

6 October 2015

Public consultation by the French Energy Regulatory Commission of 6 October 2015 on the introduction of 30-minute power trading products in the organised market and at the French interconnections

In its deliberation of 30 May 2013 approving the intraday allocation rules at the France-Switzerland and France-Germany interconnections, CRE requested RTE to study the implementation of capacity products with a duration of less than an hour in order to enable the power exchanges to develop corresponding products.

It is expected that market participants' balancing needs close to "real time" will increase, due in particular, to the development of electricity generation from variable sources. Currently however, the products traded in the organised power market and the transmission capacities sold at French interconnections in the intraday timeframe are, at the shortest, hour products. They can be allocated one hour prior to delivery for cross-border exchanges with Germany and Switzerland and up to 30 minutes prior to delivery in the French organised market. Introducing products of a shorter duration would enable participants' balancing needs to be met more accurately.

On 28 July 2015, RTE applied to CRE for the approval of new intraday capacity allocation rules at the France-Germany and France-Switzerland interconnections which would introduce 30 minutes capacity products at those interconnections. The new rules proposed by RTE are in the Annex to the present public consultation.

The purpose of this public consultation is to gather market participants' views on RTE's proposal which aims at introducing 30-minute capacity products at French interconnections. In addition, given the impact of these products on the organised electricity market, market participants are invited to submit their opinion on the lowering of the duration of intraday products and on the developments envisioned for a later time.

Answers to this consultation are to be submitted by 22 October.

1. Background: developments in the intraday market

1.1. The role of the intraday market

Different types of products are used by market participants through the organised market, brokers or over-the-counter trading in order to balance their injections and withdrawals. With regard to the allocation of interconnection capacity, participants can purchase capacity at three timeframes, the long term (annual and monthly), day-ahead and intraday, which respond to different needs.

The day-ahead timeframe is the reference one for power exchanges. The target model for this timeframe is market coupling which allocates implicitly interconnection capacity to the most efficient cross-border energy transactions. The cheapest power generation offers of the zone in which market coupling is in effect¹ are selected, which minimises the electricity supply cost.

However, the positions taken the day before delivery are based on forecasts that must be corrected as real time approaches in order to ensure the best match between production and consumption. The intraday timeframe aims specifically to provide balance responsible entities with the means to adjust the schedules established the day before depending on the supply or demand variations they may encounter. A change in the expected level of consumption, the unplanned shutdown of a generation unit or a variation in climate conditions affecting the production expected of renewable energy sources can, for example, cause a difference between the forecast and actual injection and withdrawal by participants.

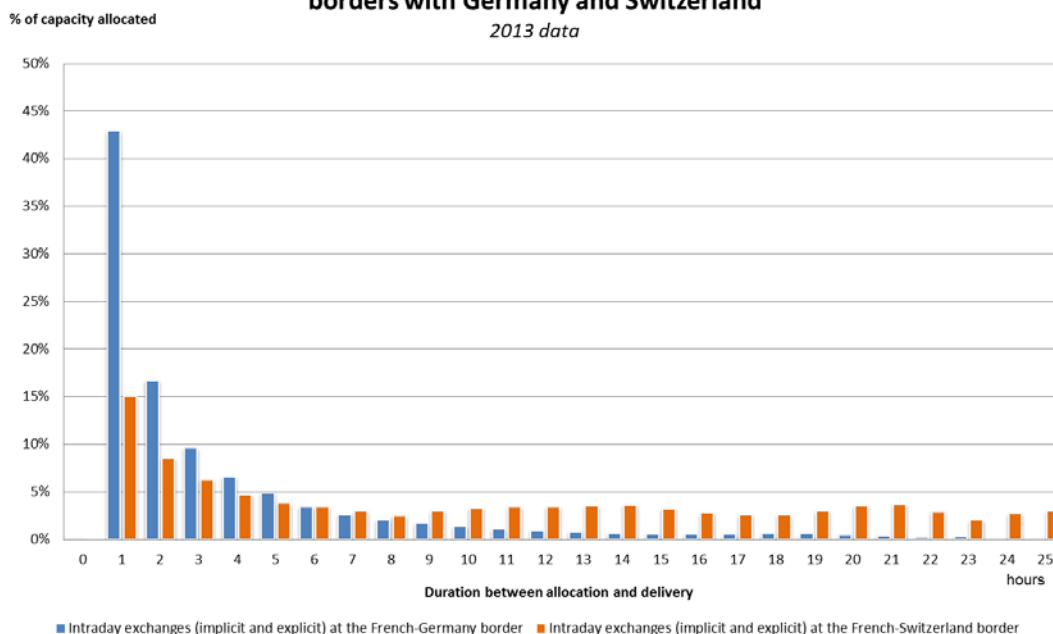
Currently in France, there are several options available in the intraday timeframe:

- rescheduling of plants' generation (half-hour periods),
- over-the-counter trading via the block exchange notification service (half-hour periods),
- the purchase of hour products in an organised market (hour periods),
- the nomination of intraday interconnection capacities (hour periods).

For the purposes of illustrating the need for balancing as close as possible to real time, the graph below shows that the subscriptions at interconnections for hour capacity increase as knowledge of the network status at the time of delivery improves. Therefore, in 2013, in the intraday timeframe, almost 70% of capacity for delivery at time T at the border with Germany was allocated less than three hours before real time.

¹ To date, France is coupled in the day-ahead timeframe with five of its six neighbouring countries. Market coupling with Switzerland, although ready technically, depends on the signing of an agreement between the European Commission and Switzerland.

Duration between capacity allocation and delivery of hour products at the borders with Germany and Switzerland



Sources: EPEX Spot, RTE - Analysis: CRE

1.2. Capacity allocation methods in the intraday timeframe

1.2.1. *The intraday target model: implicit and continuous capacity allocation*

For the intraday timeframe, the target model defined by the Regulation (EU) 2015/1222 of the Commission of 24 July 2015 establishing a guideline on capacity allocation and congestion management (known as CACM regulation) is a mechanism for continuous implicit allocation of interconnection capacity in power exchanges. Implicit allocation enables electricity and capacity at interconnections to be allocated together, as in the day-ahead timeframe.

For the intraday timeframe, this mechanism enables the integration of the organised intraday markets operated by the power exchanges in the different Member states, which leads to an increase in the liquidity of these markets through the implementation of a shared order book. In other terms, as long as interconnection capacities are not saturated, all market participants have access to the cheapest electricity offer in the coupled markets. The CACM regulation provides for the possibility of implementing, on an interim basis², a continuous explicit allocation system for interconnection capacity in addition to implicit allocation.

This continuous explicit and implicit allocation mechanism for intraday capacity which starts the day before and continues up to one hour before real time, enables trading closer to the time of delivery and offers participants the flexibility to balance their positions.

² The CACM regulation defines the process for exiting the explicit allocation mechanism: regulators must verify that sophisticated products (implemented through the implicit allocation mechanism) meet the needs of market participants and approve, in a coordinated manner, the withdrawal from explicit allocation.

1.2.2. *Review of the intraday capacity allocation mechanisms at the French borders*

The continuous implicit allocation mechanism for hour products was approved by CRE and set up between France and Germany by RTE and EPEX Spot at the end of 2010 and between France and Switzerland in June 2013. The solution adopted for these two borders enables, in addition and in parallel to the implicit access to interconnection capacity through the EPEX Spot exchange, the explicit allocation of interconnection capacity at hour intervals, and therefore, over-the-counter trading between participants in France and participants in Germany and Switzerland.

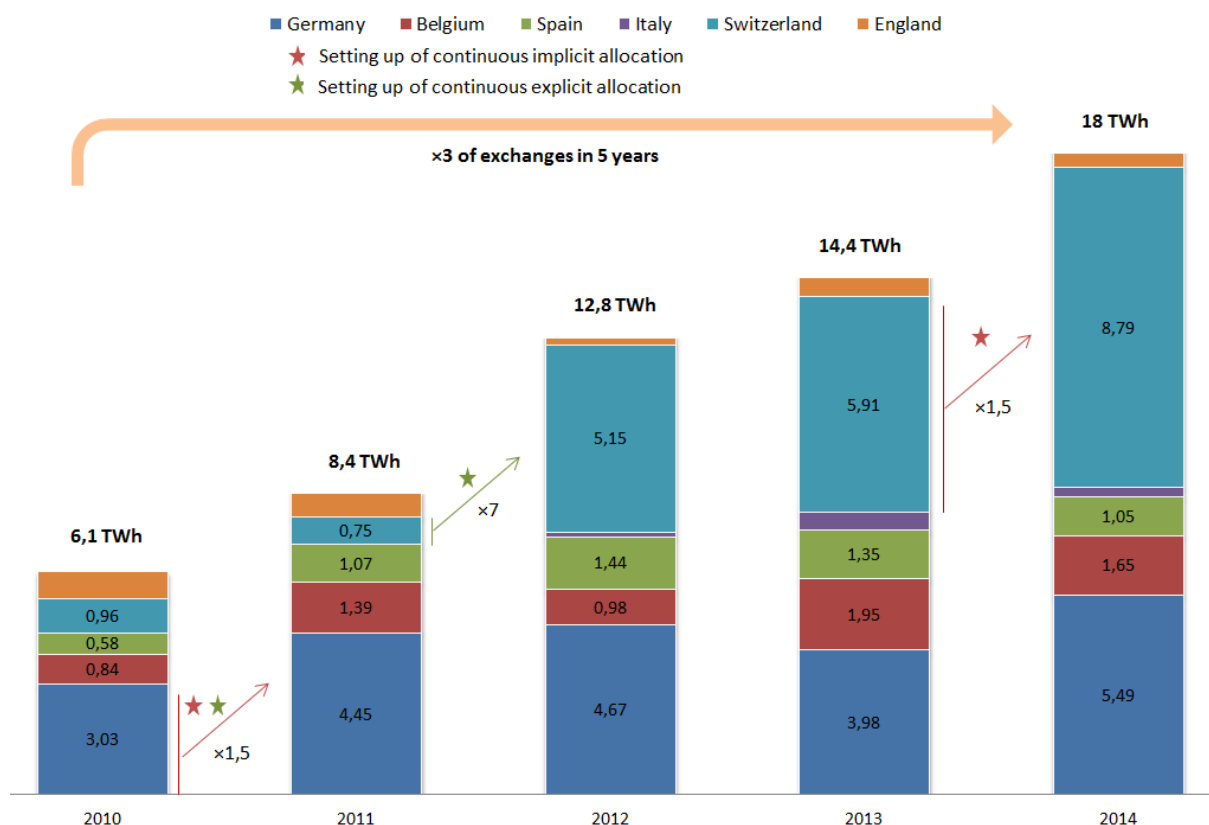
At the interconnections with Spain, Italy and England, intraday capacities are allocated explicitly through two auctions (one the day before, and the other one on the delivery day) and with Belgium it is allocated proportionately³. These mechanisms offer little flexibility (constraints related to auctions) and do not enable efficient allocation close to real time. Therefore, CRE wishes for the extension, as soon as possible, to all French borders, of the target intraday model defined in the CACM regulation.

1.2.3. *An increase in cross-border exchanges thanks to the implementation of continuous intraday capacity allocation*

The growth in intraday cross-border exchanges is significant: volumes tripled between 2010 and 2014 and reached 18 TWh in 2014. This increase in trading volumes is due partly to the setting up of a continuous implicit and explicit capacity allocation system at the German and Swiss borders: the increase in exchanges with Germany (+50% between 2010 and 2011) coincides with the setting up of continuous implicit allocation, and the increase with Switzerland (7 times higher between 2011 and 2012) coincides with the implementation of continuous explicit allocation.

³ Mechanism for allocating capacity to participants proportionate to their demands, giving preference to the lowest demands

Development of intraday cross borders exchanges since 2010



Sources: EPEX Spot, RTE

2. RTE's proposals and CRE's preliminary analysis

2.1. RTE's proposal: the introduction of intra-hour 30-minute products at the France-Germany and France-Switzerland interconnections

Following CRE's deliberation of 30 May 2013, RTE proposes the introduction of half-hour products at the French interconnections with Germany and Switzerland in the intraday timeframe. The consultation carried out by RTE within the framework of the interconnection access operating commission (*Commission pour le Fonctionnement de l'Accès aux Interconnexions*), confirmed market participants' interest in lowering the duration of intraday products.

At this stage, CRE considers that the introduction of products of a shorter duration can provide participants with an additional tool to balance their positions during the intraday window. While the imbalance settlement period⁴ is half-hourly, participants currently do not have access to the interconnections at this same time interval. To balance their positions at

⁴ The imbalance settlement period is the time period at which calculations are made for real-time imbalances between participants' electricity injections and withdrawals.

half-hour intervals, they can only use over-the-counter exchanges through the block exchange notification service or rescheduling of production.

The setting up of half-hour products at the interconnections with Germany and Switzerland would enable balance responsible entities to optimise their needs based on consumption and production forecasts, by exchanging products that correspond more closely to their imbalance calculations and therefore reducing their imbalance settlement costs.

2.2. The implementation of explicit half-hour allocation

RTE initially proposed to CRE the implementation of explicit access to the France-Germany and France-Switzerland interconnections in 30-minute intervals by the end of November 2015. On 28 July 2015, RTE therefore submitted updated versions of the intraday capacity allocation rules at the France-Germany interconnection (IFD rules) and the France-Switzerland interconnection (IFS rules) to enable the explicit allocation of interconnection capacity at half-hour intervals (see IFD and IFS rules in the Annex).

At this stage, CRE is in favour of RTE's proposal to introduce explicit access to half-hour interconnection capacity. CRE considers this development as a first step towards greater flexibility offered to market participants.

Question 1: are you in favour of RTE's proposal to develop explicit access to capacity in 30-minute intervals at the borders with Germany and Switzerland?

RTE proposes an hourly allocation of 30-minute products through 24 intraday gates. Keeping 24 intraday gates enables RTE to essentially maintain existing operational processes and IT systems, in particular for the management of system balance and system security studies. Allocation for intraday transactions of half-hour products (excluding transactions made under RTE's balancing mechanism) therefore ends one hour prior to the first half-hour delivery and one hour and a half prior to the second half-hour delivery.

In its initial analysis, CRE considers that the terms and conditions proposed by RTE enable the efficient implementation of explicit allocation of 30-minute capacity products.

Question 2: in your opinion, does hourly allocation with 24 gates and the gate closing times seem justified?

Question 3: do you have any comments on the changes to the IFD and IFS rules?

3. The next developments envisioned

3.1. The implementation of implicit half-hour allocation

While in France it is currently possible to balance half-hourly by rescheduling plant generation or by trading block exchange notifications over the counter, only hour products are offered on the organised market.

EPEX Spot plans, for the third quarter of 2016, following the implementation of explicit allocation in half-hour intervals, to develop 30-minute products in the organised French market and to simultaneously set up implicit France-Germany and France-Switzerland capacity allocation.

At this stage, CRE is in favour of these developments being implemented as soon as possible and by the start of the third quarter 2016 at the latest. However, CRE has doubts about the possibility of the early development of half-hour products in the organised French market only.

Question 4: are you in favour of the implementation of 30-minute products for the organised market and the implicit France-Germany and France-Switzerland capacity allocation, as from the third quarter of 2016?

Question 5: ahead of the implementation of implicit allocation of capacity at borders, are you in favour of the development of 30-minute products in the organised French market only? ,

3.2. Towards 48 intraday gates?

CRE considers that the implementation of capacity allocation with 48 intraday gates of half-hour products would strengthen the flexibility offered to market participants by enabling them to balance their positions closer to real time. However, this would raise the question of RTE having to change its management of short-term supply/demand forecasts. In addition, the setting up of 48 intraday gates would have to be done in coordination with France's neighbouring countries, in order to ensure better liquidity at these gates.

RTE is currently conducting studies in order to enable, by the end of 2016, allocation one hour before each half-hour of delivery through 48 intraday gates.

Question 6: are you in favour of the shift towards a half-hour allocation with 48 intraday gates?

3.3. Towards the implementation of products of even shorter duration?

At CRE's request in its deliberation of 30 May 2013, RTE studied in 2013 the feasibility of the implementation of the nomination of intra-hour products, of 15-minute or 30-minute duration. At that time, RTE had discarded the development of 15-minute products which would

significantly impact the operational processes and IT systems⁵ since imbalance settlement is conducted on a 30-minute basis and the gains were not easily quantifiable.

Nevertheless, the imbalance settlement period must be harmonised at European level, in compliance with the implementation of the draft European balancing regulation. ACER's recommendation for adoption published on 24 July 2015⁶ recommends the harmonisation of an imbalance settlement period of 15 minutes, subject to a cost/benefit analysis currently being carried out by ENTSO-E. ENTSO-E's study will also analyse alternative scenarios, in particular a 5-minute imbalance settlement period.

In this context, CRE considers that the implementation of even shorter intra-hour products would need to be re-examined, as from 2016, following ENTSO-E's analysis.

Question 7: are you in favour of the early implementation of products of a duration shorter than 30 minutes, ahead of a change in the imbalance settlement period, or, on the contrary, would this change have to take place alongside the change in the imbalance settlement period?

Question 8: do you have any other comments or proposals?

4. Submitting answers to the consultation

CRE invites all interested parties to submit their contributions, by 22 October 2015 at the latest:

- by email at the following address: dr.cp3@cre.fr;
- or by post: 15, rue Pasquier - F-75379 Paris Cedex 08, France.

Non-confidential answers will be published by CRE, with the exception of elements you will have identified as being secrets protected by law.

Please state in your response whether you wish for your contribution to remain confidential or anonymous. Otherwise, your contribution will be considered as non-confidential and non-anonymous. Interested parties are invited to submit their observations by explaining their positions.

Annexes: IFD and IFS rules

⁵ Operational processes and IT systems related to the management of interconnections, supply/demand balance and the security of the system operation

⁶ http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%2003-2015.pdf