

SDAC report on the partial decoupling incident of May 10th, 2022

08/06/2022

Version: 1.0

Executive summary

Summary of the partial decoupling incident

On Tuesday, May 10th, 2022, an incident took place in the Single Day-Ahead Market Coupling process that led to a partial decoupling of OKTE, affecting the day-ahead trades with delivery day Wednesday, May 11th in the Single Day-Ahead Coupling (SDAC).

The day of the incident corresponds to the day that the maximum SDAC price was increased from 3,000.- to 4,000.- €/MWh, due to high prices reached in France on April 3rd. This change in maximum price was introduced in line with the Harmonized Min Max Price (HMMP) Methodology.

The partial decoupling of OKTE from SDAC was the consequence of OKTE not being able to provide their order book until the partial decoupling deadline (12:45). This resulted in decoupling the following six interconnectors: CZ-SK, SK-HU, DE_50Hz-PL, DE_50Hz-CZ, CZ-PL, SK-PL.

The root cause was a wrong configuration in the OKTE Local Trading System for the new maximum price and that prevented OKTE from generating a correct order book. The problem was solved that very same day later in the afternoon.

Following declaration of the partial decoupling and in line with the fallback procedures, shadow auctions were run by JAO for the above-listed interconnectors and the results were sent to the market participants.

The SDAC parties that remained coupled followed the normal procedures and the final results were published shortly before 14:00.

The local auction was successfully completed by OKTE around 13:20.

Preliminary findings

The issue was caused by a wrong configuration for the maximum price change in the Local Trading System of OKTE. This change, even though thoroughly tested in testing environments, was not correctly applied in production for the Local Trading System.

Lessons learnt and recommended follow up actions

Due to the complexity of the process and the large number of systems involved, also a small change (like a change in maximum price) in the common and local assets, even though thoroughly tested, could lead to local issues that finally prevented the global process to proceed and finish without problems.

The SDAC procedures in place to manage a partial decoupling, have been properly applied and have proven to be successful in retaining the coupling among the bidding zones not involved in the issue.

In addition, NEMOs and TSOs are continuing to investigate the generic robustness of the operational processes and procedures at different levels (European, regional, and local) and their consistency for specific types of incidents. This generic investigation is not specifically related to this incident.

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List of abbreviations

| | |
|----------|---|
| CACM | EU Regulation establishing a guideline on capacity allocation and congestion management |
| CZC | Cross Zonal Capacities |
| EUPHEMIA | EU + Pan-European Hybrid Electricity Market Integration Algorithm |
| GCT | Gate Closure Time |
| GPC | Global Preliminary Confirmation |
| GFC | Global Final Confirmation |
| IC | Incident Committee |
| JAO | Joint Allocation Office |
| NEMO | Nominated Electricity Market Operator |
| PCR | Price Coupling of Regions |
| PMB | PCR Matcher Broker |
| SDAC | Single Day-Ahead Coupling |
| TSO | Transmission System Operator |
| VB | Virtual Broker |

1 Introduction

On May 10th, 2022, an incident took place in the Day-Ahead Market Coupling process that led to a partial decoupling of OKTE (Slovakian NEMO), affecting the day-ahead trades for delivery day May 11th. Only the Slovakian market was decoupled. The issue was related to the change of the maximum price from 3,000.- to 4,000.- €/MWh that took place on that same day.

Since the Go-Live of the NWE Market Coupling on February 4th, 2014, after more than 3000 successfully completed market coupling sessions, this is the fourth incident that has led to a partial decoupling.

Although this did not lead to any grid security issues anywhere in Europe, the incident caused a disruption of the European Day-Ahead Market within the Single Day-Ahead Coupling and impacted processes on market parties' and TSOs' side. The common coupling system worked as expected and ensured the coupling of the remaining European market areas within SDAC.

This report is structured as follows. In Chapter 2, the Single Day-ahead Coupling (SDAC) is described. In Chapter 3, the normal operational process as covered in the operational procedures and the fallback measures in place are described together with their timings. In Chapter 4, a description of the incident, including the chronological course of events, and the root cause are presented. In Chapter 5, the actual handling of the incident is evaluated. Finally, in Chapter 6, the lessons learnt, and recommendations are presented.

All timings mentioned in the reports are to be understood as Central European Time (CET).

2 Single Day-ahead Coupling

The aim of Single Day-ahead Coupling is to create a single pan European cross zonal day-ahead electricity market. An integrated day-ahead market increases the overall efficiency of trading by promoting effective competition, increasing liquidity, and enabling a more efficient utilization of the generation resources across Europe.

SDAC allocates scarce cross-border transmission capacity in the most efficient way by coupling wholesale electricity markets from different regions through a common algorithm, simultaneously taking into account cross-border transmission constraints thereby maximizing social welfare.

SDAC is an initiative between the Nominated Electricity Market Operators (NEMOs) and Transmission System Operators (TSOs) which – in the framework of CACM implementation – enables cross-border trading across Europe via implicit auctions for delivery of power for the following day.

Significant progress has been achieved in the establishment of a pan-European Single Day-Ahead Coupling in recent years, thanks to early implementation initiatives and pilot projects. SDAC relies on the Price Coupling of Regions (PCR) solution developed by a group of power exchanges.

See for more information the following websites:

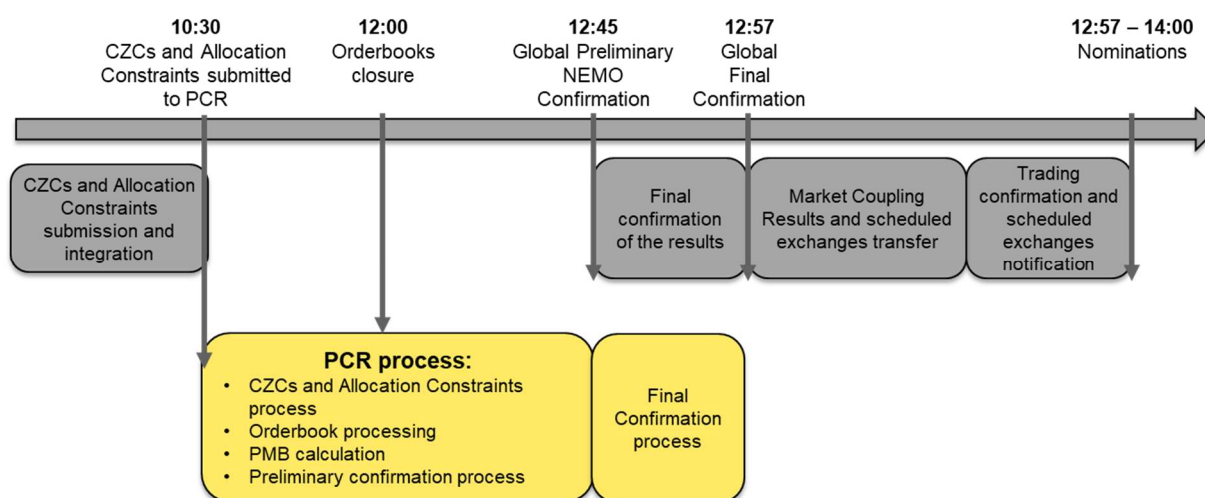
- ENTSO-E: https://www.entsoe.eu/network_codes/cacm/implementation/sdac
- NEMO Committee: <http://www.nemo-committee.eu/sdac>

3 Operational process and timings as described in the operational procedures

To understand the effect of the issue that triggered the chain of events that finally led to a partial decoupling of OKTE, in this chapter, the normal process is briefly described together with the timings. Subsequently, the measures in place to handle a partial decoupling are described.

3.1 Normal process and timings

In the below figure, the regular operational process is visualized.



To start with, the TSOs provide cross zonal capacities to PCR through the NEMO(s), which forward them to the PMB, while the Market Participants make bids for buying and selling to the Local Trading System of their NEMO(s).

At 12:00, the local order books are closed and submitted after internal validation to the PMB, which subsequently starts the calculation with EUPHEMIA. The results of this calculation are subsequently shared and validated. After that, the results are confirmed by the NEMOs and TSOs.

After the global final confirmation of the results, the market coupling results and scheduled exchanges are transferred, and the trading confirmations and the scheduled exchanges notifications are given.

3.2 Fallback process and timings

To handle issues in operations, there are backup procedures. These provide workarounds for issues that do not lead to exceeding the critical deadlines for the different process steps. When these backup procedures do not suffice, there are fallback measures in place to limit the negative impact on the market.

In the below figure, the timings for the operational process are shown and the deadlines for declaring a Partial or a Full Decoupling are indicated in **turquoise**.

| Phase | Time | Event |
|--------------|--|---|
| Pre-Coupling | 09:00 | Start of the Market Coupling Session |
| | 09:00 | TSOs start computing and matching the CZC values |
| | 09:15 | Latest Time start an IC for issues in the Configuration step |
| | 09:45 | Deadline to skip the Configuration Synchronization step |
| | 10:30 | Target Time for submitting the Network Data in the PMB |
| | 11:00 | Latest time to start an IC for missing Network Data |
| | 11:15 | Risk of Partial Decoupling for one or more interconnectors |
| | 11:30 | Deadline to declare the Partial Decoupling for an interconnector |
| Coupling | 12:00 | NEMO Order book Gate Closure Time |
| | 12:10 | PMB GCT/Reception of Order Data files → Start of Calculation |
| | 12:15 | Latest Time to start an IC for Order Data-related reasons |
| | 12:25 | Deadline to send the message for Risk of Partial Decoupling |
| | 12:27 | End of Calculation |
| | 12:29 | Reception of Results + Start of 12 min Confirmation process |
| | 12:41 | Deadline to send the Preliminary Conf → Generation of GPC |
| | 12:43 | Reception of Preliminary Final Confirmation in local PMBs |
| | 12:45 | Deadline to declare Partial Decoupling |
| | 12:45 | Publication of Preliminary Results and sending to the TSOs → Start of 12 min Final Confirmation process |
| | 12:57 | Deadline to send the Final Confirmations |
| | 12:57 | Reception of all Final Confirmations → Generation of GFC |
| | 12:57 | Reception of Global Final Confirmation in local PMBs |
| | 12:58 | Publication of Final Results → Start of Notification Process |
| | 13:15 | Latest time to Start an IC and invite TSOs |
| 13:30 | Deadline to send the message for Risk of Full Decoupling | |
| 14:00 | Deadline to declare the SDAC Full Decoupling | |

3.2.1 Shadow auction process

When an order book is missing and a partial decoupling is declared or when a full decoupling is declared, shadow auctions are the most common fallback measure in place to handle a situation where the cross zonal capacity cannot be allocated in the normal Market Coupling process. In case of a risk of partial decoupling, Market participants have the possibility to place default bids and provide (updates of) bids through dedicated platforms (e.g. JAO's website) to obtain capacity until 12:35. The results of these auctions are published as soon as possible after the partial decoupling has been declared (normally between 12:45 and 12:50) and represent the allocated capacity. Once this phase is terminated, the market participants can adjust their power bids in the different markets (normally between 12:50 and 13:05) taking into consideration the results of the shadow auctions.

Market participants can nominate the capacity allocated through shadow auctions. These nominations done towards TSOs are then matched among the TSOs border by border.

3.2.2 Local auctions

When a NEMO is decoupled from the SDAC process, the NEMO(s) in the decoupled bidding zone(s) can then perform a local auction that enables trading within the individual zone(s) managed by the decoupled NEMO. This process is done separately from the SDAC process, where the remaining parties complete the SDAC process. When a full decoupling is declared, all NEMOs have this possibility of running the local auctions.

4 Description of the incident

On Tuesday May 10th, 2022, the day of changing the maximum price from 3,000.- to 4,000.- €/MWh, OKTE was not able to generate their order book within the allowed time and therefore they were decoupled. The root cause was a configuration error in the Local Trading System of OKTE.

The chain of events can be divided into two parts: one concerning the decoupling incident and the subsequent processes on SDAC level (covered in Sections 4.1 until 4.4), the other concerning the local auctions (covered in Section 4.5). Finally, in Section 4.6, the solution for the issue that triggered the chain of events is presented.

4.1 Incident

The issue encountered by OKTE was that they were not able to create a correct order book after the change of the maximum price to 4,000.- €/MWh. This prevented OKTE from submitting the aggregated order book for the Slovakian market to the central system that manages the market coupling process within the defined deadline.

4.2 Timeline

In the below overview the timeline is shown.

| Time | Event |
|-------|---|
| 12:10 | An Incident Committee call was triggered, because the order book was missing from OKTE. Underlying reason is that OKTE has difficulties generating their order book. Sending of the OKTE order book to OPCOM (as servicing NEMO) and then to PMB failed several times. |
| 12:25 | Message Risk of Partial Decoupling (ExC_03a) was sent out for the following Virtual Broker: OPCOM – OKTE. |
| 12:35 | Shadow auctions for the following interconnectors were run: CZ-SK, SK-HU, DE_50Hz-PL, DE_50Hz-CZ, CZ-PL, SK-PL. |
| 12:43 | Message Delay in Market Coupling Results (ExC_02) was sent out. |
| 12:45 | Partial decoupling was declared and message (ExC_04a) was sent for the decoupling of OKTE Virtual Broker. Every NEMO confirmed to be in manual mode according to the procedure. Partial decoupling procedure was thereafter followed. Order book reopening time was decided to be 12:50 – 13:05. |
| 12:47 | Publishing of the shadow auction results. |
| 12:50 | Reopening of the order books was done and procedure of partial decoupling of OKTE was executed. |

| | |
|--------------|--|
| 13:05 | Following the ICP regional procedures, a TSO platform operator updated the capacities for the affected interconnectors, putting them to 0. All NEMOs could upload the new version of their order books. |
| 13:16 | Calculation started. |
| 13:30 | Message Further Delay of the Market Coupling (ExC_03b) was sent out by EMCO as PCR Coordinator (risk of full decoupling). |
| 13:34 | Calculation finished. |
| 13:41 | Global preliminary confirmation was distributed, and results were preliminarily confirmed and published. |
| 13:53 | Global final confirmation was distributed and results were confirmed. |

4.3 Communication to the market

As part of the SDAC process, the following joint communication towards the market was made:

| Timings | Message |
|----------------|---|
| 12:25 | Risk of partial decoupling (ExC_03a) |
| 12:30 | Shadow auction gate closure time at 12:35 |
| 12:43 | Delay in Market Coupling Results (ExC_02) |
| 12:45 | Partial Decoupling - Reopening of the order books 12:50 – 13:05 (ExC_04a) |
| 12:48 | Shadow auction results |
| 13:00 | Delay in final Market Coupling result publication (UMM_01a) |
| 13:30 | Further delay in market coupling results publication (ExC_03b) |

Please note that these are the timings from the procedures. Depending on the recipient, this might vary a few minutes.

4.4 Impacted borders

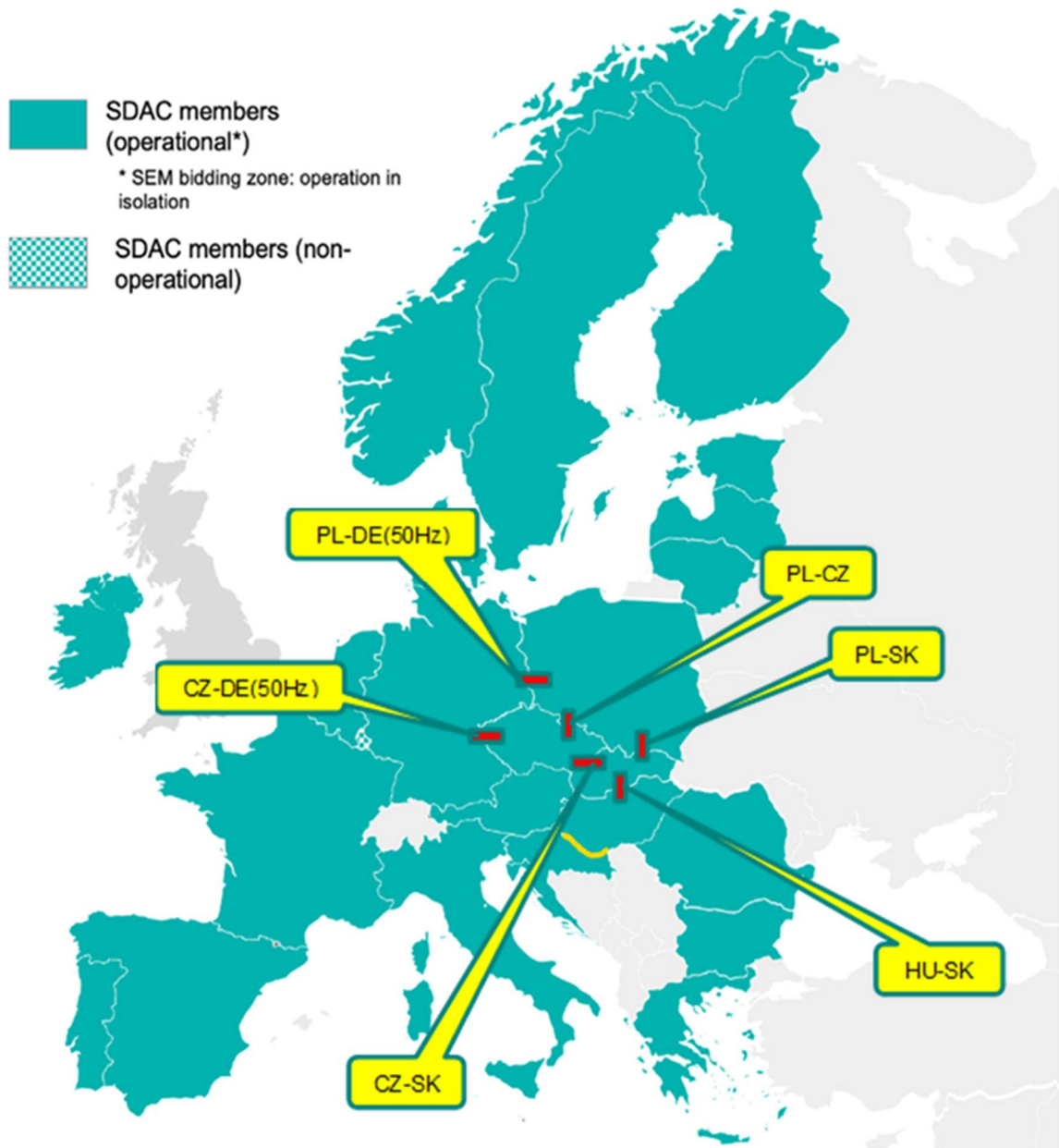
The impacted borders concern the borders related to OKTE plus some additional borders as agreed in the Interim Coupling Project related to Poland.

For the impacted interconnectors,

- Czech – Slovakia
- Slovakia – Hungary
- Czech – Poland
- Slovakia – Poland
- Czech – Germany (50Hz)
- Poland – Germany (50Hz)

shadow auctions were triggered, in line with the fallback procedures.

In the below figure, a visualization of the impacted borders is given.



4.5 Decoupled market Local auctions

Local auction was run by OKTE at 13:05 and the results were published at 13:20.

4.6 Solution for the issue that triggered the chain of events

After the market coupling session, the IT support for the OKTE Local Trading System identified that the root cause for the partial decoupling incident was an incorrect configuration of new maximum price in the OKTE Local Trading System.

On that same day, the configuration has been corrected.

5 Handling of the incident – Evaluation

In this chapter, the evaluation is presented of the way that the incident was handled.

5.1 Detecting the issue

The issue was detected as soon as OKTE tried to submit the order book to the PMB (through OPCOM). The order book was rejected by the PMB, because the demand curve was not correctly compiled (monotony was not respected). Some other attempts were made for creating the order book in the correct way, but the issue could not be fixed or worked around before the partial decoupling deadline.

5.2 Incident committee and communication between the Market Coupling Coordinator, NEMOs, TSOs and third parties

Overall, the management of the incident committee and the communication towards the operators of NEMOs, TSOs, and third parties went well. This is mainly due to the experiences and lessons learnt of the last decoupling incidents and due to the decoupling training sessions within SDAC (some of which were also joined by Market participants).

All messages to market participants were sent in line with the procedures.

5.3 Shadow auctions and results

Shadow auctions on the 6 involved borders were run by JAO. General information and outcome are included in Annex 1: Overview of the results of the shadow auctions per border.

| Border / Interconnector | Shadow auction process | | |
|-------------------------|-------------------------------------|----------------------|----------------------------------|
| | Bid submission closed (auction ran) | Auction results sent | Results published on JAO website |
| CZ-DE(50Hz) | 12:35 | 12:47 | 12:48 |
| CZ-PL | 12:35 | 12:47 | 12:48 |
| CZ-SK | 12:36 | 12:47 | 12:49 |
| DE(50Hz)-CZ | 12:35 | 12:47 | 12:48 |
| DE(50Hz)-PL | 12:35 | 12:47 | 12:49 |
| HU-SK | 12:36 | 12:47 | 12:48 |
| PL-CZ | 12:35 | 12:47 | 12:48 |
| PL-DE(50Hz) | 12:35 | 12:47 | 12:49 |
| PL-SK | 12:35 | 12:47 | 12:48 |
| SK-CZ | 12:36 | 12:48 | 12:49 |
| SK-HU | 12:36 | 12:48 | 12:49 |

| | | | |
|--------------|-------|-------|-------|
| SK-PL | 12:35 | 12:47 | 12:48 |
|--------------|-------|-------|-------|

5.4 Update of bids based on shadow auction result

After declaration of the partial decoupling in the Incident Committee, there are 10 minutes for informing the market participants, 15 minutes for keeping the markets reopened, and 10 minutes for the preparation and sending of new files.

Few minutes before the reopening of the markets at 12:47, the shadow auction results were available.

The order books for the areas that remained coupled, reopened between 12:50 and 13:05.

See for an overview of the results of the shadow auctions per border and what was finally allocated the table in Annex 1.

The shadow auction process and the subsequent update of the bids were executed in line with the procedures.

5.5 Evaluation and estimate of monetary impact

The monetary impact for the affected TSOs consists on the one hand of the compensation that TSOs provide towards the affected Market Participants. While on the other hand, congestion income is turned over for both the Long-Term Transmission Rights, as well as for the Shadow Auctions for that day.

An overview per border/interconnector and per direction is shown in the Table below.

| Border / Interconnector | Congestion income and compensation to the Market Participants in EUR | | |
|-------------------------|--|----------------------------------|--|
| | Long-Term Transmission Rights Congestion Income | Shadow Auction Congestion Income | Long-Term Transmission Rights compensation to MP |
| CZ-DE(50Hz) | 14.075,52 | - | - |
| CZ-PL | - | - | - |
| CZ-SK | 106.176,00 | 1.910,40 | 279.566,76 |
| DE(50Hz)-CZ | 22.310,40 | 17.530,22 | 132.221,70 |
| DE(50Hz)-PL | | | |
| HU-SK | 2.304,72 | - | 1.070,00 |
| PL-CZ | - | - | - |
| PL-DE(50Hz) | - | - | - |
| PL-SK | - | - | - |
| SK-CZ | 1.584,00 | 2.733,57 | 83.232,00 |

| | | | |
|--------------|------------|-----------|--------------|
| SK-HU | 110.208,00 | 4.366,00 | 1.703.475,20 |
| SK-PL | - | - | - |
| Sum | 256.658,64 | 26.540,19 | 2.199.565,66 |

Please note that on the Polish interconnectors no Long-Term Transmission Rights are allocated, meaning there is nothing to compensate there.

Overall, the estimated net loss of the affected TSOs is 1.92 mio EUR. The difference between Long-Term Transmission Rights compensation and Shadow Auction Congestion Income being 2.17 mio EUR.

6 Lessons learnt and recommended follow-up actions

Although the SDAC parties regret that this incident occurred, the issue was managed well.

Procedures were followed correctly, and the communication was performed in line with those, using the agreed messages.

Moreover, the common coupling system worked as expected and ensured the coupling of the remaining European market areas within SDAC.

Due to the growing number of coupled parties, the very large number of involved systems and the increasing complexity of operations, the risks for incidents increases. Therefore, the SDAC parties are conducting rigorous tests prior to introducing changes in operations.

Also, in this case tests were positively run for the change (that affected NEMOs only), but there were some problems in bringing the change from the testing environments to the production environment.

However, this incident shows that a change that is considered to have only a minor impact (compared to other changes like the 4 MMC – MRC merge or Core Flow-Based Market coupling project), can also result into a decoupling, due to the large number and interdependencies of systems involved.

NEMOs and TSOs are in any case and independently from this event, always working on trying to improve the robustness of the process and procedures in order to reduce the risk for such kind of incident.

Annex 1: Overview of the results of the shadow auctions per border

Table: Overview of the shadow auctions, per border.

| BORDER | Capacity requested | | Capacity offered | | Capacity allocated | |
|-------------|---------------------|---------|------------------|---------|--------------------|---------|
| CZ-DE(50Hz) | 00:00-09:00 1233 MW | | | | | |
| | 09:00-18:00 | 1133 MW | 00:00-24:00 | 1105 MW | 00:00-24:00 | 1105 MW |
| | 18:00-24:00 1194 MW | | | | | |
| CZ-PL | | | 00:00-07:00 | 0 MW | | |
| | | | 07:00-08:00 | 162 MW | | |
| | 00:00-24:00 | 0 MW | 08:00-21:00 | 500 MW | 00:00-24:00 | 0 MW |
| | | | 21:00-22:00 | 700 MW | | |
| | | | 22:00-23:00 | 182 MW | | |
| | | | 23:00-24:00 | 0 MW | | |
| CZ-SK | 00:00-24:00 | 3045 MW | 00:00-24:00 | 1592 MW | 00:00-24:00 | 1592 MW |
| DE(50Hz)-CZ | 00:00-01:00 | 2185 MW | 00:00-01:00 | 1445 MW | 00:00-01:00 | 1444 MW |
| | 01:00-02:00 | 2185 MW | 01:00-02:00 | 1055 MW | 01:00-02:00 | 1054 MW |
| | 02:00-03:00 | 2185 MW | 02:00-03:00 | 1675 MW | 02:00-03:00 | 1675 MW |
| | 03:00-04:00 | 2185 MW | 03:00-04:00 | 1405 MW | 03:00-04:00 | 1404 MW |
| | 04:00-05:00 | 2185 MW | 04:00-05:00 | 1495 MW | 04:00-05:00 | 1494 MW |
| | 05:00-06:00 | 2185 MW | 05:00-06:00 | 1085 MW | 05:00-06:00 | 1084 MW |
| | 06:00-07:00 | 2185 MW | 06:00-07:00 | 1455 MW | 06:00-07:00 | 1454 MW |
| | 07:00-08:00 | 2185 MW | 07:00-08:00 | 1325 MW | 07:00-08:00 | 1324 MW |
| | 08:00-09:00 | 2185 MW | 08:00-09:00 | 1355 MW | 08:00-09:00 | 1355 MW |

| BORDER | Capacity requested | | Capacity offered | | Capacity allocated | |
|-------------|--------------------|-------------|------------------|-------------|--------------------|---------|
| DE(50Hz)-CZ | 09:00-10:00 | 2482 MW | 09:00-10:00 | 855 MW | 09:00-10:00 | 854 MW |
| | 10:00-11:00 | 2482 MW | 10:00-11:00 | 1025 MW | 10:00-11:00 | 1025 MW |
| | 11:00-12:00 | 2482 MW | 11:00-12:00 | 1045 MW | 11:00-12:00 | 1045 MW |
| | 12:00-13:00 | 2482 MW | 12:00-13:00 | 1025 MW | 12:00-13:00 | 1025 MW |
| | 13:00-14:00 | 2482 MW | 13:00-14:00 | 1135 MW | 13:00-14:00 | 1135 MW |
| | 14:00-15:00 | 2482 MW | 14:00-15:00 | 915 MW | 14:00-15:00 | 914 MW |
| | 15:00-16:00 | 2482 MW | 15:00-16:00 | 945 MW | 15:00-16:00 | 944 MW |
| | 16:00-17:00 | 2482 MW | 16:00-17:00 | 825 MW | 16:00-17:00 | 824 MW |
| | 17:00-18:00 | 2383 MW | 17:00-18:00 | 895 MW | 17:00-18:00 | 895 MW |
| | 18:00-19:00 | 2383 MW | 18:00-19:00 | 1025 MW | 18:00-19:00 | 1025 MW |
| | 19:00-20:00 | 2383 MW | 19:00-20:00 | 925 MW | 19:00-20:00 | 925 MW |
| | 20:00-21:00 | 2383 MW | 20:00-21:00 | 1005 MW | 20:00-21:00 | 1005 MW |
| | 21:00-22:00 | 2383 MW | 21:00-22:00 | 1245 MW | 21:00-22:00 | 1245 MW |
| | 22:00-23:00 | 2383 MW | 22:00-23:00 | 1195 MW | 22:00-23:00 | 1195 MW |
| 23:00-24:00 | 2383 MW | 23:00-24:00 | 1285 MW | 23:00-24:00 | 1285 MW | |
| | 00:00-01:00 | 0 MW | 00:00-01:00 | 0 MW | 00:00-01:00 | 0 MW |
| | 01:00-02:00 | 0 MW | 01:00-02:00 | 0 MW | 01:00-02:00 | 0 MW |
| | 02:00-03:00 | 0 MW | 02:00-03:00 | 0 MW | 02:00-03:00 | 0 MW |

| | | | | | | |
|-------------|-------------|------|-------------|---------|-------------|------|
| DE(50Hz)-PL | 03:00-04:00 | 0 MW | 03:00-04:00 | 0 MW | 03:00-04:00 | 0 MW |
| | 04:00-05:00 | 0 MW | 04:00-05:00 | 0 MW | 04:00-05:00 | 0 MW |
| | 05:00-06:00 | 0 MW | 05:00-06:00 | 0 MW | 05:00-06:00 | 0 MW |
| | 06:00-07:00 | 0 MW | 06:00-07:00 | 0 MW | 06:00-07:00 | 0 MW |
| | 07:00-08:00 | 0 MW | 07:00-08:00 | 162 MW | 07:00-08:00 | 0 MW |
| | 08:00-09:00 | 0 MW | 08:00-09:00 | 750 MW | 08:00-09:00 | 0 MW |
| | 09:00-10:00 | 0 MW | 09:00-10:00 | 855 MW | 09:00-10:00 | 0 MW |
| | 10:00-11:00 | 0 MW | 10:00-11:00 | 1025 MW | 10:00-11:00 | 0 MW |
| | 11:00-12:00 | 0 MW | 11:00-12:00 | 1045 MW | 11:00-12:00 | 0 MW |
| | 12:00-13:00 | 0 MW | 12:00-13:00 | 1025 MW | 12:00-13:00 | 0 MW |
| | 13:00-14:00 | 0 MW | 13:00-14:00 | 800 MW | 13:00-14:00 | 0 MW |
| | 14:00-15:00 | 0 MW | 14:00-15:00 | 800 MW | 14:00-15:00 | 0 MW |
| | 15:00-16:00 | 0 MW | 15:00-16:00 | 945 MW | 15:00-16:00 | 0 MW |
| | 16:00-17:00 | 0 MW | 16:00-17:00 | 825 MW | 16:00-17:00 | 0 MW |
| | 17:00-18:00 | 0 MW | 17:00-18:00 | 895 MW | 17:00-18:00 | 0 MW |
| | 18:00-19:00 | 0 MW | 18:00-19:00 | 1025 MW | 18:00-19:00 | 0 MW |
| | 19:00-20:00 | 0 MW | 19:00-20:00 | 925 MW | 19:00-20:00 | 0 MW |
| | 20:00-21:00 | 0 MW | 20:00-21:00 | 1005 MW | 20:00-21:00 | 0 MW |
| | 21:00-22:00 | 0 MW | 21:00-22:00 | 788 MW | 21:00-22:00 | 0 MW |
| | 22:00-23:00 | 0 MW | 22:00-23:00 | 182 MW | 22:00-23:00 | 0 MW |
| | 23:00-24:00 | 0 MW | 23:00-24:00 | 0 MW | 23:00-24:00 | 0 MW |

| BORDER | Capacity requested | | Capacity offered | | Capacity allocated | |
|-------------|--------------------|---------|------------------|---------|--------------------|---------|
| HU-SK | 00:00-24:00 | 1530 MW | 00:00-24:00 | 1822 MW | 00:00-24:00 | 1530 MW |
| PL-CZ | 00:00-24:00 | 0 MW | 00:00-01:00 | 670 MW | 00:00-24:00 | 0 MW |
| | | | 01:00-02:00 | 640 MW | | |
| | | | 02:00-05:00 | 500 MW | | |
| | | | 05:00-06:00 | 640 MW | | |
| | | | 06:00-22:00 | 0 MW | | |
| PL-DE(50Hz) | 00:00-24:00 | 0 MW | 22:00-23:00 | 7 MW | 00:00-24:00 | 0 MW |
| | | | 23:00-24:00 | 1105 MW | | |
| | | | 00:00-06:00 | 1105 MW | | |
| | | | 06:00-22:00 | 0 MW | | |
| PL-SK | 00:00-24:00 | 0 MW | 22:00-23:00 | 7 MW | 00:00-24:00 | 0 MW |
| | | | 23:00-24:00 | 1100 MW | | |
| | | | 00:00-06:00 | 1100 MW | | |
| | | | 06:00-22:00 | 0 MW | | |
| SK-CZ | 00:00-01:00 | 2474 MW | 00:00-01:00 | 1308 MW | 00:00-01:00 | 1308 MW |
| | 01:00-02:00 | 2293 MW | 01:00-02:00 | 1308 MW | 01:00-02:00 | 1307 MW |
| | 02:00-03:00 | 2305 MW | 02:00-03:00 | 1308 MW | 02:00-03:00 | 1307 MW |
| | 03:00-04:00 | 2314 MW | 03:00-04:00 | 1308 MW | 03:00-04:00 | 1308 MW |
| | 04:00-05:00 | 2306 MW | 04:00-05:00 | 1308 MW | 04:00-05:00 | 1308 MW |
| | 05:00-06:00 | 2490 MW | 05:00-06:00 | 1308 MW | 05:00-06:00 | 1308 MW |
| | 06:00-07:00 | 2480 MW | 06:00-07:00 | 1308 MW | 06:00-07:00 | 1308 MW |
| | 07:00-08:00 | 2696 MW | 07:00-08:00 | 1308 MW | 07:00-08:00 | 1308 MW |
| | 08:00-09:00 | 2528 MW | 08:00-09:00 | 1308 MW | 08:00-09:00 | 1308 MW |
| | 09:00-10:00 | 2554 MW | 09:00-10:00 | 1308 MW | 09:00-10:00 | 1308 MW |
| | 10:00-11:00 | 2484 MW | 10:00-11:00 | 1308 MW | 10:00-11:00 | 1308 MW |
| | 11:00-12:00 | 2256 MW | 11:00-12:00 | 1308 MW | 11:00-12:00 | 1308 MW |

| | | | | | |
|-------------|---------|-------------|---------|-------------|---------|
| 12:00-13:00 | 2201 MW | 12:00-13:00 | 1308 MW | 12:00-13:00 | 1308 MW |
| 13:00-14:00 | 2209 MW | 13:00-14:00 | 1308 MW | 13:00-14:00 | 1308 MW |
| 14:00-15:00 | 2217 MW | 14:00-15:00 | 1308 MW | 14:00-15:00 | 1308 MW |
| 15:00-16:00 | 2216 MW | 15:00-16:00 | 1308 MW | 15:00-16:00 | 1308 MW |
| 16:00-17:00 | 2253 MW | 16:00-17:00 | 1308 MW | 16:00-17:00 | 1307 MW |
| 17:00-18:00 | 2298 MW | 17:00-18:00 | 1308 MW | 17:00-18:00 | 1308 MW |
| 18:00-19:00 | 2487 MW | 18:00-19:00 | 1308 MW | 18:00-19:00 | 1308 MW |
| 19:00-20:00 | 2508 MW | 19:00-20:00 | 1308 MW | 19:00-20:00 | 1308 MW |
| 20:00-21:00 | 2389 MW | 20:00-21:00 | 1308 MW | 20:00-21:00 | 1308 MW |
| 21:00-22:00 | 2404 MW | 21:00-22:00 | 1308 MW | 21:00-22:00 | 1308 MW |
| 22:00-23:00 | 2310 MW | 22:00-23:00 | 1308 MW | 22:00-23:00 | 1308 MW |
| 23:00-24:00 | 2341 MW | 23:00-24:00 | 1308 MW | 23:00-24:00 | 1308 MW |

| BORDER | Capacity requested | | Capacity offered | | Capacity allocated | |
|-------------|--------------------|-------------|------------------|-------------|--------------------|---------|
| SK-HU | 00:00-01:00 | 1820 MW | 00:00-01:00 | 3141 MW | 00:00-01:00 | 1819 MW |
| | 01:00-02:00 | 1820 MW | 01:00-02:00 | 3057 MW | 01:00-02:00 | 1820 MW |
| | 02:00-03:00 | 1820 MW | 02:00-03:00 | 3074 MW | 02:00-03:00 | 1820 MW |
| | 03:00-04:00 | 1820 MW | 03:00-04:00 | 3075 MW | 03:00-04:00 | 1820 MW |
| | 04:00-05:00 | 1820 MW | 04:00-05:00 | 3071 MW | 04:00-05:00 | 1820 MW |
| | 05:00-06:00 | 1820 MW | 05:00-06:00 | 3493 MW | 05:00-06:00 | 1819 MW |
| | 06:00-07:00 | 1820 MW | 06:00-07:00 | 3599 MW | 06:00-07:00 | 1819 MW |
| | 07:00-08:00 | 1820 MW | 07:00-08:00 | 3675 MW | 07:00-08:00 | 1819 MW |
| | 08:00-09:00 | 1820 MW | 08:00-09:00 | 3530 MW | 08:00-09:00 | 1819 MW |
| | 09:00-10:00 | 1820 MW | 09:00-10:00 | 3403 MW | 09:00-10:00 | 1819 MW |
| | 10:00-11:00 | 1820 MW | 10:00-11:00 | 3299 MW | 10:00-11:00 | 1819 MW |
| | 11:00-12:00 | 1820 MW | 11:00-12:00 | 3259 MW | 11:00-12:00 | 1819 MW |
| | 12:00-13:00 | 1820 MW | 12:00-13:00 | 3256 MW | 12:00-13:00 | 1819 MW |
| | 13:00-14:00 | 1820 MW | 13:00-14:00 | 3277 MW | 13:00-14:00 | 1819 MW |
| | 14:00-15:00 | 1820 MW | 14:00-15:00 | 3295 MW | 14:00-15:00 | 1819 MW |
| | 15:00-16:00 | 1820 MW | 15:00-16:00 | 3312 MW | 15:00-16:00 | 1819 MW |
| | 16:00-17:00 | 1820 MW | 16:00-17:00 | 3316 MW | 16:00-17:00 | 1819 MW |
| | 17:00-18:00 | 1820 MW | 17:00-18:00 | 3367 MW | 17:00-18:00 | 1819 MW |
| | 18:00-19:00 | 1820 MW | 18:00-19:00 | 3606 MW | 18:00-19:00 | 1819 MW |
| | 19:00-20:00 | 1820 MW | 19:00-20:00 | 3605 MW | 19:00-20:00 | 1819 MW |
| | 20:00-21:00 | 1820 MW | 20:00-21:00 | 3779 MW | 20:00-21:00 | 1819 MW |
| | 21:00-22:00 | 1820 MW | 21:00-22:00 | 3600 MW | 21:00-22:00 | 1819 MW |
| | 22:00-23:00 | 1820 MW | 22:00-23:00 | 3529 MW | 22:00-23:00 | 1819 MW |
| 23:00-24:00 | 1820 MW | 23:00-24:00 | 3444 MW | 23:00-24:00 | 1819 MW | |
| SK-PL | | | 00:00-07:00 | 0 MW | | |
| | | | 07:00-08:00 | 162 MW | | |
| | 00:00-24:00 | 0 MW | 08:00-22:00 | 600 MW | 00:00-24:00 | 0 MW |
| | | | 22:00-23:00 | 182 MW | | |
| | | | 23:00-24:00 | 0 MW | | |