UNION OF THE ELECTRICITY INDUSTRY
eurelectric

Union of the Electricity Industry – EURELECTRIC Amendments to European Commission's proposal for Guidelines under Regulation 1228/2003

DRAFT GUIDELINES ON TRANSMISSION TARIFICATION

EXPLANATORY NOTE

Background

Article 8(3) of the Regulation on Cross Border Electricity exchanges[1] provides for guidelines to be adopted to "determine appropriate rules leading to a progressive harmonisation of the underlying principles for the setting of charges applied to producers and consumers (load) under national tariff systems, including the reflection of the inter-TSO compensation mechanism in national network charges and the provision of appropriate and efficient locational signals, in accordance with the principles set out in Article 4."

Article 4 itself discusses the requirements relating to transmission tariffs. In particular, Article 4(2) states that;

Where appropriate, the level of the tariffs applied to producers and/or consumers shall provide locational signals at European level, and take into account the amount of network losses and congestion caused, and investment costs for infrastructure.

Meanwhile Article 4(4) requires that

Providing that appropriate and efficient locational signals are in place, in accordance with paragraph 2, charges for access to networks applied to producers and consumers shall be applied regardless of the countries of destination and, origin, respectively, of the electricity, as specified in the underlying commercial arrangement.

The attached guidelines therefore fulfil these requirements of the Regulation.

Current Situation

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Tranmission tariffs in Member States already reflect most of the requirements of the Regulation in that they are, by and large "entry-exit" tariff systems rather than being distance based. The main component of tariffs is those related to the fixed costs of the network, called "charges for access to networks" in Regulation EC 1228/2003. These may be imposed on generators, called the 'G' charge, and those for the load, called the 'L' charge. The allocation of these charges in all cases fulfils the criteria that the majority of the charges fall on load rather than generation. As well as the fixed cost of the transmission network, transmission tariffs also usually include loss charges and other ancillary services. Generators and customers may also be required to pay a one-off charge for their initial connection to the grid. Charges related to congestion are also an important feature of tarification.

There remain significant differences in the level of transmission charges, and the split between G and L charges between one Member State and another. In case of several transmission grids within one Member State, transmission tariffs are different within the different transmission system operators.

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Comment: Transmission tariffs do not always include loss charges and other ancillary services (i.e.: Spain).

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[1] Regulation 1228/03/EC

Finally, specific charges relating to physical cross-border flows have been removed from January 2004 in Member States participating in the revised inter-TSO compensation mechanism. However some border charges remain for those Member States which do not yet participate in this mechanism.

Proposals in Guidelines

i Harmonisation of network access charges for generators

To avoid distortions of competition between generators located in different Member States, harmonisation of network access charges of the generators connected to the transmission grid, ie the 'G' charge is needed. This is not to say that the level of network charges is the only determinant of the decisions to locate plant.

It is therefore proposed that basic G charges will be harmonised. This basic G charge does not comprise locational signals but it remains possible for Member States to introduce such signals at national level in addition to the harmonised basic G.

Within the Nordel, UK and Irish systems, interconnected by submarine cables to UCTE, the main continental system, different ranges for the 'basic G' will be applied during a transitory period. The transitory period for a different harmonised value will end on 31/12/2008.

ii European locational signals

Under the Regulation, all Member States will be required to participate in the inter TSO compensation mechanism, and to implement market based congestion management methods. This will lead to a large increase in the impact of locational signals at European level relating to the siting of generation and consumption.

Given the limited capacity of interconnection between different Member States, those countries with efficient technology and availability, which lead to general surplus of capacity over load, will generally be low price areas. Those with a local deficit will be higher priced regions. Once market based capacity allocation methods are in place on all EU interconnectors, this price difference will be made explicit and clear sort-term locational signal. Similarly, compulsory participation in the inter TSO compensation mechanism will ensure that Member States which host cross border flows are suitably compensated for providing this service.

As the proper harmonisation of charges and the introduction of market based mechanisms for capacity allocation on interconnections can lead to proper short-term locational signals with potential long-term effect, it is not considered appropriate at this stage, in the sense of Article 4(2), to introduce long-term locational signals by affecting G and L charges locational signals at the European level.

The introduction of long-term locational signals at European level could be reconsidered once harmonisation of charges and application of market-based allocation mechanisms on interconnectors has taken place.

Comment: Charges related to commercial arrangements such as balancing for example are not removed and should not be prohibited.

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Comment: Harmonisation of charges is essential for ensuring a genuine level playing field between generators and reducing distortions of competition. It is thus more than simply desirable. It is needed.

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Deleted: Harmonisation of G charges, rather than L charges, is considered to be the most important since the location of production facilities and the output from them is thought to be more responsive to price signals.

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Deleted: will accordingly be able to have variations in charges for their internal regions ("national locational signals")

Comment: Harmonisation of the basic G charge to zero does not exclude the existence of national locational signals when needed.

Deleted: For each Member State, the average G charge will have to remain within the specified range.¶

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Comment: The present stage of development of the Internal Electricity Market does not allow for the introduction of efficient long-term EU-wide locational signals. Further harmonisat... [1]

Given the existence of sufficient locational signals, all other charges relating to cross border exchanges must be removed, in accordance with Article 4(4).

DRAFT GUIDELINES

1 Harmonisation

1.1 The harmonised value of the 'basic G' will be determined by applying the charging structure to a generator injecting electricity during 5000 hours per year. With the exception of the cases in 1.2 and 1.3 below, this harmonised value of the 'basic G' must be during the transitory period ending on 31.12.2008 below 0.5 €/MWh.

1.2 The harmonised value of the 'basic G' within the Nordel system will be below 0.6 €/MWh.

1.3 The harmonised value of the 'basic G' within the UK and within the Irish system will be below 1.07€/MWh.

1.4 Once these guidelines are implemented, Member States can no longer, in any of the systems referred to in 1.1, 1.2 and 1.3, increase the level of their 'basic G' charge.

1.5 At the expiry of the transitory period, the level of the harmonised 'basic G' charge shall be set to zero.

1.6 The 'basic G' charge, for the transitory period, may include a 'capacity' fee and/or an 'energy' fee.

1.7 Other charges relating, for example, to initial connection to the network, losses, and other ancillary services need not be harmonised.

1.8 The introduction of long-term locational signals at European level will be considered once harmonisation of G charges and the application of market-based allocation mechanisms have taken place.

2 Removal of contract based charges

Other than charges resulting from market based congestion management methods, charges relating to the physical cross-border flows are prohibited. This includes all import, export and transit fees.

3 Reporting

National governments will submit the details of the charging structure of their TSOs to the Commission on 30 November 2004 and on the occasion of any amendments to the tariff structure relevant to these guidelines.

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Comment: There should not be a minimum for the level of G. Regulators should always have the possibility to decrease the level of the applicable G charge with the view to tend to G=0.

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Comment: Member States which already have opted for G=0 should not have the possibility to step back from this position.

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Comment: G=0, where generators do not pay for the cost of the transmission infrastructure but may contribute to the payment of losses and congestion, is the best solution for a real level playing field among generators.

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CONGESTION MANAGEMENT GUIDELINES

EXPLANATORY NOTE

1. INTRODUCTION

The Regulation provides for the Commission to "amend the guidelines on the management and allocation of available transfer capacity of interconnections between national systems set out in the Annex, in accordance with the principles set out in Articles 5 and 6, in particular so as to include detailed guidelines on all capacity allocation methodologies applied in practice and to ensure that congestion management mechanisms evolve in a manner compatible with the objectives of the internal market."

It goes on to state that "where appropriate, in the course of such amendments common rules on minimum safety and operational standards for the use and operation of the network, as referred to in Article 5(2) shall be set."

The attached draft guidelines therefore propose such an amendment. They are based on the following principles that arising from the Regulation:

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i. economic efficiency and promotion of competition,

ii. maximisation of the amount of capacity available and the use made of it,

iii. transparency to network users on a non-discriminatory basis,

iv. secure network operation,

v. largely revenue neutral mechanism from the point of view of system operators.

Security and reliability rules will be proposed in separate guidelines.

2. ECONOMIC EFFICIENCY AND THE PROMOTION OF COMPETITION

In relation to the question of economic efficiency, the Regulation states that: "Network congestion problems shall be addressed with non-discriminatory market based solutions which give efficient economic signals to the market participants and transmission system operators involved."Article 6(1).

The main consequences of this Article are that congestion management mechanisms must include a mechanism whereby potential network users reveal the value they place on gaining access to the part of the network in question. Economic efficiency is more

likely to be delivered where capacity is allocated to those who value the capacity the most.

However this simple result is dependent on a number of assumptions relating, in particular, to the market structure of the industry. Since, in reality, the European market is characterised by instances of market dominance in certain Member States or regions, there is a clear case the congestion management methods should be designed in such a way that this is taken into account in order to promote the economic efficiency of the electricity market. Accordingly, congestion management methods should not hinder market contestability, should not inhibit the entry of any player, including end users, and should neither facilitate nor consolidate the abuse of any market power.

In the interests of efficiency in a general sense, the adopted method of congestion management should not result in undue transaction costs to market participants or TSOs.

Finally, in the interests of promoting competition allowing for a range of different contract structures, any differences in the way different transactions are treated, for example short term trading between organised markets or longer term bilateral contracts, should be permitted only when they are shown not to distort or hinder the development of competition. It is, however, important to ensure that there is a balance between short term capacity allocation (for example for the day ahead market) and the longer term capacity allocation (for example yearly and monthly auctions).

3. RULES ON MAXIMISING THE AVAILABLE CAPACITY AND CAPACITY USE

In relation to the requirement to maximise availability and use of capacity, there are a number of relevant elements of the Regulation which must be applied, in particular,

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The maximum capacity of the interconnections and/or the transmission networks affecting cross-border flows shall be made available to market participants, complying with safety standards of secure network operation. Article 6(3)

Market participants shall inform the transmission system operators concerned a reasonable time ahead of the relevant operational period whether they intend to use allocated capacity. Any allocated capacity that will not be used shall be reattributed to the market, in an open, transparent and non-discriminatory manner. Article 6(4)

Transmission system operators shall, as far as technically possible, net the capacity requirements of any power flows in opposite direction over the congested interconnection line in order to use this line to its maximum capacity. Having full regard to network security, transactions that relieve the congestion shall never be denied. Article 6(5)

This part of the regulation calls for a number of important operational rules to be respected by TSOs. Firstly it is clear that, as a first rule, TSOs should endeavour to accept all commercial transactions including those incurred by cross border trade. In case the scheduled commercial transactions are not compatible with secure network operation, the TSOs should co-ordinate to alleviate the congestion by any means as long as the associated costs are at an economically efficient level, for example through redispatching or countertrading. These methods should however only be used as a short-term solution and in case of non recurrent congestion.

Comment: These are not market-based allocation methods and should thus not be used in presence of a permanent or severe congestion. They can however serve close to real time operation, once basic allocations have been decided upon using market-based allocation methods.

Where structural congestion exists, considering the fact that the European continental network is a highly meshed network and that the use of interconnection lines has an effect on the power flows, congestion management procedures and system operation between TSOs should be co-ordinated as far as possible and that calculations of the capacity available to the market should recognise the actual flows of electricity between the origin and destination country including loop flows.

The capacity allocation at an interconnector shall be co-ordinated between the two TSOs ideally using one common allocation procedure. In situations where the meshedness of the network leads to a high correlation between the capacities available to the market at the congested borders, methods for congestion management suited for regional application should be favoured.

Comment: There is no reason not to use a single allocation method.

Deleted: If such a co-ordinated mechanism is not in place (in a transitional period, and possibly with non-EU countries) a split of the interconnector capacity to two equal parts, where each TSO is responsible for his own part, is necessary.¶

Co-ordination between TSOs should at least include the exchange of information and the optimisation of the allocations in view of the promotion of fair and efficient competition and the secure operation of the grids. The nature, time and frequency of the exchanges of information should be coherent with the functioning of the electricity markets. They shall in particular enable all TSOs affected by the loop flows resulting from transactions accepted by other TSOs to forecast them, to take them into account in their assessment of the available capacities and to identify the TSOs responsible for the loop flows so that they are required to take appropriate measures.

The loop flows are best taken into account when at least a regional co-ordination between TSOs covers all the steps from capacity calculation and allocation to the operation of the network. There is a risk to have sub-optimal result for network flows if each interconnector is treated only bilaterally between the two TSOs concerned.

In case of structural congestion, TSOs should endeavour to optimise capacity in order to facilitate effective and efficient competition.

Comment: All allocated capacity should be firm.

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Articles 6(4) and 6(5) clearly imply out a requirement for a nomination procedure to be followed by TSOs and network users. This should be co-ordinated so that it is carried out on a common timetable across all European markets.

As the procedure moves closer to real-time, reallocation through an approach which requires a transaction based method may become more difficult logistically. This explains the preference in the Regulation that "Network congestion problems shall preferentially be solved with non transaction based methods, i.e. methods that do not involve a selection between the contracts of individual market participants."

This implies that systems that include the integration of organised wholesale electricity markets need to be included in the design of congestion management systems in case of structural congestion. However, special attention should be given to non-discrimination, notably towards bilateral transactions, and to the effective possibility to organise longer term cross border trade.

TSOs should guarantee or compensate for allocated nominated capacity in case they cannot honour their commitment. Conversely, the "use it or lose it" rule should be enforced to guarantee proper utilisation of available interconnector resources.

Deleted: Finally, the financial consequences of failure to honour obligations associated with the allocation of capacity should be attributed to those who are responsible for such a failure. This means that where network users fail to use the capacity that they have nominated, some level of penalty should be applied.

4. TRANSPARENCY

The electricity market will not function correctly unless sufficient information is available on a no-discriminatory basis. Therefore, within the relevant legislative framework, Member States and regulatory authorities should pay special attention to the transparency of the wholesale markets in all areas affected by any congestion, which includes information on short term forecast and realised system load by market time unit and information on the installed generation capacity.

Article 5(3) of the Regulation includes the requirements relating to transparency. In particular "Transmission system operators shall publish estimates of available transfer capacity for each day, indicating any available transfer capacity already reserved. These publications shall be made at specified intervals before the day of transport and shall include, in any case, week-ahead and month-ahead estimates, as well as a quantitative indication of the expected reliability of the available capacity."

In addition, other information is also required to ensure that interest of economic efficiency and the promotion of competition are fulfilled.

5. REVENUE NEUTRALITY

Article 6(6) discusses the use to be made of any revenues collected as a result of congestion management mechanisms. These clearly imply that the TSO should not unduly benefit from the revenues being collected.

Regulators are required to implement the requirements of Article 6(6) and should therefore ensure that revenues are accounted for in a transparent way.

The use of congestion rents for investments in maintaining or increasing the interconnection capacity should preferably be assigned to specific predefined projects with a clear compromise to accomplish them in a reasonable time and with clear economical justification, including security of supply.

Comment: It is not in the interest of traders not to release to the market the capacity they would not use. There is thus no justification to penalties. In case they would be forced not to release capacity, the competition authority or Regulator should settle the question.

Comment: The building of new interconnectors should always be justified by economical reasons, including security of supply.

Deleted: In the case of TSO´s belonging to a holding that owns other companies performing liberalized activities at the same time, this recommendation must be compulsorily fulfilled.

GUIDELINES ON CONECTION MANAGEMENT, SYSTEM OPERATION AND MINIMUM SAFETY AND OPERATIONAL STANDARDS

1. MECHANISMS FOR CONGESTION MANAGEMENT

1.1. The TSOs, or, where appropriate, Member States, shall provide non-discriminatory and transparent standards, which describe which congestion management methods they will apply under which circumstances. These standards, together with the security standards, shall be described in publicly available documents.

1.2. In case of structural congestion, the congestion management method should ensure that the power flows induced by all allocated commercial transactions comply with network security standards being at an acceptable level. A particular commercial transaction should only be denied when the power flows resulting from its acceptance, in addition to the other accepted commercial transactions, lead to a situation where secure operation of the power system can no longer be guaranteed, and where that commercial transaction has an economic value lower than the transactions concurrently accepted under the same contractual conditions.

1.3. Where commercial transaction do need to be constrained, the following rules shall be applied

(1) Mechanisms may allow for capacity allocation to be both for long term short term transactions and may be implemented on an annual, monthly, weekly and daily basis.

(2) A mechanism for an intra-day allocation of interconnector capacity may be established.

(3) Each of these procedures should allocate a prescribed fraction of the available transfer capacity plus any remaining capacity that was not allocated in previous auctions and any capacity released by the capacity holders from previous procedures.

(4) A minimum of X % of the cross-border capacity must be retained for the daily allocation mechanism defined in point 3.2. This percentage must be based on objective technical and economical criteria.

(5) Capacity allocation mechanisms shall allow potential network operators to reveal value placed on capacity (either directly or indirectly) and produce directional price signals to market participants.

(6) Capacity allocation mechanisms shall ensure that capacity is allocated to those which places highest value on capacity.

(7) Network users shall be required to pay for allocated capacity according to a methodology based on the revealed value they have placed on that capacity.

(8) Establishing minimum prices in capacity allocation methods shall not be allowed.

(9) In principle, all potential network users will be permitted to participate in allocation process without restriction, provided that they comply with the "use it or lose it" rule.

(10) Exceptionally, restrictions may be placed on individual company for reasons of proven abuse of dominant position in accordance with article 82 of the EC Treaty.

(11) Priority access rights to interconnection capacity should not be assigned to those contracts which violate Articles 81 and 82 of the EC Treaty. Existing long term contracts should have no pre-emption rights when they come up for renewal.

(12) To promote the creation of liquid electricity markets, capacity bought at an auction should be freely tradable before the moment of notification provided that the TSO is informed.

1.4. In cases where nomination for an expected flow between two countries significantly affects conditions in the interconnector joining third countries, congestion management methods shall be co-ordinated between the two countries concerned and the third country through a common allocation procedure. National Regulators shall ensure that no congestion management procedure with significant effects on power flows in other networks, be devised unilaterally.

Comment: The use it or lose it rule is essential to the good functioning of the market and should thus be complied with in all cases.

Comment: Only abuse of the dominant position – not dominant position itself - is prohibited by the EC Treaty.

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Comment: Experience has shown that caps (both in prices and capacity allocation) are extremely detrimental to the market. they can lead to speculative behaviour.

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Deleted: <#>In order not to risk creating or aggravating problems related to any dominant position of market player(s), the competent regulatory authorities, if appropriate, may establish caps on the amount of capacity that can be bought, possessed and/or used by the different market players, when designing a congestion management scheme.¶

2. CALCULATION OF NETWORK CAPACITY

2.1. The TSOs shall publish a general scheme for calculation of the total transfer capacity and the transmission reliability margin based upon the electrical and physical realities of the network. Such a scheme shall be subject to approval by the regulators of the involved Member States concerned. The safety standards and the operational and planning standards should form an integral part of the information that TSOs should publish in open and public documents.

2.2. The TSOs shall calculate Net Transfer Capacity (NTC) values on a common network model based on a set of published base-cases which are representative to the common network situations. The NTC value has to be confirmed by the two TSOs. The NTC values together with the main constraint limiting the NTC shall published.

2.3. TSOs shall offer to the market transmission capacity that is as 'firm' as possible. A reasonable fraction of the capacity may be offered to the market under the condition of decreased firmness, but at all times the exact

conditions for transport over cross border lines shall be made known to market participants.

2.4. TSOs shall actively seek to identify parts of the network where intermittent congestion might be solved without constraining scheduled commercial transactions across borders. Where such cases can be identified NTC shall be declared unlimited.

2.5. In case of a network constraint inside a control area is limiting the NTC at several interconnectors, the TSO shall publish the method how the capacity is distributed to the constrained interconnectors. This capacity distribution has to be non-discriminatory between interconnectors.

2.6. When balancing the network inside the control area through operational measures in the network and through redispatching, the TSO has to take into account the effect of these measures to the other control areas. The TSOs shall exchange daily the preliminary market results in order to optimise the use of the overall network through operational measures in the network and through redispatching.

Deleted: The redispatching costs necessary to optimise the cross-border flows (refunds) shall be paid from (credited to) the congestion revenue for the border(s) in question.

2.7. The maximum average hourly flows at an interconnector shall not deviate more than X% from the capacity to be nominated at that interconnector. When an imbalance is detected, network modelling shall be used to identify the causes for the loop flows and the interconnections where nominations shall be adjusted (EURELECTRIC does not see the need for this paragraph in the guidelines).

Comment: This is extremely technical and should be better placed in the UCTE Operational Handbook.

2.8. When the excessive loop flows are caused by internal imbalance in a control area, redispatching shall be made in order to diminish the loop flows to an appropriate level. In case of permanent imbalance, the control area shall be split to zones between which proper congestion management measures can be implemented in co-ordination with the congestion management methods at the interconnectors. TSOs shall avoid limiting of the interconnector capacity in order to solve congestion inside their own control area; in any case it shall be used only to the extent it is economically justifiable (EURELECTRIC does not see the need for this paragraph in the guidelines).

Comment: See above, point 2.7.

3. TIMETABLE FOR MARKET OPERATIONS

3.1. The TSOs shall publish a general description of the method applied for maximising the capacity available to the market based upon the electrical and physical realities of the network. Such a method should be subject to approval by the regulatory authorities of the involved Member States concerned.

(1) X times per year the TSOs shall exchange the base case data indication the best possible estimate of the transmission flows in the European network.

(2) Two days ahead the day of operation holders of capacity rights under the procedure in section 1 shall communicate to TSOs their intentions regarding the exercise of those rights.

(3) Two days ahead the day of operation the TSOs shall exchange the data on the nominations of all capacity reservations that are allocated on a basis of a time period exceeding one day and publish the available capacity for the day ahead allocation including the amount reserved under point 1.2.4. This amount must take account of unused capacity rights from the procedure in section 1 and the results of netting.

(4) Available capacity for day ahead nomination shall be allocated on a non transaction basis by each TSO.

Deleted: a nominated agency for each Member State (except Luxembourg). Member States shall notify to the Commission by 31 Dec 2004 the nominated agency.

(5) One day ahead the day of operation at XX CET the market operators for power and capacity markets shall communicate the market results to the TSOs.

(6) One day ahead the day of operation at XX CET the market parties shall communicate the preliminary generation and load schedules to the TSOs.

(7) One day ahead the day of operation at XX CET the TSOs shall confirm the schedules to the market parties and to other TSOs, including eventual redispatching due to capacity optimisation or security reasons. Any changes in schedules after XX CET day ahead the day of operation and exchanging information on them are subject to detailed rules agreed between the TSOs. These rules shall take into account the effect of such changes to the entire network, especially to cross-border capacities and to security of the network.

(8) Two days after the day of operation hourly values of the nominated and physical cross border flows by interconnector shall be published by the TSOs.

4. TRANSPARENCY

4.1. TSOs should publish all relevant data related to network availability, network access and network use including a report where congestion exists, its reason, the methods applied for managing the congestion and the plans to cope with it in the future.

4.2. TSOs should publish all relevant data concerning cross-border trade according to the best possible forecast. This includes the procedures for allocating capacity, including the time and procedure for applying for capacity, a description of the products being offered and the obligations and rights of both the TSOs and the party obtaining the capacity.

(1) annually: all information on the long term evolution of the transmission infrastructure and its impact on cross border transmission capacity;

(2) monthly: month and year-ahead forecasts of the transmission capacity available to the market taking into account all information available to the TSO at the time of the forecast calculation (e.g. impact of summer

and winter seasons on the capacity of the lines, maintenance on the grid, etc.);

(3) weekly: week-ahead forecasts of the transmission capacity available to the market for each market time unit (which may be an hour or a quarter of an hour), taking into account all information available to the TSOs at the time of calculation of the forecast, such as weather forecast, etc.);

(4) daily: day-ahead forecasts of the transmission capacity available to the market for each market time unit;

(5) the total amount of all contracts predating the EU directive 96/92/CE and having a priority right of access to cross border transmission capacity, the daily values of the total capacity taken by them as well as its provisional evolution in the coming years;

(6) total capacity already given out by market time unit and all relevant conditions under which this capacity may be used (e.g. auction clearing price, obligations how to use the capacity, etc.), so that the remaining capacity is revealed;

(7) total nominated capacity by market time unit immediately after the moment of nomination;

(8) as soon as possible after real-time, aggregated commercial transactions by market time unit, including a description of the effects of any corrective actions taken by the TSOs (like curtailment) for solving network or system problems. (CEER)

(9) aggregated figures for the past day on planned and forced outages, including if necessary information per technology type. TSOs may not publish any forecast on the availability of production.

Comment: Disclosure of information related to forecasted production can lead to speculative behaviour of market agents. It should thus be strictly avoided (only information on the past day should be disclosed with aggregated figures, so as to allow for informed decisions).

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Comment: See comment on point 4.2 (2).

4.3. All relevant information should be available for the market in due time for the negotiation of all transactions (such as the moment for negotiation of year supply contracts for industrial customers or the moment when bids have to be sent into organised markets).

4.4. All information published by the TSOs should be made freely available in an easy way. All data should also be accessible in an adequate and standardised format, to be defined in close co-operation with market parties. This includes information on past time periods with a minimum of two years, so that new market entrants also have access to this data.

4.5. When forecasts are published, the *ex post* realised values of the forecast information should also be published, in the time period following that to which the forecast applies.

5. USE OF CONGESTION INCOME

5.1. Net congestion income will be shared by the two TSOs concerned. When a co-ordinated congestion management method is applied, the income shall be shared according to criteria agreed between TSOs which reflect the value of the transmission capacity at each interconnector.

Comment: This is a matter to be decided by the involved TSOs.

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5.2. By 31 March in each year, the regulatory authorities must publish a report setting out the use made of the revenues in question with a verification that this applications comply with this principle and rules and that the total amount of congestion rents are devoted to any of the three purposes considered.

5.3. Congestion revenues shall in priority be used to reduce bottlenecks, keeping in mind that the building of new interconnection capacity, taking security of supply into consideration, shall always be economically justified. When all measures to reduce congestion have been taken, congestion rents can also lead to a reduction of tariffs on top of any other regulatory method used for the calculation of tariffs.

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Comment: Priority for the creation of a genuine Internal Electricity Market it to reduce/eliminate congestion. The building of new interconnection capacity should however always be economically justified (profitability).

5.4. On how to assign costs incurred to maintain allocated capacity, to be developed…

DRAFT GUIDELINES ON INTER TSO COMPENSATION

EXPLANATORY NOTE

1 Introduction

The Regulation on cross border exchanges in electricity[1] allows for binding guidelines on inter TSO compensation to be adopted by a regulatory Comitology process. This procedure requires the Commission to make a proposal for guidelines to be considered by the Committee referred to in Article 13 of the Regulation.

The attached document accordingly puts forward a proposal for Guidelines on the following subjects;

- details of the determination and payment procedure for compensation between TSOs relating to cross border flows; Article 8(2) (a)-(d)

- treatment, in the context of the inter-TSO compensation mechanism, of electricity flows originating or ending in countries outside the EEA; Article 8(2) (e).

- the participation of national systems which are interconnected through direct current lines; Article 8(2) (f),

The main principles adopted by the Commission in its proposal for the detailed guidelines, which are taken from the Articles of the Regulation are set out and explained below. The individual rules set out in the guidelines are intended to direct regulators and transmission companies as to how these principles should be implemented.

2 Approach Taken in the Guidelines

2.1 Flows to be taken into account

Transmission system operators shall receive compensation for costs incurred as a result of hosting cross-border flows of electricity on their network. (i.e. a flow attributed in part or whole to either a generator or consumer outside the Member State concerned) [Article 3(1)]

The amounts of cross-border flows hosted and the amounts of cross-border flows designated as originating and/or ending in national transmission systems shall be determined on the basis of the physical flows of electricity actually measured in a given period of time [Article 3(5)]

The Regulation sets out the principle that Member States should receive compensation for any cross border flows that will imply additional costs to the TSO concerned. This means that, for example, in the case of a flow of electricity between

[1] Regulation 1228/03

country A and country B, without any other country being affected there is the possibility of mutual compensation between the two Member States. This contrasts with the current ETSO mechanism that is based on the concept of "transits". The transit approach makes a simplifying assumption such that, in the case described above, the impact on the networks of the importing country and the exporting country implies the same level of costs. This approach, when compared with other mechanisms, tends to benefit the countries where transits are recorded at the expense of peripheral countries and those with large net in\outflows.

The proposed guidelines for 2005 set out a continuation of the mechanism based on an assessment of "transit" flows. Compensation will, therefore only be paid to the extent that third countries are affected by flows originating and terminating in other Member States. "Transit" flows are defined on the basis of actual physical flows of electricity with the TSOs hosting these transit flows having the right to claim for the costs incurred as a result.

In future guidelines it appears appropriate to consider progressing towards a compensation mechanism which considers all cross border network flows. This will, however, require further examination by regulators, network operators and network users.

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2.2 Designation of responsibility for transit flow

"The compensation referred to in paragraph 1 shall be paid by the operators of national transmission systems from which cross-border flows originate and the systems where those flows end." [Article 3(2)]

In this set of guidelines for 2005, the designation of responsibility is made on the basis of a general assumption that each net inflow or outflow of electricity during a given period bears equal responsibility for the aggregate quantity of "transits" caused in the affected networks. Hence the aggregate amount claimed by the host TSOs under the methodology is shared out among the other participating entities in proportion to the net inflow or outflow to\from of the participating entities in the period concerned. Responsibility for the flows is divided equally between inflow countries and outflow countries. This will be determined on an hourly basis.

An exception is made for countries\TSOs which have inflows or outflows from countries or entities which do not participate in the compensation mechanism. In this case, their contribution is calculated on the basis of a hypothetical flows pattern with the flows from non-participating countries removed. This is because outflows from the participating countries may be affected by inflows for non-participating countries for which some payment has already been collected.

For future guidelines, it appears appropriate to further develop this approach taken, which may need to evolve in due course towards an approach based on "average participations" is used. In this mechanism each measured physical flow on the network is tracked back, using a simple allocation rule, to both a source and an end-point (load) somewhere in the European network. TSOs then must contribute to the compensation mechanism to the extent that sources and loads in their area are implicated in measured physical flows in other areas. This method will also solve the

problem of those TSOs connected to perimeter countries, since the inflows and outflows concerned will only lead a contribution to the fund to the extent that those flows can be tracked beyond the border of the Member State concerned. Further technical study by TSOs and regulators is necessary in this regard.

2.3 Basis for calculating to the costs incurred by "host countries"

The costs incurred as a result of hosting cross-border flows shall be established on the basis of the forward looking long-run average incremental costs, taking into account losses, investment in new infrastructure and an appropriate proportion of the cost of existing infrastructure, as far as existing infrastructure is used to transmit cross-border flows. When establishing the costs incurred, standard-costing methodologies shall be used. Benefits that a network incurs as a result of hosting cross-border flows shall be taken into account. [Article 3(6)]

In the guidelines for 2005 a simplifying cost rules is adopted. This assumes that "transit" flows on the host country network imply a cost to the host network, related to both network investment costs and losses, in proportion to the share of transits in the total level of flows on that network in the time period being considered. Regarding the last sentence, the definition of "transit" used in the guidelines, since it is based on actual physical flows rather that a definition based on contract path, specifically rules out the possibility of benefits accruing to the host TSO in terms of a reduction in overall physical flow. The guidelines also include a methodology for delimiting the extent of the network affected by the transits flows, "the horizontal network" based on the extent to which the network is affected by a hypothetical degree of transit flows.

Similarly for the 2006 mechanism, the extent to which the flows on the networks of the participating network concerned are tracked back to sources and loads in other participants will form the basis for the calculation of the costs for which compensation is due.

From 2005 the total network costs to be taken into account should be based on the principle of forward looking long-run average incremental costs. **This applies only to the compensation mechanism and national tariffs will continue to be based on the valuation of the asset base agreed between the regulator and the TSO.**

In these guidelines, LRAIC is interpreted in the same way as in the telecommunication sector.[2] This implies that the replacement or duplication costs of the existing assets on the basis of today's price levels and technology would be a suitable approximation to forward looking LRAIC.

The standardised methodology therefore includes the following steps:

- country specific asset valuation on the basis of LRAIC submitted by the regulator within certain ranges included in the guidelines,
- common financial and operating cost assumptions: e.g.;
  - cost of capital up to a maximum of 7.5% nominal pre tax,
  - depreciation 40 years,

[2] Recommendation …..

- operating costs 2.5% p.a. of capital costs.

Given the fact that money is being transferred between Member States it is important for the values concerned to be consistent, even if the parameters used for determining regulatory revenues in individual Member States is different. The above figures are based on a broad average of current regulatory practice in the different Member States.

2.5 Determination of first period of time

Under Article 3(3), the guidelines should include the first period of time during which compensation payments shall be made under the Regulation. This will be 1 January 2005 – 31 December 2005.

2.6 Payment procedure

This is also referred to in Article 3(3). These guidelines propose the approach contained in the Annex to the guidelines which replicates the current arrangements within ETSO.

3 Treatment of flows starting\ending in non-EEA countries.

Once the Regulation is in force, there will be ten new Member States. After excluding non-connected islands (Malta and Cyprus), there will be 24 participating countries of the EEA. The three Baltic countries, however, are expected to form a separate system. When making the calculations, the participating countries may be split into small "entities" for geographical or other reasons (e.g. E. and W. Denmark).

This should not mean that other countries should be excluded from participating. Switzerland should also be fully involved in the exercise as soon as possible so that export and import charges are removed. However, it should be the case that all participants from outside the EEA should be required to comply with all three sets of guidelines (i.e. including those relating to congestion management and G\L harmonisation. This, among other things, will require the same treatment of any congestion rents.

For those countries which do not choose to participate in wider European market in this way, declared physical inflows and outflows will be subject to a transaction based charge reflecting the use of the participating countries' networks of €1/MWh.

4 Systems interconnected through DC interconnectors

4.1 DC interconnectors that form part of the general regulated asset base

Article 8(2) states that the guidelines shall specify the participation of national systems which are interconnected through direct current lines, in accordance with Article 3.

The guidelines take the view that, in general, participation in the inter TSO compensation mechanism, and the removal of charges relating to cross border

transactions will not be affected by whether Member States are connected by AC or DC lines. Therefore DC lines, where they form part of the regulated asset base of the participant concerned will be included in the network in that Member State. To the extent that, on aggregate, the Member State concerned was a host of transit flows, DC lines would be included in the horizontal network for which compensation would be due.

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4.2 DC interconnectors that are legally separate entities from the TSO and do not form part of the general regulated network

For interconnectors which are separate from the general regulated asset base of the TSO, including those with exemptions from third party access, it is expected that these should be excluded from the horizontal network for the purposes of congestion. The owners of these lines will neither contribute nor receive from the compensation fund. It is expected that such assets will be funded from congestion management revenues.

5 Baltic Countries

Considering that these three Member States are currently not connected to any other part of the EU network, the guidelines envisage a separate compensation mechanism between the TSOs of the three countries concerned. TSOs in all other Member States will be part of the same compensation mechanism.

GUIDELINES ON INTER TSO COMPENSATION

2005 SCHEME

1 List of Participants: scheme A

The following entities shall participate in the compensation mechanism as a single payee and recipient of inter TSO compensation.

- Stattnet
- Svenska Kraftnet
- Finngrid
- Eltra
- Elkraft
- collectively: Eon Netz, RWE Net, Vattenfall Transmission Germany, ENBW network
- Tennet
- Elia
- RTE France
- collectively: National Grid, SP Tranmsission, Scottish Hydro Transmission
- SONI
- ESB Transmission (Eirgrid)
- RED Electrica
- Rede Electrica Nacional
- GRTN
- Austria Power Grid
- DESHME
- PSE
- CEPS
- SEPS
- MVM
- ELES

Other entities, for example Swiss TSOs, may also participate in the compensation mechanism on the basis of a binding legal agreement between that entity and, collectively, the transmission system operators listed above.

2 List of Participants: scheme B

Estii Energia
Latvernego
Lithuania

No payments shall be made between participants in scheme A and those in scheme B.

2 Determination of receipts of compensation

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2.1 For each of the entities referred to in paragraph 1, including those participating by private contract ("participants"), compensation will be paid in relation to the quantity of "transit flows" in the annual period under consideration which shall be determined according to the following formula:

$T_i = \quad \text{Min}(X(t)_i, M(t)_i)$

where:
X(t)= measured flow on interconnections in export direction during hour t
M(t)= measured flow on interconnections in import direction during hour t

2.2 The amount of compensation to be paid will be relative to the amount of defined transit flows relative to the total flow on the network of the participant as defined by the coefficient "ξ" below:

$$\xi_i = \frac{\sum_{t=1}^{8760} T_i}{\sum_{t=1}^{8760} T_i + \sum_{t=1}^{8760} L_i}$$

where:

Ti is transit in entity "i"
Li is the load in entity "i".
[Both expressed in GWh.]

2.3 The first component of the amount of compensation will then be given by

$c_i = \xi_i \times (\text{"annual forward looking LRAIC of the horizontal network"})_i$

2.4 The horizontal network is defined as that part of the participant's total network where a difference in flow in excess of 1MW is registered in a scenario with no transit flows compared to a situation where a reference amount of transit flows of 100MW is assumed. Participants shall provide to the Commission information on the assets forming part of the horizontal network in terms of km of 380KV and 220KV transmission lines and direct current cables as well as the number of 380/200KV substations.

2.5 Infrastructures at lower voltages than 220KV are, in principle, excluded from the horizontal network although transmission lines and cable at 110KV may be included subject to the conditions set out in Annex X.

2.6 An assessment of "forward looking LRAIC" shall be submitted for each participant by the regulatory authority in the Member State(s) concerned. This value shall be expressed as an average capital cost (€) per km relating to the hypothetical construction of infrastructure duplicating or replacing the existing 380kV and 220kV networks and of the cost of 380\200KV substations.

2.7 The estimate for LRAIC provided by regulators shall not deviate from the following ranges.

	380kV overhead		220kV overhead	
Member State	double circuit	single circuit	double circuit	single circuit
FI, SE, EL, PT, EE, LT, LV, CZ, PL, HU, SL, SI	€250.000-350.000/km	€150.000-220.000/km	€175.000-250.000/km	€100.000-150.000/km
DK, NO, ES, BE, NL, IR FR, DE, UK, IT, LX, AT, CH	€350.000-600.000/km	€220.000-400.000/km	€250.000-400.000/km	€150.000-250.000/km

	380kV underground cable and converter station	220kV underground cable and converter station
All Member States	€5.000.000/km	€3.000.000/km

	380kV-220kV substation	220kV-110kV substation
All Member States	€2.000.000/unit	€2.000.000/unit

2.8 To convert capital cost estimates to annualised amounts the following parameters shall be used:

- cost of capital per annum: a maximum of 7.5% nominal, pre tax,
- depreciation period: 40 years.
- operating costs 2½% of capital value

2.9 The second component of the amount of compensation will then be given by

l_i = MIN [ξ_i, 0.15] x ("total annual losses recorded in the horizontal network")$_i$

2.10 For both components;

- the calculation shall include all alternating current lines.

- the calculation shall include all direct current lines of participants which form part of the general regulated asset base of the participant.

2.11 The total amount to be received for each participant shall be given by the formula:

$r_i = c_i + l_i$

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3 Flows from non-participants

3.1. Participating entities shall, where they are connected to other non participant networks, contribute to the compensation fund to the extent that they receive net flows from them. This shall not apply to participating entities from Estonia, Latvia and Lithuania.

3.2 TSOs affected shall contribute €1/MWh to the fund for each unit of net flow from non participating countries

$NFX(t)_i = \text{Absolute value } [(X(t)_{ij} - M(t)_{ij})]$

where j is a non participating entity.

3.3 The participants affected may charge this amount to the network users which hold contracts to import or export the electricity concerned.

3.4 The total contribution relating to flows with non participants for each country shall be shall be termed "x_i" and will be given by the formula

$$x_i = \sum_{j} \sum_{t=1}^{8760} NFX(t)i$$

4 Determination of payments of compensation

4.1 Compensation from participants shall be collected in relation to the cumulative absolute net flow "CANF" of electricity during the annual period in question according to the following formula;

$$CANF_j = \sum_{t=1}^{8760} \text{Absolute value } [(X(t)_i - M(t)_i)]$$

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For participants paying contributions relating to non-participating countries under section 3 above, the calculation of CANF shall exclude net flows recorded at borders with non participants.[check with ETSO slides]

4.2 The compensation to be paid by each Member State will be determined by the formula

$$\frac{CANF_j}{\Sigma\, CANF_j} \quad x \quad \Sigma r_i - \Sigma x_i$$

4.3 Participants shall not make specific charges to individual network users in order to collect the contributions required to the fund.

5 Payments procedure

5.1 Annex A to these guidelines set out the payments procedure to be followed.

6 Transparency on the mechanism

TSOs should release every year an annual report setting out the financial arrangements that occurred in the previous year and are forecasted for the year ahead, specifying inter alia the geographical scope, the actual cross-border flows, the total cost of the horizontal network, the total amount of the fund, the redistribution among TSOs and any other relevant information relating to the compensation mechanism.

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EX A

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Details of the payment procedure to be followed in the context of the inter-TSO compensation mechanism (Article 3 of the Regulation)

Pursuant to Article 8, paragraph 2 (b) of the Regulation on conditions for access to the network for cross-border exchanges in electricity

1. Compensations payments shall be made per calendar year (year N).

2. In November of the year N-1 the European Transmission Operators shall submit to the Commission the following data and information, on a MS per MS basis:

a) The forecasted total cost of the horizontal network (=those parts of the network used for cross-border flows) for the year N,

b) The cross-border flows hosted forecasted for the year N, as well as details of its calculation

c) The cross-border flows caused forecasted for the year N, as well as details of its calculation

d) On the basis of a),b) and c): the compensations payable forecasted for the year N

Prior to its submission to the Commission, the above data and information shall be agreed between all TSOs and the individual data per MS approved by the national regulators concerned.

3. The Commission, by letter, shall agree to the operation of the system in the course of the year N, subject to final end-year clearing, on the basis of the submitted information and data. Where appropriate, the Commission shall require modifications.

4. Provisional payments of compensations shall be made between TSOs on a monthly basis in the course of the year N, on the basis of the above forecasts but taking into account physical flows actually measured for the month concerned.

5. In January of the year N+1 the TSOs shall submit to the Commission, after agreement of all TSOs concerned and the national regulators concerned, the final calculation of compensations payable for the year N.

The compensations shall then be definitively determined by the Commission in a Commission decision, pursuant to Article 3(3) of the Regulation.