

Single Day-Ahead Coupling (SDAC)

Valid from – 29.01.2025

Normal processes Delay cases Bidding error management - SDAC second calculation Partial and Full Decoupling of SDAC Local Auctions in Core after SDAC Full Decoupling Nordic Regional Coupling after decoupling from SDAC Harmonization of the Maximum and Minimum Clearing Prices Process

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Acronyms and Definitions

 CZC = Cross-Zonal Capacities (generic term used to designate both ATC and FB parameters). ExC = External Communication (market message) 					
SDAC = Single Day-Ahead Coupling→ price coupling of multiple regions: Core, SWE, Italian Borders, Baltics, Ireland	Nordics,				
Core = Core Flow-based region (region consisting of the following bidding areas: FR, DE/LU, AT, BE, HU, CZ, SK, RO, SI, HR)	NL, PL,				
NEMO = Nominated Electricity Market Operator = Power Exchange (PX)					
Nordic region = Region composed of Sweden, Finland, Norway and Denmark					
PX = Power Exchange = NEMO					
TSO = Transmission System Operator					
UMM = Urgent Market Message					
Market Coupling Results = results (prices and volumes) published by NEMOs within the SDAC					
Preliminary Market Coupling Results = results (prices and volumes) published after the first round of validation performed by the SDAC NEMOs					
Final Market Coupling Results = results (prices and volumes) published after the second, final round of v performed by the SDAC NEMOs	alidation				
Local Market Results = results (prices and volumes) published by NEMOs independently of one after running Local Auctions following the decoupling from SDAC	another,				

Remark: All timings indicated in this document are CET timings.

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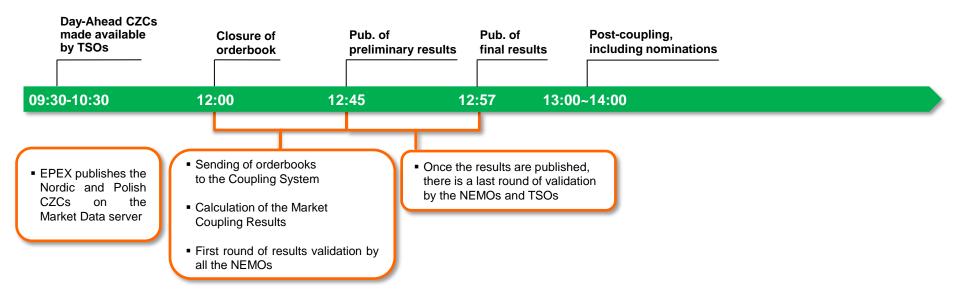
Single Day-Ahead Coupling (SDAC)

Normal Process

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SDAC Normal process - Timeline

Pub. = publication **CZC** = Cross-Zonal Capacity



SDAC Normal process - Main steps

Pre-coupling

- For the Nordic and Polish Cross-Zonal Capacities, EPEX SPOT is publishing these values on EPEX market data server at 10:00.
- For other regions, the regular time for publishing the Cross-Zonal Capacities at the TSOs side is 10:30.

Coupling

- EPEX order book Gate Closure Time is 12:00.
- Calculation and Preliminary validation of the Market Coupling Results (until 12:45).
- Final validation of the Market Coupling Results (until 12:57).

Regular publication time of the Market Coupling Results

- Regular time for publishing the Preliminary Market Coupling Results is 12:45.
- Regular time for publishing the Final Market Coupling Results is 12:57.
- As the publication is not a fully coordinated process, the publication time may slightly differ among the NEMOs.

Post-coupling

• Nomination process following the publication of the Final Market Coupling Results (see the dedicated Nomination Deadlines Slides for an overview of the Nomination deadlines).

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Market Results Publication

Regular Timings, Deadlines and Publication Delay Messages

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Publication - Regular Timings and Deadlines

	Time	Market Results publication	Remarks
	12:45	Regular publication time of the Preliminary Market Coupling Results	The Preliminary Market Coupling Results are subject to a final round of validation by the SDAC parties and could be cancelled if one party rejects the Preliminary Results. The publication will never be prior to 12:45. If the Preliminary Market Coupling Results are not available at 12:45, a delay message will be sent out (see next slide).
	12:57	Regular publication time of the Final Market Coupling Results	Under normal circumstances, 12:57 is the expected time for publishing the Final Market Coupling Results. However, as the final round of validations could take longer, the Market Participants are advised to consider this time only as an estimated one.
1	14:15 - 14:20	Deadline for publishing the Final Market Coupling Results within the SDAC coupling	In case of severe delays in the Market Coupling process the triggering of a Partial Decoupling, technical issues etc.), the publication of the Final Market Coupling Results may be delayed until the Full Decoupling deadline (14:20). In order to ensure the readiness of the Market Coupling Results on EPEX website, EPEX will publish as soon as possible on a best effort basis.
Í	14:50	Latest deadline for publishing the Core Local Market Results in case of decoupling from SDAC at 13:05 (following a Partial Decoupling of SDAC).	If the Core markets of EPEX are decoupled from SDAC at 13:05, EPEX will run Local Auctions for these markets and 14:50 is the deadline for publishing the Local Market Results.
	14:50	Deadline for publishing the Local Market Results for Core markets after the Full Decoupling of SDAC.	In case of SDAC Full Decoupling at 14:20, the deadline for publishing the Local Market Results for the Core markets is 14:50
	20:00	Deadline for publishing the Nordic Regional Market Coupling Results in case of decoupling from SDAC.	If the Nordic region is decoupled either following a Partial Decoupling (13:05) or a Full Decoupling (14:20) of SDAC, the Nordic NEMOs will organize a Nordic regional coupling (outside SDAC) with the aim of publishing coupled results no later than 20:00.
		12:45 12:57 14:15 14:20 14:50	12:45Regular publication time of the Preliminary Market Coupling Results12:57Regular publication time of the Final Market Coupling Results14:15Deadline for publishing the Final Market Coupling Results within the SDAC coupling14:50Latest deadline for publishing the Core Local Market Results in case of decoupling from SDAC at 13:05 (following a Partial Decoupling of SDAC).14:50Deadline for publishing the Local Market Results for Core markets after the Full Decoupling of SDAC.20:00Deadline for publishing the Nordic Regional Market Coupling Results in case of

Market Messages in case of delay in publication while EPEX is coupled within SDAC

If EPEX is still coupled within SDAC and the Preliminary Market Coupling Results are not published at 12:45, EPEX will inform the Market Participants about the delay.

- ✓ If the Final Market Coupling Results are still not published at 13:05, EPEX will send another delay message.
- ✓ If the Final Market Coupling Results are still not published at 13:50, EPEX will alert the Market Participants that there is a risk of Full Decoupling.
- ✓ If the Final Market Results are not available at 14:20, a Full Decoupling will be declared (see Full Decoupling Slides).

Sending Time	Message title	Message text
12:45	[ExC_02]: Delay in Market Coupling Results publication	Please be aware that the publication of the Market Coupling Results is delayed until further notice. The Market Coupling Results will be published as soon as they are available. If needed, another delay message will be sent out.
13:05	UMM_01a: Delay in final Market Coupling Results publication	The Market Coupling process is delayed due to technical reasons or market issues. Therefore, the publication of the final Market Coupling Results is delayed.
13:50	[ExC_03b]: Further Delay of the Market Coupling Session	Please be aware that the Market Coupling Session is delayed. Therefore, the Market Coupling Session encounters a risk of Full Decoupling. If the Final Market Coupling Results are still not available at 14:20, another message will be sent out in order to announce the Full Decoupling

The table below lists all the messages that inform the market about the delay in the Market Coupling Results publication:

Estimated publication time of the Final Market Coupling Results \rightarrow 14:20.

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Bidding error management Second calculation process

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Bidding error management - SDAC Second Calculation process

For erroneous bid prevention the Market coupling procedures foresee cases where a NEMO can modify its order book after Gate Closure Time **due to erroneous bids from market parties**.

This process is called the second calculation process, and is triggered in the event that erroneous orders from members were taken into account during the first calculation process.

In this exceptional situation, the problematic bid can be either modified or removed and all NEMOs start a second (final) calculation.

Please note that the Second Calculation is distinct from the former Second Auction process which was decommissioned as of 29.01.2025 on all SDAC auctions.

This Second Calculation process leads to a delayed publication of the market results.

For more information on this process, please refer to the document published on our website about the Second Calculation (<u>click here</u>), where you can find more information on the conditions of modifications of orders and this process' timings.



Partial Decoupling of SDAC

Partial Decoupling during the Pre-Coupling process (11:30) Partial Decoupling during the Coupling process (13:05)

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Fallback procedure – General concepts

Core principle of the Single Day-ahead Coupling (SDAC)

Have as many bidding areas / interconnectors as possible remain coupled

At SDAC level, two main decoupling situations:

- a) A Partial Decoupling of SDAC is a situation where one or more bidding areas and/or interconnectors are temporarily removed from the SDAC at 13:05, while the remaining bidding areas and interconnectors still participate in the SDAC.
- b) A Full Decoupling of SDAC is a situation where no bidding area and interconnector remain coupled due to the unavailability of the Market Coupling Results at the deadline of 14:20.

In a decoupling case, the Cross-Zonal Capacities for the decoupled interconnectors are allocated via the available fallback allocation solutions (e.g. Shadow/Explicit Auctions, Intraday Continuous Market etc.).

Any of the following reasons can lead to the decoupling of one or more interconnectors and/or Bidding Zones from SDAC:

- a) Unavailable CZCs (computation issues at TSOs' side) at 11:30;
- b) Missing orderbook from any of the NEMOs at 13:05;
- c) Unavailable Market Coupling Results at SDAC level at 14:20 (due to technical issues encountered by any NEMO in SDAC or failure of the coupling system or algorithm).

Partial Decoupling within SDAC Generic concepts

A Partial Decoupling is a situation where one or more bidding areas and/or interconnectors are temporary not participating in the SDAC while the remaining bidding areas/interconnectors still participate in the SDAC.

The Cross-Zonal Capacities for the decoupled borders/interconnectors are allocated via the available fallback allocation solutions (e.g. Shadow/Explicit Auctions, Intraday Continuous Market etc.).

SDAC supports 2 different types of Partial Decoupling situations, depending on the reason leading to the decoupling:

- **1.** Partial Decoupling during the Pre-Coupling process (11:30 deadline)
- 2. Partial Decoupling during the Coupling process (13:05 deadline)

The following slides offer an overview of the Partial Decoupling cases and the communication involved in each of them.

Partial Decoupling during the <u>Pre-Coupling</u> process (11:30) - Generic concepts

If there are no Cross-Zonal Capacities available for a certain SDAC interconnector, a Partial Decoupling of SDAC will be declared at 11:30. Consequently, the interconnector for which the CZCs are missing is removed from the SDAC session.

In case of decoupling of an interconnector linked to one of EPEX's markets, the following Fallback Allocation mechanisms will be used:

- Core internal borders (DE/LU-AT, DE/LU-BE, FR-DE/LU, BE-FR, NL-BE, NL-DE/LU, AT-SI, HR-SI, CZ-AT, CZ-DE/LU, CZ-SK, PL-DE/LU, PL-CZ, PL-SK, SK-HU, HU-RO, HU-AT, HU-HR, SI-HU, BE-ALBE, ALDE-DE) → Shadow Auctions via JAO
- Nordic internal borders → Can never be decoupled from one another, a Nordic regional coupling will be organized outside SDAC by the Nordic NEMOs
- DK1_DE-DE → Shadow Auctions via JAO
- DK2_KO-DE → Shadow Auctions via JAO
- DK1_CO-NL → Shadow Auctions via JAO
- SE4_BC-DE → None
- SE4-NB-LT → Always remains coupled through Nord-Baltic regional coupling
- FR-ES → Shadow Auctions via JAO
- NO2_ND-NL → Shadow Auctions via JAO
- NO2_NK-DE → Shadow Auctions via JAO
- AT-IT → Shadow Auctions via JAO
- FR-IT → Shadow Auctions via JAO
- **PL-SE4_SP** → Capacity goes to Intraday market
- PL-LT → Capacity goes back to the interconnector owner

For the interconnectors that remain coupled within SDAC, the SDAC Market Coupling Session continues as normal: order book gate closure is still 12:00 and the regular publication time (12:57) is maintained if no other issues are encountered.

Partial Decoupling during the <u>Pre-Coupling</u> process (11:30) - Market Messages -

The table below shows the communication involved in preparing and declaring the decoupling of an interconnector from SDAC due to missing Cross-Zonal Capacities:

Sending Time	Message title	Message text
11:15	UMM_02: Risk of Partial Decoupling for one or more interconnectors	Please be aware that the Market Coupling process encounters severe technical issues or extraordinary market situations for the following interconnector(s):[interconnector name]In case of Partial Decoupling, another message will be sent shortly after 11:30 to announce the decoupling of the concerned interconnectors.Disclaimer: The timings are expressed as CET timings.
11:30	UMM_03: One or more interconnectors decoupled	Due to Network Data issues, the following interconnectors are decoupled from the Market Coupling:[interconnector name]For the interconnectors that remain coupled, please follow the Market Coupling rules as usual. For the decoupled interconnector, please follow the local auction rules.

Estimated publication time of the Final Market Coupling Results → 12:57

Partial Decoupling of SDAC during the <u>Coupling</u> process (13:05) - Generic concepts -

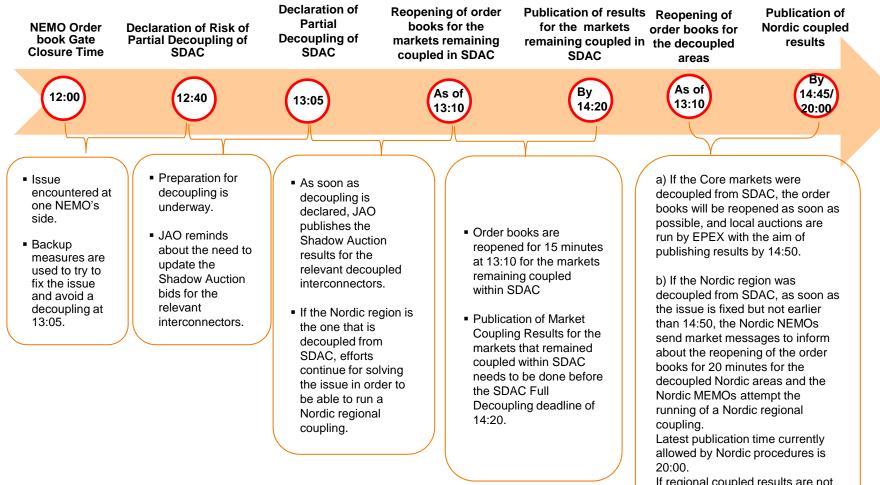
If the SDAC session is delayed due to a missing order book from one of the NEMOs, an SDAC Partial Decoupling will be declared at 13:05.

Consequently, all the interconnectors and bidding areas strictly related to that NEMO will be removed from the coupling.

For the decoupled interconnectors, Fallback Allocation mechanisms will be used (see Slide <u>16</u>) and local auctions will be run for the decoupled bidding areas.

For the interconnectors and bidding areas that remain coupled, the SDAC session continues as usual but the publication of the Market Coupling Results is delayed.

Partial Decoupling of SDAC during the <u>Coupling</u> process (13:05) - Timeline -



If regional coupled results are not published at this time, the results of a reference day will be applied.

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Partial Decoupling of SDAC during the <u>Coupling</u> process (13:05) – Impact on interconnectors and bidding areas (part 1)

In case of decoupling of one or several of the NEMOs, the consequences at NEMO trading hub level and interconnector level are displayed in the table below:

NEMO(s) decoupled from SDAC	Bidding areas / NEMO trading hubs removed from SDAC	Decoupled BZs	Corresponding decoupled Interconnectors	Fallback allocation for the cross-zonal capacity?
EPEX – CORE	EPEX (FR, BE, NL,AT, DE/LU, PL)	None	None	N/A
EPEX – Nordic	EMCO (NO, DK, SE, FI) EPEX (NO, DK, SE, FI)	All Nordic areas	Nordic Internal Borders (NO-SE, NO-DK, NO-NO, NO-FI, DK-SE, DK-DK, SE-FI, SE-SE) Baltic internal borders (EE-LV, LV-LT, ERI-EE, LV-LRE, LV-LRI, LT-LBE, LT- LBI) NO2-NL (NorNed) NO2-DE (NordLink) DK1-DE DK1-NL (COBRA Cable) DK2-DE SE4-DE (Baltic Cable) PL-SE4 SE4-LT PL-LT EE-FI	Yes, Shadow Auctions run by JAO for: DK1- DE, DK1-NL, DK2-DE, NO2-NL, NO2-DE Yes, Nordic-Baltic regional coupling: NO-SE, NO-DK, NO-NO, NO-FI, DK-SE, DK-DK, SE- FI, SE-SE and for the Baltic internal borders EE-LV, LV-LT, ERI-EE, LV-LRE, LV-LRI, LT- LBE, LT-LBI, EE-FI, SE3-LT No fallback allocation on the cable: SE4-DE (Baltic Cable) Yes, capacity is allocated on intraday timeframe: PL-SE4 Capacity goes back to interconnector owner: PL-LT
EPEX - SEMOpx	SEMOpx ROI, NI	NI and ROI	None	N/A
EPEX – HUPX	HUPX (HU)	HU	AT-HU HU-SK HU-RO HU-SI HU-HR	Yes shadow auctions by JAO on the following borders: AT-HU, HU-SK, HU-RO, HU-SI, HU-HR
EPEX – BSP - Core	BSP (SI)	SI	AT-SI SI-HR SI-HU IT-SI	Yes, Shadow Auctions run by JAO for: AT-SI, SI-HR, SI-HU, IT-SI
GME	GME (IT) EXAA (AT, DE/LU)	ІТ	IT-AT IT-FR IT-SI GR-IT	Yes, Shadow Auctions run by JAO for: IT-AT, IT-FR, IT-SI, GR-IT
GME - EXAA - Core	EXAA (AT, DE/LU)		None	No

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Partial Decoupling of SDAC during the <u>Coupling</u> process (13:05) – Impact on interconnectors and bidding areas (part 2)

In case of decoupling of one or several of the NEMOs, the consequences at NEMO trading hub level and interconnector level are displayed in the table below:

NEMO(s) decoupled from SDAC	Bidding areas / NEMO trading hubs removed from SDAC	Decoupled BZs	Corresponding decoupled Interconnectors	Fallback allocation for the cross- zonal capacity?
EMCO – CROPEX - Core	CROPEX (HR)	HR	SI-HR, HU-HR	Yes, Shadow Auctions run by JAO for SI-HR and HU-HR
EMCO - IBEX	IBEX (BG)	BG	BG-GR, BG-GR	Yes, Shadow Auctions run by JAO for BG-GR, BG-GR
EMCO – CWE - Core	EMCO (FR, BE, NL, AT, DE/LU)	None	SE4-DE	None
EMCO - Nord Pool	EMCO (NO, DK, SE, FI) EPEX (NO, DK, SE, FI)	All Nordic areas	Nordic Internal Borders (NO-SE, NO-DK, NO-NO, NO-FI, DK-SE, DK-DK, SE-FI, SE-SE) Baltic internal borders (EE-LV, LV- LT, ERI-EE, LV-LRE, LV-LRI, LT- LBE, LT-LBI) NO2-NL (NorNed) NO2-DE (NordLink) DK1-DE DK1-NL (COBRA Cable) DK2-DE SE4-DE (Baltic Cable) PL-SE4 SE4-LT PL-LT EE-FI	Yes, Shadow Auctions run by JAO for: DK1-DE, DK1-NL, DK2-DE, NO2-NL, NO2-DE Yes, Nordic-Baltic regional coupling: NO-SE, NO-DK, NO-NO, NO-FI, DK- SE, DK-DK, SE-FI, SE-SE and for the Baltic internal borders EE-LV, LV-LT, ERI-EE, LV-LRE, LV-LRI, LT-LBE, LT- LBI, EE-FI, SE3-LT No fallback allocation on the cable: SE4-DE (Baltic Cable) Yes, capacity is allocated on intraday timeframe: PL-SE4 Capacity goes back to interconnector owner: PL-LT
EMCO – Poland - Core	EMCO (P)L	None	PL-LT	Capacity goes back to the owner
EMCO – BRM - Core	BRM (RO)	None	None	N/A

Partial Decoupling of SDAC during the Coupling process (13:05) – Impact on interconnectors and bidding areas (part 3)

Continued from the previous slide:

NEMO(s) decoupled from SDAC	Bidding areas / NEMO trading hubs removed from SDAC	Decoupled BZs	Corresponding decoupled Interconnectors	Fallback allocation for the cross-zonal capacity?
HEnEx	HEnEx (GR)	GR	IT-GR, BG-GR	Yes, Shadow Auctions run by JAO for: IT-GR, BG-GR
OMIE	OMIE (ES, PT)	ES, PT	FR-ES	Yes, Shadow Auctions run by JAO for: FR-ES
OPCOM - Core	OPCOM (RO)	None	None	N/A
OPCOM – OKTE - Core	OKTE (SK)	SK	CZ-SK SK-HU SK-PL	Yes shadow auctions by JAO on CZ-SK, SK- HU and SK-PL borders
OTE - Core	OTE (CZ)	CZ	CZ-AT CZ-DE/LU CZ-SK CZ-PL	Yes shadow auctions by JAO on the following borders:CZ-AT, CZ-DE/LU, CZ-SK and CZ-PL borders
TGE - Poland	TGE (PL)	None	None	N/A
EPEX - Core and* EMCO - Nord Pool - CWE EPEX - Core and* EMCO - CWE - Core and* GME - EXAA - Core	EPEX (FR, BE, NL, AT, DE/LU, PL) and EMCO (FR, BE, NL, AT, DE/LU) and EXAA (AT, DE/LU)	AT, BE, DE/LU, FR, NL	All Core internal borders (DE/LU- AT, DE/LU-BE, FR-DE/LU, BE-FR, NL-BE, NL-DE/LU, AT-SI, HR-SI, CZ-AT, CZ-DE/LU, CZ-SK, PL- DE/LU, PL-CZ, PL-SK, SK-HU, HU-RO, HU-AT, HU-HR, SI-HU, BE-ALBE, ALDE-DE) FR-ES, IT- AT, IT-FR, NO2-NL (NorNed), NO2-DE (NordLink), DK2-DE, DK1-DE, DK1-NL, SE4-DE	Yes, Shadow Auctions run by JAO for: All Core internal borders (DE/LU-AT, DE/LU-BE, FR-DE/LU, BE-FR, NL-BE, NL-DE/LU, AT-SI, HR-SI, CZ-AT, CZ-DE/LU, CZ-SK, PL-DE/LU, PL-CZ, PL-SK, SK-HU, HU-RO, HU-AT, HU- HR, SI-HU, BE-ALBE, ALDE-DE) FR-ES, IT- AT, IT-FR, NO2-NL (NorNed), NO2-DE (NordLink), DK2-DE, DK1-DE, DK1-NL No allocation on the interconnector on the SE4-DE border
OPCOM – Core EMCO – BRM – Core	OPCOM (RO) BRM (RO)	RO	RO-HU RO-BG	Shadow Auctions Shadow Auctions

* Only the most relevant combinations of decoupling cases are listed in this table.

SDAC Partial Decoupling → EPEX markets still coupled within SDAC - Market Messages -

If EPEX markets remains coupled within SDAC following an SDAC Partial Decoupling, the order books of the coupled markets will be reopened for 15 minutes at a time indicated in a market message, usually at 13:10. As an exception, the order books will not be reopened in case SEMOpx is decoupled.

The table below shows the communication involved in preparing and declaring a Partial Decoupling of SDAC due to order book issues :

Sending Time	Message title	Message text		
12:40	[ExC_03a]: Risk of Partial Decoupling	Please be aware that the Market Coupling process encounters severe technical issues or extraordinary market situations for the following area(s): Decoupled NEMO Hub(s) Corresponding Decoupled Interconnectors Fallback Allocation In case of Partial Decoupling, another message will be sent shortly after HH:MM to announce the Partial Decoupling. If the risk of decoupling concerns the Nordic region: Be aware that in case of decoupling from SDAC, the Nordic NEMOs and Bidding Areas need to remain coupled. The Nordic NEMOs shall attempt the running of a Nordic Regional Coupling. Disclaimer: The timings are expressed as CET timings.		
13:05	[ExC_04a]: Partial Decoupling - Reopening of the order books	Dubto declapited victors or machine is declapited victors Fallback Allocation As a consequence of the Partial Decoupling, the NEMO order books for the areas remained coupled will reopen at HH:MM for exactly 15 minutes. For the areas that remain coupled, please follow the market coupling rules as usual. For the decoupling concerns the Nordic region: The Nordic NEMOs shall attempt the running of a Nordic Regional Coupling as of 14:30, with the aim of having Market Coupling Results available no later than 20:00. The Nordic order books will be reopened for 20 min at a later time which shall be communicated later in the afternoon in a separate message. Please use the opportunity of adjusting your orders during the 15 minutes communicated above, considering that decoupling situations are likely to determine the occurrence of extreme prices. Disclaimer: The timings are expressed as CET timings.		
	Deadline for publishing the Final Market Coupling Results \rightarrow 14:20			

SDAC Partial Decoupling → EPEX markets decoupled from SDAC at 13:05 - EPEX Local Auction -

If the Core markets of EPEX are decoupled from SDAC at 13:05, EPEX will run Local Auctions for these decoupled markets.

- EPEX order books for the decoupled markets will be reopened for 15 minutes at a time indicated in a market message, usually after 13:10.
- ✓ EPEX will regularly keep the market informed if the Local Market Results are not published yet at 13:05, 13:50 and 14:20.

The table below shows the communication involved in running a Local Auction after decoupling from SDAC.

Sending Time	Message title	Message text
as of 13:05	UMM_04: Order book reopening for local auction after Partial Decoupling	As a consequence of the decoupling, the order book will reopen at HH:MM for exactly 15 minutes and a local Auction will be run for the following area(s): <i>France, Germany, Austria, Belgium, The Netherlands, Poland</i> <i>Disclaimer: The timings are expressed as CET timings.</i>
13:50	UMM_01c: Delay in Local Market Results publication	Please be aware that the Local Market Results publication is still delayed due to technical reasons or market issues.
14:20	UMM_01d: Delay in Local Market Results publication	Please be aware that the Local Market Results publication is still delayed due to technical reasons or market issues.

Deadline for publishing the Local Market Results \rightarrow 14:50

SDAC Partial Decoupling → Nordic markets decoupled from SDAC at 13:05 - Nordic Regional Coupling organized outside SDAC -

The Nordic region can never be decoupled internally. All Nordic bidding areas and NEMOs must remain coupled together at all times.

Therefore, if the Nordic markets are decoupled from SDAC, the **Nordic NEMOs have to organize a Nordic regional coupling** (outside SDAC) with the aim of achieving validated coupled results no later than 20:00.

- ✓ EPEX order books for the Nordic markets will be reopened for 20 minutes at a time indicated in a market message, usually after 14:50. Once the coupling results are published, another message will be sent out.
- ✓ If the Nordic coupled results are not available at 20:00, the results of a Reference Day will be applied (see next slide).

The table below shows the communication involved when running a Nordic regional coupling after decoupling from SDAC.

Sending Time	Message title	Message text
as of 14:50	Nordic_ext_01a: Order book reopening for running the Nordic Regional Coupling	As a consequence of the decoupling from SDAC, the Nordic order books will be reopened at HH:MM for exactly 20 minutes. After the closing of the order books, a Nordic Regional Coupling shall be performed and the Market Coupling Results are expected no later than 20:00. <i>Disclaimer: The timings are expressed as CET timings.</i>
ASAP after Nordic Regional Coupling results publication	Nordic_ext_01b: Nordic Day-Ahead Market Coupling Results are available	The Nordic Day-Ahead Market Coupling Results are now available and the Intraday cross border capacities will be made available shortly.

Note: Same process (timeline, market messages, rules) applies also in case of SDAC Full Decoupling at 14:20.

Deadline for publishing the Nordic coupled results \rightarrow 20:00

SDAC Partial Decoupling → Nordic markets decoupled from SDAC at 13:05 - Reference Day Results applied at 20:00 – 1/2

If the Nordic Market Coupling Results are not available at 20:00, the Market Coupling Results from a determined Reference Delivery Day will be applicable for the day of the cancellation.

- The same volumes and prices will be valid (as the ones of the Reference Day).
- Nominations will be sent to the Nordic TSOs.
- Market Participants commit to purchase or sell exactly the same volumes at exactly the same prices as the ones from the Reference Day.

The rules for determining the applicable Reference Day are displayed in the table on the right:

- The Reference Day cannot be older than 7 days.
- The definition of public holiday can be found on the next page

Delivery day affected by auction failure	Reference Day
Working day (i.e. Monday to Friday not including public holidays, according to calendar)	Previous working day (i.e. Thursday is Reference Day, if Friday is affected by auction failure)
Saturday	Previous Saturday
Sunday	Previous Sunday
Public holiday	Previous Sunday or nearest public holiday, whichever is nearest

The table below shows the communication involved when Nordic Market Coupling Results are not available at 20:00 and the results of a Reference Day will be used.

Sending Time	Message title	Message text
20:00	Nordic_ext_02: Nordic Regional Coupling Cancelled – Reference Day Results are applicable	 Since the Nordic Market Coupling Results are still not available at 20:00, the Nordic Regional Coupling is declared as cancelled. Please be aware that the Results (prices and volumes) of the following Reference Delivery Day are applicable for all the Market Participants: Prices and volumes of reference delivery day DD.MM.YYYY will be applied for delivery day DD.MM.YYYY. Disclaimer: The timings are expressed as CET timings.

SDAC Partial Decoupling → Nordic markets decoupled from SDAC at 13:05 - Reference Day Results applied at 20:00 – 2/2

The list of public holidays is defined as per the below methodology.

- Data source: Eurostat https://ec.europa.eu/eurostat/web/energy/data/database
- Data type: Supply, transformation and consumption of electricity
- Data range: 10 years
- Methodology
 - Compute the average across 10 years for each country of the Nordic Capacity Calculation Region and the Baltic Capacity Calculation Region
 - Compute the average across 10 years of the whole Nordic and Baltic Capacity Calculation Regions
 - Compute the weight of each respective country in the whole Nordic and Baltic Capacity Calculation Regions
 - Retrieve the list of official public holidays in each one of the countries composing the Nordic and Baltic Capacity Calculation Regions

New Year's Day		
Epiphany		
Maundy Thursday		
Good Friday		
Easter Monday		
Labour Day		
General Prayer Day		
Ascension Day		
Whit Monday (also known as Pentecost)		
Midsummer Eve		
Midsummer		
All Saints Day		
Christmas Eve		
First Day of Christmas		
Second Day of Christmas		
New Year's Eve		

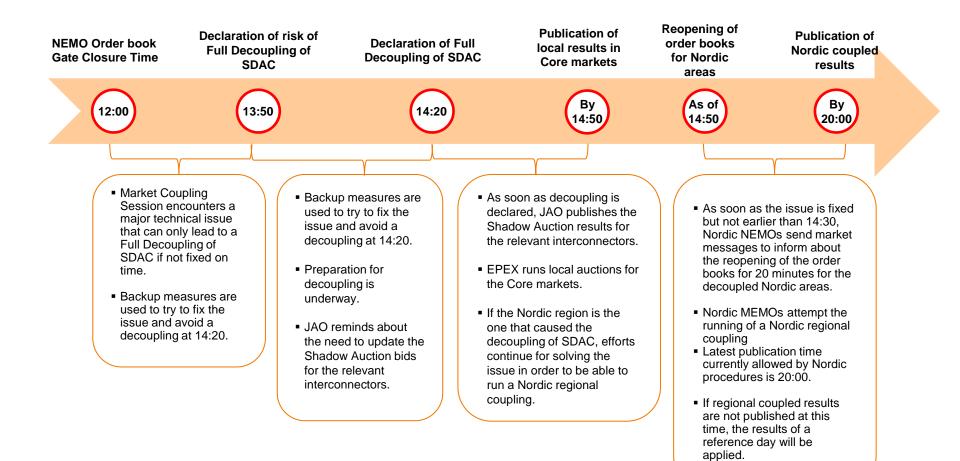
• If sum of weights associated to a given official public holiday is ≥ 67%, then the official public holiday qualifies as public holiday under this definition

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Full Decoupling of SDAC (14:20 deadline)

- 1. followed by Local Auctions for the Core (without price thresholds reached)
- 2. followed by Nordic Regional Coupling outside SDAC

Full Decoupling of SDAC (declared at 14:20) → Timeline



Full Decoupling of SDAC at 14:20

- EPEX runs Local Auctions for the Core markets when no price thresholds are reached

If the SDAC Final Market Coupling Results are not available at 14:20, a Full Decoupling of SDAC will be declared. Consequently, As a result, **all EPEX** markets in Core region (Belgium, France, Germany, Austria, the Netherlands and Poland) are completely isolated.

- ✓ Fallback allocation mechanisms will be used (local auctions run by EPEX and Shadow Auctions run by JAO on the applicable interconnectors).
- ✓ EPEX order books will be reopened for 10 minutes, at a time indicated in a market message, usually at 14:28.
- The Market Participants may submit new orders on EPEX SPOT trading system. However, if no new orders are submitted, the previously submitted ones are kept unchanged.
- ✓ EPEX will run separate Local Auctions for Belgium, France, Germany, Austria, the Netherlands and Poland.

The table below lists the messages that inform the market about the risk and the declaration of the Full Decoupling. Also, the Full Decoupling message contains the time of the reopening of the order books for 10 minutes.

Sending Time	Message title	Message text
13:50	[ExC_03b]: Further Delay of the Market Coupling Session	 Please be aware that the Market Coupling Session is delayed. Therefore, the Market Coupling Session encounters a risk of Full Decoupling. If the Final Market Coupling Results are still not available at 14:20, another message will be sent out in order to announce the Full Decoupling. For the Nordic region, be aware that in case of SDAC Full Decoupling, the Nordic NEMOs and Bidding Areas need to remain coupled. The Nordic NEMOs shall attempt the running of a Nordic Regional Coupling. Disclaimer: The timings are expressed as CET timings.
14:20	[ExC_04b]: Full Decoupling	 Due to technical reasons or market issues, the whole price coupled area is fully decoupled. Please follow the local auction rules of each NEMO. For the Core region (FR, DE, BE, AT, NL and PL): Local auctions will be run for the each of the CWE and Polish Bidding Zones. Order books will be reopened at 14:28 for exactly 10 minutes. If the order books cannot be reopened immediately, they will be reopened for 10 minutes at a time that will be communicated as soon as possible by each NEMO. For the Nordic region: The Nordic NEMOs shall attempt the running of a Nordic Regional Coupling as of 14:30, with the aim of having Market Coupling Results available no later than 20:00. The Nordic order books will be reopened for 20 min at a later time which shall be communicated later in the afternoon in a separate message. Disclaimer: The timings are expressed as CET timings.

Deadline for publishing the Local Market Results → 14:50

Full Decoupling of SDAC at 14:20

- Price thresholds are reached after the SDAC Full Decoupling -

If price thresholds are reached for Belgium, France, Germany, Austria, the Netherlands or Poland, this is known by EPEX SPOT market operations before opening the order books for running a Local Auction.

To compensate for this, EPEX SPOT will include more information in the market message that is confirming the SDAC Full Decoupling. More precisely, there will be a clear indication of the hours and areas for which price thresholds are reached, so that participants can update their orders based on this important market information (see below the Price Alert Information).

Sending Time	Message title	Message text
14:20	[ExC_04b]: Full Decoupling	Due to technical reasons or market issues, the whole price coupled area is fully decoupled. Please follow the applicable fallback rules of each NEMO.

Deadline for publishing the Local Market Results \rightarrow 14:50

Full Decoupling of SDAC at 14:20

- Nordic NEMOs run a Nordic Regional Coupling outside SDAC

As the rules are identical to the ones that apply when the Nordic region is decoupled from SDAC at 13:05, please consult the following slide: [click]

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Overview of the Core Nomination Deadlines

<u>Disclaimer</u>: The following Core overview is offered here for information purposes only. For the Nordic Bidding Zones, the TSOs have less tighter nomination deadlines. For more details on this topic, please refer to the rules of each TSO.

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Core region Nomination Deadlines

Scenario	Nomination	Nomination deadlines depending on the Core bidding areas related to EPEX SPOT				
	type	BE	FR	DE/LU and AT	NL	PL
Normal day →	Hub	14:00 (hub 1) 14:30 (hub 2)	14:30	14:30	14:00	14:30
Market Results published between 12:45 and 13:05	Cross-border	14:30	14:30	14:30	14:00	14:30
	Generation	15:00	16:30	14:30	15:15	15:00 14:30*
Market Results published between 13:50 and 14:20	Hub	14:45 (hub 1) 15:00 (hub 2)	15:00	15:00	15:00	15:00*
	Cross-border	15:00	15:00	15:00	15:00	15:00
	Generation	15:30	17:15	15:00	15:45	NA
Market Results	Hub	15:15 (hub 1) 15:30 (hub 2)	15:30	15:30	15:30	15:30
published between	Cross-border	15:30	15:30	15:30	15:30	15:30
14:20 and 14:50	Generation	15:30	17:15	15:45	16:15	15:30

* The Polish Hub nomination deadline is not postponed due to the specific local nomination backup held under the PL MNA.

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Information about the Harmonization of Maximum and Minimum Clearing Price management (HMMCP) process

- 1. Regulatory background
- 2. Overview of the new methodology
- 3. Trigger event for price changes
- 4. Examples

Regulatory background of Harmonized Maximum and Minimum Clearing Price methodology (HMMCP)

The European Union Agency for the Cooperation of Energy Regulators (ACER) in accordance with Article 54(1) of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM Regulation) has amended the Harmonized Maximum and Minimum Clearing Price (HMMCP) methodology based on the ACER Decision No 01-02/2023 on the NEMOs proposal for the HMCCP methodology for SDAC and SIDC.

Background of the regulatory changes

- The adjustment of price limits was needed to ensure the security of supply during winter period through optimal short-term dispatch of generation, efficient use of interconnections and to encourage demand response.
- According to ACER, the amended methodologies shall lead to a more gradual increase of the day ahead and intraday market price limits than with the previous rules.
- This new methodology has been entered into force since 11.01.2023 and detailed on the next slide.

Overview of the new methodology and the differences compared to the previous one

Description	Former methodology until 10.01.2023	New methodology as of 11.01.2023	
Reference price limits (€/MWh)	-500€/MWh; 4000€/MWh	-500€/MWh; 4000€/MWh	
Price Speak definition	Clearing price above 60 % in coupled bidding zones	 For max price: Clearing price <u>above</u> 70% in coupled bidding zones, excluding fallback and virtual bidding zones For min price: Clearing price <u>below</u> 70% in coupled bidding zones, excluding fallback and virtual bidding zones 	
Trigger conditions	1 price spike in one biding zone	2 price spikes in one bidding zone within 30 days of each	
Transition period	5 weeks	28 days	
Treatment of the transition period	Possibility to trigger the price adjustment	No possibility to trigger the price adjustment	
Increase steps (€/MWh)	1000€/MWh	500€/MWh	
Application to minimum clearing price (€/MWh)	No	Yes	
Decrease steps (£/MWh)	N/A	-100	

Trigger conditions explanation

Description	New methodology as of 11.01.2023	Comments		
Reference price limits (€/MWh)	-500€/MWh; 4000€/MWh	The price limits only adjusted if the trigger events occur		
Price Speak definition Clearing price above 70% in coupled bidding zones, excluding fallback and virtual bidding zones		Only real bidding zone prices are taken into account Virtual bidding zones are used for technical purposes and do not impact any price formation		
Trigger conditions 2 price spikes in one bidding zone within 30 days of each		If in one country the price reaches the 70% will trigger a monitoring period where there is no change is expected If a similar event occurs then the HMMCP process starts		
Transition period	28 days	NEMOs adjust the reference price limits in 28 days after the 2 nd trigger event happened		
Treatment of the transition period	No possibility to trigger the price adjustment	During the above mentioned 28 days no monitoring period can start		
Increase steps (€/MWh)	500€/MWh	Depending on the situation: In case of low prices → Minimum price decreased by 100€/MWh High prices → Maximum price increased by 500€/MWh		
Application to minimum clearing price (€/MWh)	Yes	Yes as detailed above		

Examples of situations triggering the application of the HMMCP methodology

	Case 1	Case 2	Case 3	Case 4
Trigger event 1	In the Netherlands on 01.07.2023 at the Position 14 the Price reaches 2801 EUR/MWh	In Germany on 01.08.2023 at the Position 19 the Price reaches 3000 EUR/MWh	In Austria on 15.08.2023 in position 2 we reach -350 EUR/MWh	In Austria on 13.09.2023 in positions 15, 16, 17 we reach 400 EUR/MWh
Trigger event 2	No other price peak was is reached	In Germany on 30.08.2023 in position 14 the Price reaches 3000 EUR/MWh	In Austria on 06.10.2023 in position 2 we reach -500 EUR/MWh	No other event will happen
Observation period start (yes\No)	Yes for 30 days long	Yes for 30 days long	Yes for 30 days long	Yes for 30 days long
Observation period starts	01.07.2023	01.08.2023	15.08.2023	13.09.2023
Observation period ends	30.07.2023	30.08.2023	15.09.2023	13.10.2023
Change in max or min clearing prices?	No	Yes	No (the 2 nd trigger event happened after the first observation period so a new observation period will start as of 06.10.2023	No
What change will happen wrt the min\max prices	No change as no other trigger event happened during the observation period	Maximum clearing price will be increased by 500 EUR in 28 days	No change as the 2 nd event happened after the 30 days observation period	No change as 2 trigger events should occur within 30 days

Please do not hesitate to contact the EPEX SPOT Auction hotlines for any further questions!

Auction Hotlines (incl. Intraday Auctions) DE: +49 341 3396 8071 FR: +33 1 73 03 96 10 NL: +31 20 305 4042 UK: +44 207 220 3444