

**Methodology for application of Coordinated
Redispatching and Countertrading in SWE Region in
accordance with Article 35(1) of Commission
Regulation (EU) 2015/1222 of 24 July 2015
establishing a guideline on capacity allocation and
congestion management**

EXPLANATORY NOTE

November 2018

SWE TSOs response to the RfA received from SWE NRAs on 12th September 2018

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1 Introduction

Article 35 of the Commission Regulation 2015/1222 establishing a Guideline on Capacity Allocation and Congestion Management (hereinafter referred to as ‘CACM’) requires that, by 16 months after the entry into force of Regulation 2015/1222, each TSO, in coordination with all the other TSOs in the capacity calculation region, shall develop a proposal for a common methodology for coordinated redispatching and countertrading. The proposal shall be subject to consultation in accordance with Article 12.

This document is an explanatory note accompanying the common Methodology for Coordinated Redispatching and Countertrading (hereafter referred to as “SWE RDCT Methodology”) developed by all Transmission System Operators (hereafter referred to as “SWE TSOs”) within the South West Europe Capacity Calculation Region (hereafter referred to as “SWE Region”).

In this document, all definitions of SWE RDCT Methodology shall apply.

2 Definitions and acronyms

RSC: Regional Security Coordinator

CSA: Coordinated Security Analysis

CSAM: CSA Methodology

CCR: Capacity Calculation Region

GSK: Generation Shift Key

SOGL: System Operations Guideline

Requesting TSO: See definition in Article 2 of SWE RDCT Methodology.

3 Subject matter and scope

Due to the challenging deadlines required by CACM, it has been agreed between SWE TSOs that the RDCT Methodology is focused only on a Coordinated Countertrading Process because Countertrading processes are already available and efficient within SWE whereas

Redispatching has never been performed. Moreover, countertrading is more flexible than redispatching:

- it can be activated closer to real-time and after the gate closure time, from one hour to fifteen minutes before real-time. Therefore it prevents distortion of the market and commercial programs.
- Unlike coordinated redispatching, power units for countertrading measures are not localized and therefore we can assure the availability of countertrading even after the power units outages.

Yet, as Redispatching is more efficient because the resources are localized, the relevancy of Coordinated Redispatching is currently under investigation in the SWE region and this methodology could be later amended to add a Coordinated Redispatching Process if relevant once the studies are done.

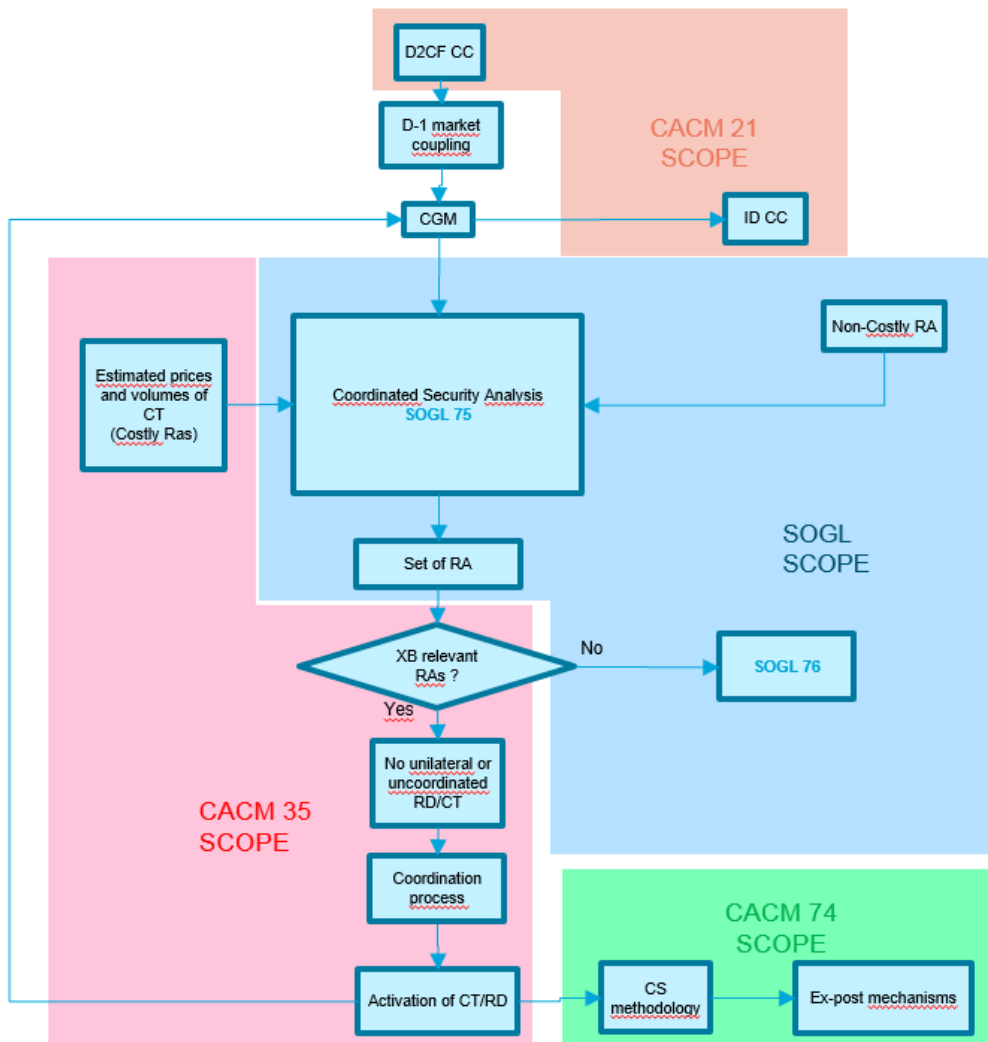
Therefore, in a first step, RDCT Methodology is focused only on a Coordinated Countertrading Process. SWE TSOs are already working on a study that analyses the results of applying four different actions to real-past physical constraint situations: countertrading, internal redispatching, hybrid system and cross-border redispatching in order to compare the efficiency of countertrading and redispatching.

This study will enable the identification of the main cases where applying redispatching (individually or in a combined mechanism) could be more efficient. The results of this study, foreseen by S1 2019, will be offered to SWE NRAs. Once finished this study and having being identified the interest of applying coordinated redispatching in the SWE region, the SWE RDCT Methodology will be updated.

4 Interactions with System Operation Guideline

Coordinated Redispatching and countertrading measures identified in the SWE RDCT Methodology aim at relieving physical constraints due to cross-border exchanges and guarantee already scheduled exchanges. Therefore, this methodology is at the crossroad of CACM and SOGL and, as it is a coordinated methodology to relieve physical constraints, is strongly linked to the methodologies required by article 75 of SOGL (the Coordinated Security Analysis Methodology) and by article 76 of SOGL (Regional operational security coordination).

The following chart describes the interactions between the different methodologies required by CACM and SOGL and the RDCT methodology.



The SWE RDCT methodology gives inputs to the Coordinated Security Analysis: all the available costly remedial actions and their prices. Then the RSC performs the CSA and optimizes both the costly and non-costly remedial actions in accordance with SOGL. The RSC is better placed to perform this optimization as it has a larger view of the CCR grid than each TSO on its own. Moreover, it can assess the impact of any remedial action on the SWE network elements but also on the others CCR if relevant. At the end of the CSA, the RSC has identified the most effective and economically efficient remedial actions in case of operational security violations and proposes it to the TSOs. In that way, TSOs can coordinate the use of countertrading resources taking into account their impact on operational security and economic efficiency as required by article 35.4 of CACM.

5 Countertrading Process

The process of countertrading is a Coordinated Process between the involved TSOs, and must take into account the common provisions for regional operational security coordination.

1. Timeframes

The countertrading process could be initiated after both the publication of available volumes and Day-ahead Market Coupling results or its fallback until one hour before real-time.

If a countertrading process is necessary after one hour before real-time, a fast activation process shall be followed.

For a matter of clarification, the countertrading measures will only be activated from 60 minutes before delivery and as close as possible to the real time in order to avoid overrated activations. D-2 timeframe is not relevant in this methodology as the Day-ahead Market Coupling results are not known yet and therefore, no constraint can be detected yet.

2. Volumes

The exchanged information on volumes and price necessary in a countertrading process are indicative and non-firm.

The volume calculated in an activation of the Countertrading Process, in order to solve physical constraints and guarantee the scheduled exchange programs is an indication, on best effort basis.

Each TSO shall declare, for each timeframe, the volumes available in its control area for countertrading. The volumes will be defined for two different services:

- increasing the control area balance (e.g. increasing generation/decreasing load);
- decreasing the control area balance (e.g. decreasing generation/increasing load).

Countertrading resources will be declared using a Generation Shift Keys (GSK) file format in a similar way as it is done for capacity calculation processes (e.g. D2CC, IDCC). The units (generation/load) selected during the calculation phase are not binding but they are only references for calculation purposes; the actual units will be selected by the TSO according to their national market rules and the real resources available at the time of application.

All data (resources, quantities) included in the GSKs will be updated by sending new GSKs (e.g. a TSO update its GSK after a market gate closure or after a generation unit became

unavailable). Each TSO will do its best effort to update its GSKs as soon as some or all the resources declared are no more available.

During implementation phase, the TSOs will agree on specific and detailed procedures to send and amend GSKs.

3. Prices

The estimation of imbalance prices will be made in a transparent way. So far, TSOs don't know yet what will be the best way to estimate these prices. It could be based on historical values of imbalancing prices or on day-ahead spot prices or even a mix of both. TSOs will inform their own NRA how they will estimate the prices.

The actual prices of the volumes activated for countertrading shall be based on the incurred cost of countertrading resources available to the Participating TSOs at that moment in time. The total cost of countertrading will be determined transparently by summing the incomes/costs of each TSO involved in the countertrading action and could be either:

- the weighted average price of the activated offers where they can be transparently and clearly identified or
- the imbalance costs where the TSO is treated as any other Balance Responsible Party and therefore the countertrading activation will incur imbalance costs for the TSO involved in this situation.

In accordance with the appropriate mechanisms and agreements applicable to the control areas, information about prices shall be made available in advance by generation units and loads, thus allowing TSOs to estimate countertrading prices.

TSOs shall provide the best estimations of expected costs and, for sake of transparency, to share the methodology they implement in order to define in advance the prices of their CT resources. As countertrading resources will be declared using a Generation Shift Keys (GSK) file format in a similar way the information about prices could be included in the GSK.

4. Activation

Activation of countertrading shall be performed as close as possible to the real time in order to limit the impact on the market. Countertrading actions will be applied for the purpose of guaranteeing the already accepted exchange programs. Therefore, countertrade will take place between the two TSOs by implementing a new scheduled exchange in the opposite direction.

The Participating TSOs update cross-border schedules according to predefined scheduling paths and implement CGM updates based on implemented countertrading.

All parties should avoid uncoordinated activities (for example: RA activation or additional capacity in congested direction) counteracting the effect of implemented countertrading.

Coordination with other processes that use the same resources as countertrading (especially capacity and merit order list) has to be addressed: for instance, Intraday gate closures, TERRE, MARI, IGCC shall be harmonized¹.

5. Cancellation/ reduction of an agreed amount of countertrading

In general, after countertrading is agreed and activated between both Participating TSOs, the content is binding. In following cases, additional request for coordination and reconsideration of agreed countertrading should be launched:

- in case a Participating TSO is not able to deliver the agreed amount or only parts of it on short notice,
- in case the cancellation/reduction is triggered by an improved grid situation, resulting in the countertrading activation being too high or becoming obsolete,
-

6 Implementation of RDCT Methodology

As the RDCT methodology is strongly dependent on the CSAM and the CCM as explained in section 3, the implementation of the SWE RDCT methodology is subject to the implementation of the SWE Capacity calculation methodology and the SWE methodology for regional operational security coordination.

¹ Taking into account the provisions of the CACM (articles 25 and 29), there is a possibility to include, after contingency, a *curative remedial action*. This is a measure to be taken only in case of contingency and for a limited time, no more than 1 market-hour.

7 Public consultation responses and TSO's reactions

Two market parties answered the consultation (see answer below):

EDF

GENERAL COMMENTS

The elaboration of a coordinated Redispatching and Countertrading Methodology (“RDCT Methodology”) in accordance with Article 35 of CACM Guideline, is an important step towards the optimisation of the actions taken by TSOs to effectively relieve physical congestions. In particular, the possibility for TSOs to rely on a large scope of remedial actions, preferably market-based, would allow to maximise the cross-zonal capacity made available to market participants while limiting congestion management costs.

This RDCT Methodology is also strongly linked to methodologies to be developed under Articles 75 and 76 of System Operation Guideline (SOGL) (i.e. the Coordinated Security Analysis Methodology and the proposal for regional operational security coordination). TSOs should therefore ensure a consistent implementation of both Guidelines on this subject.

From a general point of view, EDF wishes to underline that the following main principles should be included in the RDCT Methodologies to be developed under CACM and SO Guidelines:

- TSOs should describe how the scheduled exchanges, NTC/FB domain, and balance positions are simultaneously generated and handled by the relevant market and system operators.*
- TSOs should ensure full transparency on the activation of RD and CT measures in accordance with Transparency and REMIT regulations, as soon as these actions are decided. It will allow market participants to update their price forecasts and adapt their actions, if need be.*
- TSOs should assess the pros and cons of different options on how open positions generated by RD and CT actions are to be counterbalanced in a market-based manner to deliver appropriate economic signals. In this regard, EDF sees three main options:
 - i) TSOs managing the counterbalance in the framework of the balancing mechanism,*
 - ii) TSOs managing the counterbalance within the intraday (ID) markets,*
 - iii) Activation through a dedicated congestion management mechanism.**
- Any network user being redispatched or constrained must be financially compensated, to make sure that it is left financially indifferent to the TSO's action.*
- Finally, TSOs should ensure a minimum level of harmonisation of methodologies between CCRs, in particular in control areas whose borders belong to multiple CCRs, as it is the case in France.*

Concerning the present SWE TSOs' proposal for a RDCT Methodology, EDF welcomes the proposal but wishes to highlight the following main points of attention:

- EDF regrets that the RDCT Methodology is focused only on coordinated countertrading processes and excludes coordinated redispatching from its scope of application.*
- Furthermore, EDF considers that TSOs should systematically compare the costs of all possible RD and CT options according to their merit order, (including cross-border ones), in order to choose the most efficient one. It is thus not efficient, if TSOs have to exhaust all national remedial actions prior to launch any coordinated countertrading processes (as foreseen for the "fast activation process" of the proposal).*
- As mentioned above, EDF also considers that the proposal should provide an assessment of alternative solutions and should not limit its assessment to existing processes. In the present proposal, CT actions in SWE shall be performed "as close as possible to the real time" (as it is the case today), but other solutions should be investigated to implement the optimal solution which would maximize the social welfare and limit congestion management costs.*
- Finally, as regards the application of Transparency and REMIT regulations, one would expect TSOs to publish redispatching and countertrading measures as soon as these remedial actions are decided. EDF therefore recommends to specifically mention in the present methodology that TSOs will be subject to such publication in accordance with transparency and publication obligations required by the regulations in force.*

SPECIFIC COMMENTS

1. Scope of application (Articles 1 and 3)

Articles 1 and 3 of the proposal should not limit the application of the methodology to coordinated countertrading processes, which excludes de facto any coordinated redispatching actions. All possible means at the disposal of TSOs to relieve congestions, including coordinated redispatching, should be developed and compared to be able to choose the most efficient one. Furthermore, Article 35(4) of CACM GL provides that "each TSO shall coordinate the use of redispatching and countertrading resources taking into account their impact on operational security and economic efficiency".

Going more in depth into redispatching and countertrading actions, EDF believes therefore that the proposal should be accompanied by a thorough evaluation of the advantages and drawbacks of the various types of actions available, so as to justify the choice of the preferred one (or the preferred combination of options).

In our view, there are three basic types of redispatching and countertrading actions:

- Constraining the dispatch of a specific asset;*
- Modifying the scheduled dispatch of a specific asset;*
- Countertrading.*

EDF therefore encourages SWE TSOs to pursue their efforts to define a coordinated redispatching processes in addition to countertrading (as mentioned in the explanatory note), but EDF also calls for transparency on the options considered and the planning of their possible implementations.

2. General principles for countertrading (Article 4)

In the list of general principles for countertrading, EDF would recommend to add the general principle that countertrading should be ranked among all other resources available to relieve physical congestions, to identify the most effective and economically efficient remedial action.

3. Information on the calculation of Volumes and Prices available for countertrading (Articles 6 and 7) The methodology does not provide sufficient information on the calculation methodology of volumes available for countertrading and on the associated prices. It only refers to bilateral exchange of information between TSOs, but how exactly it is calculated and updated will not be shared with the market participants.

In the explanatory note, SWE TSOs provide some information, but in EDF's view, TSOs should provide more details on the methodology and parameters used to calculate the volumes and the price of the resources available for countertrading.

4. Activation of countertrading (Article 10)

In the present proposal, it is foreseen that coordinated countertrading actions shall be performed "as close as possible to the real time". This is a possible approach but EDF considers that it is not always the most optimal one. For instance, the application of such principle automatically excludes resources that require several hours to be activated. Thus, EDF believes that other solutions should be investigated to compare all the available options.

In particular, EDF

considers that as far as congestions can be scheduled, another relevant alternative solution could be to address them as soon as possible, e.g. shortly after the DA auction or during the ID continuous trading market, as this broadens the range of available resources.

If alternative options are not discussed in the framework of the present consultation, EDF hopes nevertheless that this type of choice (which are not neutral for reserves dimensioning and price forecasts) will be analysed and discussed when the SO GL methodologies will be developed.

5. Fast activation process (Article 12)

In EDF's view, it is important to consider all the available resources on an equal footing, including the ones located across borders and across different CCRs, as far as their activation could have an impact on the level of market prices and on the dimensioning of reserves in each

bidding zone/control area. Hence, TSOs' countertrading decisions should be the result of the selection of all available resources according to their merit order, including cross-zonal redispatching and countertrading actions across different CCRs. This approach would allow TSOs to activate the cheapest resources able to meet their system requirements.

Yet, the process described in Article 12(2) does not seem to be in line with this principle, since it envisages the possibility for TSOs to consider cross-border exchange of energy on other Interconnectors/borders, only if all national remedial actions have been exhausted, thus without implementing a unique optimisation process. Some justifications should at least be provided to understand the reasons that led TSOs to decide to exhaust "all national remedial actions with a significant impact on the congestion" before any coordinated countertrading.

6. Amendment of this proposal (Article 16)

As foreseen in Article 16, this proposal could be amended to add a coordinated redispatching process, once relevancy of coordinated redispatching has been further investigated in SWE region.

In such case, EDF recommends to entirely follow the amendment procedure foreseen in Article 9(13) of CACM Guideline and in particular to submit such amendment proposal to public consultation in accordance with the procedure set out in Article 12 of CACM Guideline and then to NRAs' approval.

EFET

This response is submitted on behalf of EFET, Eurelectric and the Market Parties Platform (MPP).

EFET, EURELECTRIC and the Market Parties Platform thank the TSOs for the opportunity to provide their views on the regional methodologies for redispatching and countertrading.

According to the CACM GL, TSOs shall propose by March 2018 methodologies for coordinated redispatching and countertrading in every capacity calculation region. In the daily management of transmission networks, redispatching and countertrading are measures taken by TSOs to manage congestions alongside topology measures and limitations of cross-border capacities offered to the market. For this reason, we believe that a holistic approach is necessary when considering redispatching and countertrading.

We believe that European TSOs can effectively manage congestions in the most efficient way by relying on a combination of topology measures, countertrading and redispatch actions, and buyback of transmission rights. Properly applied, this is a key aspect of an efficient zonal market design.

Our primary concerns lie in the manner in which TSOs choose to initiate redispatching and countertrading, what level of transparency accompanies these actions, and how they are remunerated.

Therefore, the redispatching and countertrading methodologies to be developed on the basis of the CACM and SO Guidelines need to detail:

1. How redispatching and countertrading on the one hand, and restrictions of cross-border capacities allocated to the market on the other hand are treated on an equal footing. In our joint response to the consultations on regional capacity calculation methodologies

(http://www.efet.org/Files/Documents/Downloads/EFET_Eurelectric_MPP_Nordenergi-TSOs%20consultation%20CCM_14122017.pdf), we insisted on the importance for TSOs to systematically consider redispatching and countertrading when still facing congestion after applying non-costly remedial actions: indeed, any decision to restrict cross-border transmission capacities for reasons other than system security should be based on an analysis comparing the costs/benefits of applying redispatching or countertrading vs. limiting the availability of cross- border capacities to the market, in order to achieve a welfare optimum. This requires that both redispatching and countertrading are fully part of the possible means for TSOs to deal with congestions in each CCR, and mandatorily considered by the TSOs alongside topology measures.

2. How the scheduled exchanges, NTC/FB domain, and balance positions are simultaneously generated and handled by the relevant market and system operators.

3. How the operation scheme ensures full transparency and conforms to Transparency (ex-post) and REMIT Regulations, in terms of how much redispatching and countertrading is activated. This information should be available to market participants as soon as those actions are decided; full transparency on deviations from merit order activation (in case of joint congestion management and balancing) is also required.

4. How open positions generated by redispatching or countertrading are to be counterbalanced in a market-based manner to deliver appropriate economic signals. In this regard, we see three main options:

a. TSOs managing the counterbalance in the framework of the balancing mechanism

b. TSOs managing the counterbalance within the intraday markets

c. Activation through a dedicated congestion management mechanism *The methodologies to be developed on the basis of the CACM and SO Guidelines need to assess the pros and cons of these options as well as justify the choice of the option(s) that has (have) been retained.*

5. *How actions on specific assets based on their location are remunerated. In our view, any network user being redispatched or constrained must be fully financially compensated (full costs and opportunity loss) so as to leave the asset owner is left financially indifferent to the TSO action.*

Going more in depth into redispatching and countertrading actions themselves, we believe that the proposals should be accompanied by a thorough evaluation of the advantages and drawbacks of the various options, so as to justify the choice of the preferred one (or the preferred combination of options). In our view, there are three basic types of redispatching and countertrading (in the following part of the document, “asset” should be understood as a generic/technology neutral term covering all sources of flexibility – generation, demand, storage):

- Constraining the dispatch of a specific asset:

This means part of the flexibility of the asset around its scheduled set point is disabled by the relevant network operator.

This may represent a loss of opportunity for the asset that should be fully financially compensated (full costs and opportunity loss), for instance in case offers for standard balancing products are “filtered” and consequently not shared on the European balancing platforms.

In terms of system balance, such an intervention has no immediate impact on the asset and does not require any complementary action.

We note however that the measure may have an impact on balancing markets, as some assets potentially contracted as reserves may be disabled because of the measure, leading to more expensive balancing activations or potentially to a lack of reserves, affecting subsequently imbalance settlement prices. When it has a potential to affect balancing reserves or balancing energy activation, the congestion management process needs to ensure that there is sufficient transparency on what is used for which purpose, that balancing energy bids activated for congestion management purposes do not impact the imbalance price, and that full compensation for congestion management actions is ensured.

- Modifying the scheduled dispatch of a specific asset:

This means requesting a set point different than the scheduled one for a specific asset based on its location within a bidding zone.

This may represent extra costs and/or loss of opportunity for the asset that must be fully financially compensated (full costs and opportunity loss).

In terms of system balance, the activation of a specific asset opens a balance position in the same bidding zone that should be counterbalanced as discussed in point 4.

- Countertrading:

This means updating the net export/import of two bidding zones, by simultaneously updating the scheduled cross-border exchanges, updating the NTC or FB domain for the same market time units, and opening opposite balance positions in the corresponding bidding zones.

In terms of system balance, the opened balance position in each bidding zone will have to be managed as discussed in point 4.

Unfortunately, the methodologies already submitted by TSOs in several CCRs as part of the CACM implementation do not include such an evaluation so far. In our view, this evaluation is a pre-requisite to allow real progress on the optimisation of countertrading and redispatching and the improvement of market functioning at European level.

Answers to Public Consultation

The TSOs in SWE region verified that there is a general positive feedback by market agents on the proposal of methodology for Coordinated Redispatching and Countertrading.

Regarding the consideration of redispatching in this proposal, TSO's are still investigating the right way to use it in SWE region and to add a coordinated redispatching process in this proposal.

If any amended to this proposal should be consider, a new public consultation will be launch in accordance with the procedure set out in Article 12 of CACM guideline.

Regarding activation of countertrading, SWE TSOs perform countertrading as close as possible to real time to avoid influencing the market and over-activating resources. In their view, addressing congestions in DA with countertrading is not relevant. However, it is different for redispatching (as resources for redispatching are localized) and if the relevancy of redispatching is acknowledged, more resources will be considered, among them resources that required several hours to be activated.

Regarding the fast activation process and the activation of national remedial actions before considering countertrading, SWE TSOs have taken into account market parties and will consider countertrading during the fast activation process even if all national remedial actions have not been exhausted.