Deliberation

Deliberation of the French Energy Regulatory Commission of 10 February 2016 approving the evolution of the intraday capacity calculation method at the borders of the Central Western Europe region

Present: Philippe de LADOUCETTE, President, Catherine EDWIGE, Hélène GASSIN, Yann PADOVA, Jean-Pierre SOTURA, commissioners.

In application of the provisions of article 37(6) of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and of article 30 of the public electricity transmission network concession type specification as approved by decree No. 2006-1731 of 23 December 2006, the French Energy Regulatory Commission (CRE) approves the calculation rules governing interconnection capacity.

In its deliberation of 26 March 2015 approving flow-based market coupling[1], CRE requested that the company RTE Réseau de Transport d'Electricité (hereafter RTE), in its capacity as transmission system operator, "*implement, as from November 2015, a systematic calculation of intraday capacity on the basis of updated assumptions compared to the day-ahead timeframe"*.

On 18 November 2015, RTE submitted to CRE, for approval, an evolution of the intraday capacity calculation method applicable to the borders of the Central Western Europe region (hereafter CWE) including Belgium, France, Germany, Luxembourg, the Netherlands and Austria, which has an observer status.

The changes to the capacity calculation method drawn up by the transmission system operators (TSO) of the CWE region were submitted for consultation by RTE from 29 October to 6 November 2015.

1. Context

1.1. Calculation of intraday capacity

The calculation of capacity is a key factor in making full use of existing interconnections. The capacity values calculated by the system operator and made available on the market must be maximised, while complying with electricity system security or not giving rise to the systematic implementation of costly remedial action.

To calculate available capacity for cross-border exchanges, RTE firstly establishes a grid model based on the volume and location of generation and consumption, the topology of the network and estimated cross-border exchanges. RTE then assesses the remaining physical margins on the transmission network grid elements, with the full available network or following the simulation of the loss of one grid element on the transmission network. These physical margins are then distributed between the borders in order to establish the capacity that can be allocated at each border. Two distribution methods currently exist: in the Net

[1] Deliberation of 26 March 2015 approving flow-based market coupling and the related capacity calculation method

Transfer Capacity method (hereafter NTC), capacity is distributed in principle and according to the set distribution methods between the various borders, while in the flow-based method capacity distribution is dynamic and takes into account the interdependence between the various exchanges and their value in order to reduce the overall cost of supply at a regional level.

The flow-based method is currently used for day-ahead capacity at the borders of the CWE region.

For the intraday timeframe, no capacity calculation is conducted systematically at French borders. As a general rule, intraday capacity on the market is the residual day-ahead capacity and a new calculation is only made in the event of a significant change in calculation hypotheses or the emergence of new constraints on the network.

The implementation of an intraday capacity calculation may improve the level of available interconnection capacity for market players at this timeframe. As the delivery time approaches, TSOs have better knowledge of the situation on the electricity network and can therefore base their capacity calculation on updated hypotheses. This generally leads to a reduction in the security margins applied by the TSOs which take account of the uncertainties related to the various timeframes.

The target model for intraday capacity calculation is described in Regulation (EU) 2015/1222 of the Commission dated 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter CACM Regulation), which entered into force on 14 August 2015. Article 20 provides that flow-based capacity calculation must be implemented as a rule for the intraday market, unless it is established that the flow-based method would be less effective than the NTC method.

1.2. Capacity calculation in the CWE region

Flow-based market coupling for the intraday timeframe was launched on 21 May 2015 in the CWE region. This improvement of the capacity calculation method is the result of a long process, launched since 2007. In its deliberation of 26 March 2015, CRE approved the implementation of flow-based market coupling and, like all CWE region regulators, asked its TSO "*to implement, as from November 2015, a systematic calculation of intraday capacity on the basis of updated assumptions compared to the day-ahead timeframe"*.

The implementation of this flow-based market coupling for day-ahead capacity has consequences on the level of capacity made available to market players: due to the optimisation of day-ahead capacity allocation made possible by flow-based market coupling, the level of available intraday capacity has decreased on the whole. Furthermore, since the implementation of flow-based market coupling, an increase in the intraday capacity's volatility has been observed. Lastly, specific cases for which no capacity may be allocated in either direction at a given border have also emerged.

The implementation of the target model provided for in the CACM Regulation for intraday capacity, i.e. a flow-based capacity calculation, is a long process that will not be completed before the end of 2017. The regulators of the CWE region have therefore deemed it necessary to implement a temporary solution to increase the level of capacity made available to market players at the intraday timeframe more quickly.

2. RTE's proposal

The methodology proposed by all TSOs of the CWE region and submitted by RTE to CRE involves a reassessment of the level of available intraday capacity: there is no systematic capacity recalculation. However, the option of increasing available intraday capacity in relation to residual day-ahead capacity is assessed.

The reassessment process proposed by all TSOs of the region can be broken down into six steps:

i. Each day, following the day-ahead market coupling, available intraday capacity for each border is deducted from the capacity domain resulting from the flow-based day-ahead capacity calculation, less exchanges on the day-ahead timeframe.

ii. If this capacity is lower than the statistically determined thresholds, each TSO is to analyse the option of increasing capacity on its borders to a given amount. At the start of the process, the increase options tested by RTE and the relevant cross-border TSOs will be 100 MW on the border with Germany and 200 MW on the border with Belgium.

iii. The increase options proposed by each TSO in the CWE region are combined on a platform prior to being disclosed to all TSOs in the region.

iv. After checking whether the increase requests are compatible with its network security, each TSO of the CWE region: (i) accepts increase requests in full or in part; or (ii) rejects the proposed increases. To conduct this analysis, RTE bases its calculations on the flow-based capacity domain determined for the day-ahead timeframe, taking into account its own constraints.

v. The TSOs' responses are combined on the platform. The refusal of a single TSO of the region results in all requests being rejected.

vi. In case of agreement between all TSOs resulting in a capacity increase, the additional capacity is published by the TSOs.

3. CRE's analysis

CRE reminds that the implementation of an effective intraday capacity calculation is an essential improvement required by market players, and that the target model provided for in the CACM Regulation for this timeframe is a flow-based capacity calculation.

CRE observes that the evolution of the capacity calculation methodology proposed by all TSOs in the region involves reassessing capacity and not conducting a systematic capacity calculation, as requested in its deliberation approving the flow-based mechanism dated 26 March 2015.

CRE believes, however, that the proposed reassessment is a step forward that may improve intraday capacity allocation without resulting in delays for the intraday capacity flow-based calculation project in the CWE region. CRE requests, however, that RTE continue its efforts to improve the reassessment method, in cooperation with all TSOs of the CWE region. The improvement of the method must aim to raise the level of capacity increase requests and to conduct further tests on intermediate capacity values in order to mitigate the risk of rejections.

CRE also observes that, unlike the other TSOs in the CWE region, RTE does not use updated network hypotheses for the intraday timeframe to propose, accept or refuse the proposed capacity increases.

RTE conducted a test on a sample of data from 25 May 2015 to 28 January 2016, enabling to conclude that, without updating its hypotheses, RTE would only have refused combined CWE requests in around 1% of cases. CRE believes that RTE's use of non-updated hypotheses is acceptable, insofar as it does not result in a situation in which RTE would regularly be the TSO limiting exchanges in the CWE region.

4. CRE's decisions

CRE's approval

CRE approves the evolution of the capacity calculation method at the borders of the Central Western Europe region for the intraday timeframe submitted by RTE by letter dated 18 November 2015.

CRE's requests

CRE reminds that the target model provided for in the CACM Regulation for the intraday timeframe is a flow-based capacity calculation, and that it must be implemented in accordance with the schedule provided for in the Regulation, i.e. by the end of 2017.

CRE requests that RTE:

- submit to CRE, every six months, the data concerning the improvements provided to the level of available intraday capacity, and the elements that would enable CRE to ensure that RTE is not becoming the TSO that frequently limits exchanges for the CWE region,

- work with the other TSOs of the CWE region to improve the proposed method, in particular by assessing the option of: (i) raising the levels of capacity increase requests; and (ii) introducing new intermediate capacity increase values.

Paris, 10 February 2016

On behalf of the French Energy Regulatory Commission,
The President,

Philippe de LADOUCETTE