



ERI Coherence and Convergence Report - An ERGEG Public Consultation Paper

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Executive Summary

In 2006, the Electricity Regional Initiative (ERI) established seven regions, subgroups of the European Union's Member States¹, with a view to each integrating further their national electricity markets and as an interim step towards the creation of a single EU electricity market. This report makes an assessment of how priorities and solutions adopted in each of the ERI regions can be seen as coherent with each other and can potentially enable convergence towards the single market. It also invites stakeholders' views on the assessment.

In the twelve months that have followed the last review, further progress on achieving harmonisation of regional market arrangements has taken place. In addition, the focus has started to shift to common practices that may help permit the future integration of neighbouring regions, with the continued ultimate aim of producing an EU-wide integrated electricity market. This focus may become increasingly important over time, with potential increases in interconnection capacity and changes in market arrangements borne from the Third Energy Package².

Common legal and advisory documents (such as the Electricity Cross-Border Regulation with the annexed Congestion Management Guidelines³ and a number of ERGEG Guidelines for Good Practice) have helped direct the path towards harmonisation, on issues such as congestion management and transparency.

Nevertheless, significant progress still needs to be made before the possibility of a single EU-wide electricity market can become a reality. The various regions have differing priority levels for the identified workstreams and this has meant that progress, although significant in some regions on some workstreams, could be considered disjointed. For instance, the ERGEG website shows that for each of the three most-common workstreams – Balancing, Congestion Management and Transparency, different regions have assigned differing levels of priority.

Similarly, there are many region-specific workstreams assigned short term priority (e.g.; increasing transmission capacity, improvement of explicit auctions mechanisms, increasing transparency, etc.). Although these issues may themselves be necessary to resolve before further integration can take place, they also mean that regions may not be working on the same issues at the same time. This in turn makes it essential that regions consider future

¹ The seven "regional energy markets" (REMs) are Baltic (three countries), Central-East (six countries), Central-South (six countries), Central-West (five countries), Northern (six countries), South-West (three countries) and France-UK-Ireland (three countries). Some Member States are members of more than one REM, given their geographic position and interconnections and based on the regions defined in the Congestion Management Guidelines. Each region is composed of a Regional Coordination Committee (RCC), an Implementation Group (IG) and a Stakeholders' Group (SG).

² Package of five legislative proposals published by the European Commission on 19 September 2007 amending existing energy market –electricity and gas - legislation and proposing an agency for cooperation of energy regulators.

³ Regulation on cross-border trade in electricity 1228/2003/EEC; Congestion Management Guidelines: 2006/770/EC: Commission Decision of 9 November 2006 amending the Annex to Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity

harmonisation and integration when implementing new systems and models, so as to ensure that these models are compatible with other regions' future developments.

Work is due to progress further in a number of areas, including:

- Capacity calculation methods –
 - o issues here arise around ways of jointly and simultaneously calculating capacity across borders and regions. The use of load flow-based methods and the specification of common power system models will need to be appropriately coordinated.
- Capacity allocation
 - o Medium and long-term – issues associated with the functioning and interaction of explicit auctions. Harmonisation of auction rules and compatibility of different auction methods and auction platforms between regions will require attention. Alongside harmonisation, regions should work towards improvement of allocation rules.
 - o Day ahead - most regions are developing implicit day-ahead auctions. In principle, these are compatible but care is needed in terms of the detailed design and implementation (e.g. gate closure times, role of power exchanges) in order to ensure that regions are compatible.
 - o Intra-day – issues include the extent to which continuous trading platforms can be or should be extended across national markets and regions.
- Balancing – further integration of balancing markets is being pursued, and points to the desirability of using common platforms. Experience from the Nordic market suggests that benefits can be reaped from a stepwise approach.
- Transparency – issues include the need to address this issue in all regions simultaneously and to implement guidelines of good practice on a consistent basis.
- Governance issues, regulatory and legal framework – issues include how regional approaches are or can be overseen on a common basis, particularly regarding coordination of regulatory action and competencies, common auction offices and power exchanges managing implicit auctions.
- ERGEG seeks views on these issues and intends to follow up issues and views in the second half of 2008 and during 2009.

Purpose of this paper

ERI is a key part of ERGEG's work, aimed at delivering real and practical improvements to the way in which EU electricity markets function. This is done through the development of best-practice solutions for the market-oriented implementation of existing legislation, focusing on barriers that hinder the implementation of best-practice solutions while ensuring proper involvement of stakeholders.

ERI's ultimate purpose is to facilitate the completion of the single European electricity market via the interim step of market integration at the regional level. To this end, decisions, actions and solutions adopted at the regional level shall facilitate and must not impede the full integration of all regions into one single market at a later stage.

It is therefore crucial that ERGEG monitors and reports on the progress of the Regional Initiatives (RIs) both internally and externally and helps foster coherence and convergence with a view to speeding up integration at the EU level. The purpose of this report is to monitor coherence and convergence across the regions and to put forward some ways to foster coherence of actions taken at regional level and overall convergence.

Responding to this public consultation:

ERGEG invites all interested parties to comment on any aspect of this ERGEG Paper.

Following the end of the public consultation period, ERGEG will publish all comments and replies to questions received from stakeholders.

If a respondent would like ERGEG to treat their contribution confidentially then this must be explicitly mentioned in their reply. Unless marked as confidential, all responses will be published by placing them on the ERGEG website www.energy-regulators.eu.

Any comments should be received by **11 November 2008** and should be sent by e-mail to **convergence@ergeg.org**.

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Introduction and Recap of the ERGEG 2007 Consultation procedure for the ERI Coherence and Convergence Report

ERI Coherence and Convergence Report 2007:

1. On 18 July 2007, ERGEG launched a public consultation on a report on the coherence and convergence across the seven Regional Energy Markets (REMs) of the Electricity Regional Initiative (ERI) and their convergence towards a single market in due course. The report provided an overview of the overall progress within the REMs that were established in order to accelerate electricity market integration at regional level. In the report, ERGEG invited stakeholders to answer specific questions and to provide their own views on the progress achieved. The ERGEG consultation closed on 14 October 2007 and 16 responses were received.

Main insights from the public consultation

2. The outcome of the public consultation on the first ERI Coherence and Convergence Report confirmed that the ERGEG ERI process constitutes a “practical and achievable way of delivering progress towards a single electricity market”.
3. One of the main concerns expressed by stakeholders in this consultation was that regions are progressing at a different pace, with achievements varying from one initiative to the other. Concern was therefore expressed about the potential increase of the gap between regions, which might seriously hinder the ultimate goal of market integration at the European level, rather than just regional level. Stakeholders mentioned a number of reasons that might explain this gap and advocated for additional ERGEG engagement in cross-regional coordination.

The way forward for ensuring coherence and convergence

4. ERGEG shared the stakeholders’ concerns as regards the existing gap between regions and committed to investigating reasons for delays in regional convergence towards a single European market and to ensure, as explicitly requested by stakeholders, a cross-regional coordinating role. While striving for improvements in each region, the opportunity to have compatible, coherent and converging developments must be carefully considered.
5. In order to acknowledge specific regional issues and to find appropriate solutions for each region, with a view to integrating regions, ERGEG will encourage each REM to

elaborate action plans that identify obstacles towards the implementation of the following congestion management target methods⁴, namely:

- a) A common transmission model: the calculation of cross-border transmission capacity using load-flow calculations based on a common network model is an essential contribution to maximising available transmission capacity under secure network conditions and dealing efficiently with interdependent physical loop flows. especially for regions with highly meshed networks (article 3.5 CM Guidelines);
 - b) a single auction platform with harmonised auction rules, IT interface and products for long and medium-term allocation;
 - c) implicit auction model for the day-ahead timeframe (market coupling or splitting);
 - d) an intra-day mechanism, with an option for continuous trading;
 - e) Developing cross-border balancing (e.g. TSO to TSO model as a first step) aiming at balancing market integration.
6. On the basis of these identified objectives, each RCC will complete its action plan [add reference to ERGEG RIs webpage], with all involved parties, explaining for each obstacle which remedies could allow for the implementation of the targeted congestion management methods, more connected balancing markets and stronger market integration.
7. ERGEG acknowledged that obstacles might also stem from lack of cross-regional coordination, with several projects involving overlapping regions competing for resources and effort from all the involved parties. ERGEG therefore intends to foster its oversight of regional action plans with a view to prioritising projects at a cross-regional level, issuing best practices and ensuring overall convergence and the inherent coherence of actions taken at regional level. These more elaborated and cross-regional coordination projects are included in the present ERI Coherence and Convergence Report, which will be presented at the XVth Florence Forum in November 2008.
8. Transparency has already reached a high degree of coordination. However further developments will follow with the implementation and monitoring of the Transparency Reports being prepared in each REM.

⁴ Identified in the 2007 ERI Convergence and Coherence Report : http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/ERI%20Coherence%20and%20Convergence/CD

1. Progress, obstacles and planned developments on congestion management

9. This chapter contains an overview of progress achieved so far and an assessment of obstacles and planned developments towards the implementation of the congestion management target models. In some cases, it contains solutions compatible with the target models.

1.1. Central-West (CW) region

1.1.1. Capacity calculation

10. In the CW region, TSOs are working on a common transmission model within the scope of the implementation of a flow-based market coupling mechanism. Comprehensive data concerning network topology, demand level and expected generation pattern are exchanged in D-2 for the determination of the base case, i.e. the level of flows pre-existing the day-ahead allocation mechanism.
11. First applications of the model show that in 25 % of cases, no capacity is left for cross-border exchanges (i.e. the network is already congested before the day-ahead allocation mechanism starts). These cases are called “pre-congested”. Because this would lead to a decrease of the available capacity, compared to the currently observed bilateral NTCs (Net Transfer Capacity), transmission system operators (TSOs) are examining improvements to their method. The principles used for the determination of the base case (priority to internal and cross-border flows external to the region) and applied for the generalisation of this base case to the region may be at the origin of the observed reduction of cross-border capacity.
12. TSOs work also included the definition of specific network elements, called “critical branches” that are considered particularly sensitive and that will be monitored specifically (as a constraint on the linear optimisation) by the flow-based allocation mechanism under study. In a similar way, outage cases (N-1) judged critical were identified and will also be monitored explicitly.
13. Future developments and challenges will focus on the treatment of these “pre-congested” cases. Particular attention should also be given to the current trend of cross-border capacity reduction resulting from the application (and the principles) of the proposed method.
14. Regarding long-term calculation of capacity, the method is still NTC-based. Currently, no improvements in long-term capacity calculation have been put forward by TSOs, that is to say no improvement of coordination, information exchanged between TSOs at regional level or bilaterally, no use of a common calculation methodology.

1.1.2. Long and medium term allocation

15. Intensive work, including a extensive market consultation, on the harmonisation and the improvement of the explicit (long-term) auction rules has taken place in the CW region.
16. To this end, TSOs of the region decided at the end of 2007 that a common company called “CASC” (Capacity Allocation Service Company, Central West Europe) in charge of performing coordinated long and medium term auctions and applying a single set of

auction rules will be set up. The relevant TSOs will continue to be in charge of nominations.

17. As in the Northern region and the Central Eastern region, CASC had to send a notification to the relevant anti-trust authority. The European Commission approved on 14th August 2008, in line with the EU Merger Regulation, the creation of the joint venture, CASC Capacity Allocation Service Company for Central Western Europe.⁵
18. As requested by regulators, TSOs submitted a single set of auction rules in June 2008, with the objective of implementing this harmonised and improved set of auction rules in spring 2009. The next yearly auctions will be held under a transitory regime.
19. Critical issues surrounding these rules are the limitation of TSOs' liability; the firmness of capacity; the compensation scheme based on market price spread in case of curtailment; multi-round, multi-year and year+2 auctions; local limitations of import capacity existing in some countries and conditions for suspension.

1.1.3. Day-ahead allocation

20. In the CW region, TSOs are working on the implementation of a flow-based allocation mechanism for the day-ahead time frame, called "Flow-based Market Coupling" (FBMC), which will couple the four Power Exchanges (PXs) of the region via an implicit mechanism.
21. In order to fully take into account the security of the system in the optimisation process, TSOs will examine specific network elements judged as critical as well as specific outages (N-1). First results of the flow-based optimisation algorithm have been delivered by the TSOs. In some cases, the coupling algorithm produces non-intuitive results (electricity no longer flows only from the lower price area to the high price area) resulting from the flow-based optimisation algorithm and the maximisation of regional welfare. The importance of this phenomenon and its impact on the price signal will have to be carefully examined.
22. The main challenge of the implementation of FBMC in the region remains the demonstration of the added-value of the flow-based dimension as compared with the current NTC-based model (in terms of increased overall regional welfare and increased security).
23. Future work will concern the definition of critical branches; allocation of congestion revenues; extension possibilities; validation of the quality of the algorithm and transparency and monitoring issues. The challenges of interactions with other market coupling projects should also be borne in mind (e.g. Germany-Denmark and Norway-Netherlands). The changes of governance in power exchanges could also have an influence.

⁵ http://ec.europa.eu/comm/competition/mergers/cases/index/m103.html#m_5154 : The Commission's examination of the proposed transaction showed that there were no horizontal overlaps between the transmission networks of the participating electricity transmission system operators. Moreover, given the limited size and scope of the joint venture's activities, its creation would not enhance the risk of any coordinated behaviour between the vertically integrated energy groups to which most of the parties to the joint venture belong. The Commission therefore concluded that the proposed transaction would not raise any competition concerns.

1.1.4. Intraday allocation

24. TSOs are working on the development of interim solutions for intraday trade on the German/Dutch and the Dutch/Belgian borders.
25. Concerning the regional target solution, the regulators intend to launch in the next few months a questionnaire (foreseen in the Action Plan) for regional market consultation.
26. The region is considering continuous allocation, with obligatory use of the capacity. The main issues submitted to public consultation are the following:
 - **Implicit or explicit mechanism:** Given the short timeframes available for intraday trade, the most efficient way to allocate available cross-border capacity would be via an implicit method, as is the case for day-ahead allocation. This means that the capacity allocation must be automatically linked to a cross-border deal. Under this condition, Over-the-Counter (OTC) cross-border trades would not be allowed.
 - **Split of liquidity:** The objective of offering cross-border intraday capacity is to increase liquidity and thus efficiency of national intraday markets. If the capacity calculation unit, used by TSOs to calculate and allocate continuously intraday capacity, is connected to several trading platforms and possibly to individual market players, then the benefits of “coupling” the liquidity of interconnected areas would be reduced. So the creation of a central order book which would be the single interface between trading platforms and the capacity calculation unit is under consideration. Such a model would be the intraday duplication of the day-ahead market coupling model, identified as the day-ahead target mechanism.

1.2. Central-East (CEE) region

27. In congestion management, the objectives are to implement the relevant provisions from Regulation (EC) 1228/2003 and annexed Congestion Management Guidelines and also within that framework to achieve a solution which is optimally supportive for market development in the CEE Region. This includes a flow-based capacity calculation scheme (with common grid model) and full coordination for the auction of physical transmission rights.
28. In order to achieve a binding implementation environment and to address all the technical, organisational and regulatory requirements accordingly, the REMs' TSOs established a project structure and two working groups (WG1 on capacity calculation and WG2 on coordinated auctioning). The work schedule activities, work-packages and milestones have been compiled together in a project plan which is periodically reported. This plan foresees a common Auction Office (AO) which was formally established during summer 2008 in Freising (near Munich, Germany) and which will serve as a central contact point for market participants for the capacity allocations in the region. TSOs have committed to the solution becoming operational from January 2009 onwards. The main tasks required to achieve these objectives are listed below.

1.2.1. Capacity calculation

29. The CEE TSOs have been working on a joint, flow-based capacity calculation since 2006 but are still facing difficulties. Reasons for that are, among others: (i) different approaches from TSOs in relation to security margins applied, and (ii) simplification of the grid model (the so-called “Border Capacity” (BC) approach, with one control area represented as an equivalent in one node); etc. In order to overcome these obstacles and develop a sound, technically and economically viable solution, external support from a consultant (Consentec) was commissioned, with the final results due in September 2008. Based on the discussions so far, the TSOs have decided to follow the so-called Maximum Flow (MF) approach, which is basically equal to the approach of “critical branches” in the CW Region. For that, a more detailed grid model (compared to the previously elaborated, simplified BC approach) is required in the first instance and in the second, maximisation criteria needs to be decided upon. Generally, it has been agreed by the regulators and already communicated to the TSOs that the criteria shall be the maximum overall economic welfare from the capacity calculation and simultaneous allocation. Currently, feasibility and efficiency tests are being performed with that adjusted model. The methodology should be applied for all allocation timeframes (annual, monthly, daily and in the future also intra-day).
30. Furthermore, the curtailment principle will be developed and analysed – for that purpose, the outcome and guidance from the recent ERGEG Paper on firmness⁶ and curtailment will be used.
31. The feasibility and efficiency tests will be supported by the consultant and should also be finished in autumn 2008. Following the tests’ completion, it is planned to start an external test with traders, that will be completed by the demonstration of and training on the new allocation system. Updating the existing concept and developing and analysing the real-time congestion principles are also under consideration.

1.2.2. Long and medium term allocation

32. As outlined above, the objective of the CEE Congestion Management project is to achieve completely harmonised explicit auctioning of annual, monthly and daily physical transmission rights (PTR) with the possibility for market participants to return obtained capacity (Use-it-or-get-paid-for-it rule). The capacity will be based on the flow-based calculation.
33. TSOs provided first draft (it was anticipated that it would not yet be fully completed) documents to the Regulators in April 2008. These documents have been commented on by the Regulators and were processed by the TSOs, to be discussed at their relevant groups for finalisation.
34. A prerequisite for harmonised and coordinated allocation in the whole region is the establishment of the planned Auction Office as a company. It will be in charge of

⁶ Firmness of nominated transmission capacity, reference E08-EFG-29-05, 15 July 2008, http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_ERGEG_PAPERS/Electricity

allocating the interconnection capacity; elaborating the allocation rules in cooperation with TSOs; providing the related necessary IT services; performing the necessary (financial) risk-management analysis and acting as an interface with market participants.

35. Since the AO shall be a daughter company of the TSOs involved, an antitrust notification to the relevant competition authorities is needed – this was successfully completed in June 2008. Therefore, the TSOs established the AO as a company in summer 2008. This is considered to be a significant milestone towards enhanced coordination for allocations.
36. An open IT tender was published on the EU-website on 08.01.2008 by TSOs in order to purchase the IT system covering all parts of the allocation process – the tender is now in the final evaluation phase and expected to be assigned in July 2008. Moreover, TSOs are elaborating different potential congestion revenues distribution keys. Regarding the distribution keys, the CEE regulators reiterated that the best solution would be to have a key which considers maximisation of scarce capacity in particular.

1.2.3. Day-ahead allocation

37. In principle, for day-ahead allocations the situation described above for long-term allocation is also applicable.
38. Summarising the present situation, the evaluation and implementation of the capacity calculation methodology/system, together with the completion of the process in relation to the antitrust issues are recognised as the impediments in the current work phase.
39. Beyond that, integration of the present work and deliverables within a future stepwise approach towards the implicit allocation in the day-ahead market should become an issue in the future. For implicit allocation, not all countries of the CEE Region have sufficient liquidity/price signals – as soon as this position changes, it is anticipated that the migration towards the implicit allocation can be initiated.

1.2.4. Intraday allocation

40. For the time being, at a number of interconnections in the CEE Region bilateral intra-day solutions are applied. These solutions are based on a short-term capacity calculation and a first-come-first-served basis. The Regulatory Authorities defined on a general level some requirements for a future harmonised regional solution including among others issues of compliance and coherence with the Regulation and the CM Guidelines (coordination, capacity calculation (flow-based), etc.)
41. Regulators also asked for coordinated regional solutions (rather than bilateral solutions). In full coordination with the future activities of the Auction Office Discussions on this issue should begin in autumn 2008.

1.3. Northern region

1.3.1. Capacity calculation

42. Both internally, within the Nordic countries, and between the Nordic countries and the European continent, transfer capacity definitions are applied in-line with definitions used by ETSO. On interconnections, where only implicit auctions are applied (internal Nordic and the KONTEK cable between Germany and Denmark), total NTC is available for

these implicit auctions. The issue of determining NTC is relatively straightforward on all of these interconnectors, some of which are DC lines and all of which are outside the meshed continental system. Loop flows, therefore, are a relatively limited problem.

43. The specific rules on determining hourly NTC are set out in the joint Nordic System Operation Agreement and in bilateral agreements with non-Nordic TSOs. In addition to fixed transmission reliability margins, NTC depends on certain capacity constraints and operational conditions within each TSO area. TSOs on both sides of an interconnector calculate hourly NTC and the lowest capacity figure applies as trading capacity. These are published on the Nord Pool Spot website⁷. In order to increase transparency for market players, since last year codes indicating types of capacity reductions are applied.
44. With regard to congestion management, there are two basic methods in use in the Nordic market: market splitting and counter trade on the national borders. During day of operation counter trade is used to ensure the firmness of market splitting results. There are on-going discussions among the regulators, TSOs, energy ministers and stakeholders to reach a common unified standard for congestion management. The dispute centres on whether to split into several more national price areas or to countertrade in order to relieve congestions.

1.3.2. Long and medium term allocation

45. In the Northern region, implicit auctions are predominantly used for the day-ahead capacity allocation. Nowadays, day-ahead explicit auctions are implemented only on the interconnectors between Germany and Denmark West and, from May 2008, between Norway and Netherlands. Market coupling is to be introduced at the border between Germany and Denmark at the end of September 2008. According to license conditions, implicit auctions should be applied to the cable between Norway and Netherlands from 2009. For the cables connecting Sweden and Germany (Baltic Cable) and Sweden and Poland (SwePol) currently third party access is restricted as they are operated as “merchant lines” (see below). The operators of Baltic Cable already signaled that market coupling should also be introduced on this cable. With regard to SwePol the current market conditions do not facilitate the introduction of a market coupling on this cable⁸. According to a decision taken in the first RCC meeting of the region, the Polish-German interconnection is not within the scope of the discussion of this region⁹.
46. Within the Nordic regions, there are different concepts with regard to the longer term hedging products provided. Explicit capacity auctions for long and medium term allocations are used on the interconnector between Germany and Denmark West. As requested by market parties explicit auctions for long-term products are still applied at this interconnector. According to market participants appropriate and even increased

⁷ <http://www.nordpoolspot.com/>

⁸ see Report by the IG Merchant Lines: Final and Status Report – SwePol Link and Baltic Cable
http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Northern/Final%20docs

⁹ This was decided by the RCC of the Northern Europe Region. The German – Polish interconnection is discussed within the framework of CEE.

capacity for the long-term auctions is needed. Additionally, at the border between Germany and Denmark West the implementation of a use-it-or-sell-it principle is foreseen to be introduced in 2009. As "physical trading" is no longer necessary in this case (as pure financial settlement is possible) this will increase flexibility for traders. Regulators will closely monitor the revealed preferences of market participants, the degree of liquidity in hedging products as well as the efficiency of the utilisation of the interconnectors. On this basis, the need for explicit auctions will be re-evaluated by regulators.

47. Within the Nordic markets, yearly and monthly hedging products are provided by the financial markets and can be traded e.g. on the Nordic power exchange Nord Pool.

1.3.3. Day-ahead allocation

48. The Nordic market has had a joint power exchange, Nord Pool Spot, with implicit day-ahead auctions since 2002 (Norway and Sweden since 1996, Finland joined in 1999 and East and West-Denmark in 2000 and 2002).
49. The day-ahead market coupling between Germany and the Nordic market will be operated by the joint company (among the TSOs and PXs involved) European Market Coupling Company (EMCC) in Hamburg. The IT interface will be to PXs EEX and Nord Pool Spot (NPS). They will transmit aggregated hourly bids to EMCC. EMCC will determine the flows on German-Danish interconnectors (and prices) and transmit them to the two PXs for final determination of hourly prices (volume coupling). However, each PX might choose to also use the EMCC price calculated ("voluntary" price coupling).

IG "Merchant lines"

50. Baltic Cable and SwePol Link are operated as "merchant lines", that is: the owners have priority rights to the capacity and the cost for the cable is covered by the users (i.e. no part of the cost is included in the calculation of the respective national grid tariffs). An Implementation Group (IG) "Optimising the use of the Interconnectors – SwePol Link and Baltic Cable" has been launched in order to investigate the legal situation and to propose capacity allocation and congestion management mechanisms for the Baltic Cable and SwePol Link, which aligns them as much as possible with other interconnectors between the Nordel area and continental Europe. The IG has not reached a common view regarding the interpretation of the legal situation for SwePol and Baltic Cable. The respective parties' views have been stated in a status report from the IG "Optimising the use of the Interconnectors – SwePol Link and Baltic Cable." On the other hand, there is an agreement to work towards day-ahead market coupling for the cables. However, introducing market coupling through implicit auctions on the Baltic Cable and SwePol Link includes a number of prerequisites that have to be fulfilled:
 - Enough liquid power exchanges on both sides of the cables;
 - Harmonising the process as regards gate closure times and day-ahead trading seven days a week;
 - Technical and administrative conditions for power flow, ramping, etc.;
 - Willingness from the cable operators and owners to involve themselves in a market coupling project including additional commitments following responsibilities connected to the involvement in the market coupling office as well as other contractual commitments;

- Regulators' review of the procedures and mechanisms in the market coupling project.
51. As far as the legal status of “Merchant lines” Baltic Cable and SwePol is concerned, at present the two interconnectors are exclusively used by the owners. According to the owners, all flows on the interconnectors reflect wholesale market prices on both sides of the interconnectors. Spare capacity is offered to the market but has in practice never been contracted. At the same time, the two interconnectors have no exemptions from TPA according to Art. 7 of Regulation 1228/2003¹⁰, as they were established before this Regulation (June 2003), and Art. 7 relates to “new lines” only.
52. It is the view of the energy regulators of the Northern REM that the two interconnectors should be opened to the market (TPA) in order to be in accordance with Directive 2003/54¹¹ and the Regulation 1228/2003.
53. This legal interpretation is contested by the owners of the interconnectors. They argue among other things that Regulation 1228/2003 addresses TSOs only and these interconnectors are not TSO-owned or TSO-operated. The interconnectors had never been established at that time on a TPA basis and there have been no legal possibilities available to obtain any exemption.

Planned development:

54. The IG drafting the reports decided on a pragmatic approach to the diverging views:
- Both sets of legal interpretations are presented;
 - Focusing on the de facto situation;
 - where Baltic Cable owners plan to make the capacity available to the market by way of market coupling - probably joining the German-Danish market coupling project;
 - where SwePol owners have presented a “conditional timetable” on making the capacity available to the market on certain conditions – especially relating to the liquidity of the Polish market.
55. It is the judgment of the IG that all the prerequisites are likely to be fulfilled regarding the Baltic Cable and therefore the proposal from the IG is for the owners and the operator of Baltic Cable to introduce market coupling. The owners of the Baltic Cable have announced their intention to do this and will seek solutions to introduce day-ahead market coupling during 2008, given that a positive solution can be achieved. The IG will monitor the progress.
56. As stated above, not all the prerequisites are likely to be fulfilled regarding the SwePol Link in the near future. A conditional timetable that describes all prerequisites that have to be fulfilled regarding the SwePol Link will be set up in the context of the IG's follow up work during 2008.

¹⁰ 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

¹¹ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity

IG Market Coupling DE – DK

57. In the Northern region implementation of market coupling between Denmark and Germany has been one of the main priorities. The market coupling project requires collaboration between 3 TSOs and 2 power exchanges and the further work on contractual arrangements for the start of market coupling is proceeding well. The contracts between the EMCC and the TSOs and between the EMCC and the PXs are being drafted. The cost share agreements between partners have also been drafted.
58. The budget of the EMCC has been presented as well as a model on how to set the transaction fee to be paid by the users of EMCC (TSOs). One part is paid per MWh and reflects the EMCC payment to the PXs. Another part is per MW to be paid to the EMCC for using their services. Mainly due to IT-system difficulties, there has been a delay in the implementation of market coupling. The market coupling will be established and functional from 29th September 2008.
59. The EC has approved the establishment of the EMCC joint venture company on 22nd August 2008.
60. The obstacles identified firstly relate to the unsettled question of the status of an auction office in relation to merger rules (and probably also to other competition rules). Secondly, as mentioned, IT implementation in practice has become a barrier for a quick introduction of day-ahead market coupling.

Planned development:

61. Implementation of day-ahead market coupling on German-Danish interconnectors will proceed as quickly as possible.

1.3.4. Intraday allocation

62. The Nordic countries have a joint intraday trading platform – Elbas – that is currently in use in Denmark, Finland and Sweden (Norway will be connected to Elbas in January 2009 subject to the approval of Norwegian authorities). The Nord Pool Spot's Elbas market offers first-come-first-served continuous trading opportunities for any hour of operation, that allows the actors to balance their portfolio in the time between gate closure for the day-ahead market and the operational hour. The trading implicitly includes use of interconnectors and a revised nomination message to TSOs. Trading is accepted until the capacity left over on an interconnector after Elspot nominations is fully used.
63. A TSO-operated intraday continuous capacity trading platform on the German –Denmark West interconnector was introduced 26th June 2008. This intraday platform offers continuous acquisition of capacity for any hour of operation on a first-come-first-served basis. It is operated by E.On Netz and Energinet.dk. The trading of the energy itself takes place “outside” the intraday platform. The operation of the platform is integrated with that of capacity trading platforms between Germany and France/Switzerland.

1.4. France-UK-Ireland (FUI) region

64. The FUI region consists of three markets linked by two DC submarine interconnectors, the Interconnection France-Angleterre (IFA) between France and GB and the Moyle link between Scotland and Northern Ireland (within the UK). The market on the island of

Ireland, including both Northern Ireland and the Republic of Ireland, is interconnected by AC links but since late 2007 has been operating as a fully integrated single market. So there is full co-ordination between Ireland and Northern Ireland, solving the issue of congestion management at the border between the two. Therefore, discussion on congestion management (and balancing) in the FUI region has focused on the IFA. However the projects are monitored by Irish stakeholders and may be of more relevance in future as planned interconnectors are developed.

1.4.1. Capacity calculation

65. Flow-based models are not needed for DC links, such as the 2,000 MW IFA. However, there is a lack of transparency regarding the criteria applied by TSOs to split the total transfer capacity between the different auctions/timeframes.

1.4.2. Long and medium term allocation

66. The workstream dedicated to Congestion Management was established at the end of 2006 and is tasked with tackling Compliance with the Congestion Management Guidelines and co-ordination of allocation of interconnectors' capacity. The French regulator, CRE, leads on the CM workstream with National Grid acting as lead TSO, although all regulators and TSOs in the region are represented.
67. Following consultation, TSOs were given the "green light" to proceed with their preferred option for congestion management. This will see the development of a bespoke IT system dedicated to IFA management for allocation at all timeframes, nomination, scheduling and settlement. While the system is bespoke, it has been designed in light of consideration of arrangements at other French borders. It is due to be implemented in Q2 2009.
68. Related issues include the introduction of intraday allocation, firm nominations of capacity; Use-It-or-Sell-It (UIOSI); application of netting; improvement of firmness of capacity rights and compensation scheme in case of curtailments; modification of auction rules (move to a pay-as-cleared); implementation of hourly product at D-1 allocation and removal of intraday transfers limits.
69. The auction platform was originally due to be in commercial operation from October 2008. However, due to a software tender process and technical feasibility reasons, this has had to be pushed back to Q2 2009. No further delays are currently anticipated.
70. A first draft of the new rules will be available in autumn 2008. A workshop will be held in Paris to consult stakeholders on the new set of rules.

1.4.3. Day-ahead allocation

71. Discussions on this issue in the FUI region are at an early stage. It is likely that significant progress towards implementing the new auction platform will have to take place before this issue moves fully into focus.
72. The main obstacle to implement a market coupling between the GB and the trilateral market coupling (forthcoming is the Central-West market coupling) is the difference in design of the GB and the continental Europe markets. Notably, in GB there is no Power

Exchange with a fixing at a certain time in D-1. In order to couple two markets, a prerequisite is the harmonisation of gate closure time but there is no such time in GB. This difference limits the possibility to couple the markets.

73. Nevertheless, when improving the congestion management auction interface for the IFA, the TSOs chose the most flexible IT system which could be improved by adding a coupling module.

1.4.4. Intraday allocation

74. For intraday allocation, TSOs initially proposed to organise an intraday allocation through one explicit auction, held in D-1 and followed by a secondary trading based on reassignment of capacity between market players.
75. Regulators have some concerns over parts of the proposed mechanism and regarding the cost to move towards a continuous intraday mechanism in the near future. According to TSOs, the new IT system for congestion management will allow such a change and the cost should be only the extra cost for moving to a new allocation system.

1.5. Central-South (CS) region

1.5.1. Capacity calculation

76. The TSOs of the five countries on the Northern Italian border (Slovenia, Switzerland, France, Italy and Austria), namely Eles, Swissgrid, RTE, Terna and Verbund-APG adopted a common methodology for the assessment of NTC since 2004. The Technical Task Force, composed of the TSOs just mentioned, carries out a joint assessment of the NTC for all the Northern Italian interconnections.
77. Following the regulators' request for more transparency about the adopted calculation methodology, TSOs have provided a document describing such a methodology. This document, which is available on the ERGEG website¹², has been discussed within the IG. In this context, regulators also asked TSOs to consider the possibility to repeat the NTC calculation more than once a year as refreshed calculations could in principle provide for a better estimation of the capacity that can be made available to the market.
78. A common transmission model is not among the priorities identified for the region. In the highly meshed network at the Northern border of Italy, the full commitment of Switzerland in developing such a project would be essential, even though Switzerland is not bound by Regulation 1228/03 to develop a common regional transmission model.
79. The recent involvement of the Swiss energy regulator EICOM as an observer and the involvement of Swissgrid in IG meetings might help future developments in capacity calculation methodology and a common transmission model.

¹² http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Central-South/Meetings1/IG_meetings/8supthsup%20CS%20IG

1.5.2. Long and medium term allocation

80. Significant improvements in the harmonisation of auction rules have been achieved in 2008 auction rules. TSOs involved in the region published one core document with harmonised auction rules for all borders. Annexes containing specific rules for each border have been added to the main document.
81. Whilst significant improvements have been made, full harmonisation has yet to be reached in some areas. In particular, regulators have requested further work with respect to requirements for participation, financial guarantees requested by different TSOs, operation of daily auctions, procedures for capacity usage, accounting and settlement.
82. On the basis of discussions within the IG, obstacles to improvement and harmonisation seem to lie in the need to improve IT systems in some instances (e.g.: restrictions in the number of counterparties that can be nominated; traceability of the capacity holder; publication of aggregated nomination results etc.), or in differences in the relevant legal framework in others (e.g.: data security requirements, liability).
83. This last set of obstacles seems to be more difficult to overcome as they would require legal harmonisation.
84. On the former set of potential hindrances, TSOs agreed on working on their IT systems during 2008 in order to make progress on their ability to trace capacity with a view to improving the functioning of secondary markets and making UIOSI possible. In addition, TSOs agreed in a recent IG meeting, to carry out a study on the cost for firmness of capacity rights. In particular, the study should cover costs for guaranteeing physical firmness post-nomination (countertrading and redispatching costs) and costs for introducing firmness of medium and long term products (estimated costs for financial firmness at full market price spread). This paper should be the basis for the discussion on firmness and compensation scheme.
85. The IG has acknowledged that most of the remaining IT and legal obstacles to harmonisation and improvements of the auction rules could be overcome with the establishment of a Single Auction Office (SAO).
86. TSOs have presented an Action Plan for the SAO project, outlining the necessary steps towards the setting up of the SAO. According to the TSOs' proposal agreed within the IG, the SAO will act as a service provider for TSOs. The SAO will perform capacity allocations (explicit auctions) for medium and long term timeframes; daily explicit auctions, secondary market activities, clearing and settlement, auction income distribution and publication of data for the market. The SAO might also perform intraday allocations. Regulators supported the potential extension of the perimeter to intraday allocations.
87. According to the indicative project plan, the ongoing orientation phase should end by mid-2009; the implementation phase should start at the beginning of 2009. First test for operations are foreseen for the second half of 2009 with a view of fully implementing the project at the beginning of 2010.
88. This project might be subject to antitrust clearance as already experienced in other regions.

1.5.3. Day-ahead allocation

89. The CS region regulators agreed at the RCC that the region should be heading for day-ahead implicit auctions, though it is recognised that the process should be a stepwise one. Most PXs and TSOs¹³ in the region have agreed upon 2008 activities towards the implementation of implicit auctions in the region. Two studies have been produced and presented to the IG so far. The first study assessing the economic rationale for introducing implicit auctions in the region highlights the potential efficiency gains that could be achieved on each border by allocating day-ahead capacity implicitly. The second study describing differences in wholesale market designs that could have an impact on market coupling has been submitted to the IG¹⁴.
90. Aside from the lack of full commitment from all the involved parties, an additional potential obstacle to progress in this area is the dependence of work on other regions' plans. Regulators, TSOs and PXs involved in several regions are pressured to put forward resources on several parallel projects in different regions. Their need to prioritise projects and resources can be supported by a more cross-regional coordination in terms of organisation as well as in terms of solutions adopted.

1.5.4. Intraday allocation

91. The implementation of an intraday market has been discussed in the region.
92. Terna presented a proposal for the allocation of spare capacity by one explicit auction, after day-ahead allocations. However, TSOs have yet to agree on a joint proposal. As progress in this area are lagging behind, more work on this shall be carried out.
93. Differences in market designs seem to be the main obstacle to the implementation of an intraday market based on continuous trading. As a result of these differences, TSOs are working towards an interim solution based on explicit auctions.

1.6. South-West (SW) region

94. In the SW region, the integration achieved in the MIBEL (Iberian electricity market) provides a major boost for the integration of the entire region. At this stage, some issues are still under development in the Portuguese-Spanish border but most of the efforts must be focused on the French-Spanish border.

1.6.1. Capacity calculation

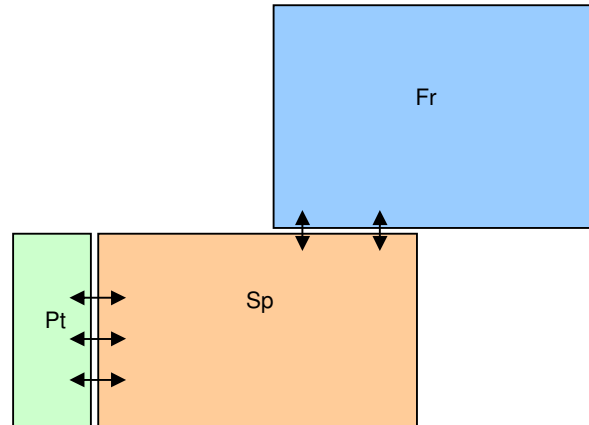
95. In the case of the SW region, optimisation and transparency of the cross-border capacity calculation has been identified as one of the deliverables of the congestion management

¹³ GME, Terna (Italy), Powernext, RTE (France), EXAA (Austria), E.ON (Germany), Borzen (Slovenia), HTSO (Greece)

¹⁴ http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Central-South/Meetings1/SG_meetings/2supndsup%20CS%20SG/DD/SG_CSE.ppt

priority. The aim is to improve the coordination and transparency of TSOs regarding the calculation of available capacity, towards the use of a common transmission model.

96. The SW region is comprised of three countries with poor interconnection capacity between the Iberian Peninsula and France where the flows at one border don't affect the flows at the other border in a significant way due to:
- Geographical distance between borders
 - Low level of interconnection in the borders at the Spanish–French border.



In this regard, the interconnection capacity between Spain and Portugal will be more than doubled by 2015 in the context of MIBEL (target capacity 3000 MW in both directions). On the French-Spanish border, with the support of the European Coordinator, Mr. Monti, an agreement has been reached to build a new DC line through the Eastern Pyrenees that will approximately double the interconnection capacity between France and Spain (target capacity 2800 MW).

97. That is the reason why the implementation of a flow-based model is not necessary for this region. The approach has been to provide a general and common scheme for the calculation of the transfer capacity. TSOs have provided some improvements as regards transparency in cross-border capacity calculation and planned to improve it in the medium term by publishing monthly and yearly forecasts of transmission capacity to the market.
98. At the 3rd IG meeting (24th April 2008), the RCC requested a more complete framework including a common capacity calculation method and more information on:
- How the TRM (transmission reliability margin) is calculated by each TSO and the value of the TRM calculated by each TSO;
 - Where the limiting constraints are located and the reason for considering these constraints;
 - A history of the minimum NTC values determined by each TSO;
 - TSOs should evaluate the countertrading costs (and/or the costs of capacity' curtailments) they would support when offering more capacity on an annual basis to ensure financial firmness of allocated capacity on a long-term basis.

99. The obstacles involve procedural changes needed in each TSO's practices, but these can be overcome in the medium term.

1.6.2. Long and medium term allocation

100. The deliverable III.2.b of the regional action plan aims to improve the allocation of long-term products by implementing a common auction platform for the region. This issue was also mentioned for this region in the High Level Group meeting in February 2008. TSOs were requested to provide a first input on this information in the 3rd IG meeting late April: a detailed timetable with a target date for implementation is expected. Currently, there are two auction platforms for long and medium-term capacity allocation in the French-Spanish border coordinated by RTE and REE. ARIBA has been appointed the auctioneer for the monthly and daily allocations, ESICA is the platform for the yearly and intraday allocations.
101. The main changes in the new set of rules for Spain-France that were submitted to a public consultation from 24th June to 31st July 2008 concern the following:
- Daily and intraday PTRs become fully firm;
 - Compensation scheme in case of curtailment of capacity and cancellation of auction (at market spread with a cap) is under discussion;
 - New publications by the TSOs;
 - Guidelines to the sharing of capacity allocation between different timeframes;
 - Calculated non-binding NTC values for annual and monthly timeframes;
 - Bid-ask curves for each auction.
102. In the coming months, the medium and long term explicit auctions for the Spanish-Portuguese border will begin within the context of MIBEL. This is a good opportunity to set up these auctions on the basis of the existing platform, thus having a single auction platform for the entire region. For this purpose, REN will collaborate with REE and RTE. TSOs will elaborate a proposal with a timetable for implementation before the next High Level Group meeting (on 30th September 2008).
103. Within the MIBEL, the principle of Use-IT-or-Sell IT (UIOSI) has been adopted. The Interconnection Portugal-Espagne (IPE)¹⁵ rules foresee a secondary market for transmission rights that is implicit.

1.6.3. Day-ahead allocation

104. To improve day-ahead allocation, and building on the common agreement between CNE and CRE in 2005, the deliverable III.3 of the regional action plan scheduled the implementation of an implicit mechanism for this timeframe: a market coupling between MIBEL and trilateral market coupling (and forthcoming Central-West market

¹⁵ IPE rules: Capacity allocation rules for the interconnection Portugal-Spain.

coupling). The main obstacle in this initiative has been the difficulty in reaching an agreement between TSOs and PXs. In order to tackle this situation and to push forward the process, two main actions have been pursued following the High Level Group meeting in February 2008:

- Powernext (French PX) will increase its participation in the IG;
- TSOs and PXs will present a common paper and a timetable with a target date for implementation of market coupling between MIBEL and CW by the next High Level Group meeting (on 30th September 2008).

105. Nevertheless, an important starting point has been the obstacles and solutions identified by the IG in their 2nd meeting (Lisbon, January 2008). The conclusion by the RCC was that none of the barriers are insurmountable. The main prerequisites for market coupling are the compatibility of characteristics of the markets:

- Harmonisation of PX's gate closure times;
- Harmonisation of the type of bids and of price determination (simple bids on Powernext, complex bids on OMEL related to physics of production units);
- Price caps;
- Harmonisation of members conditions and of settlement of the energy transactions;
- After facing all these preliminary requirements, it appears that different possible solutions for implementing a regional market coupling between MIBEL and CW market can be envisaged (price coupling and volume coupling). The governance scheme taking into consideration all parties involved needs also to be addressed in more depth.

1.6.4. Intraday allocation

106. As regards intraday capacity allocation on the French-Spanish border, in January 2008 TSOs have issued a paper proposing the potential evolution of the intraday mechanism. The current mechanism consists of two explicit auctions, one organised in D-1 and one in D. According to TSOs, there is no added value in raising the number of intraday auctions; the only possible improvement of the current mechanism concerns the degree of firmness of intraday PTR and that will be done in the new version of IFE rules.

107. As a consequence, a completely new method could be envisaged. TSOs paper proposed to analyse in more depth the main issues for the implementation of a continuous trading platform on a first-come-first-served basis. Following this, PXs have been asked to provide their ideas.

108. OMEL proposed to run a number (to be defined) of implicit auctions each followed by continuous trading; market splitting / coupling would be used for auction sessions, whereas "first come first served" allocation could be applied to last intermediate hours, where close-to-real-time cross-system coordination might be more difficult.

109. Based on the papers provided by TSOs and PXs, a public consultation began on 3rd July 2008 and the results will be published in autumn 2008.

110. Within the MIBEL, the intraday treatment of the Portuguese-Spanish border is based on six implicit sessions assuring a very good resolution of the allocation of

interconnection capacity between Portugal and Spain. This model was developed in the framework of MIBEL.

1.7. Baltic region

111. As there is no congestion in the Baltic electricity networks and Estlink interconnection to Northern region (Finland) is exempted under the Article 7 of the Regulation (where only an intraday allocation mechanism exists for all market participants), congestion management procedures are not developed. The work in this region therefore concentrated on other topics, such as the developments of an ITC mechanism.

2. Progress, obstacles and planned developments on the integration of transparency requirements

2.1. Central-West region

112. In December 2007, the Regulatory Authorities of the CW Region published, in coordination with the Northern Region and after conducting a public consultation, the CW Transparency Report. The report provides the basis for harmonisation and implementation of the wholesale market transparency rules within the Central Western REM. Furthermore, as the report has been compiled along the same lines and requirements as in other regions and since it postulates the same requirements and a fully compatible implementation path with those regions as well, the report ensures a common and compatible approach towards transparency and information management of the Central West region with the Central East, Northern and (in future also) Central South regions. The transparency requirements in the report are based on:
113. Congestion Management (CM) Guidelines according to the European Commission Decision of 9 November 2006, 2006/770/EC, amending the Annex to Regulation (EC) 1228/2003 on conditions for access to transmission network for cross-border exchanges in electricity); and
114. ERGEG Guidelines of Good Practice on Information Management and Transparency (GGP-IMT), which were compiled by ERGEG, publicly consulted upon in 2005 and approved by ERGEG in August 2006.
115. The CM Guidelines and the ERGEG GGP-IMT were the key inputs and the basis of the discussions and work within the dedicated Transparency Working Group of the European Commission, which was established at the XIII Florence Forum. The approach to transparency within the CW Transparency Report also takes into account the outcome of the discussions and conclusions of that WG.
116. Coordinated implementation of the transparency requirements by the CW TSOs and, where necessary, other involved entities (Power Exchanges, market operators, generators, etc.) was to be launched from January 2008, depending on the specific item of information. Currently, the CW Transparency Report implementation is ongoing and the regulatory authorities from the CW Region have started to discuss the proper implementation of the report in a national framework. Regulators made a request for TSOs to take care of possible obstacles with the implementation of the transparency requirements. As an example, BNetzA has published a press release to remind generators and DSOs of their obligation according to the Congestion Management Guidelines to provide TSOs with the relevant data. The timely implementation of the Transparency Report is monitored by the Regulators in the CW region.
117. Regulators are currently evaluating the status and the planning of the TSOs' implementation of the Transparency Report.

2.2. Central-East region

118. At the beginning of February 2008, the regulatory authorities of the CEE Region, following coordination with the Northern and Central Western Region and after conducting a public consultation, published the CEE Transparency Report. The report provides the basis for harmonisation and implementation of the wholesale market

transparency rules within the Central Eastern REM. Furthermore, since it is compiled along the same lines and requirements as in other regions and postulates the same requirements and a fully compatible implementation path with those regions too, the report ensures a common and compatible approach towards transparency and information management of the Region Central East region, with the Central West, Nordic and (in future also) Central South Regions. The transparency requirements in the report are based on:

119. Congestion Management (CM) Guidelines according to the European Commission Decision of 9 November 2006, 2006/770/EC, amending the Annex to Regulation (EC) 1228/2003 on conditions for access to transmission network for cross-border exchanges in electricity); and
120. ERGEG Guidelines of Good Practice on Information Management and Transparency (GGP-IMT), which were compiled by ERGEG, publicly consulted in 2005 and approved by ERGEG in August 2006.
121. The CM Guidelines and the ERGEG GGP-IMT were the key inputs and the basis of the discussions and work within the dedicated Transparency Working Group of the European Commission, which was established at the XIII Florence Forum. The approach to transparency within the CEE Transparency Report also takes into account the outcome of the discussions and conclusions of that WG.
122. Coordinated implementation of the transparency requirements by the CEE TSOs and where necessary other involved entities (Power Exchanges, Market Operators, Generators, etc) was requested to start from March 2008 and ending in 2009, depending on the specific item of information. This means that it is anticipated that the work on implementing the CEE Transparency Report will be completed by the beginning of 2009. Currently, the CEE Transparency Report implementation is ongoing and the regulatory authorities from the CEE Region will start to monitor and evaluate the implementation results during autumn 2008.
123. Finally, it must be emphasised that the CEE Transparency Report – as with the Transparency Reports from other regions – is not a legal act in itself e.g. a Regulation or national law. It is anticipated that to achieve the necessary legally binding framework for transparency and information management throughout the EU, a dedicated piece of EU legislation would be needed. Nevertheless, as the report indeed suggests all the necessary measures, of which some may require a “best effort” or “voluntary” approach, the report is still considered as the key basis against which the transparency development in the CEE Region will be matched, until the EU legal framework for transparency is available.

2.3. Northern region

124. The Northern Region was the first region to publish the Transparency Report region, in September 2007. The report provides the basis for harmonisation and implementation of the (wholesale) market transparency rules within the Northern Europe REM.
125. The report was used as a blue print for three other regions which adopted a transparency report on the basis provided by the Northern Europe report. This ensures a common and compatible approach towards transparency and information management of the Northern Region with the Central-East, Central-West and in the future also Central-South REMs.

126. The transparency requirements in the report are based on the Congestion Management (CM) Guidelines according to the European Commission Decision of 9 November 2006, 2006/770/EC, amending the Annex to Regulation (EC) 1228/2003 on conditions for access to transmission network for cross-border exchanges in electricity) on one hand and on the recommendations included in the ERGEG GGP-IMT, which were compiled by ERGEG and publicly consulted upon in 2005 on the other hand.
127. Implementation of the transparency requirements by the TSOs and where necessary other involved entities (power exchanges, market operators, generators, etc.) is requested by the report. First improvements had to be provided until the beginning of the year 2008. In July 2008, information on generation should also be publicly available.
128. The timely implementation of the Transparency Report is monitored and accompanied by the regulators in the Northern region. On 4th August 2008, a first report of the RCC about the implementation of the Transparency Report was published¹⁶. Furthermore, the regulatory authorities from the Northern region started to discuss the need and feasibility for monitoring the quality of the data. A monitoring report is foreseen this autumn. Further steps will depend on the results of these discussions and the implementation of the transparency report.

2.4. France-United Kingdom-Ireland region

129. In 2007, the FUI regulators consulted stakeholders on transparency, based on a situation report produced by TSOs in the region, comparing current practice with the ERGEG GGP-IMT.
130. Stakeholder responses demonstrated that improvements to transparency were not seen as a short-term priority for the region. It was therefore decided no further work should be undertaken at this stage and instead to focus resources on other areas. This will be reviewed when the outcome of ERGEG's work in this area in the context of the Commission's Third Energy Package becomes clearer.

2.5. Central-South region

131. The regulatory authorities of the CS Region presented a draft Transparency Report for the region to stakeholders in an SG meeting in April 2008. The draft Transparency Report is based on the Central West region Report in order to ensure a harmonised approach to other regional transparency requirements. Regulators are currently evaluating the responses received and will finalise the Transparency Report in the autumn.

¹⁶ http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Northern/Final%20docs

2.6. South-West region

132. The SW RCC issued a questionnaire to TSOs and PXs in 2007 in order to assess the level of transparency across the region and views from stakeholders were invited in the first SG meeting held October 2007. A draft Transparency Report summarising main findings from this in-depth comparative analysis of the state-of-the-art on transparency issues was presented by regulators at the 3rd IG meeting. The main objective of this paper is to gauge the degree of compliance of each country with respect to the requirements of the Congestion Management (CM) Guidelines and the ERGEG GGP-IMT, focusing on current non-compliance areas. The preliminary findings are that the differences in the levels of transparency within the region are very important. According to the RCC, MIBEL has a high level of transparency, while there exists diverging opinions between the RCC and RTE with regards to the level of compliance of the French market. After receiving TSOs' comments, the RCC developed a public consultation in July 2008.
133. Transparency is deemed as leverage for SW REM development, given that the main topics are covered to a greater or lesser extent. There are nevertheless areas where room for further improvements remains, derived from divergences in interpretations on what exactly is required by CM Guidelines and GGP-IMT.
134. Therefore, in order to reach a common and shared understanding of the Congestion Management (CM) Guidelines and the GGP-IMT, the regulators from the South-West region agree on adopting the Transparency Report from the Central-South region as a common reference to assess the level of compliance, for the non-compliance areas.
135. Moreover, it allows for ensuring consistency with the Transparency Reports published in other REMs (Northern, Central-West, Central-East and Central-South regions), and making easier the comparison between the countries of these ERIs
136. Among the different topics considered, preference has been granted to the enhancement of transparency in cross-border capacity calculations.

2.7. Baltic region

137. On 29th May 2008, the SG meeting participants were informed of the creation of the Transparency IG, led by the regulators. The timetable, with related activities, was established and the new group agreed that definitions of the transparency requirements will be based on the ERGEG GGP-IMT.
138. The results of transparency working group are planned for July 2009.

3. Progress, obstacles and planned developments on integration of balancing markets

3.1. Central-West region

139. Although balancing issues were identified among the priorities of the Central-West REM, they have not been discussed to date. This is due to the other topics being a higher priority. No concrete progress is expected before implementation of market-coupling across the region and enhancement of intraday cross-border trade.

3.2. Central-East region

140. At present, some bilateral discussions on balancing issues – including e.g. integration of markets for the manually activated reserves/minute reserve, in the sense of the EREG Guidelines of Good Practice for Electricity Balancing Markets Integration (GGP-EBMI) – are ongoing between some countries in the CEE Region. However, the topic of balancing markets integration is not yet systematically covered within the region due to other topics having a higher priority (congestion management, transparency, market entry barriers). It is foreseen within the CEE Region activity planning and roadmap, that work to address the balancing markets integration mode detailed will occur from 2009 onwards.

3.3. Northern region

141. There is a far-reaching integration of balancing in the Nordic market compared to other areas. However, there are still also important differences between the Nordic countries and between the Nordic area and Germany and Poland. The RCC in the Northern REM is therefore currently mapping the different systems – with specific focus on the balancing power markets – as a starting point for further work on compatibility of the balancing markets within the Northern region.

142. Within the Nordic area, the next steps to harmonise the Nordic balancing market are being prepared – that is to harmonise the cost base, number of balances calculated and the method to price imbalances, paving the way for a common Nordic end-user market. Thus, in the beginning of 2009 the new harmonised rules will be implemented, subject to approval by national authorities in 2008.

143. As compatible balancing markets within the entire Northern region are still in their early stages, it would therefore at present be more interesting to outline how the regulation power market is functioning in the Nordic market (excluding Germany and Poland).

144. The Nordic market is made up of two balancing areas. One is the synchronous part of Nordel (hereafter the Nordel area) and then Western Denmark which belongs to the UCTE system. With regard to the UCTE system, it is the Danish TSO, Energinet.dk, who is responsible for maintaining balance between consumption and production in Western Denmark. In the Nordel area, there is, since 2002, an agreement according to which Statnett and Svenska Kraftnät have joint responsibility to maintain the frequency in the whole area. They maintain the balance using regulating resources from a joint Nordic list, (NOIS), forming a common price for balancing power as long as there is enough transmission capacity.

145. The model is a “light” version of a common market for balancing power (“regulation power”), which has delivered major benefits. The joint market covers manually activated reserves to regulate frequency. The commercial market players (generation and consumption) submit bids (price, volume and location) for up and down regulation to the national TSOs, which forward them to the Norwegian TSO, which sorts them according to price (“bid ladder”). Bids are called for activation in this order, but it is the national TSO which has the contact to generators/consumers of their area when activating (and deactivating) the bids. The balancing power price is determined by the marginal bid activated in the hour of operation. The system requires some minimum harmonisation of the “quality” of bids but apart from this, the common “bid ladder” is the core of the joint system, with each TSO still having all relations to generators and consumers within their respective area. The socioeconomic benefits of merging the balancing power stock are obvious; it has reduced the need for specific balancing efforts on the interconnectors

within the region. Also Western Denmark, which is not synchronous with the rest of the Nordic area, has been included in the joint balancing market since 2006.

146. A further harmonisation of the balancing market in the Nordel area is envisaged with regard to common standards for price setting, bidding and quality control as well as increased transparency. A recent publication from Nordel offers a comprehensive description, including the elements not yet harmonised and the plans to increase the degree of harmonisation. The Nordic regulators are looking into this issue on a request from the Nordic energy ministers.
147. In the beginning of 2009, further harmonisation will take place as a common gate-closure time for final plans and regulating bids will be introduced.

3.4. France-United Kingdom-Ireland region

148. Consideration of balancing in the FUI region began with the elaboration by the TSOs of two basic models that could be used to facilitate improved reciprocal access to cross-border balancing services and enhance the balancing markets involved. These were a market participant to TSO model and a TSO to TSO model.
149. Following consultation in 2007, it was agreed that the TSO to TSO model should be adopted. Responses received to the consultation were both positive and supportive. These can be found in the consultation section of the FUI page on the ERGEG website.
150. There are two implementations taking place in parallel. An enduring solution, which is the model outlined in the paper, is planned for implementation by autumn 2009.
151. However, in order to get something in place sooner an interim (hybrid) solution is being developed by both TSOs. This was due to be in place by summer 2008, but legal issues relating to the GB TSO participating in the French balancing market have caused an unforeseen delay and implementation is now not due until spring 2009. This interim solution is a manual work-around based on the current balancing contract and will provide a significant increase in functionality compared to the existing arrangements. TSOs will exchange 6 prices a day at the day-ahead stage and the price windows will correspond to the current intra-day gate closures in French market (subject to availability of IFA capacity). National Grid will have the ability to re-submit prices intra-day with price exchange and acceptance based on present arrangements.

3.5. Central South region

152. The topic of balancing markets integration is not yet covered within the Regional Initiative in the region due to higher prioritisation of other topics (congestion management and transparency).

3.6. South-West region

153. Deliverable III-5 as included in the SW REM Action Plan deals with cross-border balancing trade development. As a first step, the Spanish TSO has presented a feasibility study on the creation of balancing perimeters in Spain, to be explored as a possible way to ease participation of neighboring agents in balancing markets. Transposition into national regulation of all or part of the concepts introduced by this paper should now be considered with an eye kept on regional integration.

154. REN and REE presented a roadmap to the MIBEL Regulators Council for the integration of the balancing markets of Portugal and Spain.

3.7. Baltic region

155. The Baltic IG, in the last meeting on 28th May 2008 agreed that a new balancing model based on the Nordel balancing model would be developed. The model foresees that the producers would have an incentive to keep their balances while still keeping entry barriers low. The model entails splitting the balance calculation in two, where one-price settlement is applied for the consumption balance and two-price for the production balance. The reason for choosing two-price settlement for the production balance is that it gives a stronger incentive for the producers to keep their balances within the operational hour compared to one-price settlement
156. The advantages of the new proposal are accuracy of the making production plan, incentives for actively submitting bids to the regulating market for BRPs in Baltics, removal of disadvantages of two-price settlement for smaller players and unexpected costs from imbalances in the wrong direction which could be evened out by income from imbalances in the right direction. The production and consumption side has to be in balance, and then consumption will also be better.
157. Disadvantages could occur because theoretically there is a risk for speculation since those market players who have a good knowledge of the system can predict, especially in certain situations, whether the system will be regulated up or down, increased costs for IT-systems for the TSOs as well as the BPs and adoption of new routines as there is a need to split up the balance calculation.

4. Cross regional coordination: assessment of the overall coherence and convergence of actions taken or planned at regional level

4.1. Capacity calculation

158. The priority given, in the different regions, to capacity calculation and to the development of a common capacity calculation model depends on the importance of the loop flow phenomenon, on the configuration (topology) of the region and on the presence of non-EU countries.
159. CEE and CW regions are characterised by heavily meshed networks with important loop flows. In both regions, capacity calculation constitutes a priority topic in the regional action plans and TSOs are working towards the elaboration of a common transmission model using a detailed network representation (critical branches for CW and Maximum Flow MF for CEE). Difficulties are encountered for improving the current situation and are considered in both regions. More detailed study results are expected to be delivered when this report is finalised.
160. In the CS region, at the northern Italian border TSOs have adopted a common methodology for the assessment of NTC since 2004. Following regulators' request for more transparency on this topic, TSOs have submitted a paper describing the joint methodology adopted at the northern Italian border. Because of the key position of the Swiss network in this region and the fact that Switzerland is not bound by regulation 1228/03, a common transmission model is not among the priorities identified for the

region. Nevertheless, due to highly meshed networks at the northern border of Italy, the full commitment of Switzerland in developing a common transmission model would be essential.

161. In the SW region, even if a flow-based approach for congestion management has a lower priority, mainly due to the network configuration, improvements of capacity calculation are on the agenda of the regional initiatives and TSOs have provided some improvements concerning transparency and the development of a common scheme for the calculation of transfer capacity is considered. Recently, a common capacity calculation method and more information on capacity calculation have been requested to the TSOs.
162. In the Northern region, loop flows occur between Norway and Sweden, however it is considered as a relatively limited problem, due to the presence of DC cables. Therefore, this point is not a priority topic for the region where the stress is put on the optimisation and the use of existing cross-border transmission capacity. A coordination method for the determination of hourly NTC is already in place in this region.
163. In the FUI region, only one interconnection (relevant to the CM guidelines and regulation) links the three countries. This means that a flow-based model is not necessary in the region. However, it may be possible to investigate some improvements in transparency of transmission capacity.

4.2. Long-term allocation

164. All regions currently offer instruments that allow the hedging of the risks of the volatility of price differentials between interconnected markets. In the Northern region, the available hedging instruments are the financial forward market and “contracts for differences”. In all the other regions, medium and long term physical capacity rights (PTR) are allocated through explicit auction mechanisms by TSOs.
165. In order to reduce transaction costs and thereby foster cross-border trading and competition, several projects on harmonisation of auction rules, processes and IT systems are underway. Such projects would be of great interest for market participants and TSOs as the access rules, organisation and IT interfaces would be the same in all the borders of the region. The Central-West, Central-East, Central-South, South-West and FUI regions have harmonisation and improvement of explicit auctions as an objective in their action plans. All these regions will tackle harmonisation by setting up a single auction office or a single auction platform allocating capacity rights for all interconnections within the region. For the CEE Region, a step has been achieved with the formal foundation of the AO. This organisational framework should ensure a common set of rules for the whole region and therefore a convergent regional approach.
166. Even though none of the projects are completed and therefore no region has a single entity or platform, the Central-West, Central-East and FUI region projects are quite advanced in terms of implementation. In addition, the Central-South and the South-West regions are actively working on this item of their action plans.
167. Potential obstacles that might delay the outstanding projects might include antitrust restrictions (e.g. single auction office projects might need to be subject to national merger control rules or need antitrust clearance with respect to national cartel laws) and potential difficulties in finding an agreement on fundamental choices, such as legal framework under which the auctioning entity shall operate, keys to revenue distribution and the IT platform to be used.

168. Whilst the success of these projects is key to regional harmonisation of explicit auctions, European convergence and integration will depend on cross-regional coherence of regional platforms. To avoid regional differences, the long-term improvements in the medium and long term explicit auction mechanism of a region should be studied in coordination with other regions.
169. Challenges in terms of the use of explicit auctions therefore will include the form of auction, the IT systems used and from the governance perspective, the question of the regulatory oversight for the allocating entity.
170. Alongside the harmonisation objective, regions allocating medium and long term capacity rights are working on auction rules with the view of improving:
- the hedging instruments auctioned off in terms of firmness of capacity rights, compensation due in case of curtailment, length of the capacity rights, nominations process; and
 - Provisions promoting the overall efficiency of capacity trading, such as on the functioning of secondary markets and UIOSI provisions.
171. At the European level, regulators' cooperation shall ensure a coherent cross-regional approach also with respect to these improvements in auction rules. ERGEG is already actively working on key topics such as firmness, incentive scheme and wholesale market design issues with a view to issuing guidelines that regions should consider when improving auction rules.

4.3. Day-ahead allocation

172. Day-ahead cross-border capacity allocation is now explicitly auctioned in around two-thirds of EU interconnections¹⁷; the remaining third is already implicitly allocated either through market splitting (Nordel, Mibel) or market coupling (Trilateral). There is a general consensus that evolution to implicit allocation is the natural trend because of the gains experienced in the efficiency of use of scarce capacity. Market coupling or splitting optimises the consistency between the use of the capacity and the price differential, improves transparency, representative prices, market depth and liquidity, and the ease of access for foreign players. In order to introduce the implicit allocation, and therefore, to achieve these improvements, fundamental compatibility requirements as regards the design of the markets should be met. Various regions include as part of their Action Plan, in some form or another, the implementation of market coupling for those borders where it is not yet in place.
173. Nearly all "harmonisation-related" considerations made for long-term allocation (auction rules, processes, IT framework) also apply here, though coordination requirements are tighter, given that physical delivery is much closer and nomination and capacity allocation is mirrored by power market transactions and clearance, thus calling for deeper PXs'

¹⁷ Additional information is available in the ERGEG Report on Compliance with Regulation 1228/03: http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/OPEN%20PUBLIC%20CONSULTATIONS/2008%20Compliance%20Monitoring/CD/E08-ENM_03-05-Second_Compliance_Report_10%20Sept%202008.pdf

involvement. Potential obstacles to be tackled within these projects range from formal arrangements, such as a commonly agreed gate closure time, to more profound market issues like structure of bids (portfolio vs. physical, complex, block bids) and the need for detailed governance agreements among parties concerned. The far-reaching consequences of some of these changes show to what extent coherence is more necessary than ever here; there are a handful of key parameters to be coordinated in detail in the region and Europe-wide, for the sake of market integration.

174. The precise plan for how to achieve market coupling is varies depending on certain contour conditions, which influence also implementation speed. Regions including highly meshed interconnecting networks, (e.g. Central-West), might resort to more complex methods such as FBMC which allows due consideration of more refined grid constraints and loop-flows casuistic treatment, among others. Where interconnection is realised through a limited number of links (e.g. Danish-German interconnector, Spain-France), simpler and cheaper approaches are possible, which may result in shorter implementation periods¹⁸.
175. The Central South and South West regions have also included this topic among their priorities: the CS IG has recently commissioned two studies to gauge economic gains derived from switching to implicit auctions and to assess a valid approach. During the 6th CS IG meeting (23rd January 2008), PXs and TSOs were mandated by regulators to provide an action plan for the introduction of implicit auctions for the day-ahead time frames. It has a regional scope and follows a stepwise approach by identifying those borders where market coupling could be implemented at an earlier stage. In the SW region, the main obstacles (and their suggested solutions) to market coupling between Mibel and the present Trilateral Coupling (TLC), forthcoming (CW) have been identified and an implementation timetable is still to be presented. The following obstacles to achieve progress towards market coupling have been identified in these regions:
- The existence of overlapping projects in several regions and the dependence of work on other regions' plans: regulators, TSOs and PXs involved in several regions are pressured to put forward resources on several parallel coupling projects in different regions. Their need to prioritise projects and the stepwise approach result in different integration paces. In this regard, a cross-regional action plan for implementing market coupling could help; and
 - The lack of full commitment from all the involved parties is a potential obstacle to carrying out the steps foreseen in the action plans. In all likelihood, seeking commitments at the highest level (by means of a MoU, for example) with the help of the EC will pave the way for advancing the process.
176. Due to the claimed lack of resources, prioritisation of the projects is needed. However, it is a difficult a task and it is usually based on several factors such as social net benefit, political support, technical difficulty, market conditions, cost and time necessary for implementing the market coupling on each border, etc.
177. Whenever an implicit allocation area is created, a governance body with a clear legal framework and strong competences should be set up. These bodies would be

¹⁸ The planned start date of day-ahead market coupling between Germany and Western Denmark is 29th September 2008.

responsible for the communication and collaboration with the neighbouring countries and would take decisions at regional level in an efficient way. In those bodies, the participation of regulators is crucial, whilst national governments' involvement might speed up the process in some circumstances.

178. The Central East region has not yet focused on implicit allocation. Nevertheless, after explicit allocation based on the common and coordinated flow-based capacity calculation is properly functioning and following the adequate price indication in all the control areas in the region, it is anticipated that the region will move towards implicit day-ahead capacity allocation.
179. The progressive development of regional, efficient day-ahead implicit allocation schemes will act as an invaluable gauge to judge if the European electricity market is really ripe for integration, and a key lever to lead the IEM-paradigm to its final stage, given that prerequisites to its implementation demands for a much higher degree of harmonisation than explicit longer-term mechanisms. Pressure must be placed on process compatibility and system scalability of the IT solutions to be adopted, as well as on measures to guarantee the ease of access of foreign players (adherence to market conditions, bid structure) and the organisation of the markets to be coupled itself (governance issues). At a pan-European level, coordination among NRAs should provide the required shared framework for a coherent approach to minimise transactional costs to participants and to promote the launch of a joint market.

4.4. Intraday allocation

180. Intra-day markets (national and cross-border) are important means for enabling market participants to balance their positions in the timeframe after day-ahead markets and before the balancing in the operational hour. With the exception of the Baltic region, intra-day markets are under discussions in all ERI regions. However, the level of actual implementation or implementation plans differs. The ongoing discussions show that the establishment of this type of market depends to a large extent on the market designs already implemented.
181. The Nordic countries (including Norway from 2009) have a common intra-day market, Elbas, implemented on a first-come-first-serve basis, which has been available to actors in Sweden, Finland and Denmark for several years. Furthermore, the Elbas solution is applied between Germany and Denmark East. Between Germany and Denmark West a capacity platform using the first-come-first-served principle has been introduced for intra-day trading. For some borders in the CEE region (e.g. CZ-Ger, CZ-SL, AT-SI) as well as Germany – France, Belgium – France, Spain – France, bilateral solutions have been implemented. These bilateral allocations are working on a first-come-first-served basis, pro-rata basis or with explicit auctions. In the CW region (German-Dutch border, Dutch-Belgian border) and in the Northern region (Danish-German border) models for single borders are under development. These efforts are considered positive steps since they provide additional flexibility for trading.
182. However, it should be noted that these examples should be interim steps, since the objective should be to have fully coordinated regional intra-day markets. In SW region, a public consultation was held between 24th June and 31st July 2008 and one is forthcoming in the CW region.
183. In the SW region, TSO's have proposed to analyse in more depth the main issues for the implementation of a continuous trading platform on a first-come-first-served basis. Following that, OMEL proposed to run a number (to be defined) of implicit auctions, each

followed by continuous trading; market splitting/coupling would be used for auction sessions, whereas “first-come-first-served” allocation could be applied to last intermediate hours, where close-to-real-time cross-system coordination might be more difficult. A public consultation was held until 31st July.

184. In conclusion, all the methods currently studied in the CW, SW and CS regions rely on an implicit allocation based on continuous trading. So close to real time, it appears to be clear that a mechanism allocating continuously and simultaneously energy and cross-border capacity is more efficient. The way to organise it, at regional scale or at multinational scale, has to be defined.
185. The main reason for delays in implementing efficient solutions for intraday allocation is that longer term allocations and day-ahead allocations (e.g. market coupling projects) are given higher priority than intra-day market development. The reason for this is at least twofold. On the one hand, improving intraday allocations is expected to have a lower overall impact on the market compared to longer timeframes (intraday markets typically suffer from low liquidity); on the other hand, introducing an implicit allocation mechanism might have important implications on balancing and therefore require significant changes in existing balancing mechanisms. In that respect, a flow-based approach within the intraday timeframe could be helpful.
186. Finally, regional intraday platforms might be related to the other allocation timeframes in terms of organisation (e.g. Auction Offices as allocating entities) and capacity calculations. As these issues are not yet resolved and implemented, final intraday proposals cannot yet be developed.
187. Ensuring compatibility of the schemes to be elaborated on a regional level remains a challenge within the Electricity Regional Initiatives.

4.5. Transparency

188. The issue of transparency has been ranked in all seven regions as an issue of priority. Most regions give transparency priority in the short term, while in some transparency shall be improved in the medium term.
189. Generally, the development regarding the topic of market transparency in the relevant regions corresponds to the scheme defined beforehand.
190. The Baltic region has started working on improvements regarding “availability and control of information” by using the GGP-IMT as a template for assessment of transparency in the region.
191. The issue of transparency was tackled in the Central-East region by developing a Transparency Report for the region, based on the reports of Northern and Central West Europe. The Northern report was published in September 2007, Central-West report end-2007 and Central-East in February 2008. The first monitoring report of transparency in the Northern region was published in August 2008.
192. Within the Central-South region, a transparency report was created and is based on the Central-West report. With respect to the CW report, the draft suggests, for the public consultation, to require additional information on internal congestions having an impact on cross-border transmission capacity. The region aims to issue the report in autumn.

193. The South-West region started with their first deliverable, to make a comparative analysis of transparency's state-of-play. The base for this assessment is consistent with the Transparency report of the CS region.
194. In the FUI region, transparency is only a medium priority and was assessed in 2007 and is currently on-hold while related progress is made in other areas.
195. Coherence and convergence in terms of transparency can be evaluated as follows:
196. As the applicable transparency rules are valid in the whole EU (Reg. (EC) 1228/2003 and the annexed Guidelines of Congestion Management) it seems necessary to have a common view on the interpretation by all EU Regulators regarding these transparency rules. Such a common interpretation is provided by the Transparency reports. Naturally, to have more regions using the same document and to have as few variations as possible would be a prerequisite for this scheme of a common interpretation. This will be necessary to improve coherence and convergence on transparency.

4.6. Balancing

197. Although balancing issues were identified among the priorities in almost all electricity REMs, little progress has been achieved in the area.
198. Without the exception of the Northern region (and more specifically, the 4 Nordic countries) where reciprocal access to foreign balancing markets already existed prior to the ERI, FUI is the sole region where balancing issues have been tackled and progress has been achieved.
199. The project developed within FUI is based on the TSO to TSO model and adopted a practical approach to enhance exchanges of balancing services between France and the United Kingdom without harmonisation of national arrangements. TSOs play a key role in reformulating bids and offers submitted by market players in order for them to be easy to use for the foreign TSO. In order to minimise intervention of TSOs, more harmonised national arrangements would be necessary. So far, practical implementation of the TSO to TSO model is seen as a better approach.
200. The project has been designed to retain a fundamental level of compatibility with the evolving harmonisation of balancing markets in the mainland European synchronous markets, especially regarding timeframes for TSOs to exchange bids and offers. Thus, similar design could allow reciprocal access to balancing markets through other interconnections.

5. Other conditions influencing market developments

201. Essential issues for the development of effective regional markets are addressed in the Regional Initiatives. Efficient congestion management, market transparency and balancing support and market entry are thus key for market integration within and across regions.
202. However, beyond these important issues there are also other conditions influencing market development. Whilst proper congestion management ensures the efficient use of the existing network resources, in the longer term, the question of network infrastructure investments is crucial to foster market integration and competition. Therefore, the

extension of installed network capacity (and increase of available capacity) is complementary to the enhancement of congestion management methods.

203. Cross-border network investments are also needed to relieve market power at national level. In this context, it should also be noted that market structures are often quite concentrated. The European Commission concluded in its 2007 Benchmarking Report¹⁹ that: “*Market structures on a national scale are still very concentrated.*” The report suggested that: “*Governments, national regulators and competition authorities should actively create a framework that forces competitive behaviour where it is not expected to develop from market structures, e.g. via capacity release, gas release programmes and strict transparency requirements.*” However, considering that the proposed measures are beyond the scope of the Regional Initiatives, the further development of regional markets will have to consider market concentration and market power issues.

¹⁹ Report from the Commission to the Council and the European Parliament - Progress in creating the internal gas and electricity market [SEC(2008) 460],
http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lq=en&type_doc=COMfinal&an_doc=2008&nu_doc=192

6. Synthesis table of progress achieved in the ERIs

Topic	Region	Status	Main obstacles or critical issues	Action plan
Towards coordinated capacity calculation and common transmission model	Baltic	Not applicable (no congestion into the Baltic electricity networks, Eastlink cable operated as a merchant line)		
	CEE	Flow-based approach under study for long- and short-term timeframes	Different approaches from TSOs in relation to security margins applied, simplification of the grid model (Border Capacity)	External support from Consultant commissioned, with the final results due in September 2008
	CS	Common NTC calculation methodology adopted	Moving to a flow-based approach would need the full commitment of Switzerland	The region is working on increasing transparency on the current coordinated NTC methodology adopted.
	CW	Flow-based approach being studied for day-ahead capacity	No demonstration of the added-value of the flow-based dimension Pre-congested cases (no capacity left for cross-border exchanges)	The implementation of the flow-based approach has been delayed. Further work from TSOs needed
	Northern	Not applicable (outside the meshed continental system)		
	SW	Scheme for calculation of capacity under discussion	Procedural changes needed in each TSO's practices. Flow-based approach not necessary for this region (flows on one border not affected by flows on the other). Localisation and impact assessment of limiting constraints affecting interconnections not available	Further information on the localisation and impact assessment of limiting constraints affecting interconnections requested by RCC in July 2008
	FUI	Not applicable (DC cable)		

Towards a regional single auction platform with harmonised auction rules, IT interface, and products for medium and long term allocation	Baltic	Not applicable (no congestion into the Baltic electricity networks, Eastlink cable operated as a merchant line)		
	CEE	Ongoing	Revenue distribution keys	Implementation planned beginning of 2009 (January to be confirmed)
	CS	Ongoing	Antitrust clearance possibly necessary. Firmness of capacity rights (in particular costs of ensuring physical/financial firmness)	Testing phase from mid-2009, full operation of SAO from January 2010
	CW	Ongoing	Firmness of capacity, TSOs' liability	Implementation planned in 2009
	Northern	Not addressed	Long-term products within the Nordic markets provided by the financial markets	Need for explicit auctions re-valued on Germany-Denmark after evaluation by regulators
	SW	Ongoing	No long-term auctions yet on the Spanish-Portuguese interconnection. Firmness of capacity rights (in particular costs of ensuring physical/financial firmness)	TSOs' proposal expected in September 2008 for a timetable for setting up a single auction office
	FUI	Ongoing	Bespoke system (only on French-UK border) designed in light of consideration of arrangements at other French borders Differences of market design are an obstacle to harmonisation of the rules.	Implementation planned in Q2 2009

Towards a market coupling model for the day-ahead timeframe	Baltic	Not applicable (no congestion into the Baltic electricity networks, Eastlink cable operated as a merchant line)		
	CEE	Not addressed	No sufficient liquidity / price signals	To be addressed as soon as this position changes
	CS	Under discussion	No sufficient commitment from some of the involved parties (limited resources of TSOs and PXs involved in other projects)	Action plan covering the orientation phase agreed within the IG for actions to be carried out in 2008
	CW	Ongoing (already implemented on FR-BE-NE)	- Number of parties involved in the project. - Interaction with other coupling projects,	Implementation planned in 2009
	Northern	Ongoing (market splitting already implemented within Nordic markets and DK East/Germany)	Merchant lines (Baltic cable and SwePol link), lack of liquidity on Polish market, legal and IT obstacles for Germany-Denmark	Implementation of market coupling on German-Danish interconnectors as quickly as possible. Implementation of market coupling under study on Baltic cable, but not foreseen on SwePol link
	SW	Under discussion (market splitting already implemented on PO-SP)	Different views by TSOs and PXs. Identified differences in market designs can be tackled. Lack of compromise for a date to implement market coupling. MIBEL is ready to advance now in market coupling. CRE fully supports MC but calls for a clear and credible action plan defined at European level.	TSOs' proposal expected in September 2008 for a timetable for setting up market coupling between MIBEL and CW coupling
	FUI	Not addressed	Differences in market designs, focus put on the new explicit auction platform	To be discussed after the implementation of the new auction platform

Towards an intraday mechanism, possibly based on continuous trading	Baltic	Not applicable (no congestion into the Baltic electricity networks, Eastlink cable operated as a merchant line)		
	CEE	Not addressed	Intraday mechanisms already in place at some borders. Requirements of NRAs for a regional solution: coordination, flow-based capacity calculation	Discussions on a regional solution should begin in autumn
	CS	Under discussion	Differences in market designs	Interim solution based on explicit auctions under consideration by TSOs
	CW	Under discussion	Status; Intraday mechanisms already in place on FR-BE and FR-DE. Issues under discussion for the implementation of regional implicit continuous allocation mechanisms: possibility of OTC trades, split of liquidity if several trading platforms are competing. Assessment of implementation and operational costs	Interim mechanisms being currently implemented on DE-NL and BE-NL. Public consultation to be launched on the features of a regional implicit continuous allocation
	Northern	implemented	Status: ELBAS platform (operated by Nordpool Spot) within Nordic countries. TSOs-operated platform on the German – Denmark West interconnector with trading of the energy itself taking place outside the intraday platform	
	SW	Under discussion	Intraday mechanism already in place at FR-SP border (two explicit auctions). Different proposals by TSOs and PXs for the implementation of continuous trading	Public consultation on the methods proposed by TSOs and PXs finished on 31 st July
	FUI	Ongoing	Costs to move from the mechanisms being implemented towards continuous trading and difference of market design	Explicit auction to be implemented in Q2 2009. Possibility to move towards continuous allocation in the near future under consideration

Integration of transparency requirements	Baltic	Ongoing	Looking for common regional approach	Results of transparency working group planned for July 2009
	CEE	Ongoing	Need for a dedicated piece of EU legislation is under discussion	Transparency report published in February 2008. Monitoring and evaluation of the implementation results by the NRAs planned during autumn 2008
	CS	Ongoing	Possible restrictions in national legislation: should be overcome by EU-law, such as CM-guidelines (except for Switzerland)	Draft Transparency report under consultation. Publication of final Transparency Report foreseen in Autumn 2008.
	CW	Ongoing	Differences in national market frameworks	Transparency report published in December 2007. Status and planning of TSO's implementation of the Transparency Report currently under evaluation by NRAs
	Northern	Ongoing	Need and feasibility for monitoring the quality of the data under discussion	Transparency report published in September 2007. First improvements to be provided until the beginning of the year. Information on generation expected to be publicly available in July 2008. First report by NRAs about the implementation of the transparency report in preparation
	SW	Under discussion	Divergences in interpretation by TSOs on what exactly is required by CM Guidelines and GGP on Information Management	Adopting the Transparency Report from the Central-South region as a common reference to assess the level of compliance, for the non-compliance points. TSOs announced more information will be published. Public consultation finished on 31 st July.
	FUI	Not addressed	Low priority topic	Reviewed when the outcome of the ERGEG's work in this area in the context of the Commission's Third Energy Package becomes clearer

Integration of balancing markets	Baltic	Under discussion	Market power issues	New balancing model based on Nordel balancing model to be developed
	CEE	Under discussion at bilateral level	Low priority topic	Work on this topic foreseen within the CEE Region activity planning and roadmap from 2009
	CS	Not addressed	Low priority topic	
	CW	Not addressed	No resources on this topic	To be addressed after the implementation of market coupling
	Northern	Ongoing	Far-reaching integration of balancing in the Nordic market but differences between the Nordel area and Germany and Poland might be overcome at a regional level	In the beginning of 2009, a new harmonised rules in the Nordic markets to be implemented (harmonisation of cost base, number of balances calculated and method to price imbalances) pending approval by Norwegian authorities.
	SW	Under discussion	Low priority topic. Possibility of creating balancing perimeters in Spain	Delayed due to other priorities. Possible models to be discussed during the 4 th quarter 2008.
	FUI	Ongoing	Legal issues relating to the GB TSO participating in the French balancing market	TSO to TSO model to be implemented in autumn 2009, with an interim period beginning in spring 2009

7. Conclusions and recommendations

The second ERGEG ERI Coherence and Convergence Report gives an overview of the progress made by each REM and identifies obstacles towards the implementation of congestion management target mechanism by each regional initiative and as well as of transparency and balancing issues.

204. Based on this analysis, the cross-regional part of the report allows ERGEG to assess the overall coherence and convergence of actions taken or planned at regional level on congestion management (from capacity calculation to intraday allocation), on balancing and on transparency.

205. It emerges that each REM encountered the similar kind of obstacles for fostering regional integration (cf. synthesis table of progress achieved in the ERIs):

- Towards a common transmission model: highly meshed regions which tackled this issue encountered difficulties in implementing a flow-based model (unsatisfactory preliminary results in terms of gains from moving from NTC to the flow-based approach). Other regions focused on increasing transparency on the current coordinated NTC methodology adopted.

- Towards a regional single auction platform with harmonised auction rules, IT interface, and products for long and medium term allocations: main obstacles to harmonisation are related to critical issues such as firmness of capacity, differences in market designs, and from delays with new IT system development.

- Towards a market coupling model for the day-ahead timeframe: the number of parties involved, the existence of overlapping projects in several regions and the dependence of work on other regions' plans, as well as differences in market designs prevent expeditious progress on this issue in some ERIs.

- Towards an intraday mechanism, possibly based on continuous trading: critical issues are still under discussion for the implementation of a regional intraday platform: participation of OTC trade, split of liquidity if several trading platforms, the need for a flow-based approach and the costs of implementation.

- Integration of transparency requirements: divergences on interpretation need to be addressed to have a common regional view on transparency rules.

- Integration of balancing: this topic suffers from being assigned a low priority and from a lack of resources in most of the regions.

206. Progress on implementing congestion management target mechanisms should be achieved soon through improving cross-regional coordination. ERGEG therefore puts forward some ways to foster coherence of actions taken at regional level and overall convergence.

- Calculation of cross-border capacity

207. It is of utmost importance that TSOs start to "Use of a common transmission model dealing efficiently with interdependent physical loop-flows and having regard to discrepancies between physical and commercial flows". These common transmission models, usually developed at regional level, should be compatible between them.

208. It is also of utmost importance to achieve a better coordination regarding the exchange of information between TSOs but also from generators to TSOs. In addition, more detailed information on the calculation methodologies used should be made available to

regulators and market participants. As stated in the CM Guidelines, the nature, time and frequency of information exchange shall be compatible with a view to promoting fair and efficient competition and cross-border trade. In particular, we observe that the frequency of calculation of cross-border capacity is not always homogenous between borders. We also observe that TSOs do not regularly update this calculation, which could imply that there is scope for TSOs to further maximise the cross-border capacity made available to the market. Whilst essential, coordination between TSOs (which is mandatory according to the CM guidelines) is not sufficient to guarantee the maximisation of cross-border capacity. Tighter coordination needs to be complemented by specific schemes providing TSOs with incentives to maximise cross-border capacity²⁰. ERGEG is currently working on this incentive issue with the aim of proposing adequate incentives on TSOs to foster market integration.

- Long-term explicit auctions

209. Whilst some obstacles have been identified towards the implementation of a common auction platform and also the creation of common auction rules for long and medium term capacity allocations, these do not seem to be insurmountable. Harmonisation of auction rules for long-term capacity should, therefore, be put as top priority for all regions. Regions which have already engaged into the process of harmonising different sets of auction rule should proceed in such an effort.

210. Regarding the scope of activities provided by the platform currently in development, only the one being developed in the France-UK-Ireland region will be in charge of all activities (allocation, nomination and invoicing). In other regions, each TSO will keep in charge of the nomination.

211. Alongside the harmonisation of rules and procedures, regions should work on improving action rules. In this context, further improvements are advocated for development of efficient secondary capacity markets and firmness of capacity rights. Firmness is an important prerequisite to the development of cross-border trade, competition and market integration. There exists a trade-off between two contradictory goals: maximising the level of fully firm cross-border capacity rights made available to the market and minimising the cost for end-users. Implementing specific incentive schemes could help to find the best trade-off. In addition to that, the TSOs' ability to implement cross-border redispatch and counter trading should be improved. Also a market-based compensation mechanism with a cap on price differentials could be a solution. ERGEG is currently working on this regulatory issue with the aim of finding homogeneous solutions at European level²¹.

212. The next step is therefore to ensure the compatibility of regional auction platforms and rules at reasonable cost for European users. In this respect, potential extension of the

²⁰ ERGEG is currently considering the issue of incentive schemes and how to incentivise TSOs to maximise capacity.

²¹ ERGEG has analysed the issues of firmness and curtailment and has suggested the way to follow in an interim paper: Firmness of nominated transmission capacity, ERGEG Ref. E08-EFG-29-05, 15 July 2008, available at: www.energy-regulators.eu. An ad hoc workstream within ERGEG continues to examine this issue.

geographic scope of the currently planned platforms to cover additional interconnections is conceivable.

- Development of day-ahead implicit auctions

213. The development of day-ahead market coupling mechanisms is de facto a multi-regional issue, which is challenging from both technical (how can overlapping countries be involved in more than one coupling project?) and organisational (what projects should be prioritised?) perspectives. In this context the question of how to coordinate existing market coupling projects should be considered.

214. Studies to gauge socio-economic gains from switching to implicit auctions, such as the one carried out in the CS region²², will help to highlight the advantages and difficulties borne from extending market coupling mechanism to all European borders.

215. An external independent consultant could be in charge of evaluating the cost/benefit of extending market coupling on each European border. This evaluation should also take into account the projects in progress in the Regional Initiatives, the technical difficulty, the work already undertaken through concrete national regulation developments, the time needed for implementation, the differences of national market designs and the consequences on the general advance pace of extending particular interconnectors.

216. Based on such a study, a cross-regional plan for the implementation of market coupling (including a clear timetable) could be defined and approved at high level. Such a roadmap would be monitored by EREG and the European Commission. It could provide the ERI with added value in terms of arbitration and coordination of the market coupling projects.

- Defining a target mechanism for cross-border intraday trade

217. In some regions there is growing consensus between stakeholders towards an implicit and continuous allocation method similar to the ELBAS system.

218. However, there is an interaction between balancing market design and the options for implementing intraday trading.

219. Where the network topology is particularly complex, a flow-based approach within the intraday timeframe could be helpful.

220. Depending on the region, there are mainly two open questions: whether the mechanism will be implicit or explicit and how to increase the liquidity and efficiency of national intraday markets. Given the short timeframes available for intraday trade, the most efficient way to allocate available cross-border capacity would be via an implicit method, as for day-ahead allocation. This would ensure that the capacity allocation is automatically linked to a cross-border energy trade. In such a setting, OTC cross-border trade would not be allowed. Regarding the liquidity, if the capacity calculation unit, used

²² http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INITIATIVES/ERI/Central-ThereSouth/Final%20docs

by TSOs to calculate and allocate continuously intraday capacity, is connected to several trading platforms and possibly to individual market players, then the benefits of “coupling” the liquidity of interconnected areas would be reduced. Therefore, the creation of a central order book which would be the single interface between trading platforms and the capacity calculation unit is under consideration.

221. Ongoing public consultations in some regions could help to define a target intraday mechanism that will take into account existing differences in market designs.

- Defining a target mechanism for cross-border balancing trade

222. While it has been defined as a priority topic within each ERI, there are currently very few regions concretely addressing this issue.

223. This could somehow be surprising given that integrating balancing markets would increase the security of the system. Indeed, the fast change in the generation pattern (with the development of wind power in particular), together with the difficulty to invest in transmission infrastructures, should call for acceleration in the integration of balancing markets. Additionally, such balancing market integration could help TSOs and regulators to reduce the cost of redispatching actions to ensure stability of the network, as well as the quality of access to the transmission network.

- Further work on transparency at ERGEG level

224. Almost all ERI regions already have or are on the point of producing their own regional transparency report. All these regional transparency reports have the same basis (the first transparency report produced by the Northern ERI) but are progressively improved and/or adapted to the specificities of each regional market. With all these transparency reports, there is the possibility of fine-tuning transparency requirements at ERGEG level as fine-tuning of the ERGEG GGP_IMT is scheduled for autumn 2008. The requirements not yet covered by the Congestion Management Guidelines should be made legally binding.