Publication of aggregated commercial and physical flows is available on the majority of interconnections soon after the real time. However, this information is not available for all interconnections and in some cases information is available only partly i.e. assigned capacities and their use in total are published. TSOs have started increasingly relying on ETSOVISTA platform (www.etsovista.org) for publication of this information.

Some TSOs publish ex-ante information on planned outages and ex-post information on unplanned outages of generation units larger than 100 MW. In some cases the ex-ante information is published in an aggregated way and ex-post information is not available. Furthermore, one TSO publishes ex-post actual availabilities between one and four days afterwards, whereas planned or unplanned outages are not published and comparison with ex-ante information is not possible.

When forecasts are published, the realised actual values for the forecast information shall be published at the latest on the following day; preferably the publishing should occur in the time period following that to which the forecast applies. Presently only a few TSOs publish all necessary ex-ante and ex-post information (or at least parts of that information) on the following day.

4.6. Use of Congestion Income

The CM Guidelines require that congestion management procedures may generate revenue only in the event of congestion. Furthermore, the congestion income shall be shared among the TSOs involved according to criteria agreed between the TSOs involved. TSOs shall clearly establish beforehand the use they will make of any congestion income they may obtain and report on the actual use of this income. Furthermore, the use of congestion income for investment to maintain or increase interconnection capacity shall preferably be assigned to specific predefined projects which contribute to relieving the existing associated congestion and which may also be implemented within a reasonable time, particularly as regards the authorisation process.

The procedure for the distribution of congestion management revenues shall be subject to review by regulatory authorities. Also the criteria to share the congestion income among the TSOs involved shall be reviewed by the respective regulators.

Regulators shall be transparent regarding the use of revenues resulting from the allocation of interconnection capacity. Annually by 31 July regulators shall publish a report setting out the amount of revenue collected for the 12-month period up to 30 June of the same year and the use made of these revenues together with verification that use of congestion income complies with the Regulation and the CM guidelines and that the total amount of congestion income resulting from the allocation of interconnection capacity has been devoted to one or more of the following purposes

- Guaranteeing the actual availability of the allocated capacity
- Network investments maintaining or increasing interconnection capacity
- As an income to be taken into account by regulatory authorities when approving the methodology for calculating network tariffs, and/or in assessing whether tariffs should be modified

Use of congestion income at all interconnections complies with the CM Guidelines with the exception of interconnections: Sweden – Poland, Sweden – Germany¹¹. In most cases the congestion income is presently used for tariffs reduction¹¹; however, Nordic countries have allocated congestion income for network investments (five prioritised investments).

5. Merchant lines – exemptions according to the Regulation

According to Article 7 of the Regulation new direct current interconnectors (or significant increases of capacity in existing interconnectors) may, upon request, be exempted from the provisions of Article 6(6) of the Regulation and Articles 20 and 23(2), (3) and (4) of the Directive under following conditions: (a) the investment must enhance competition in electricity supply; (b)

¹¹ The situation regarding the IFA interconnector between UK and France is more complex: the auctions revenues collected by NGIL on the British portion of the interconnector are mainly used for recovering the capital and operational expenditures supported by NGIL. Any income that exceeds/are below those two main costs of a business corresponds to a return on investment/loss for NGIL. As regards its role under Regulation Article 6.6 (c) OFGEM will assess income from the British portion of the IFA, and will for the purposes of Regulation Article 6.6(c) take into account income to the interconnector in assessing whether interconnector tariffs should be modified.

the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted; (c) the interconnector must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that interconnector will be built; (d) charges are levied on users of that interconnector; (e) since the partial market opening referred to in Article 19 of Directive 96/92/EC, no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector; (f) the exemption is not to the detriment of competition or the effective functioning of the internal electricity market, or the efficient functioning of the regulated system to which the interconnector is linked.

The exemption applies to direct current interconnectors; in exceptional cases also alternating current interconnectors may be exempted.

Only one exemption has been granted according to the Article 7 of the Regulation. The exemption was granted to Estlink direct current interconnector – connecting Estonia with Finland and with that the remaining Nordic market – owned by AS Nordic Energy Link in February 2005. Before exemption was granted the competent authorities in Finland and Estonia evaluated the application against the criteria set in the Article 7 of the Regulation. The exemption shall expire when the applicant transfers the ownership of the cable to a third party, however, at the latest 31.12.2013. The exemption decision was notified to the Commission. The Commission let the two months notification time elapse without request for amendments or withdrawal thus accepting the decisions made by national competent authorities in Finland and Estonia.

The regulators have prepared a position paper 'Assessment of criteria for exempting new interconnectors', 28 March 2006¹². The purpose of this position paper is to provide guidance to regulators on exemption requests and the criteria and conditions for granting an exemption.

¹² Available at CEER website under Publications folder/CEER documents:
http://www.ceer-eu.org/portal/page/portal/CEER_HOME/CEER_PUBLICATIONS/CEER_DOCUMENTS/2006.

Annex 1 – Interconnection of EU MS and Switzerland

Due to the strong interconnection and geographical position in the UCTE synchronous area, the Swiss interconnections with the EU Member States play an important role for the whole EU Internal Electricity Market.

In particular analysing congestion management on these interconnections in light of the compliance with the Regulation and the CM Guidelines yields the following key issues that need to be resolved accordingly:

- Cross-border redispatch is sometimes operated on the interconnectors linking France on the one side and Switzerland on the other side. However, the redispatch methods are not described transparently in a sufficient level of detail.
- There are no capacity allocations at the French – Swiss interconnection (due to the existing long-term reservations). Moreover, in the direction to Switzerland a pro-rata allocation procedure is used.
- Calculation, coordination, nomination: at some Swiss borders the allocation is coordinated at others still a split of capacities for the allocation is applied.

The detailed and somewhat “technical” issues mentioned above, will have to be complemented by an adequate discussion and respective agreements between the EU and Switzerland in order to achieve an efficient and compliant solution within the EU legislative framework.

In that sense, ERGEG considers that the Regulation and the accompanying Guidelines should be applicable in full to the EU interconnections with Switzerland.