



NWE Price Coupling Stakeholder Meeting June 14, London

# NWE /PCR Day-Ahead Price Coupling

## Market Consultation & Processes and timings

### Disclaimer:

These timings are still under discussion and will be confirmed after the testing phases.





# Agenda

- NWE market consultation and actions taken in the NWE project
- NWE / PCR Processes and timings taken into account the outcome of the market consultation
  - Normal timings
  - Delays due to:
    - Technical issues
    - Special Market situations
  - Full decoupling
  - Partial coupling
- Status on other NWE project actions from the market consultation



# NWE market consultation & actions

- The NWE Price Coupling project conducted a market consultation in February/March of this year.
- Reason for the market consultation:
  - Explanation of the NWE / PCR processes and timings and the difficulties to remain within the deadlines
  - Get information on possible solutions for timing issues
  - Get information on price cap harmonization in NWE
- The project validated all answers in the course of March 2013 and took the following actions:
  - Finalize the NWE scenarios and timings taking into account the feedback of the market consultation
  - Start investigations in the project on topics raised in the market consultation answers
    - Investigate flexibility of the 15.30 CWE notification deadline
    - Investigate possible time saving by performing partial coupling and full decoupling processes in parallel
    - Investigate the possibility of NWE price cap harmonization



# NWE / PCR Processes and timings taken into account the outcome of the market consultation

- The following constraints were taken into account when working out the NWE Price coupling scenarios:
  - Gate Closure Time of the Order books (OBKs) at the PXs of 12:00h CET
    - -> *Market consultation showed clear objection to move the GCT to an earlier time*
  - PCR process timings (for normal processes and partial coupling processes)
  - Notification process time, following the publishing of the confirmed NWE results, for CCPs and market participants of 1 hour as currently needed in CWE (and CWE-Nordic shadow auctions)
  - Shortening of notification process time, following the publishing of the confirmed NWE results, for CCPs and market participants from 60 minutes to 45 minutes in very rare and exceptional cases
    - -> *Market Consultation showed 52% OK with shortening, 48% against.*
  - Time allowance for technical problem solving



## NWE / PCR Processes and timings taken into account the outcome of the market consultation

- The following constraints were taken into account when working out the NWE Price coupling scenarios:
  - Time allowance for special market procedures such as handling of curtailment situations or price threshold reached via a second auction used by CWE PXs or the NPS-applied regulated routines that include peak load capacity (production/load) reserves activation in several countries.
  - Time allowance for partial/full decoupling (this includes : re-opening of Order books, closure of Order books, recalculation and publication of (local PX market) results)
    - *-> Market consultation showed the need for investigating parallel processes here for the longer term.*
  - Final notification deadline in CWE of 15:30h. This is the latest starting point for the security assessment processes which are fixed in ENTSO-E's Operational Handbook and apply to all Continental European TSOs.
    - *-> Market consultation showed request to look into more flexibility on this deadline.*
  - Request of MPPs to have 20 minutes of re-opening of orderbooks in case of full decoupling instead of 10 minutes
    - *-> Request was discussed in a meeting on May 6.*



## NWE / PCR Processes and timings

- Following requests with direct impact on the timings of the processes were investigated by PXs and TSOs to see if these could still be incorporated in the processes before NWE go-live:

- Request for reopening of the order books in case of full decoupling from 10 minutes to 20 minutes

=> The PXs have looked into the possibilities for giving these additional 10 minutes and can announce that this request has been taken into account in the timings of the full decoupling.
















- Request for more flexibility of the final notification deadline in CWE of 15:30h.

=> TSOs have investigated this request with following outcome:



# CWE TSO investigation on flexibility of notification deadline in CWE, CWE-GB and CWE-Nordic

- Also in the case of partial coupling / full decoupling depending on the local market rules, TSOs need to receive the following schedules from the Market Participants for:

	Belgium	France	Germany	The Netherlands
Cross-Border (*)				
Local/hub				
Consumption				
Generation				



applicable



Not applicable

(\*) In case of partial coupling / full decoupling, Shadow Auctions are run.



# CWE TSO investigation on flexibility of notification deadline - Conclusion

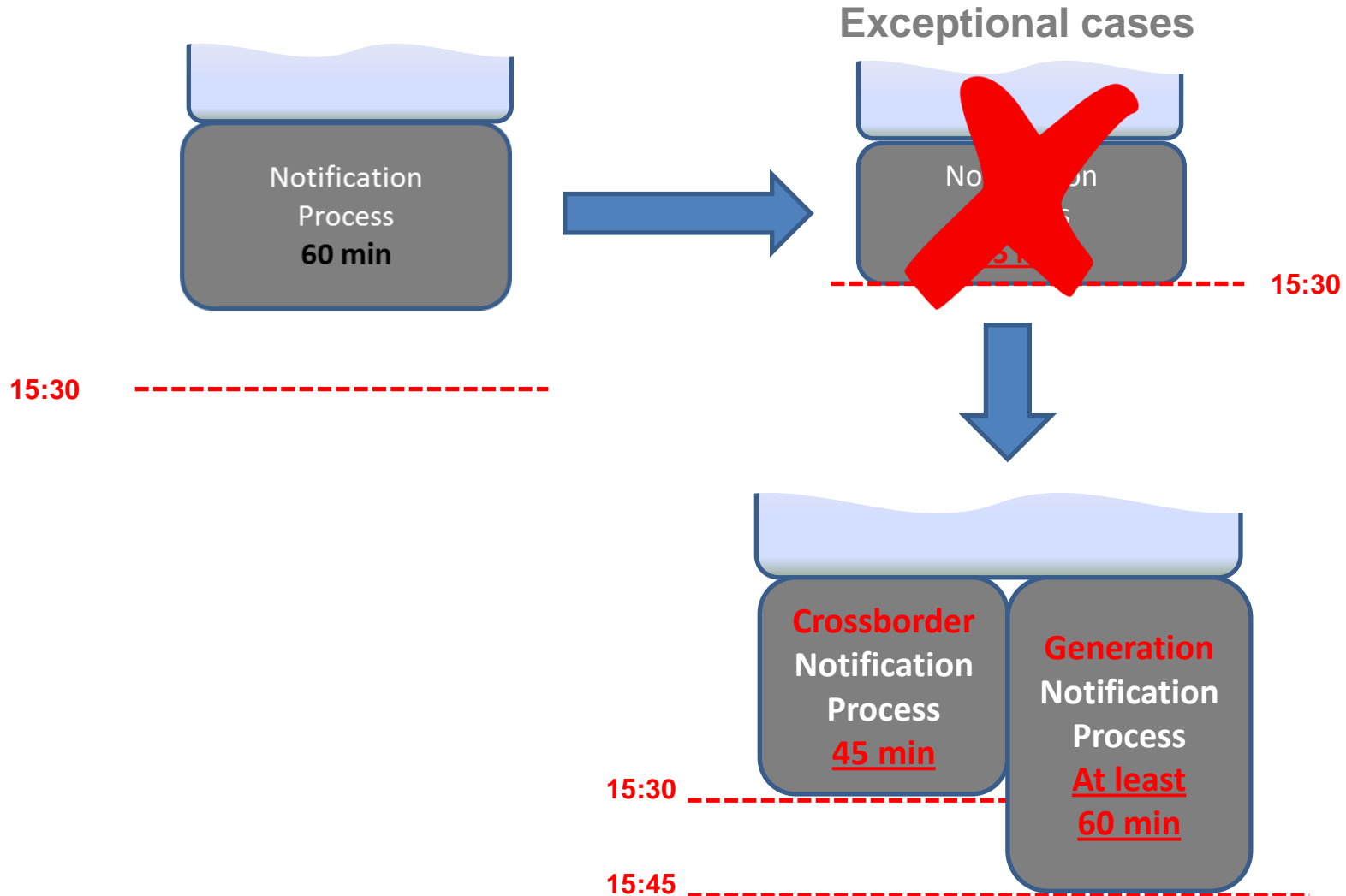
- The CWE TSOs and 50 Hertz have agreed upon a joint target solution for the deadlines for submitting the different schedules towards the TSOs available as of Go-Live of the Price Coupling in the NWE region.
  - Taken into account that it is important for the TSOs **to receive data of good quality**, the TSOs agreed to extend the deadline for submitting generation schedules in the very rare cases of specific fallback situations to a later time than 15:30.
  - In these extraordinary situations, all CWE TSOs and 50 Hertz will extend the **deadline for submitting generation schedules until at least 15:45. Some TSOs can extend this deadline even beyond 15:45 depending on local market rules.** The exact time and procedure of submission will be defined by the respective TSOs.
- **This means that market participants have at least 60 minutes for the submission of generation schedules.**







# CWE TSO investigation on flexibility of notification deadline – impact on procedures





# NWE / PCR Processes and timings

## Normal process – assumptions

- Pre-coupling
  - Target time to publish Network Data (CZCs) is 10:30 CET
- Coupling
  - Gate Closure Time of the Order books (OBKs) at the PXs of 12:00 CET
  - PCR process timings (for normal processes and partial coupling processes)
    - Target time to publish Preliminary Market Results is 12:42 CET
- Post-coupling
  - Notification process time, following the publishing of the confirmed NWE results, for CCPs and market participants of 1 hour as currently needed in CWE (and CWE-Nordic shadow auctions).

# PCR PROCESS TIMINGS for NWE

## DETAILS

PCR Normal process – “best scenario” process 55 min

<b>PCR Normal Process 55 min</b>	12:00	OBK GCT
	12:10 – 12:27	Calculation
	12:28 – 12:41	Preliminary PX validation
	12:42	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	12:42 – 12:54	Final TSO validation
	12:55	Publication of Final Results (incl. market clearing price) Start of Notification Process
<b>Notification Process 60 min</b>	13:55	End of Notification Process



## Process delayed – assumptions

- Pre-coupling
  - Deadline to solve incidents with Network Data (CZCs) publication is 11:45 CET
- Coupling
  - Time allowance for technical problem solving up to 55 min
  - Time allowance for special market procedures such as handing of curtailment situations or price threshold reached via a second auction used by CWE PXs or the NPS-applied regulated routines that include peak load capacity (production/load) reserves activation.
  - Deadline for final Market Results is 13:50 CET
- Post-coupling
  - Shortening of notification process time, following the publishing of the confirmed NWE results, for CCPs and market participants from 60 minutes to 45 minutes in very rare and exceptional cases.
  - Final notification deadline of 15:30 in CWE, CWE-GB and CWE-Nordic interconnectors

# PCR PROCESS TIMINGS for NWE

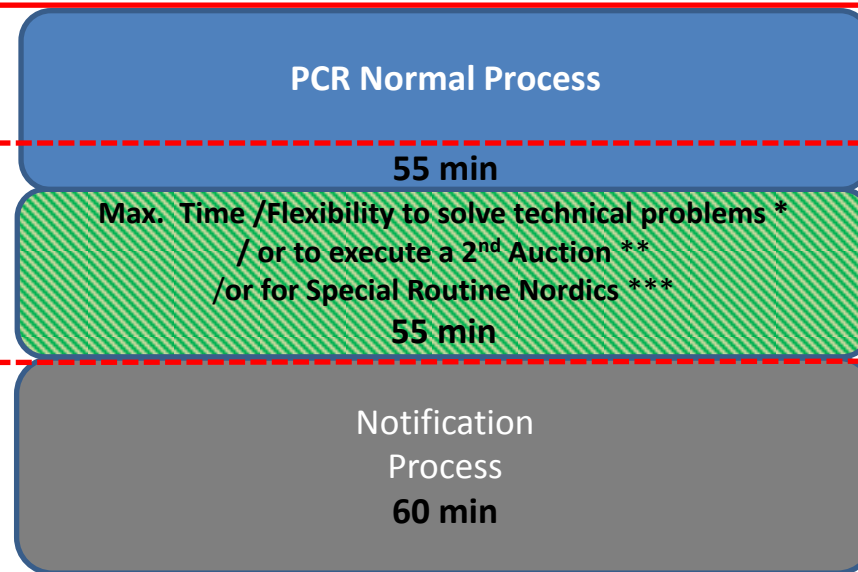
## Case 1-3b

Delay or  
2<sup>nd</sup> Auction/  
Special  
Routine Nordics

**OBK GCT = 12:00**

**Publication of preliminary  
results = 12:42**

**Full decoupling Deadline = 13:50**



14:50

**Final Notification deadline =15:30**  
**which applies to: Internal CWE, CWE-GB and CWE-Nordic interconnectors**

- \* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.
- \*\* the Second Auction in CWE / GB is a single process taking 48 minutes.
- \*\*\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.



## Full decoupling – definition

- Full decoupling of NWE means
  - Internally in CWE and for the CWE – Nordic interconnectors (except Baltic Cable) shadow auctions organized by CASC will be held and results published. The 3 PXs within CWE will reopen the order books and perform local DA spot market calculations without using cross border capacities.
  - In GB there will be a common price calculation for the 2 DA PXs (N2EX and APX UK) if technically feasible.
  - For the Nordic – Baltic area including the link with Poland, price coupling will be performed by NPS utilizing the cross border capacities within this region. NPS will do so after results for shadow auctions on 3 CWE-Nordic links have been published and after re-opening of the order books.



## Full decoupling – main principles

- In case of full decoupling the processes are local, meaning that NWE timing constraints are not applicable:
  - The notification deadline of 15.30 is not applicable internally in the Nordic-Baltic area, nor internally in GB.
  - It is applicable for the notification by market parties of utilization of Explicit Capacity bought in Shadow Auctions on CWE/ Nordic and CWE/ GB interconnectors.
- Communication in case of fallback is organized regionally/locally (different info, different timings)
  - ⇒ Therefore TSO messages to Market Parties are put as 'optional' in the scenarios.
- On PX side
  - 20 minutes time allowance for Market Parties for order book reopening
- On TSO side
  - Shadow auctions organized by CASC are applicable for the internal CWE borders and the CWE – Nordic interconnections (except for Baltic Cable). Timings in the scenarios are based on the shadow auctions organized by CASC.
  - Shadow auctions organized by RTE/NGIC are applicable for FR/GB border only (IFA interconnector), this consists of daily explicit auctions
  - Fallback for BritNed → capacity goes to intraday
  - Fallback for Baltic cable → capacity goes back to the cable owner.

# PCR PROCESS TIMINGS for NWE

## Case 4

Full Decoupling

## Case 5a

Full Decoupling  
+ Local 2<sup>nd</sup> Auction CWE /GB

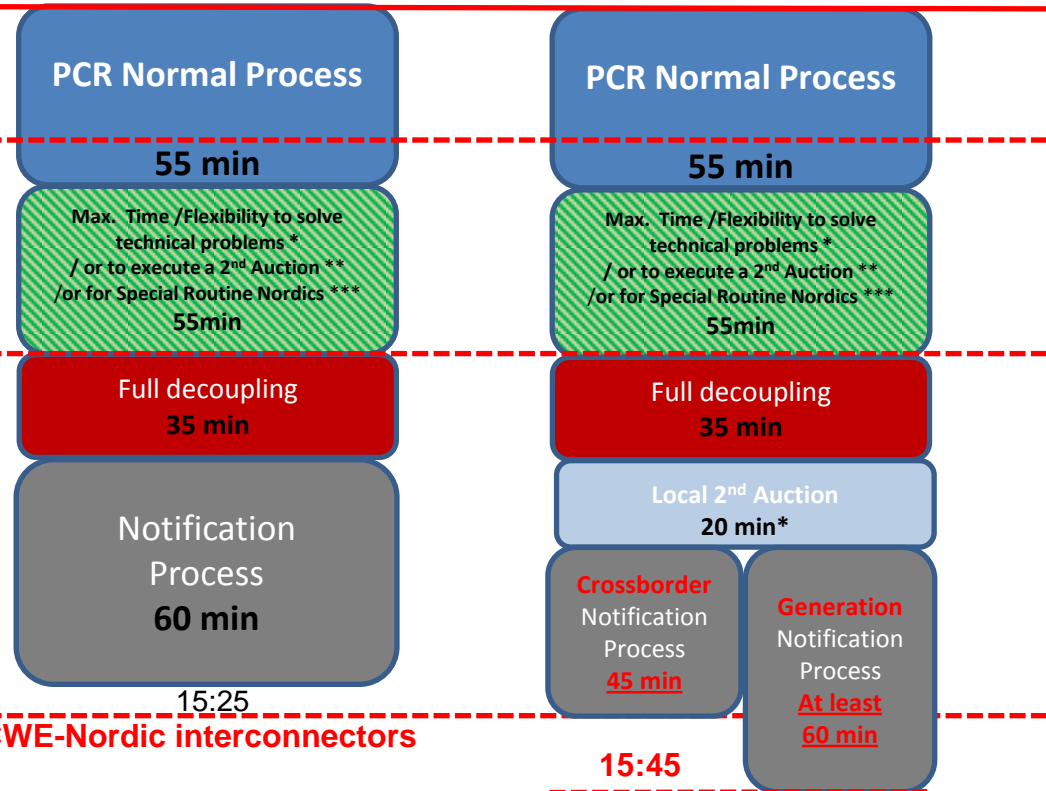
**OBK GCT = 12:00**

**Publication of preliminary results =12:42**

**Full decoupling Deadline = 13.50**

**Final Notification deadline =15:30**

**which applies to: Internal CWE, CWE-GB and CWE-Nordic interconnectors**



- \* Full decoupling is declared if the results cannot be published by 13.50. Full decoupling takes 35 mts, full decoupling in combination with a Special Market Situation in CWE takes 55 mts (20 mts re-opening of order books in both cases)



# PCR PROCESS TIMINGS for NWE

## Case 4

Full Decoupling  
Nordic-Baltic Area

**OBK GCT = 12:00**

PCR Normal Process

55 min

Max. Time /Flexibility to solve  
technical problems \*  
/ or to execute a 2<sup>nd</sup> Auction \*\*  
/or for Special Routine Nordics \*\*\*  
55min

Full decoupling  
35 min

Notification  
Process  
**No deadline**

**Publication of preliminary results =12:42**

**Full decoupling Deadline = 13.50**

**Final Notification deadline =15:30**  
**which applies to: Internal CWE, CWE-GB and CWE-Nordic interconnectors**

## Case 5b

Full Decoupling  
+ Special  
Routine Nordics

PCR Normal Process

55 min

Max. Time /Flexibility to solve  
technical problems \*  
/ or to execute a 2<sup>nd</sup> Auction \*\*  
/or for Special Routine Nordics \*\*\*  
55min

Full decoupling  
35 min

Special Routine Nordics  
42-72 min\*

Notification  
Process  
**No deadline**

- \* In case 5b, the NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.



# Communication to the market (Case 1 – 5b)

Time/ Deadline	Communication
~ 12:35	<ul style="list-style-type: none"> <li>Second Auction</li> <li>PCR message to PXs and subsequently MPs and TSOs: Second Auction is declared</li> </ul>
Regular publication time (12:42)	<ul style="list-style-type: none"> <li>PCR message that process is delayed from PXs* to TSOs and MPs (timings to be confirmed).</li> <li>(TSO message to MPs: Inform Market of fall back processes</li> </ul>
13:20	<ul style="list-style-type: none"> <li>PCR message to PXs and subsequently MPs and TSOs: Inform Market about Incident and risk of decoupling.</li> <li>TSO message to MPs: Inform Market of fall back processes (update of explicit shadow auction bids) &amp; shifting of notification deadline.</li> </ul>
13:40	<ul style="list-style-type: none"> <li>end of update shadow auction bids</li> <li>start of explicit shadow auction calculation</li> </ul>
13:50	<ul style="list-style-type: none"> <li>Full decoupling</li> <li>PCR message to PXs and subsequently MPs and TSOs: Full decoupling is declared</li> <li>TSO message to MPs: notification deadline has been extended</li> </ul>
13:50-14:00	<ul style="list-style-type: none"> <li>publication of the explicit shadow auction fall back results. (target is to publish immediately after 13.50 and at the latest at 14:00, feasibility of these timings must still be confirmed).</li> </ul>
13:55-14:15	<ul style="list-style-type: none"> <li>update of local auction bids according to shadow auction results</li> </ul>

NB. The fallback solutions and processes as well as their associated contents and timings are organized on local / regional level and not on NWE level. Timings are therefore indicative.



## Partial coupling – definition

- Partial Coupling in NWE means:
  - Any scenario where one or more bidding areas and/or interconnectors are temporary not participating in NWE Market Coupling while the remaining bidding areas/interconnectors still participate in NWE Market Coupling.
  - The CZCs for the decoupled borders / interconnectors will be allocated via the fall back solution for these temporary not participating borders / interconnectors.
  - NWE parties will try to couple as many borders / interconnectors as possible.
    - E.g. if CWE must decouple internally, all other NWE borders/ interconnectors will remain coupled. For the CWE countries this means that Germany will remain coupled with the Nordics via the CWE – Nordic interconnectors, the Netherlands will remain coupled through NorNed with the Nordics and through BritNed with the UK, whereas France will remain coupled through IFA with the UK.
    - The different partial coupling configurations are part of the final package to the regulators and will be published in the course of May 2013.

### Partial coupling is triggered

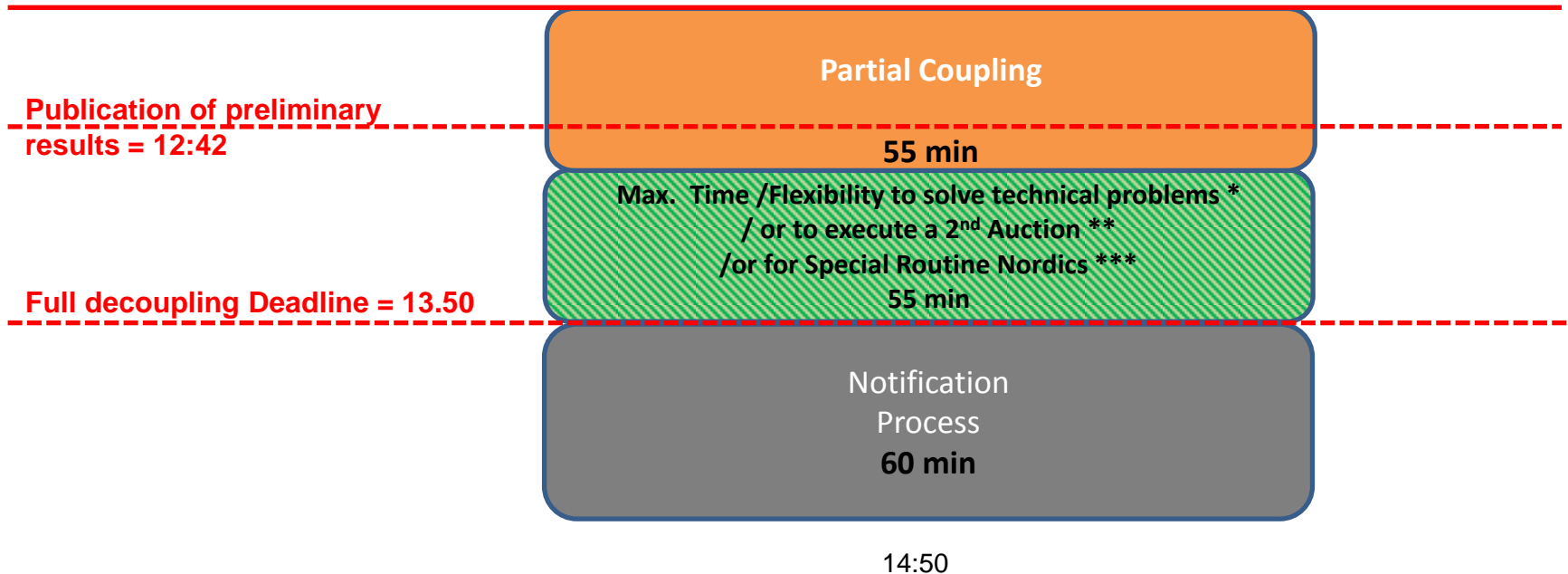
- during the pre-coupling process, at the latest at 11:45
- during the coupling process, at the latest at 12:40

# Partial Coupling before OBK GCT (12:00)

## Case X2-4b

Delay or  
2<sup>nd</sup> Auction/  
Special  
Routine Nordics

**OBK GCT = 12:00**



**Final Notification deadline =15:30**  
**which applies to: Internal CWE, CWE-GB and CWE-Nordic interconnectors**

- \* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.
- \*\* the Second Auction in CWE / GB is a single process taking 48 minutes.
- \*\*\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

# Partial Coupling before OBK GCT (12:00)

## Case X5

Partial coupling  
followed by Full  
Decoupling

## Case X6a

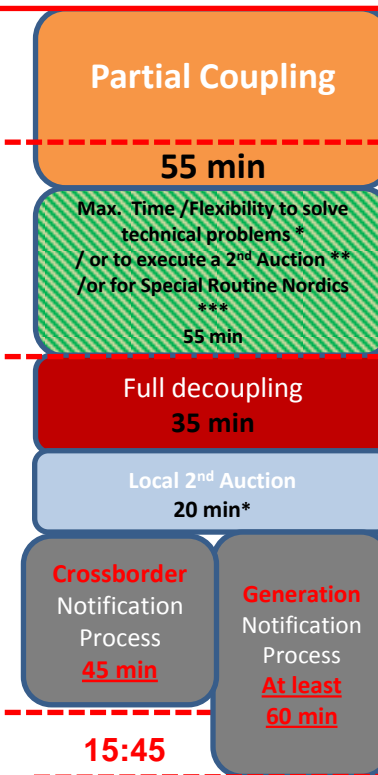
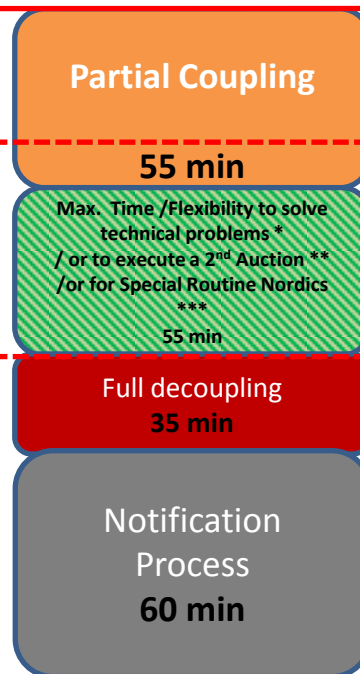
Partial coupling followed by Full  
Decoupling  
+ Local 2<sup>nd</sup> Auction CWE/GB

**OBK GCT = 12:00**

**Publication of preliminary results =12:42**

**Full decoupling Deadline = 13.50**

**Final Notification deadline =15:30 which applies to:  
Internal CWE, CWE-GB and CWE-Nordic interconnectors**



# Partial Coupling before OBK GCT (12:00)

## Case X5

Partial coupling followed by Full Decoupling Nordic-Baltic area

**OBK GCT = 12:00**

**Publication of preliminary results =12:42**

**Full decoupling Deadline = 13.50**

Partial Coupling

55 min

Max. Time /Flexibility to solve technical problems \*  
/ or to execute a 2<sup>nd</sup> Auction \*\*  
/or for Special Routine Nordics \*\*\*

55 min

Full decoupling  
35 min

Notification  
Process  
No deadline

## Case X6b

Partial coupling followed by Full Decoupling  
+ Special Routine Nordics

Partial Coupling

55 min

Max. Time /Flexibility to solve technical problems \*  
/ or to execute a 2<sup>nd</sup> Auction \*\*  
/or for Special Routine Nordics \*\*\*

55 min

Full decoupling  
35 min

Special Routine Nordics  
42-72 min\*

Notification  
Process  
No deadline

**Final Notification deadline =15:30 which applies to:  
Internal CWE, CWE-GB and CWE-Nordic interconnectors**

- \* In case X6b, the NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.

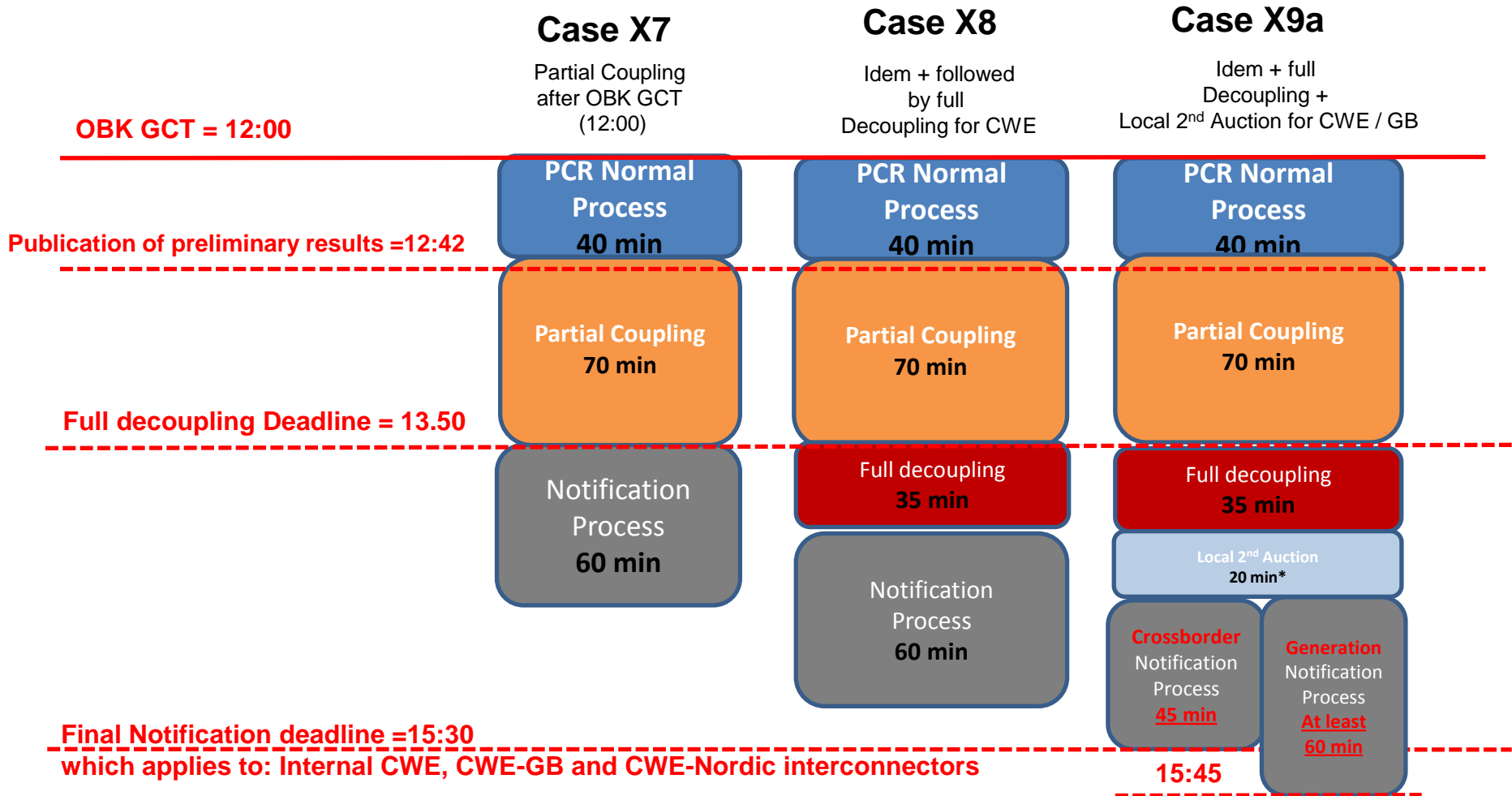


## Communication to the market (Case X1 – X6b)

Time/ Deadline	Communication
11:15	<ul style="list-style-type: none"><li>• PCR message to PXs and subsequently MPs and TSOs: Inform Market about Incident and risk of partial decoupling.</li><li>• TSO message to MPs: Inform Market of fall back processes (update of explicit shadow auction bids)</li></ul>
11:35	<ul style="list-style-type: none"><li>• end of update shadow auction bids</li><li>• start of explicit shadow auction calculation</li></ul>
11:45	<ul style="list-style-type: none"><li>• Partial coupling</li><li>• PCR message to PXs and subsequently MPs and TSOs: Partial coupling is declared</li></ul>
11:45-11:50	<ul style="list-style-type: none"><li>• Publication of the explicit shadow auction fallback results</li></ul>
11:50-12:00	<ul style="list-style-type: none"><li>• update of local auction bids according to shadow auction results</li></ul>

NB. The fallback solutions and processes as well as their associated contents and timings are organized on local / regional level and not on NWE level. Timings are therefore indicative.

# Partial coupling after OBK GCT (12:00)

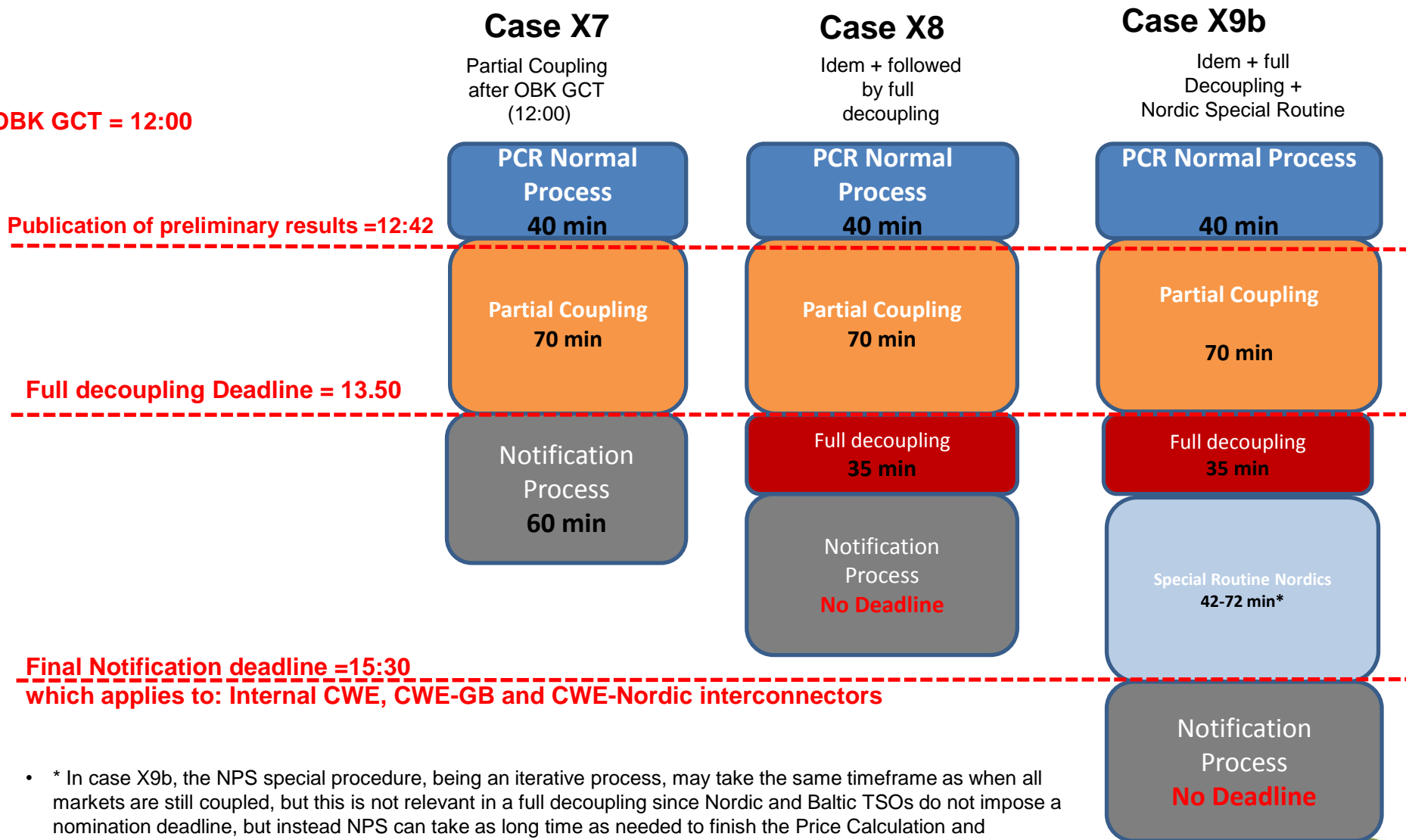


- \* Full decoupling is declared if the results cannot be published by 13.50. Full decoupling takes 35 mts, full decoupling in combination with a Special Market Situation in CWE takes 55 mts (20 mts re-opening of orderbooks in both cases)



# Partial coupling after OBK GCT (12:00)

**OBK GCT = 12:00**



- \* In case X9b, the NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.



## Communication to the market (Case X7 – X9b)

Time/ Deadline	Communication
12:20	<ul style="list-style-type: none"> <li>• PCR message to PXs and subsequently MPs and TSOs: Inform Market about Incident and risk of decoupling.</li> <li>• TSO message to MPs: Inform Market of fall back processes (update of explicit shadow auction bids).</li> </ul>
12:30	<ul style="list-style-type: none"> <li>• end of update shadow auction bids</li> <li>• start of explicit shadow auction calculation</li> </ul>
~ 12:35	<ul style="list-style-type: none"> <li>• Second Auction</li> <li>• PCR message to PXs and subsequently MPs and TSOs: Second Auction is declared</li> </ul>
12:40	<ul style="list-style-type: none"> <li>• Partial coupling</li> <li>• PCR message to PXs and subsequently MPs and TSOs: Partial coupling is declared</li> </ul>
12:40-12:45	<ul style="list-style-type: none"> <li>• Publication of the explicit shadow auction fall back results</li> </ul>
12:45-12:55	<ul style="list-style-type: none"> <li>• update of local auction bids according to shadow auction results</li> </ul>

NB. The fallback solutions and processes as well as their associated contents and timings are organized on local / regional level and not on NWE level. Timings are therefore indicative.



## Status on other NWE project actions from the market consultation (2)

- Investigate possible time savings by performing partial coupling and full decoupling processes in parallel
  - PXs have worked out the process of performing these processes in parallel to see if any time gain can be realized.
  - The high level technical impact on the PX systems for such parallel process has been assessed taking into account some assumptions.
  - The feasibility of the solution is now being reviewed and the assumptions are now being verified by the PXs concerned.



## Status on other NWE project actions from the market consultation (3)

- Investigate the possibility of NWE price cap harmonization
  - A task force has been formed to assess the possibility of harmonization of the price caps in NWE taking into account the suggestions made in the market consultation.
  - The task force has been analyzing the historical clearing prices and discussing the different ways of determining the price caps.
  - The task force intends to send its recommendation to the NWE JSC beginning of July.



# CWE TSOs Operational planning processes after Notification Deadline - Matching of Cross-Border Schedules

- Standard deadline for the submission of cross-border schedules: 14:30
- Matching of schedules according to the ENTSO-E pyramid (obligation and timings defined in the Operational Handbook Policy 2):



Matching of schedules on <b>Control area level</b> and sending of matched bilateral exchange programs to Control block coordinator before 15:45
Matching of schedules on <b>Control block level</b> and sending of data to Coordination center before 16:30
Matching of schedules on <b>Coordination center level</b> before 17:00

- Transmission of all schedules (matched at every level) to Vulcanus database. This information is used for several critical operational planning processes on a daily basis
- In case of exceptional fallback situations the deadline for the submission of cross-border schedules can be extended to 15:30.



# CWE TSOs Operational planning processes\* after Notification deadline (1/2)

- TSOs need to perform the following processes which require schedules as input data:
  - Grid safety calculations for planning maintenance activities on the infrastructure, preparing control measures and managing congestion in specific regions
  - Preparation of day-ahead congestion forecast (DACF) data sets at each TSO (and merging of individual data sets in case of more than one TSO per control block) and submission to a central entity before 18:00 (cfr. ENTSO-E Operational Handbook policy 4)
  - Further merging of DACF data sets within European initiatives like TSC or CORESO and calculation and studies on expected load-flows and determination and evaluation of suitable actions
  - To evaluate the identified actions, several iterative runs including recalculation and reevaluation have to be performed during the above step

*\* Not every process described in this presentation is valid for every TSO due differences in national requirements, regulations or laws. Some items may only be applicable for selected TSOs*



## CWE TSOs Operational planning processes\* after Notification deadline (2/2)

- TSOs need to perform the following processes which require schedules as input data:
  - Grid loss calculations
  - Determination of the necessity for preventive redispatch and timely activation of respective power plants.
  - Confirmation of reserve contracts
  - Determination of capacities to be made available for the intra-day market and publication thereof

\* Not every process described in this presentation is valid for every TSO due differences in national requirements, regulations or laws. Some items may only be applicable for selected TSOs



## CWE TSOs Operational planning processes\* after Notification deadline – Summary

- The schedules are a required input for many processes at TSO's side.
- These processes are numerous, complex and require therefore sufficient time.
- There are dependencies between these processes
- Only with the help of these processes of the operational planning, the TSOs are able to maintain/preserve Security of Supply.
- All actions that have been identified by the operational planning processes have to be taken well in advance, because e.g. the startup of inactive power plants takes several hours.

*\* Not every process described in this presentation is valid for every TSO due differences in national requirements, regulations, or laws. Some items may only be applicable for selected TSOs*





## NWE Day-Ahead Price Coupling

Back Up  
Slides  
PROCESSES

# PCR PROCESS TIMINGS for NWE

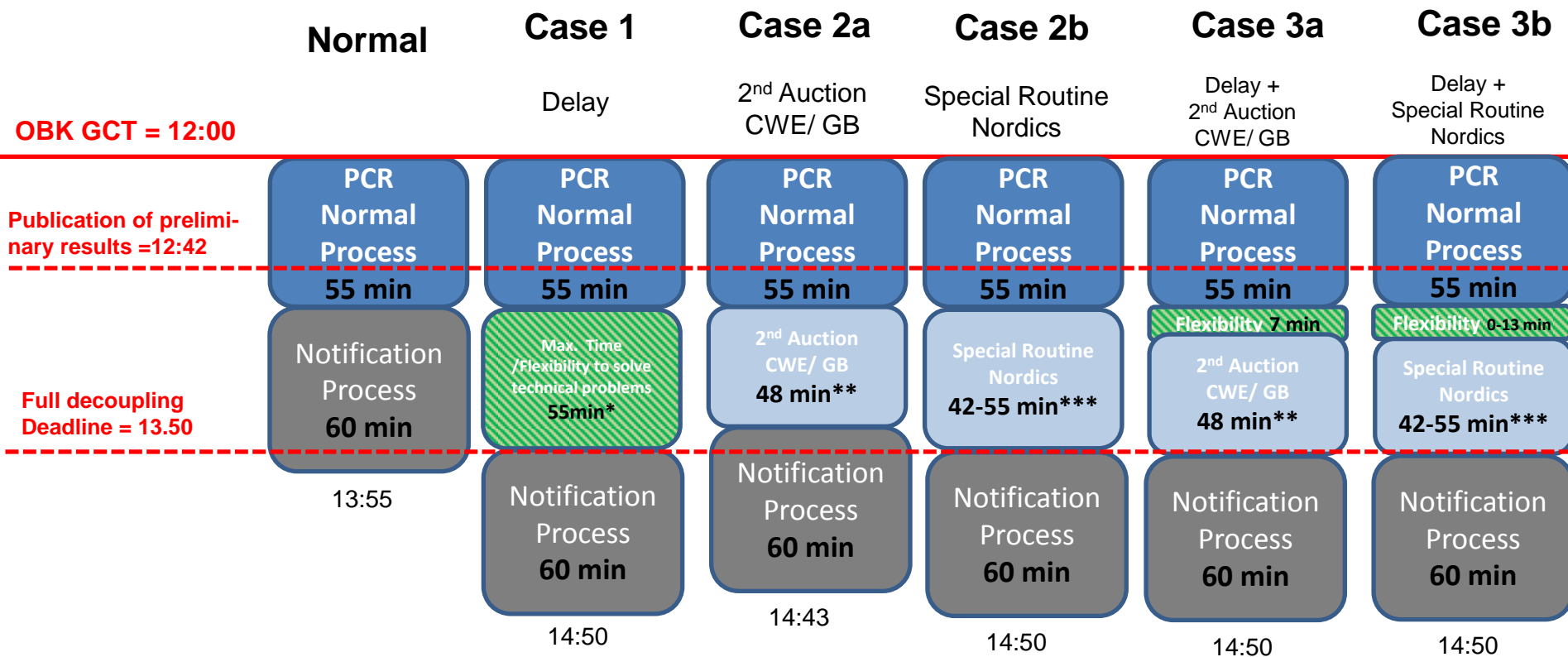
## DETAILS

### PCR Normal process – “best scenario” process 55 min

PCR Normal Process 55 min	12:00	OBK GCT
	12:08	Check + send OBK
Notification Process 60 min	12:10	Reception of all OBK in PMBs -> Start of Calculation
	12:27	End of Calculation
	12:28	Reception of Results in all PX Systems
	12:29	Start of 10 min preliminary validation
	12:39	End of preliminary PX validation process -> Generation of Preliminary PX Confirmations
	12:40	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	12:41	Reception of Global Preliminary PX Confirmation in every PX IT System
	12:42	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	12:42	Start of 10 min Final Confirmation process
	12:52	End of final validation process -> Generation of Final Confirmations
	12:53	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	12:54	Reception of Global Final Confirmation in the Local PMBs
	12:55	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	13:55	End of Notification Process

13:55

# PCR PROCESS TIMINGS for NWE



**Final Notification deadline = 15:30 which applies to:  
Internal CWE, CWE-GB and CWE-Nordic interconnectors**

- \* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.
- \*\* the Second Auction in CWE / GB is a single process taking 48 minutes.
- \*\*\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

### Special case 1: Delay - 110 min (55 + max. 55)

PCR Normal Process 55 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12.42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
Max. Time /Flexibility to solve technical problems 55min*	13:05	Technical issue solved -> Start of Calculation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
Notification Process 60 min	13:22	End of Calculation
	13:23	Reception of Results in all PX Systems
	13.24	Start of 10 min preliminary validation
	13:34	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:45	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:36	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:37	Publication of preliminary results to the market (incl. market clearing price) and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.

## Special case 2A: 2<sup>nd</sup> auction (CWE/ UK)

### 103 min (55 + 48)



12:00	OBK GCT
12:08	Check + send OBK
12:10	Reception of all OBK in PMBs -> Start of Calculation
12:27	End of Calculation
12:28	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
12:33	IC opening and agreement on a fixed time for reopening OBK
12:35	<b>PCR message sent from PXs to TSOs and MPs: Inform about Second Auction and reopening of order books</b>
12:38	Start reopening of OBK for 10 min
12:42	<b>PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids</b>
12:48	OBK GCT
12:56	Check + send OBK
12:58	Reception of all OBK in PMBs -> Start of Calculation
13:15	End of Calculation
13:16	Reception of Results in all PX Systems
13:17	Start of 10 min preliminary validation
13:20	<b>PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids &amp; shifting of notification deadline</b>
13:27	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
13:28	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
13:29	Reception of Global Preliminary PX Confirmation in every PX IT System
13:30	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
13:30	Start of 10 min Final Confirmation process
13:40	End of final validation process -> Generation and sending of Final Confirmations
13:41	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
13:42	Reception of Global Final Confirmation in the Local PMBs
13:43	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
<b>14:43</b>	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Second Auction in CWE / GB is a single process taking 48 minutes.

## Special case 2B: Nordic Special Routine

### 98-110 min (55 + 43->55)

PCR Normal Process 55 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of Calculation
	12:27	End of Calculation
	12:28	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
Special Routine Nordics 42-55 min*	12:30	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
	12:33	IC opening to inform about that the NPS Special Routines for Max Price handling has started
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:50 - 13:11	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
	12:52 - 13:13	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
Notification Process 60 min	13:09 - 13:30	End of Calculation
	13:10 - 13:31	Reception of Results in all PX Systems
	13:11 - 13:32	Start of 10 min preliminary validation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:22 - 13:33	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:23 - 13:34	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:24 - 13:35	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:25 - 13:36	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:26 - 13:37	Start of 10 min Final Confirmation process
	13:36 - 13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:37 - 13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:38 - 13:49	Reception of Global Final Confirmation in the Local PMBs
	13:39 - 13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:39 - 14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

## Special case 3a: Delay + 2<sup>nd</sup> auction (CWE/ UK)

### 110 min (55 + max. 7 + 48)



12:00	OBK GCT
12:08	Check + send OBK
12:10	Reception of all OBK in PMBs -> Start of technical issues
12:17	Technical issue solved -> Start of Calculation
12:34	End of Calculation
12:35	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
12:40	IC opening and agreement on a fixed time for reopening OBK
12:42	PCR message sent from PXs to TSOs and MPs: Inform about Second Auction and reopening of order books
12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
12:45	Start reopening of OBK for 10 min
12:55	OBK GCT
13:03	Check + send OBK
13:05	Reception of all OBK in PMBs -> Start of Calculation
13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
13:22	End of Calculation
13:23	Reception of Results in all PX Systems
13:24	Start of 10 min preliminary validation
13:34	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
13:35	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
13:36	Reception of Global Preliminary PX Confirmation in every PX IT System
13:37	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
13:37	Start of 10 min Final Confirmation process
13:47	End of final validation process -> Generation and sending of Final Confirmations
13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
13:49	Reception of Global Final Confirmation in the Local PMBs
13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Second Auction in CWE / GB is a single process taking 48 minutes. Taking into account the 13.50 full decoupling deadline, the scenario allows for 7 minutes delay in the PCR processes ( 55 + 7), meaning that the results must be there at 13.02 if CWE PXs want to trigger a second auction.

## Special case 3b: Delay + Nordic Special Routine

### 110 min (55 + max. 12 + 43)

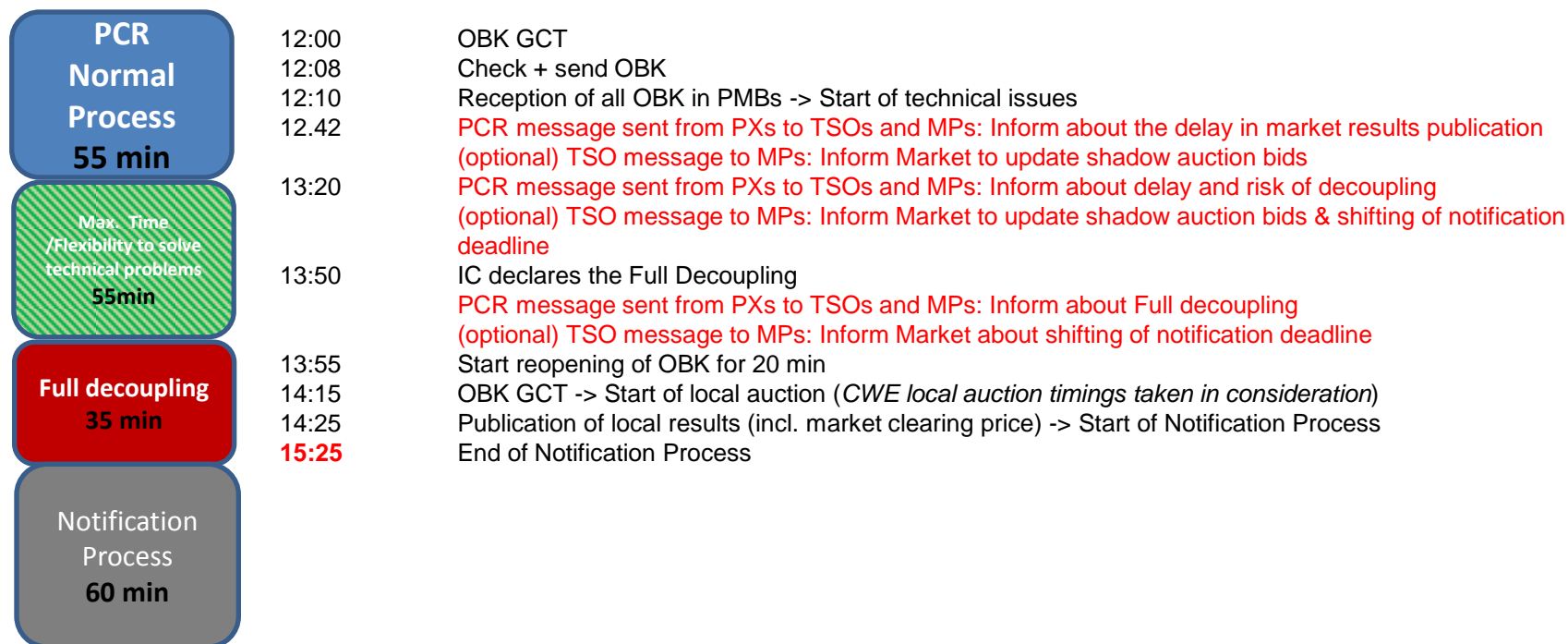
PCR Normal Process 55 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12:22	Technical issue solved -> Start of Calculation
Flexibility 13 min	12:39	End of Calculation
	12:40	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
Special Routine Nordics 42 min*	12:42	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
	12:45	IC opening to inform about that the NPS Special Routines for Max Price handling has started
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	13:02	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
Notification Process 60 min	13:04	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:21	End of Calculation
	13:22	Reception of Results in all PX Systems
	13:23	Start of 10 min preliminary validation
	13:33	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:34	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:35	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:36	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

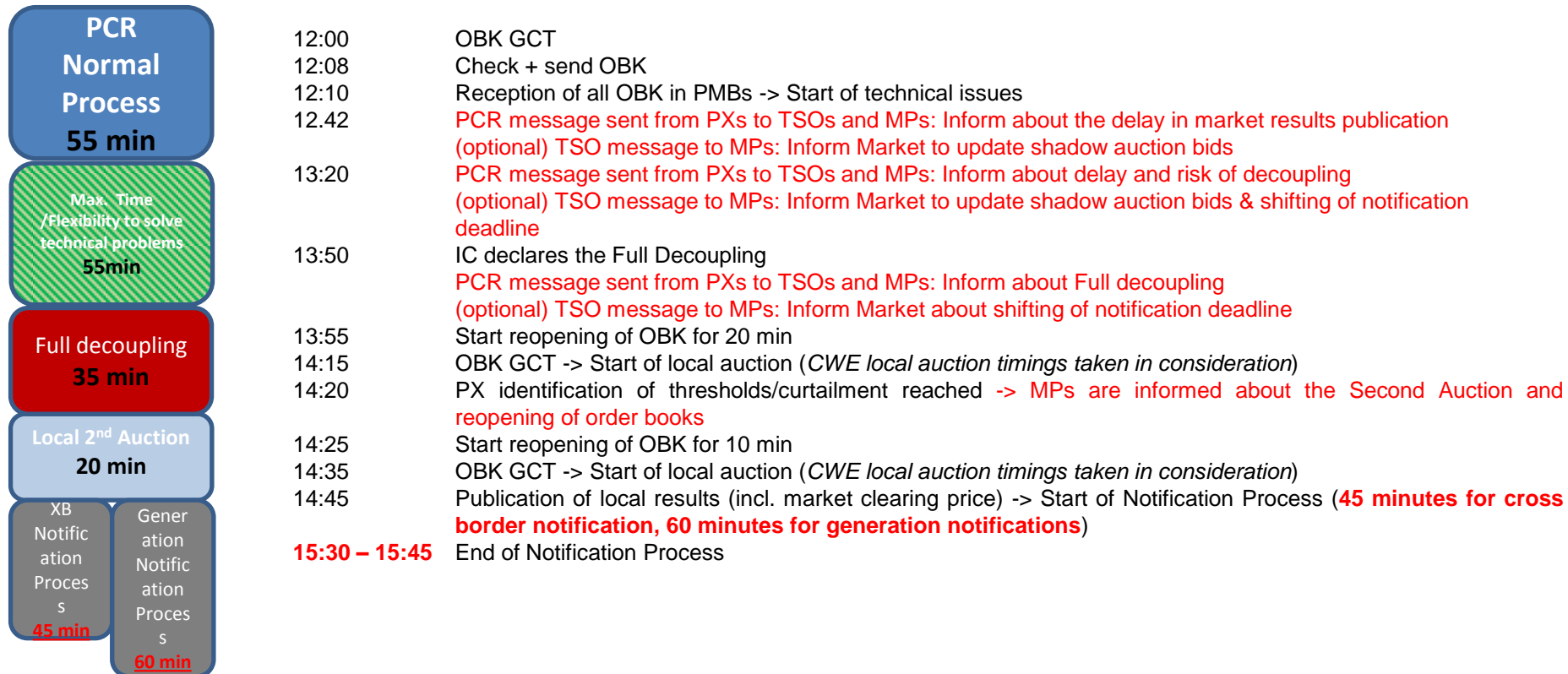


## Special case 4: Full Decoupling 150 min (55 + max. 55 + 35)



## Special case 5a: Full Decoupling + local 2<sup>nd</sup> Auction

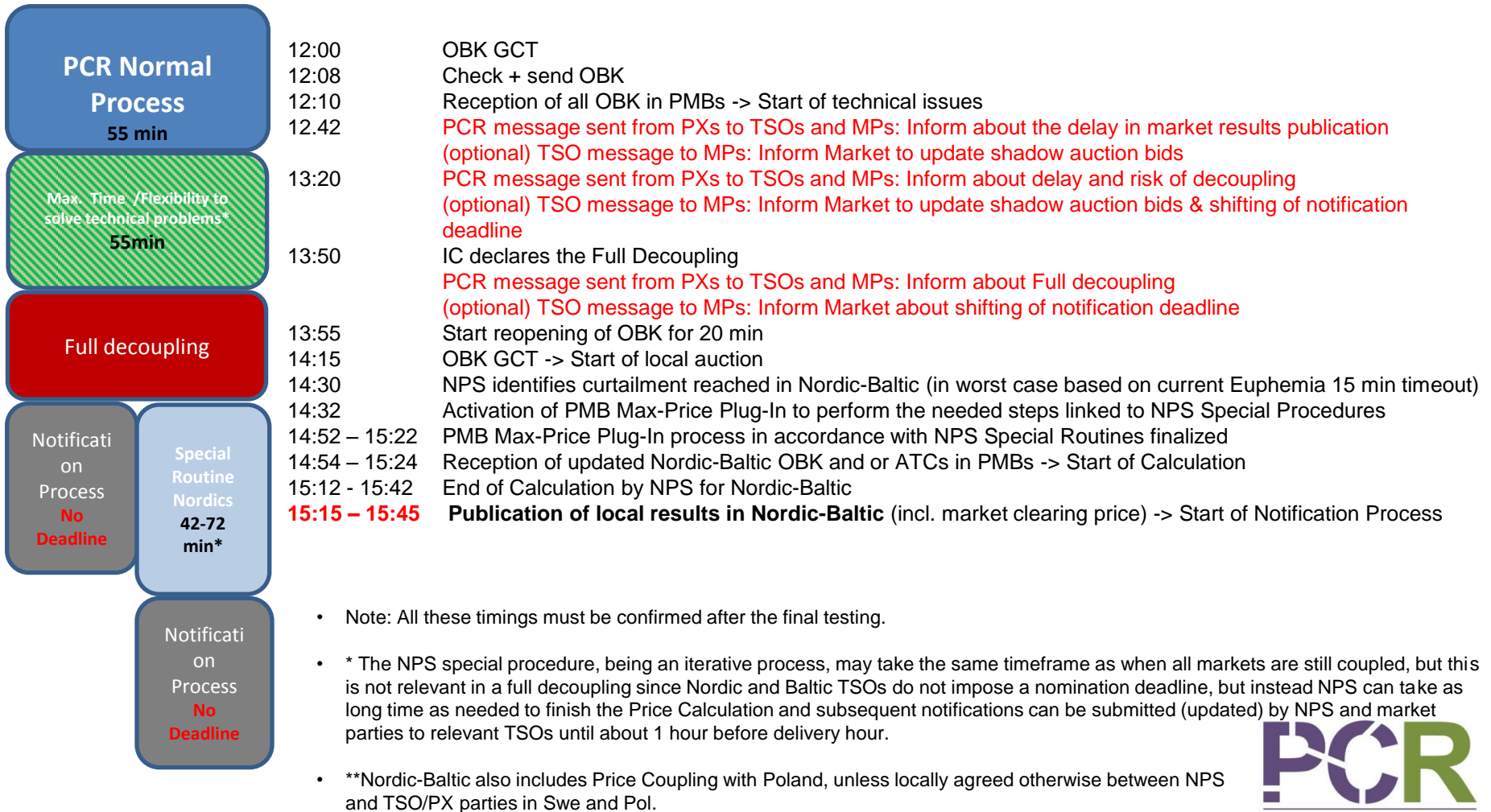
### 165 min (55 + max. 55 + 35 + 20)



Note: All these timings must be confirmed after the final testing.

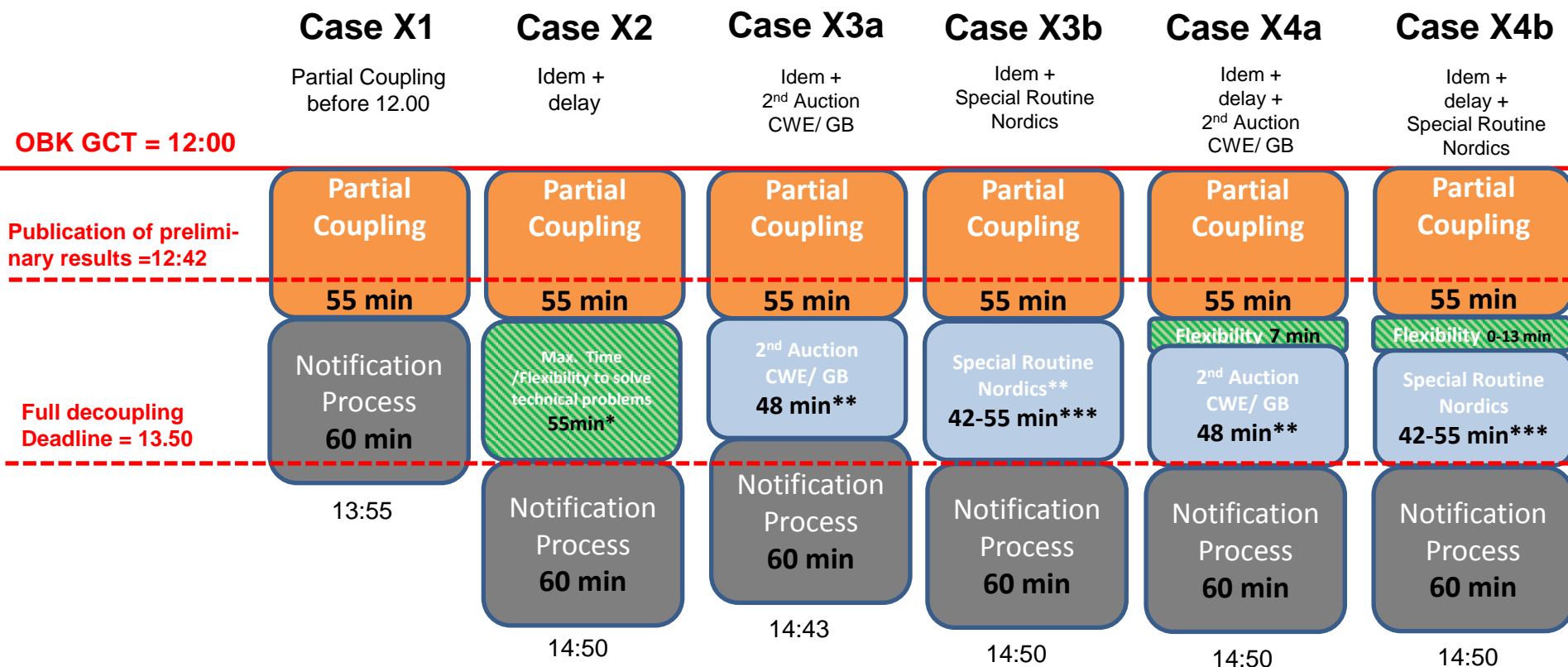
\* Same timings as in CWE are assumed for GB if 2<sup>nd</sup> Auctions are required to be performed in GB.

## Special case 5b: Full Decoupling + Nordic Special Routine 165 min (55 + max. 55 + 35)



- Note: All these timings must be confirmed after the final testing.
- \* The NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.
- \*\*Nordic-Baltic also includes Price Coupling with Poland, unless locally agreed otherwise between NPS and TSO/PX parties in Swe and Pol.

# Partial Coupling before OBK GCT (12:00)



**Final Notification deadline = 15:30 which applies to:  
Internal CWE, CWE-GB and CWE-Nordic interconnectors**

- \* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.
- \*\* the Second Auction in CWE / GB is a single process taking 48 minutes.
- \*\*\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

## Special case X1 – Partial Decoupling before OBK GCT (12:00) 55 min

Partial Coupling  55 min	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
	11:45	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
Notification Process  60 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of Calculation
	12:27	End of Calculation
	12:28	Reception of Results in all PX Systems
	12:29	Start of 10 min preliminary validation
	12:39	End of preliminary PX validation process -> Generation of Preliminary PX Confirmations
	12:40	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	12:41	Reception of Global Preliminary PX Confirmation in every PX IT System
	12:42	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	12:42	Start of 10 min Final Confirmation process
	12:52	End of final validation process -> Generation of Final Confirmations
	12:53	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	12:54	Reception of Global Final Confirmation in the Local PMBs
	12:55	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	13:55	End of Notification Process

## Special case X2 – Idem + delay 110 min (55 + max. 55)

<div>Partial Coupling</div> <div>55 min</div> <div>Max. Time / Flexibility to solve technical problems</div> <div>55min*</div> <div>Notification Process</div> <div>60 min</div>	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling
	11:45	(optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:00	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared
	12:08	PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
	12:10	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication
	13:05	(optional) TSO message to MPs: Inform Market to update shadow auction bids
	13:20	Technical issue solved -> Start of Calculation
		PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling
		(optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:22	End of Calculation
	13:23	Reception of Results in all PX Systems
	13:24	Start of 10 min preliminary validation
	13:34	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:45	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:36	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:37	Publication of preliminary results to the market (incl. market clearing price) and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* This is the **maximum** time which could be used to solve a technical problem in order to avoid a decoupling. If the technical problem is resolved in less than 55 min than the next processes will start earlier.

## Special case X3a – Idem + 2<sup>nd</sup> Auction CWE/GB

### 103 min (55 + 48)

<div>Partial Coupling</div> <div>55 min</div> <div>2<sup>nd</sup> Auction CWE/ UK</div> <div>48 min*</div> <div>Notification Process</div> <div>60 min</div>	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
	11:45	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared
	12:00	PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
	12:08	OBK GCT
	12:10	Check + send OBK
	12:27	Reception of all OBK in PMBs -> Start of Calculation
	12:28	End of Calculation
	12:33	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
	12:35	IC opening and agreement on a fixed time for reopening OBK
	12:38	PCR message sent from PXs to TSOs and MPs: Inform about Second Auction and reopening of order books
	12:42	Start reopening of OBK for 10 min
	12:48	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:56	OBK GCT
	12:58	Check + send OBK
	13:15	Reception of all OBK in PMBs -> Start of Calculation
	13:16	End of Calculation
	13:17	Reception of Results in all PX Systems
	13:20	Start of 10 min preliminary validation
	13:27	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:28	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:29	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:30	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:30	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:40	Start of 10 min Final Confirmation process
	13:41	End of final validation process -> Generation and sending of Final Confirmations
	13:42	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:43	Reception of Global Final Confirmation in the Local PMBs
	14:43	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
		End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Second Auction in CWE / GB is a single process taking 48 minutes.

# Process Timings – Details **Special case X3b: Idem + Nordic Special Routine** **98-110 min (55 + 43->55)**

<b>Partial Coupling</b>  <b>55 min</b>	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
	11:45	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of Calculation
<b>Special Routine Nordics</b> <b>42-55 min*</b>	12:27	End of Calculation
	12:28	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
	12:30	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
	12:33	IC opening to inform about that the NPS Special Routines for Max Price handling has started
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
<b>Notification Process</b> <b>60 min</b>	12:50 - 13:11	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
	12:52 - 13:13	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
	13:09 – 13:30	End of Calculation
	13:10 - 13:31	Reception of Results in all PX Systems
	13:11 – 13:32	Start of 10 min preliminary validation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:22 - 13:33	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:23 –13:34	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:24 – 13:35	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:25 – 13:36	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:26 – 13:37	Start of 10 min Final Confirmation process
	13:36 - 13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:37 – 13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:38 – 13:49	Reception of Global Final Confirmation in the Local PMBs
	13:39 – 13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	<b>14:39 – 14:50</b>	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.



## Special case X4a: Idem + Delay + 2<sup>nd</sup> auction (CWE/ GB)

### 110 min (55 + max. 7 + 48)

<div>Partial Coupling</div> <div>55 min</div>	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
	11:45	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared
	12:00	PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
	12:08	OBK GCT
<div>Flexibility 7 min</div> <div>2<sup>nd</sup> Auction CWE/ UK</div> <div>48 min*</div>	12:10	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12:17	Technical issue solved -> Start of Calculation
	12:34	End of Calculation
<div>Notification Process</div> <div>60 min</div>	12:35	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
	12:40	IC opening and agreement on a fixed time for reopening OBK
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about Second Auction and reopening of order books
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:45	Start reopening of OBK for 10 min
	12:55	OBK GCT
	13:03	Check + send OBK
	13:05	Reception of all OBK in PMBs -> Start of Calculation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:22	End of Calculation
	13:23	Reception of Results in all PX Systems
	13:24	Start of 10 min preliminary validation
	13:34	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:35	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:36	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:37	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Second Auction in CWE / GB is a single process taking 48 minutes. Taking into account the 13.50 full decoupling deadline, the scenario allows for 7 minutes delay in the PCR processes ( 55 + 7), meaning that the results must be there at 13.02 if CWE PXs want to trigger a second auction.

# Special case X4b: Idem + Delay + Nordic Special Routine

## 110 min (55 + max. 12 + 43)

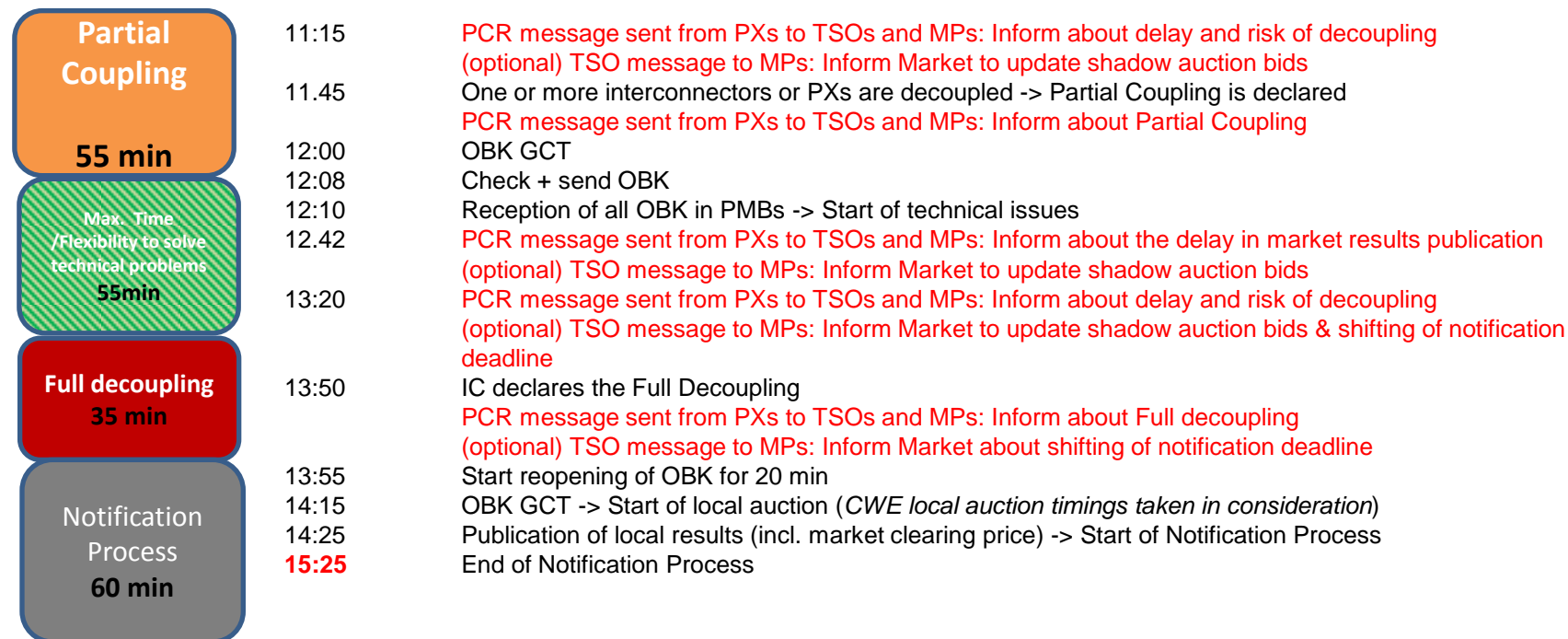
Partial Coupling 55 min	11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
	11:45	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
	12:00	OBK GCT
	12:08	Check + send OBK
Flexibility 13 min	12:10	Reception of all OBK in PMBs -> Start of technical issues
Special Routine Nordics 42 min*	12:22	Technical issue solved -> Start of Calculation
	12:39	End of Calculation
	12:40	Reception of Results in all PX Systems -> PX identification of thresholds/curtailment reached
	12:42	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
Notification Process 60 min	12:45	IC opening to inform about that the NPS Special Routines for Max Price handling has started
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	13:02	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
	13:04	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:21	End of Calculation
	13:22	Reception of Results in all PX Systems
	13:23	Start of 10 min preliminary validation
	13:33	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:34	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:35	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:36	Publication of preliminary results (incl. market clearing price) to the market and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

\* the Special Procedure for the Nordics is an iterative process which will run the number of times necessary taking into the 13.50 full decoupling deadline when NWE is coupled.

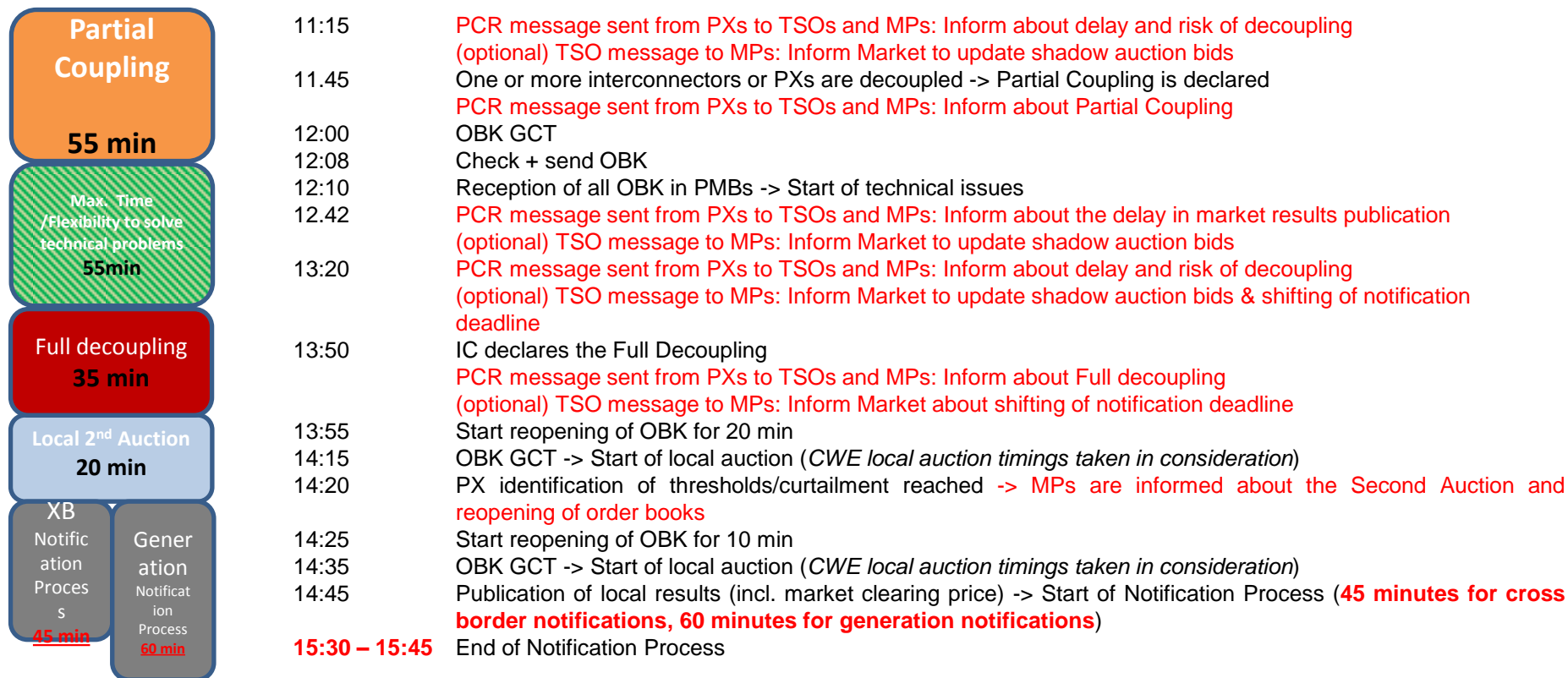
## Special case X5: Full Decoupling

### 150 min (55 + max. 55 + 35)



## Special case X6a: Full Decoupling + local 2<sup>nd</sup> Auction

### 165 min (55 + max. 55 + 35 + 20)



Note: All these timings must be confirmed after the final testing.

\* Same timings as in CWE are assumed for GB if 2<sup>nd</sup> Auctions are required to be performed in GB.

## Special case X6b: Full Decoupling + Nordic Special Routine

### 165 min (55 + max. 55 + 35)

Partial Coupling

55 min

Max. Time /Flexibility to  
solve technical problems

55min

Full decoupling

Notificati  
on  
Process  
**No  
Deadline**

Special  
Routine  
Nordics  
42-72  
min\*

Notificati  
on  
Process  
**No  
Deadline**

11:15	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling
11:45	(optional) TSO message to MPs: Inform Market to update shadow auction bids
	One or more interconnectors or PXs are decoupled -> Partial Coupling is declared
12:00	PCR message sent from PXs to TSOs and MPs: Inform about Partial Coupling
12:08	OBK GCT
12:10	Check + send OBK
12:42	Reception of all OBK in PMBs -> Start of technical issues
13:20	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication
	(optional) TSO message to MPs: Inform Market to update shadow auction bids
13:50	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling
	(optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	IC declares the Full Decoupling
	PCR message sent from PXs to TSOs and MPs: Inform about Full decoupling
	(optional) TSO message to MPs: Inform Market about shifting of notification deadline
13:55	Start reopening of OBK for 20 min
14:15	OBK GCT -> Start of local auction
14:30	NPS identifies curtailment reached in Nordic-Baltic (in worst case based on current Euphemia 15 min timeout)
14:32	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
14:52 – 15:22	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
14:54 – 15:24	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
15:12 - 15:42	End of Calculation by NPS for Nordic-Baltic
15:15 – 15:45	<b>Publication of local results in Nordic-Baltic</b> (incl. market clearing price) -> Start of Notification Process

- Note: All these timings must be confirmed after the final testing.
- \* The NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.
- \*\*Nordic-Baltic also includes Price Coupling with Poland, unless locally agreed otherwise between NPS and TSO/PX parties in Swe and Pol.

## Special case X7: Partial Coupling early in the process 110 min (40+70)

PCR Normal Process 40 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
Partial Coupling 70 min	12:40	IC declares the Partial Decoupling -> IC agreement on a fixed time for reopening OBK PCR message sent from PXs to TSOs and MPs: Inform about Partial Decoupling and reopening of OBK (optional) TSO message to MPs: Inform Market about shifting of notification deadline
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:45	Start reopening of OBK for 10 min
	12:55	OBK GCT
Notification Process 60 min	13:03	Check + send OBK
	13:05	Receipt of all OBK in PMBs, Start of Calculation
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:22	End of Calculation
	13:23	Reception of Results in all PX Systems
	13:24	Start of 10 min preliminary validation
	13:34	End of preliminary PX validation process -> Generation and sending of Preliminary PX Confirmations
	13:35	Reception of all Preliminary PX Confirmations in PMB -> Sending of Global Preliminary PX Confirmation
	13:36	Reception of Global Preliminary PX Confirmation in every PX IT System
	13:37	Publication of preliminary results to the market (incl. market clearing price) and sending of the results to TSOs
	13:37	Start of 10 min Final Confirmation process
	13:47	End of final validation process -> Generation and sending of Final Confirmations
	13:48	Reception of all Final Confirmations in the PMB -> Sending of Global Final Confirmation
	13:49	Reception of Global Final Confirmation in the Local PMBs
	13:50	Publication of Final Results (incl. market clearing price) -> Start of Notification Process
	14:50	End of Notification Process

Note: All these timings must be confirmed after the final testing.

## Special case X8: Idem followed by Full Decoupling 140 min (40+70+35)

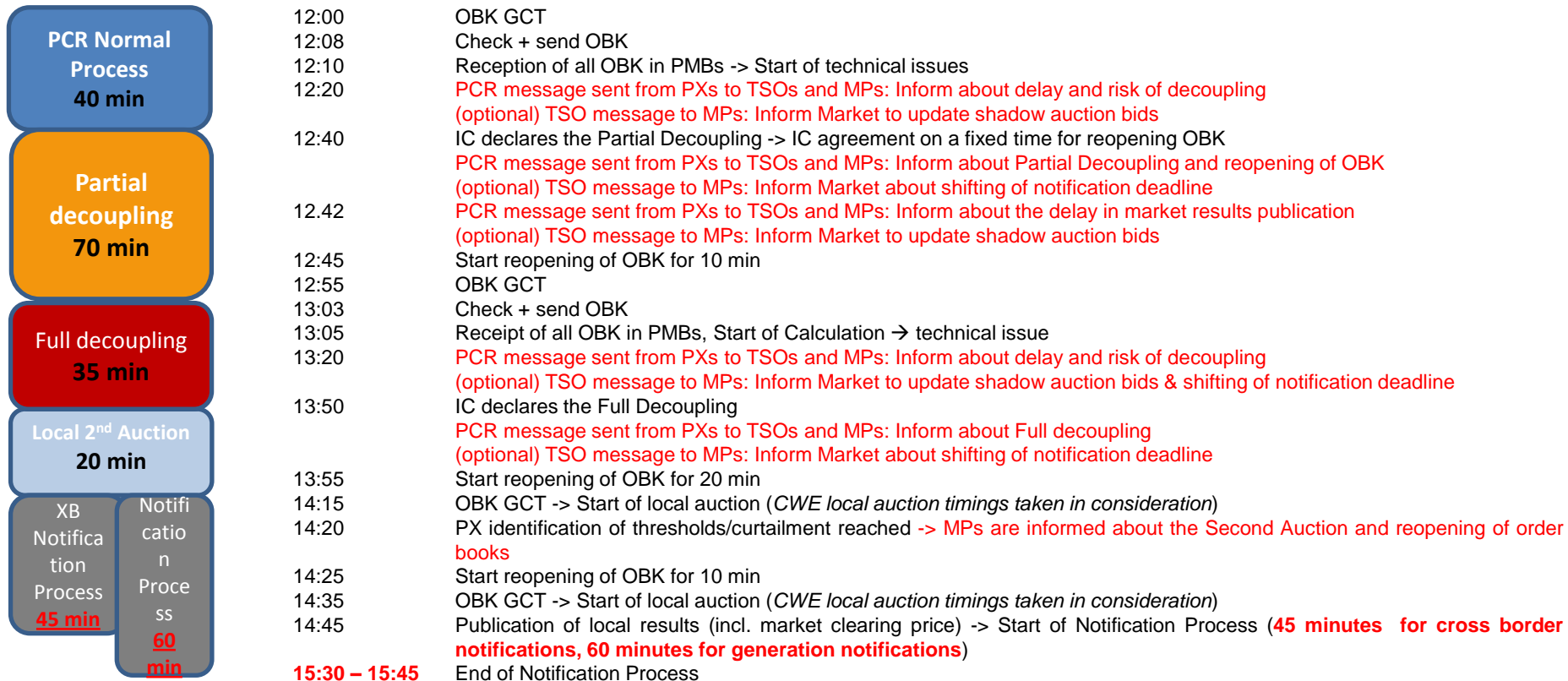
PCR Normal Process 40 min	12:00	OBK GCT
	12:08	Check + send OBK
	12:10	Reception of all OBK in PMBs -> Start of technical issues
	12:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
Partial decoupling 70 min	12:40	IC declares the Partial Decoupling -> IC agreement on a fixed time for reopening OBK PCR message sent from PXs to TSOs and MPs: Inform about Partial Decoupling and reopening of OBK (optional) TSO message to MPs: Inform Market about shifting of notification deadline
	12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
	12:45	Start reopening of OBK for 10 min
	12:55	OBK GCT
Full decoupling 35 min	13:03	Check + send OBK
	13:05	Receipt of all OBK in PMBs, Start of Calculation -> technical issue
	13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
	13:50	IC declares the Full Decoupling PCR message sent from PXs to TSOs and MPs: Inform about Full decoupling (optional) TSO message to MPs: Inform Market about shifting of notification deadline
Notification Process 60 min	13:55	Start reopening of OBK for 20 min
	14:15	OBK GCT -> Start of local auction (CWE local auction timings taken in consideration)
	14:25	Publication of local results -> Start of Notification Process
	15:25	End of Notification Process

Note: All these timings must be confirmed after the final testing.



## Special case X9a: Full Decoupling + local 2<sup>nd</sup> Auction

### 165 min (55 + max. 55 + 35 + 20)





# Special case 9b: Full Decoupling + Nordic Special Routine

## 165 min (55 + max. 55 + 35)

### PCR Normal Process

40 min

Notification  
on  
Process  
No  
Deadline

Special  
Routine  
Nordics  
42-72  
min\*

Notification  
on  
Process  
No  
Deadline

12:00	OBK GCT
12:08	Check + send OBK
12:10	Reception of all OBK in PMBs -> Start of technical issues
12:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids
12:40	IC declares the Partial Decoupling -> IC agreement on a fixed time for reopening OBK PCR message sent from PXs to TSOs and MPs: Inform about Partial Decoupling and reopening of OBK (optional) TSO message to MPs: Inform Market about shifting of notification deadline
12:42	PCR message sent from PXs to TSOs and MPs: Inform about the delay in market results publication (optional) TSO message to MPs: Inform Market to update shadow auction bids
12:45	Start reopening of OBK for 10 min
12:55	OBK GCT
13:03	Check + send OBK
13:05	Receipt of all OBK in PMBs, Start of Calculation -> technical issue
13:20	PCR message sent from PXs to TSOs and MPs: Inform about delay and risk of decoupling (optional) TSO message to MPs: Inform Market to update shadow auction bids & shifting of notification deadline
13:50	IC declares the Full Decoupling PCR message sent from PXs to TSOs and MPs: Inform about Full decoupling (optional) TSO message to MPs: Inform Market about shifting of notification deadline
13:55	Start reopening of OBK for 20 min
14:15	OBK GCT -> Start of local auction ( <i>CWE local auction timings taken in consideration</i> )
14:30	NPS identifies curtailment reached in Nordic-Baltic (in worst case based on current Euphemia 15 min timeout)
14:32	Activation of PMB Max-Price Plug-In to perform the needed steps linked to NPS Special Procedures
14:52 – 15:22	PMB Max-Price Plug-In process in accordance with NPS Special Routines finalized
14:54 – 15:24	Reception of updated Nordic-Baltic OBK and or ATCs in PMBs -> Start of Calculation
15:12 - 15:42	End of Calculation by NPS for Nordic-Baltic
15:15 – 15:45	<b>Publication of local results in Nordic-Baltic</b> (incl. market clearing price) -> Start of Notification Process

- Note: All these timings must be confirmed after the final testing.
- \* The NPS special procedure, being an iterative process, may take the same timeframe as when all markets are still coupled, but this is not relevant in a full decoupling since Nordic and Baltic TSOs do not impose a nomination deadline, but instead NPS can take as long time as needed to finish the Price Calculation and subsequent notifications can be submitted (updated) by NPS and market parties to relevant TSOs until about 1 hour before delivery hour.
- \*\*Nordic-Baltic also includes Price Coupling with Poland, unless locally agreed otherwise between NPS and TSO/PX parties in Swe and Pol.