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ENERGINET

Accompanying note to the cost-sharing of coordinated
redispatching and countertrading methodology for Capacity
Calculation Region Hansa in accordance with Article 35 of
the Commission Regulation (EU) 2015/1222 of 24 July 2015
establishing a Guideline on Capacity Allocation and
Congestion Management

4 December 2018

1. Introduction

This accompanying note follows the CCR Hansa TSO's Common Redispatching and Countertrading Cost Sharing Methodology (hereafter "RCCS") in accordance with Article 74 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management.

The purpose of this accompanying note is to explicitly answer the questions raised by the CCR Hansa regulators in their request for amendments from the 2nd of October 2018.

This document describes an example with an outage of CCR Hansa interconnector after the day-ahead clearing. In this example the possible cost types mentioned in Article 2(2) of the RCCS methodology is further elaborated.

2. Cost types

The cost types mentioned in Article 2(2) includes:

- i. Cost and income of increase or decrease generation and/or load pattern;
- ii. Availability payments for additional upward and downward regulation;
- iii. Curtailment of renewables;
- iv. Activation and start-up costs;
- v. Activation of balancing energy bids according to Commission Regulation (EU) 2017/2195 Article 29 in connection with Title V Articles 44 to 57;

The following illustrates an example when a CCR Hansa interconnector has an unplanned outage after the day-ahead market, and the TSOs need to countertrade or redispatch the day-ahead flows.

In the example, the costs from appropriate mechanisms and agreements for each control area/bidding zone is explained and split according to the cost categories.

The pan-European balancing platforms currently being developed according to the Commission Regulation (EU) 2017/2195 (hereafter "Electricity Balancing Regulation") might be available for countertrading and redispatching in the future. The cost type from Article 2(2)(v) is therefore added to the CCR Hansa RCCS methodology, so if the balancing platforms are used in the future, the cost types and cost structures of these balancing platforms are considered in CCR Hansa cost-sharing.

2.1 Cost types for the Nordic TSOs

Energinet applies the same mechanisms if either a southbound or a northbound flow has to be countertraded.

Energinet, i.e. the Danish bidding-zones in CCR Hansa, are part of the Nordic Regulating Power Market, which operates on the same fundamental principles as the day-ahead market. Balance Responsible Parties (BRPs) in the Nordics submit their up- and downward regulation to the Nordic TSOs on a voluntary basis, and TSOs combine the bids in a single merit order curve, from which they can activate the regulation in order to secure the physical balance of the power system and to relieve network congestions. If the bids are used to relieve network congestions this is referred to as "special regulation", and functions as Countertrade. Towards the DK1-DE border Energinet uses manual Frequency Restoration Reserves (mFRRs) in DK1.

Energinet does not have the possibility to conduct redispatch, as the location of the precise generation

or load in the Danish system is not known, so all network congestions are relieved using countertrade.

In case of a shortage of bids in the voluntary market, Energinet has two opportunities to purchase upward and downward regulation capacity each morning and additionally in the afternoon, i.e. availability payments. The market participants whom win the capacity auction are obliged to submit upward and/or downward regulation bids in the specific hours. In the above example, this capacity auction will only be carried out to secure enough resources to conduct the countertrade if there are not enough voluntary offers available, especially in periods during the Winter with low wind and low temperatures, as less bids will be available from the windfarms and the thermal power plans.

For the costs listed in Article 2(2)(a), in the above example the relevant cost categories for Energinet include:

- i. Cost and income of the increase or decrease of the generation and/or load pattern;
- ii. Availability payments for additional upward and downward regulation;

Any costs for curtailment of renewables or activation and start-up costs are reflected by the market participants in their bids in the mFRR market, and no separate cost categories for these are therefore applicable.

Svenska Kraftnät and Statnett are also part of the Nordic Regulating Power Market and would to a large extent apply the same methodology as Energinet. The abovementioned cost types are therefore similar, and not further elaborated in this document.

2.2 Cost types for German TSOs

For the costs listed in Article 2(2)(a), the relevant cost categories for German TSOs (including 50Hertz and TenneT Germany) include:

- i. Cost and income of increase or decrease generation and/or load pattern;
- ii. Availability payments for additional upward and downward regulation;
- iii. Curtailment of renewables;
- iv. Activation and start-up costs;

Conventional generators can be ordered in the operational planning stage, close to real-time or in real-time. Generators will be compensated for costs for increasing generation and missing opportunities.

Activation and start-up costs may occur, when the generator is not market driven to be on-line or if it is a reserve power plant, which is not participating in the regular market.

Curtailment of renewables is conducted close-to real or in real-time. A compensation will be paid for the energy which could not be fed into the distribution or transmission network.

2.3 Cost types for PSE

RD and CT resources are activated within the Integrated Scheduling Process (ISP) run by PSE based on the volume of remedial measure (RD/CT) agreed with Svenska kraftnät. ISP process is bid-based security constraint unit commitment and economic dispatch, where balancing, reserve procurement and congestion management are co-optimised within one integrated process run by PSE immediately after the day-ahead market closure and continue until real time. Commitment and operational set-points of all centrally controlled generation units in Poland is determined by PSE within the abovementioned ISP, minimising the global cost. The price used in the settlement of remedial measure reflects energy delivery/receipt cost of energy at the balancing market, i.e. it is based on the balancing market price and cost of activated resources when the location of resources is relevant to realise remedial measures.

2.4 Cost types for TenneT NL

In the Netherlands, TenneT NL applies a system of market-based redispatch. Redispatch possibilities are

offered to TenneT NL in the form of bids on the national balancing market, which contains a separate bid list for products used for other purposes than balancing (i.e. congestion relieve or inter-TSO support).

For the costs listed in Article 2(2)(a), the relevant cost categories for TenneT NL include:

- i. Cost and income of increase or decrease generation and/or load pattern;
- ii. Activation and start-up costs;

Costs of the above types should be reflected in the bids done by the market parties. Bids can be activated on a pay-as-bid basis and should be either on a specific connection point or on the portfolio of the bidder.