

## **ERGEG's consultation - Draft Framework Guidelines on Capacity Allocation and Congestion Management for Electricity**

### **EDF Response**

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10 November 2010

#### **Who we are**

EDF SA is a French corporation involved in generation of electricity and supply of electricity, gas and associated services to nearly 28 million customers in France. In 2009, it generated €34 billion sales, representing 400.4 TWh of electricity and 18.5 TWh of natural gas. With an installed electricity capacity of 98.7 GW, mainly nuclear and hydro, EDF SA is the leading provider of efficient and low-carbon energy solutions, with an average 40.8 g of CO<sub>2</sub> per kWh generated.

#### **Introduction**

EDF welcomes the opportunity to answer this ERGEG consultation related to Capacity Allocation and Congestion Management (CACM). This consultation, based on an Initial Impact Assessment (IIA), describes accurately the goals to be achieved on the intraday, day-ahead and forward timeframes as well as on the capacity calculation.

EDF considers the promotion of cross-border trade in electricity of the utmost importance in order to achieve an integrated European electricity market, to improve the Security of Supply and to tackle the issue of the massive penetration of intermittent generation foreseen. The development of cross-border electricity exchanges goes through:

- the investment in physical interconnection where structural congestions exist,
- the maximization of the capacities allocated to the market by TSOs, and
- the improvement of the congestion management modus operandi for all the timeframes.

The development of new interconnections is essential for an efficient development of the European electricity market through a wider generation mix optimisation. Nevertheless, the myth of a European "copper plate" seems unrealistic and does not make sense from an

economical point of view since it will lead to overinvestment in the network infrastructures. Thus, Capacity Allocation and Congestion Management will always remain a very important aspect of the European Integrated Electricity Market in order to ensure optimal use of interconnections.

From EDF perspective, the issues related to the strategic model on congestion management and capacity allocation have been properly sorted out by the European Union through the targets issued by the Project Coordination Group (PCG) and presented at the December 2009 Florence Forum. The Ad-Hoc Advisory Group (AHAG), following the PCG, provides guidance regarding the Governance, the Capacity Calculation and Intraday Trade. This top-down approach complements the voluntary bottom-up approach of the European Electricity Regional Initiatives (ERI). Otherwise, this voluntary approach would deliver results in a longer timescale.

**EDF wishes to highlight that the target model for each timeframe and for capacity calculation should be more detailed in the Framework Guidelines and some major issues have to be addressed (see question 1). The interim steps should be defined in order to pave the way for the full implementation of the overall target model. EDF recommends a pragmatic approach going from the higher market standard regions to the lower standard ones through a geographical oil-spread approach. Moreover, EDF insists both on the risks associated with an interim step jeopardizing the following ones and the markets needs (in particular in the intraday timeframe).**

## General issues

### **1. Are there any additional issues and / or objectives that should be addressed in the Capacity Allocation and Congestion Management IIA and FG?**

EDF considers that some important issues are missing or could have been detailed in the Draft Framework Guidelines. They relate to:

- Forward: rules harmonization, platforms coordination, capacity maximization, financial firmness, secondary market platform;
- Day-ahead: governance issues between TSOs and PXs, roadmap for the implementation within Europe;
- Intraday: governance issues between NRAs, TSOs and PXs and unclear functionalities to be handled by the Shared Order Book (SOB) function which implies, during the implementation phase of the final enduring solution, the absolute necessity to grant direct access to the intraday capacity to market participants;
- Capacity calculation: pragmatic approach implementing the Flow Based (FB) method only if a clear added value is demonstrated and NRAs monitoring for the coordinated Available Transfer Capacity (ATC) method in order to incentivize the increase of the capacities to be offered to the market.

## 2. Is the vision of the enduring EU-wide target model transparently established in the IIA and FG and well suited to address all the issues and objectives of the CACM?

The overall vision of the enduring EU-wide target model for each timeframe is clear. However, **EDF believes that a more detailed description of the Target Model for each timeframe as well as for the capacity calculation should be pictured in order to ensure a shared, comprehensive and robust European wide implementation.**

Thus, EDF recommends the proposal for a roadmap with identified milestones regarding, in particular, the day-ahead timeframe due to its central position in the price formation processes. Indeed, market penetration is highly heterogeneous amongst countries. For that reason, **EDF suggests a pragmatic oil-spread approach from the regions with the higher market standards to the countries with the lower market standards.**

## 3. Should any of the timeframes (forward, day-ahead, intraday) be addressed in more detail?

All the timeframes should be more detailed in the Draft Framework Guidelines. **The day-ahead**, for its central position in the price formation, **and the intraday**, due to the increasing importance that this timeframe will have and the low level standards currently implemented, **should be prioritized.**

For the day-ahead timeframe the overall goal is clearly identified: wide European Price coupling. Notwithstanding, the way to achieve a unique price coupling across Europe could be hampered by governance issues and countries reluctance to fast developments of the day-ahead spot market.

For the intraday timeframe, the target model let some details unclear and, instead of waiting for a finalized consensus in the AHAG Intraday Group, a pragmatic approach defining the next steps would be more valuable. It should be explicitly mentioned that each step should not jeopardize the following one (the recent EMCC volume coupling example should be avoided<sup>1</sup>) neither restrict cross border intraday trading or the ability to fulfil all market participants' needs.

The forward timeframe, even if more mature, needs to go further on capacity maximization, secondary market, platforms coordination and rules harmonisation.

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<sup>1</sup> In fact, the implementation at the end 2009 of the EMCC volume coupling, albeit not in line with the price coupling targeted model, between Germany and the Nordic region delays the price coupling of the CWE region and leads to an interim step consensus reached with difficulty between all stakeholders.

#### 4. In general, is the definition of interim steps in the framework guideline appropriate?

**EDF considers that the interim steps should be specified as well as the timescale for full implementation of the Guidelines recommendations.** The interim steps for the day-ahead timeframe misses (roadmap and milestones). Regarding specifically the intraday timeframe, EDF is very concerned regarding the possible interim steps: if continuous trading platforms are granted some exclusive access to intraday capacities, cross-border intraday trades limitation will occur.

**Each interim step or interim solution should tend towards the target model without jeopardizing the following steps or the achievement of the enduring solution and interim solutions should not lead to restrict cross border competition and hinder a correct functioning of the European market.**

#### 5. Is the characterization of force majeure sufficient? Should there be separate definitions for DC and AC interconnectors?

The definition of Force Majeure addresses directly the issue of firmness. **EDF asks for a harmonized European definition of Force Majeure and a coordinated approach of the associated level of firmness (whether financial or physical firmness).**

Concerning DC or AC interconnectors, no separate definitions are needed.

#### 6. Do you agree with the definition of firmness for explicit and implicitly allocated capacity as set out in the framework guideline? How prescriptive should the framework guideline be with regard to the firmness of capacity?

Firmness is definitely required within the market coupling framework to ensure price setting consistency. It is also needed in case of explicit day-ahead auctioning to allow some degree of confidence in cross border transactions for market participants and make proper use of congestion revenues, in line with Regulation 714/2009, article 16.

However, expanding the firmness requirement of cross border capacities beyond the day ahead timeframe should be carefully considered. It should not create any counter-incentive for the TSOs to lower their risk exposure by reducing the capacity made available to the forward timeframe, neither should it create any right for the TSOs to impose any constraints on generation schedule which would definitely be destroying value.

Should it be finally recommended, EDF is of the opinion that firmness beyond the day ahead should in priority be considered from a financial perspective.

**7. Which costs and benefits do you see from introducing the proposed framework for Capacity Allocation and Congestion Management? Please provide qualitative and if applicable also quantitative evidence.**

The development of cross-border trades brings clear and important benefits to all European wholesale market stakeholders:

- wider supply mix for the requested demand which implies an important increase of social welfare;
- Lower risk premium and price volatility;
- Higher liquidity of the European electricity markets;
- Increased competition across Europe;
- Better accommodation of intermittent generation thanks to higher cross-border flexibility

However, assessing those benefits will always remain difficult.

Nevertheless, the associated costs of implementing the Draft Framework Guidelines recommendations should be estimated by ERGEG. EDF considers that the ratio between benefits and costs are obviously in favor of the implementation of all the Guidelines' recommendations.

Concerning specifically the Flow-Based method implementation, as described in the next question, a particular analysis should be performed in order to demonstrate the added-value.

**Section 1.1: Capacity Calculation**

**8. Is flow based allocation, as set out in the framework guideline, the appropriate target model? How should less meshed systems be accommodated?**

From a theoretical point of view, Flow Based allocation seems to be a better mechanism than the "ATC" method due to the fact that this method reduces the arbitrary assumptions made by the TSOs in their capacity calculation. It allows moving towards a more market-based allocation of the scarce capacity on meshed networks taking into account the significant mutual influence between borders. For instance, this method has been chosen for the CWE market coupling and has been identified as a priority for the CEE region.

Nevertheless, currently no implementation of Flow Based capacity calculation has been completed. Thus, **EDF recommends a pragmatic and transparent approach for the Flow Based implementation if clear added-value is demonstrated.** Indeed, the Flow Based method represents a major evolution for market parties' assessment of price formation as well as it represents a

technically ambitious mechanism. Therefore, in order to grant confidence to market parties, the timescale to test, consult and implement such a method should be cautiously scheduled and be tested then implemented in more advanced regions, such as CWE. EDF favours the CWE approach for an interim step with a parallel run of ATC and flow based capacity allocation in order to be able to compare the results of both methods on the basis of real trading data and in order to experience and to check the benefits of this allocation method before its implementation.

The same goes for coordinated ATC calculation. If the added-value is clearly demonstrated, the coordinated ATC method should be preferred not only for security of supply but also for maximization of offered capacities (higher confidence of the TSOs in their assumptions should lead to lower margins). Nevertheless, the capacity calculation assessed by the coordinated ATC method should be under the scrutiny of NRAs in order to ensure that this method allows an increase of offered capacities together with a higher security of supply level.

If the Flow Based method brings clear and demonstrated added-value even for less meshed networks, then it should be preferred.

#### **9. Is it appropriate to use an ATC approach for DC connected systems, islands and less meshed areas?**

EDF does not understand the issue, since there is no other possibility to allocate DC capacity than the actual physical capacity that is technically allowed to flow through such a link, connecting points being then considered as generation/consumption units. Even in the case of a mixture of DC/AC links operated within one "border" through two different TSOs, EDF is of the opinion that the technical capacity of the DC link should be considered as an input in any grid analysis that would try to figure out possible flows.

#### **10. Is it necessary to describe in more details how to deal with flow-based and ATC approach within one control area (e.g. if TSO has flow-based capacity calculation towards some neighboring TSOs and ATC based to the others)?**

For countries, such as France, interconnected with many neighboring countries (highly meshed within the CWE region and less meshed with Spain and UK), the implementation of two different methods should be assessed by the TSOs in order to evaluate the interdependencies. For instance, having an ATC method in the France/UK DC cable could influence the capacity calculation through a Flow Based method for the France/Belgium and France/Germany interconnections. If assumptions have to be made in the base case of the Flow Based method, it should be clearly explained to the market.

Therefore, it is necessary to describe in more details how to deal with different capacity calculation methods within one control area in order, for the market participants, to properly assess the price formation, otherwise it could lead to less transparency and less reliable prices.

### **11. Is it important to re-calculate available capacity intraday? If so, on what basis should intraday capacity be recalculated?**

The market has to cope with the massive penetration of intermittent generation in order to assess price formation in each area. For that reason, market parties will have to trade electricity as close as possible to real-time. Thus, cross-border intraday trades are essential to mitigate the intermittent risk and optimize the intraday supply and demand balance in a wider perimeter.

The TSOs shall recalculate the available capacity for the intraday timeframe for security of supply reasons and also, as mentioned above, in order to provide the market parties with adequate interconnection capacities regarding the flows evolutions. NRAs should tightly monitor the intraday capacities offered by the TSOs.

Intraday capacities should be recalculated at least twice, once after the day-ahead exchanges results (before 6 pm) and once in the morning of the delivery day (for example at 7 am). If some major modification occurs (plant or grid outage as well as huge modification of intermittent generation) TSOs shall reassess, within a reasonable timescale, the interconnection capacities and offer it to the market.

## **Section 1.2: Zone delineation**

### **12. Is the target model of defining bidding zones on the basis of network topology appropriate to meet the objectives?**

EDF considers that defining smaller bidding zones within an existing area could have a negative impact on the market developments:

- Operational difficulties for balancing responsible parties of an area/country to split their supply and demand perimeters per bidding zones;
- Smaller zones increase the market power of actors and diminish the liquidity;
- Feasibility of bidding zone through different TSOs areas and through different countries (important governance, coordination and harmonization issues);
- Political acceptance of different price zones within a country;

- Technical constraints associated to the change of zone definition (models, IT tools etc.) ;
- Entry barriers hampering competition in the retail market.

How should it become a target model, EDF considers that the important issue of **zone delineation should be at least approved by the NRA after a consultation of the market players**. Moreover, **such decision should be subject to the demonstration of an added value for the market and go with incentives for TSOs to minimize the re-dispatching costs**. In fact, internal congestion within a TSO area could be managed properly by the TSO, if the NRA tightly monitors this activity and the related re-dispatching costs, through an efficient balancing mechanism. Moreover, bidding zones need stability in order to ensure trades already done and investments decisions.

### **13. What further criteria are important in determining the delineation of zones, beyond those elaborated in the IIA and FG?**

Regarding what has been previously mentioned, EDF advocates to also take into account the operational feasibility of market splitting. In fact, EDF considers that the need for smaller bidding zones should be requested by NRAs if local TSOs use interconnection capacities in order to cope with their internal congestions or if the costs incurred by the TSOs, consequently by the final customers, for re-dispatching are too high due to, for example, an inappropriate balancing mechanism.

**EDF reminds that internal congestion should uppermost be treated through investments (grid or generation) under NRA monitoring rather than through smaller bidding zones. In any case a proper incentive should be put on the relevant TSOs to properly manage the constraint (investments, re-dispatch, ...).**

## **Section 2: Forward markets**

### **14. Are the preferred long-term capacity products as defined in the framework guideline suitable and feasible for the forward market timeframe?**

The Draft Framework Guideline properly addresses the issues related to this timeframe and EDF agrees with the long-term capacity products exposed provided that liquid forward/futures power markets are effectively promoted and developed within Europe.

EDF considers that Financial Transmission Rights (FTR) could be an interesting target which is only achievable if day-ahead markets are coupled and if market parties have gained confidence in the coupling function. For the time being, the Physical Transmission Rights (PTR) with the



UIOSI principle seems acceptable provided that the TSOs are committed to increase capacities dedicated to the day ahead coupling. EDF considers this first step consistent with the targeted model presented to the Florence Forum end of 2009 and supported by the EC.

Longer term products such as 2 to 3 years FTRs or PTRs should also be studied as an additional tool to develop competition.

**15. Is there a need to describe in more detail the elaborated options for the organization of the long-term capacity allocation and congestion management?**

EDF stresses the importance of harmonizing rules, coordinating platforms (whether auction or nomination platform) and implementing secondary market platforms (whether organized by TSOs or not), in order to develop a currently unused possibility.

**Regarding the medium and long term capacity products, EDF requests to take into account the report disclosed in May 2010 by the CRE<sup>2</sup>.**

**Section 3: Day-ahead allocation**

**16. Are there any further issues to be addressed in relation to the target model and the elaborated approach for the day-ahead allocation?**

The targeted model elaborated for the essential day-ahead timeframe, i.e. the single price coupling implicit auction, is widely shared. This target model requires a high level of coordination and harmonization between NRAs, TSOs and PXs. **Thus, the main issue to be addressed is the governance** and is monitored by AHAG, via one of its three specific projects, and chaired by the European Commission.

EDF considers that the target model should be implemented in all the European countries (whether member state or not) in a pragmatic way: from the more advanced regions to the less advanced ones with identified milestones and a geographical oil-spread approach, centered in the CWE/Nordic region. A full implementation within Europe, including Switzerland at the crossroad of the interconnected network although not a Member State, should be secured for 2015.

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<sup>2</sup> CRE's thematic report : « Accès à la capacité de long-terme pour les interconnexions électriques : vers un jeu de règles unique européen »

## Section 4: Intraday allocation

### **17. Are there any further issues to be addressed in relation to the target model and the elaborated approach for the intraday allocation?**

EDF considers of the utmost importance to foster cross-border intraday trades in order to provide market participants with consistent trading opportunities to balance their positions close to real-time regarding, in particular, the massive increase of intermittent generation foreseen for the next years. For that reason, EDF agrees with the proposal in the Draft Framework Guideline to ensure flexibility through the continuous implicit trading. The coexistence of this model with the implicit auctions in some markets does not seem consistent.

However, even if the target model design includes a unique Shared Order Book function directly linked to a unique Capacity Management Module, the full needs of market participants should be taken into account during the implementation of this ambitious final stage. Indeed, the current continuous trading platforms have not been designed to address all the functionalities required by market participants (cross-border rebalancing, start-up costs, profiled products, etc.). Therefore, a direct access to the intraday capacity should be granted to market participants while the SOB functionalities would not fulfill all the market requirements. For that reason, **EDF urges not to deliver any exclusive access to intraday capacity for current intermediate continuous trading platforms otherwise, this will restrict cross-border intraday trades and would limit market competition to the national level for part of the intraday market.**

EDF reminds that at some borders (such as the Italian ones) cross-border intraday capacities are still not available and this induces serious impediments for the overall market efficiency.

Other issues have to be solved through AHAG work:

- Governance issues, like for the day-ahead timeframe, competition considerations to be taken into account and also the risk to hamper or at least delay the development of cross-border intraday trades within Europe in case of inappropriate interim solutions;
- Matching of bloc orders with hourly bids in order to pool liquidity;
- Automatic matching through the platforms with the aim of matching the more profitable deals when additional capacities are released or at the opening of the intraday market.

Finally, EDF stresses that, as for the day-ahead timeframe, the implementation of the Flow Based method of capacity allocation for intraday timeframe should be cautiously analyzed to evaluate if it brings a clear added-value to market participants. The implementation of the Flow Based method on the intraday timeframe should then be jointly analyzed with the day-ahead timeframe.

**18. Does the intraday target model provide sufficient trading flexibility close to real time to accommodate intermittent generation?**

Only an open design and open intermediate steps (with no unnecessary constraints) can guarantee that full flexibility is available. As previously mentioned, the continuous implicit design should provide to the market the flexibility required for close to real time trading for standard or non standard market needs. Indeed, market players need to tackle properly all variations of physical conditions (whether generation, load or transmission) very quickly in intraday and this requires full flexibility with all cross border functionalities (for instance, decision to start a thermal unit, possibility to rebalance positions etc...). The intraday market design should be more detailed in order to guarantee these functionalities.

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