

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

## Partial coupling & full decoupling scenarios

### Table of Contents

1	Introduction .....	2
2	Causes for partial decoupling until 11.45 hrs.....	2
2.1	No network data received for one or more particular interconnectors (line 6 till 11).	2
2.2	No network data received for the internal borders of CWE or Nordic-Baltic (line 14 – 15)	3
2.3	No order data received from one or more of the Power Exchanges (line 16 – 19).....	3
3	Causes for partial decoupling from 12.00 until 12.40 hrs.....	3
3.1	No order data received from one or more of the Power Exchanges (line 22 – 25).....	4
3.2	When reading in the information into the algorithm the validation of the input data fails (line 28 – 41) .....	4
4	Causes for decoupling after 12.40 hrs (line 44 – 76). .....	4

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

*Partial coupling & full decoupling scenarios*

## 1 Introduction

This document describes the possible partial coupling and full decoupling scenarios which are possible (causes for decoupling) and feasible (within the timelines) in NWE at the go-live date of the price coupling.

A full NWE decoupling is a situation where it is not possible, for a specific day, to allocate the CZCs via the implicit allocation for the internal CWE, for GB, for the CWE – Nordic interconnectors and for the CWE – GB interconnectors. (i.e. the latest fallback time for a procedure in the time schedule is reached and no solution is found before the decoupling deadline).

The Nordic area internally will still remain coupled.

A partial coupling is a situation where there is no implicit allocation of CZCS for one or some border(s) or interconnector(s), but all other borders, interconnectors remain coupled.

The NWE parties will, depending during which stage of the process an issue causing a decoupling will happen, try to remain coupled with as many borders and interconnectors as possible.

This document should be read together with the spreadsheet showing the matrix with the different scenarios in details.

## 2 Causes for partial decoupling until 11.45 hrs

Until 11.45 hrs the NWE parties will always try to remain partial coupled in case one of the following issues occurs.

1. No network data received for one or more particular interconnections
2. No network data received for the internal borders of CWE or Nordic-Baltic
3. No order data received from one or more of the Power Exchanges.

In these cases (before 11.45) the parties will inform the market at the latest at 11.15 hrs. Since the market is informed in time, there is no need to keep the order books open longer than normal GCT. The market participants can change their order books accordingly and try to get capacity for this border via the fallback that is triggered. (see the spreadsheet for the different fallbacks).

Case 3 is very specific, this would be the case where it is known in advance (= during the morning) that there is a problem with a trading system and it is known in advance that one or more PXs cannot deliver the order books. This is an extreme rare scenario, but still a scenario.

### 2.1 No network data received for one or more particular interconnectors (line 6 till 11)

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

*Partial coupling & full decoupling scenarios*

When no CZCs are received in time for the NWE Price Coupling from a particular interconnector, the CZCs for this particular interconnector will be put to zero in the Price coupling system. The Price coupling process for NWE will further run as usual.

## **2.2 No network data received for the internal borders of CWE or Nordic-Baltic (line 14 – 15)**

In case there is no network data received for the internal borders of one of the regions (CWE or Nordic-Baltic ) following will happen:

In case there are no CZCs for the Nordic-Baltic area, this area will be decoupled from NWE (all interconnectors to the Nordic-Baltic area will be configured with zero CZCs). The NWE price coupling will be performed for the CWE and GB areas.

In case there are no CZCs for the internal borders of CWE (an issue with the CWE TSO common system), the internal borders in CWE will be set to zero CZCs, but the individual countries of CWE having interconnectors with Nordic-Baltic and/or GB will remain coupled over these interconnectors. Since Belgium has no interconnectors to an area outside CWE, Belgium will be fully decoupled in this scenario.

## **2.3 No order data received from one or more of the Power Exchanges (line 16 – 19).**

In the case it is already known before 11.45 that order data cannot be received from a Power Exchange then there is most likely an issue with the trading system of this power exchange.

If NPS has a problem, the Nordic-Baltic are will be decoupled as described under 2.2.

If EPEX has a problem there are no order books for Germany and France. If one of the countries within CWE has a problem, all CWE internal borders need to decouple from the NWE coupling. Additionally all interconnectors, where either France or Germany is on one side, need to decouple as well. In this case only GB, the Netherlands and Nordic-Baltic remain coupled in NWE (through NorNed and BritNed).

If APX has a problem it most likely concerns the Dutch, Belgian and GB2 orderbooks. In this case CWE needs to decouple internally and NorNed and BritNed need to decouple. The Nordic\_Baltic area can remain coupled with Germany ( through DK1-DE, Kontek and Baltic) and France can remain coupled with GB1 through IFA.

If there is an issue with the virtual hub in GB (system from N2EX), then Britned and IFA need to decouple and also the GB1 – GB2 interconnection (which normally has infinite capacity) must be set to zero. The Nordic-Baltic are remains coupled with CWE and with GB2 through Britned.

## **3 Causes for partial decoupling from 12.00 until 12.40 hrs**

The parties will still try to remain partially coupled if an issue is found early in the process. If the issue is not solved in time, partial coupling will be announced at 12.40. The main difference with the situation until 11.45, as described in the sections above, is the fact that the order books need to be re-opened due to the changed situation.

Following are the possible causes for such partial coupling:

1. No order data received from one of more Power exchanges

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

*Partial coupling & full decoupling scenarios*

2. When reading in the information into the algorithm the validation of the input data fails.

### **3.1 No order data received from one or more of the Power Exchanges (line 22 – 25).**

These scenarios are the same as for line 16 – 19, with the only difference that the order books must be re-opened first.

### **3.2 When reading in the information into the algorithm the validation of the input data fails (line 28 – 41)**

Both order books and CZC information will be uploaded into the algorithm for the price coupling software to be used in the price coupling calculation.

The sheet shows in detail what the actions are and what parts will still be coupled / decoupled in case order data from the Nordics, or from Belgium, or from the Netherlands or from France/Germany or from one of the Power Exchanges active in GB cannot be uploaded. The same information is given if the CZC information for the Nordics, CWE or the individual interconnectors cannot be uploaded.

## **4 Causes for decoupling after 12.40 hrs (line 44 – 76).**

In case an issue is detected after 12.40, which cannot be solved before 13.50, in all cases full decoupling will be declared, since there is not enough time to execute a partial coupling anymore.

The cause for full decoupling can be:

- that there are no results at all ( no output from Euphemia),
- that input data cannot be uploaded (already delayed in the process)
- that there is an allocation failure at the PX side (1<sup>st</sup> step in the validation)
- that there is a TSO rejection of the results (rejection in 2<sup>nd</sup> step of the validation).

As stated, in all these cases the NWE parties need to resort to full decoupling due to the current time constraints.

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

Decoupling scenarios in NWE									
Phase	Cause	Where is the problem/What is decoupled?	Fallback triggered? (fallback solutions are described below)	Action 1 : Re-open/keep open order books or not?	Action 2 : configuration	Action 3: NWE market coupling or local market coupling	Partial coupling / Full decoupling	Supported at go-live?	Comments
Pre-coupling Before 11:45		Single Cables							For all scenarios until 11.45 we will know if there is network data and fallback scenarios can be performed before 12.00 - order books do not need to be kept open longer.
	No network data	BritNed	Yes, for BritNed only	No	Load decoupling values with BN set to 0	NWE market coupling	Partial coupling	Yes	
	No network data	IFA	Yes, for IFA only	No	Load decoupling values with IFA set to 0	NWE market coupling	Partial coupling	Yes	
	No network data	NorNed	Yes, for NorNed only	No	Load decoupling values with NorNed set to 0	NWE market coupling	Partial coupling	Yes	
	No network data	DK1-DE	Yes, for DK1 - DE only	No	Load decoupling values with DK1 set to 0	NWE market coupling	Partial coupling	Yes	
	No network data	Kontek	Yes, for Kontek only	No	Load decoupling values with DK2 set to 0	NWE market coupling	Partial coupling	Yes	
	No network data	BC (Baltic Cable)	Yes, for Baltic Cable only	No	Load decoupling values with BC set to 0	NWE market coupling	Partial coupling	Yes	
		<b>Regions Internally</b>							
	No network data	Nordic (NOIS)	Yes, for DK1-DE+Kontek+Baltic Cable+NorNed.	No	Load decoupling values with NorNed, DK1-DE, Kontek, Baltic Cable set to 0	NWE market coupling for CWE and GB Local market run Nordic-Baltic	Partial coupling	Yes	Nordic - Baltic area decoupled from NWE
	No network data from CWE area	CWE TSO Common System	Yes, for all CWE internal borders	No	Load decoupling values with NL-DE, DE-FR, NL-BE and BE-FR set to 0.	NWE market coupling for Nordic-Baltic, CWE-Nordic interconnectors, CWE - GB interconnectors, GB-GB)	Partial coupling	Yes	CWE as area decoupled internally, but individual countries are still coupled within NWE. Belgian area fully decoupled from NWE
	No order data	Nordic (NPS)	Yes, for DK1-DE+Kontek+Baltic Cable+NorNed.	No	Load decoupling values with NorNed, DK1-DE, Kontek, Baltic Cable set to 0	Local run BE NWE market coupling (CWE and GB)	Partial coupling	Yes	Nordic - Baltic area decoupled from NWE
	No order data	France+Germany (EPEX)	Yes, for all CWE internal borders, and for DK1-DE, Kontek, Baltic cable and IFA interconnector.	No	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, DK1-DE, Kontek, Baltic and IFA set to 0.	NWE market coupling for Nordic, Baltic, GB1-GB2, NL and for all interconnectors not set to 0; Local market run BE, FR, DE	Partial coupling	Yes	
	No order data	NL+BE+GB2 (APX)	Yes, for all CWE internal borders, NorNed and BritNed interconnectors.	No	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, NorNed and BritNed set to 0.	NWE market coupling for Nordic, Baltic, France, Germany and GB1 for all interconnectors not set to 0; Local market run BE, NL, GB2	Partial coupling	Yes	Belgian, Dutch and GB1 areas decoupled from NWE
	No order data	GB1 (N2EX)	Yes, for IFA.	No	Load decoupling values with IFA and GB-GB set to 0	NWE market coupling for Nordic-Baltic, CWE and GB2 Local auction GB1	Partial coupling	Yes	GB1 area decoupled from NWE
Pre-coupling (12:00 until 12:25)		Single Cables							
	No order data	Nordic (NPS)	Yes, for DK1-DE+Kontek+Baltic Cable+NorNed.	Yes, re-opening all orderbooks	Load decoupling values with NorNed, DK1-DE, Kontek, Baltic Cable set to 0	Run market coupling (CWE and GB) Local market run Nordic-Baltic	Partial coupling	Yes	Nordic - Baltic area decoupled from NWE
	No order data	France+Germany (EPEX)	Yes, for all CWE internal borders, and for DK1-DE, Kontek, Baltic cable and IFA interconnector.	Yes, re-opening all orderbooks	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, DK1-DE, Kontek, Baltic and IFA set to 0.	NWE market coupling for Nordic, Baltic, GB1-GB2, NL and for all interconnectors not set to 0; Local market run BE, FR, DE	Partial coupling	Yes	Belgian, French and German areas decoupled from NWE
	No order data	NL+BE+GB2 (APX)	Yes, for all CWE internal borders, NorNed and BritNed interconnectors.	Yes, re-opening all orderbooks	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, NorNed and BritNed set to 0.	NWE market coupling for Nordic, Baltic, France, Germany and GB1 for all interconnectors not set to 0; Local market run BE, NL, GB2	Partial coupling	Yes	Belgian, Dutch and GB2 areas decoupled from NWE
	No order data	GB1 (N2EX)	Yes, for IFA.	Yes, re-opening all orderbooks	Load decoupling values with IFA and GB-GB set to 0	Run market coupling (Nordic, Baltic, CWE and GB2) Local auction GB1	Partial coupling	Yes	GB1 area decoupled from NWE

Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

<b>Coupling (during the period of running the Matcher) until max . 12.40</b>										
	Input data validation of the algorithm fails	Nordic orderbook	Yes, for DK1-DE+Kontek+Baltic Cable+NorNed.	Yes, re-opening all orderbooks	Load decoupling values with NorNed, DK1-DE, Kontek, Baltic Cable set to 0	Rerun NWE market coupling for CWE, GB  Local run Nordic_Baltic	Partial coupling	Yes	Nordic - Baltic area decoupled from NWE	
	Input data validation of the algorithm fails	NL orderbook	Yes, for all CWE internal borders, NorNed and BritNed interconnectors.	Yes, re-opening all orderbooks	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, NorNed and BritNed set to 0.	NWE market coupling for Nordic_Baltic, France, Germany and GB1 - GB2 and for all interconnectors not set to 0;  Local market run BE_NL	Partial coupling	Yes	Belgian and Dutch area decoupled from NWE	
	Input data validation of the algorithm fails	BE orderbook	Yes, for all CWE internal borders	Yes, re-opening all orderbooks	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE set to 0.	NWE market coupling for Nordic_Baltic, France, Germany, NL and GB1 - GB2 and for all interconnectors;  Local market run BE	Partial coupling	Yes	Belgian area decoupled from NWE	
	Input data validation of the algorithm fails	GB2 orderbook	Yes, for Britned	Yes, re-opening all orderbooks	Load decoupling values with BritNed and GB-GB set to 0	NWE market coupling for Nordic-Baltic, CWE and IFA  Local auction GB	Partial coupling	Yes	GB2 area decoupled from NWE	
	Input data validation of the algorithm fails	GB1 orderbook	Yes, for IFA.	Yes, re-opening all orderbooks	Load decoupling values with IFA and GB-GB set to 0	NWE market coupling for Nordic-Baltic, CWE and BritNed  Local auction GB	Partial coupling	Yes	GB1 area decoupled from NWE	
	Input data validation of the algorithm fails	FR and/or DE orderbooks	Yes, for all CWE internal borders, and for DK1-DE, Kontek, Baltic cable and IFA interconnector.	Yes, re-opening all orderbooks	Load decoupling values with FR- DE, FR - BE, BE-NL, NL-DE, DK1-DE, Kontek, Baltic and IFA set to 0.	NWE market coupling for Nordic_Baltic,GB1-GB2, NL and for all interconnectors not set to 0;  Local market run BE_FR_DE	Partial coupling	Yes	Belgian, French and German areas decoupled from NWE	
	Input data validation of the algorithm fails	Nordic network data	Yes, for DK1-DE+Kontek+Baltic Cable+NorNed.	Yes, re-opening all orderbooks	Load decoupling values with NorNed, DK1-DE, Kontek, Baltic Cable set to 0	Run market coupling (CWE and GB)  Local market run Nordic-Baltic	Partial coupling	Yes	Nordic - Baltic area decoupled from NWE	
	Input data validation of the algorithm fails	CWE network data	Yes, for all CWE internal borders	Yes, re-opening all orderbooks	Load decoupling values with NL-DE, DE-FR, NL-BE and BE-FR set to 0.	NWE market coupling for Nordic-Baltic, CWE-Nordic interconnectors, CWE - GB interconnectors, GB-GB)  Local run BE	Partial coupling	Yes	Belgian area decoupled from NWE	
	Input data validation of the algorithm fails	BritNed network data	No capacity goes to intraday	Yes, re-opening all orderbooks	Load decoupling values with BN set to 0	NWE market coupling	Partial coupling	Yes		
	Input data validation of the algorithm fails	IFA network data	Yes, for IFA.	Yes, re-opening all orderbooks	Load decoupling values with IFA set to 0	NWE market coupling	Partial coupling	Yes		
	Input data validation of the algorithm fails	NorNed network data	Yes, for NorNed.	Yes, re-opening all orderbooks	Load decoupling values with NorNed set to 0	NWE market coupling	Partial coupling	Yes		
	Input data validation of the algorithm fails	DK1-DE network data	Yes, for DK1-DE.	Yes, re-opening all orderbooks	Load decoupling values with DK1 set to 0	NWE market coupling	Partial coupling	Yes		
	Input data validation of the algorithm fails	Kontek network data	Yes, for Kontek.	Yes, re-opening all orderbooks	Load decoupling values with DK2 set to 0	NWE market coupling	Partial coupling	Yes		
	Input data validation of the algorithm fails	BC (Baltic Cable) network data	No capacity goes to intraday	Yes, re-opening all orderbooks	Load decoupling values with BC set to 0	NWE market coupling	Partial coupling	Yes		
<b>Coupling (during the period of running the Matcher) after 12.40</b>										
	No results	NWE	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes		
	Input data validation of the algorithm fails	Nordic orderbook	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.	
	Input data validation of the algorithm fails	NL orderbook	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.	
	Input data validation of the algorithm fails	BE orderbook	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.	



Please note that the NWE partial coupling and full decoupling scenarios might still be subject to change.

Allocation failure (rejection in 1st step of validation)	GB1	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	Nordic	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	CWE	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	BritNed	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	IFA	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	NorNed	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	DK1 - DE	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	Kontek	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.
TSO rejection (rejection in 2nd step of validation)	BC (Baltic Cable)	Yes, for all CWE internal borders, all CWE-Nordic interconnectors and all CWE-GB interconnectors	Yes, re-opening all orderbooks	No use of PMB in the NWE context (maybe used locally by some parties)	Full decoupling: Local market runs in Nordic-Baltic, GB, Belgium, France, Germany, Netherlands	Full decoupling	Yes	Partial coupling is not supported at this stage anymore, therefore only full decoupling possible.

### Fallback

BritNed	Capacity goes to intraday
IFA	Explicit auction
NorNed	Shadow auction via CASC
DK1-DE	Shadow auction via CASC
Kontek	Shadow auction via CASC
BC (Baltic Cable)	Capacity goes back to the Cable owner
Nordic - Baltic internal borders	Internally Nordic - Baltic always remains coupled
CWE internal borders:	
NL - BE	Shadow auction via CASC
BE - FR	Shadow auction via CASC
FR - DE	Shadow auction via CASC
NL - DE	Shadow auction via CASC