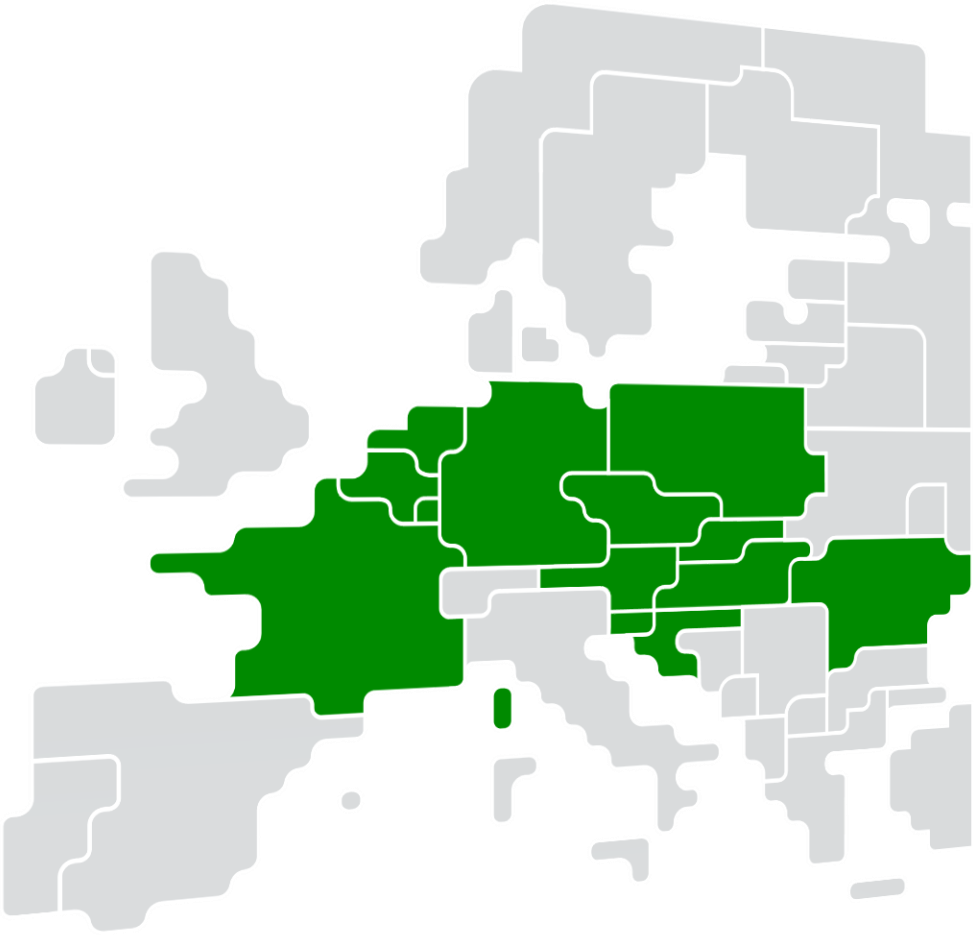
Core Consultative Group
IDCC Go-live call

06/05/2024

15:00 – 17:00h (CET)
Microsoft Teams meeting



1. Welcome and Introduction

Practicalities, announcements and reminders

R.OTTER/S. VAN CAMPENHOUT
Z.GAUTIER

Co-chairs

Zélie Gautier
Market Participants, Engie

Ruud OTTER
Core TSOs, Tennet BV

Steve Van Campenhout
Core TSOs, ELIA

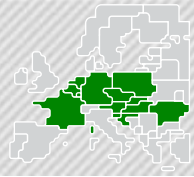
Practicalities

- During meeting
  - Please use the **chat** in Teams to address questions. If you have a specific question on the slide, include the slide number in your question.
  - After each topic there will be a short Q&A section to see if all key questions have been addressed
- Follow up
  - Minutes and final meeting documents will be shared with CCG distribution list
  - JAO Q&A forum

1. Welcome and introduction

Agenda

Z.GAUTIER



	SUBJECT	WHO	TIMING
1	**Welcome and introduction** • Announcements • Agenda for today	Z. GAUTIER	15:00 – 15:15

2	**Intraday Capacity Calculation**
	• Roadmap update
	• Go-live deliverable overview
	• Latest KPI results for IDCC(a) and (b)
	• BZ isolations:
	  • Explanation on where pre-congestions are located
	  • Next steps
	• Q&A
		B.MALFLIET	15:15 – 16:45

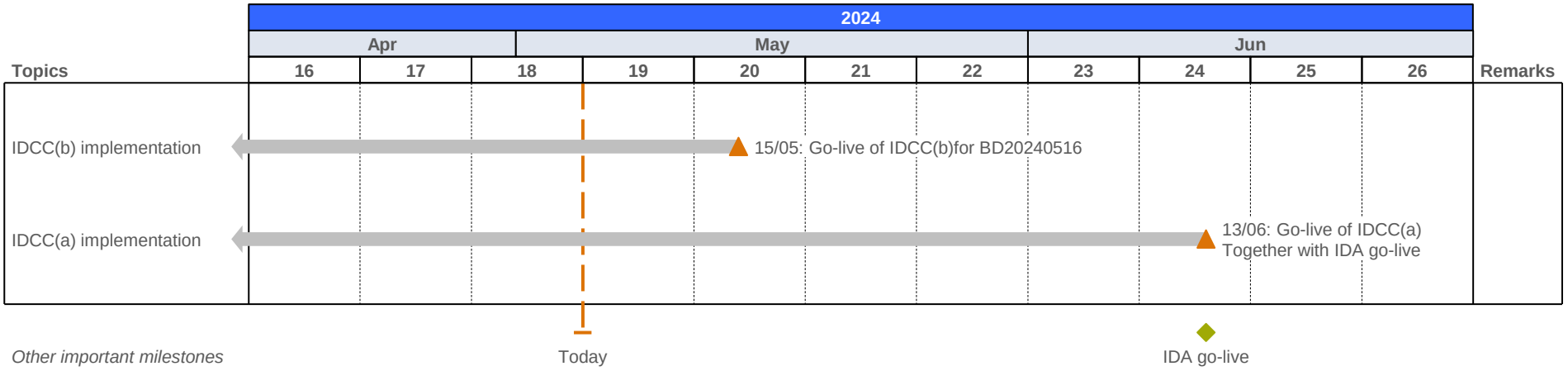
3	**AOB & closure** • Next Core CG meeting	STK managers	16:45 – 17:00
	APPENDIX • Glossary of common abbreviations		

2. Intraday Capacity Calculation

Roadmap for IDCC go-live

B. MALFLIET

The following roadmap will be followed for the go-live of IDCC



Go-live milestone External milestone

2. Intraday Capacity Calculation

Go-live deliverable overview

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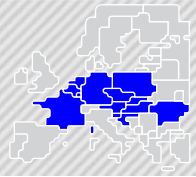


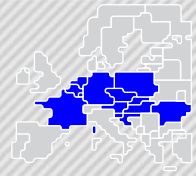
Topic	Key deliverables	Responsible	Status	Comments
XBID integration	• Test the integration between the Core Capacity Calculation tooling and XBID platform	Core TSOs	🟢	Final testing was performed and there are no blocking issues for go-live.
Analytical and reporting services	• Set-up process to deliver consistent reporting in line with ID CCM after go-live.	Core TSOs	🟢	As of go-live: Start of reporting in monthly and quarterly reports in line with ID CCM.
Final business process	• Business process documentation	Core TSOs	🟢	Business process documentation is final and approved by all Core TSOs.
EXT // run KPI & process stability monitoring	• Process stability and performance • Effect ATC & IVA validation • Levels of ID ATCs	Core TSOs RCCs	🟡 🟢	**Stability** • 24/04-15/05: Stable period of EXT//run with go-live version of tooling • See next slide for more details. **KPIs** • June: IDCC PT to prepare scope of the capacity improvement study (ID CCM)
Final tool evolutions	• Deploy of go-live version	Core TSOs, Vendor	🟢	Go-live version of tooling is implemented in the EXT//run and the process runs on production IT infrastructure. The only switch at go-live will be the provision of IDCC(b) capacities and high-negative NTC values for IDCC(a) to XBID.
Final methodology	• Final ID CCM decision by ACER		🟢	• Final methodology was decided by ACER on 15/03 and allow TSOs to go-live in May 2024.

🟢 On track 🟡 Expected to be ready in time 🔴 Risk for go-live

2. Intraday Capacity Calculation

Process stability and fallback procedure

B. MALFLIET



With the switch of the EXT//run to final go-live timings in March, some issues in the stability of the EXT//run occurred due to the tight timings inherently associated with the IDCC process.

Following this, Core TSOs performed the following mitigating measures to re-establish process stability:

- Start the process 6 minutes earlier to allow for more time to perform the complete process
  - This means that an earlier DACF CGM is used, which might be of slightly less quality. However, TSOs prioritized the stability of the process over the slightly reduced DACF CGM quality.
- Re-optimization the critical end times of intermediate process steps to match more accurately the required process times.
- Relaxed critical end time of the complete process, to ensure that capacities will also be provided after 21:45 in case this deadline is not met but still in time for IDA2.

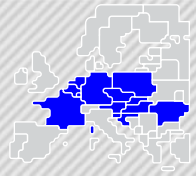
Furthermore, Core TSOs changed the fallback procedure for when the IDCC(b) process fails and does not manage to provide capacities before the critical end time.

- In the old fallback procedure, Core TSOs would send high-negative NTC values to XBID.
- In the new fallback procedure, Core TSOs will not update the capacities in XBID, meaning that the IDCC(a) will prevail and the ID market is not closed.

During the preparations for the go-live of IDCC(b), a data misalignment in the input to the process caused the results for BD20240329-BD20240409 to be non-representative. For this reason, Core TSOs have removed these non-representative results from the JAO publication tool.

2. Intraday Capacity Calculation

B. MALFLIET



Overview of parameters for IDCC(a-b) (ID ATC extraction parameters, FRM)

Reminder on parameters

- The virtual capacity parameters for IDCC(a) are voluntary per ID CCM.
- Since the previous Core CG meeting, HOPS increased their rAMRid value from 0,2 to 0,4.

The parameters for the IDCC(a-b) are:

IDCC (a) Common parameters for all TSOs

PTDF threshold	0,5%
RAM_ID threshold	10 MW
FRM	10%

IDCC(b) Common parameters for all TSOs

PTDF threshold	3%
RAM_ID threshold	50 MW
FRM	5%

PTDFs of CNECs with a RAM below the RAM_ID threshold will be set to zero during the ATC extraction step if they are below the PTDF threshold.
The FRM is the flow reliability margin, which is the reliability margin as defined in Article 2(14) of the CACM Regulation applied to a CNE.

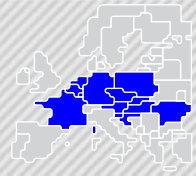
IDCC (a) Individual parameters per TSO

	50 Hertz	Amprion	APG	CEPS	ELES	ELIA	HOPS	MAVIR	PSE	RTE	SEPS	TTG	TTN	TEL	TNG
rLTAincl	0,2	0,2	0	1	1	1	1	0,2	0	1	0,2	0,2	0,2	0,2	0,2
rAMRid	0,2	0,2	0	0,7	0,7	0,2	0,4	0,2	0,2	0,2	0,5	0,2	0,2	0,2	0,2

The parameters rLTAincl and rAMRid are used to modify the RAMf,DA according to Article 11(2) of the ID CCM.
The parameter rLTAincl determines which share of LTAs will be taken into account for the IDCC(a) capacity calculation. A parameter of 0.2 means that 20% of the LTAs will be taken into account.
The parameter rAMRid determines which share of minRAM will be taken into account for the IDCC(a) capacity calculation. A parameter of 0.2 means that a 20% minRAM is applied.
Note that the RAMf,DA will be adapted to reflect the already allocated capacities according to Article 11 (1) of the ID CCM. rLTAincl and rAMRid will therefore not guarantee any minimum capacity available for ID trade.

Next steps

- The parameter overview will be uploaded on the JAO website after the Core SG go-decision.



2. Intraday Capacity Calculation

KPIs – IDCC(a) – Background and summary

Background on IDCC(a) EXT//run results from BD20231208 – BD20240421 (125 BDs)

- The KPIs on the next slides are based on the final ID ATCs from the IDCC(a) process, as published on the JAO publication tool.
- The IDCC(a) capacities will be provided to IDA1 for allocation at 15:00. Currently, the Core capacities at 15:00 are zero.

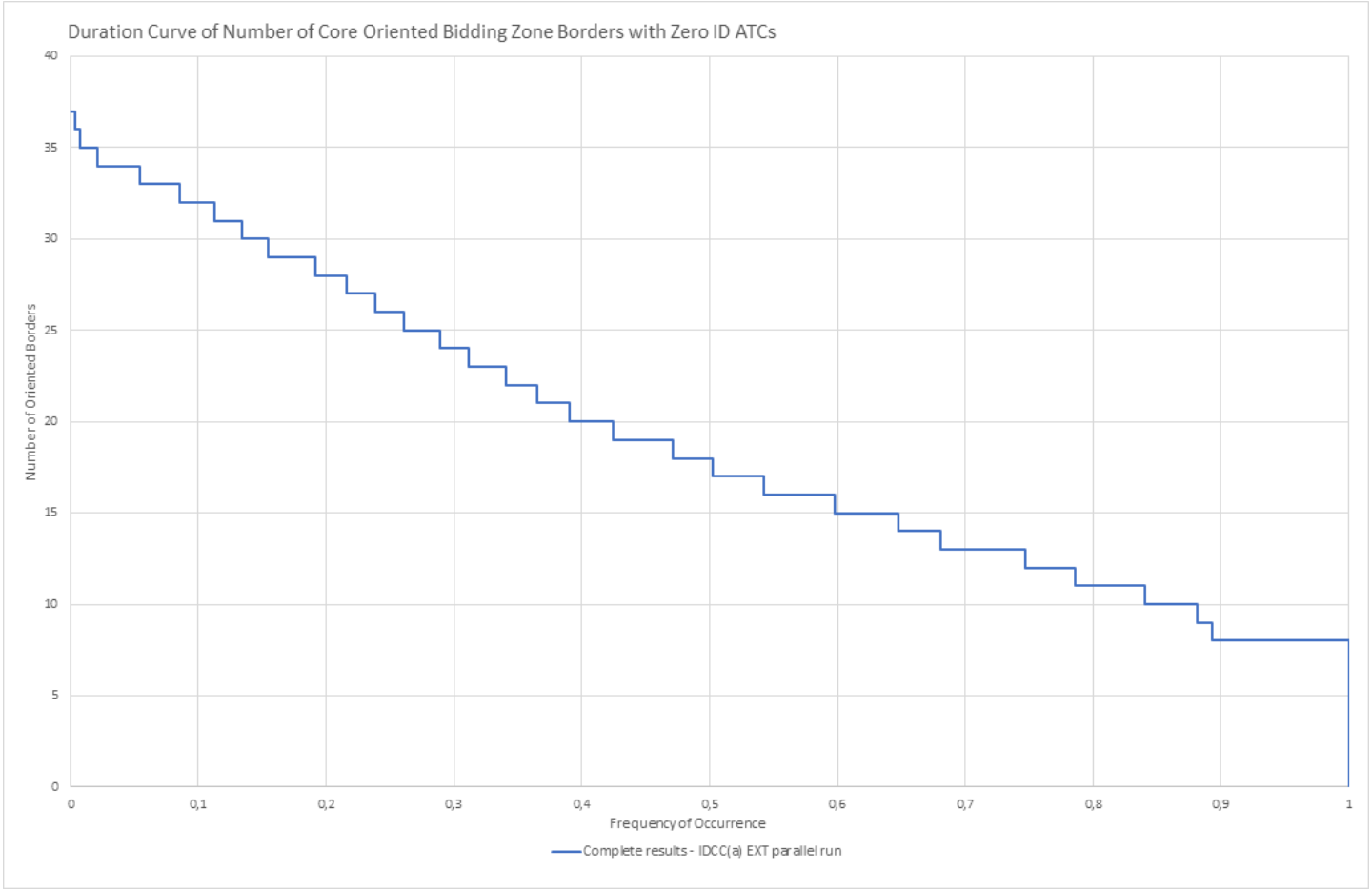
Capacity reductions of TSOs for IDCC(a)

- Due to the fact that allocations from IDA1 can currently not be included in the DACF models used to assess operational security, APG sees no other possibility than to provide zero capacities at 3 p.m. in order to not risk operational security.
- Due to the potential non-inclusion of IDA1 and continuous trade results, PSE also expects to reduce the capacities on their borders for IDCC(a) at go-live in June.

2. Intraday Capacity Calculation

B. MALFLIET

Zero ATC values – IDCC(a) EXT//run results (08/12/23 – 21/04/24)

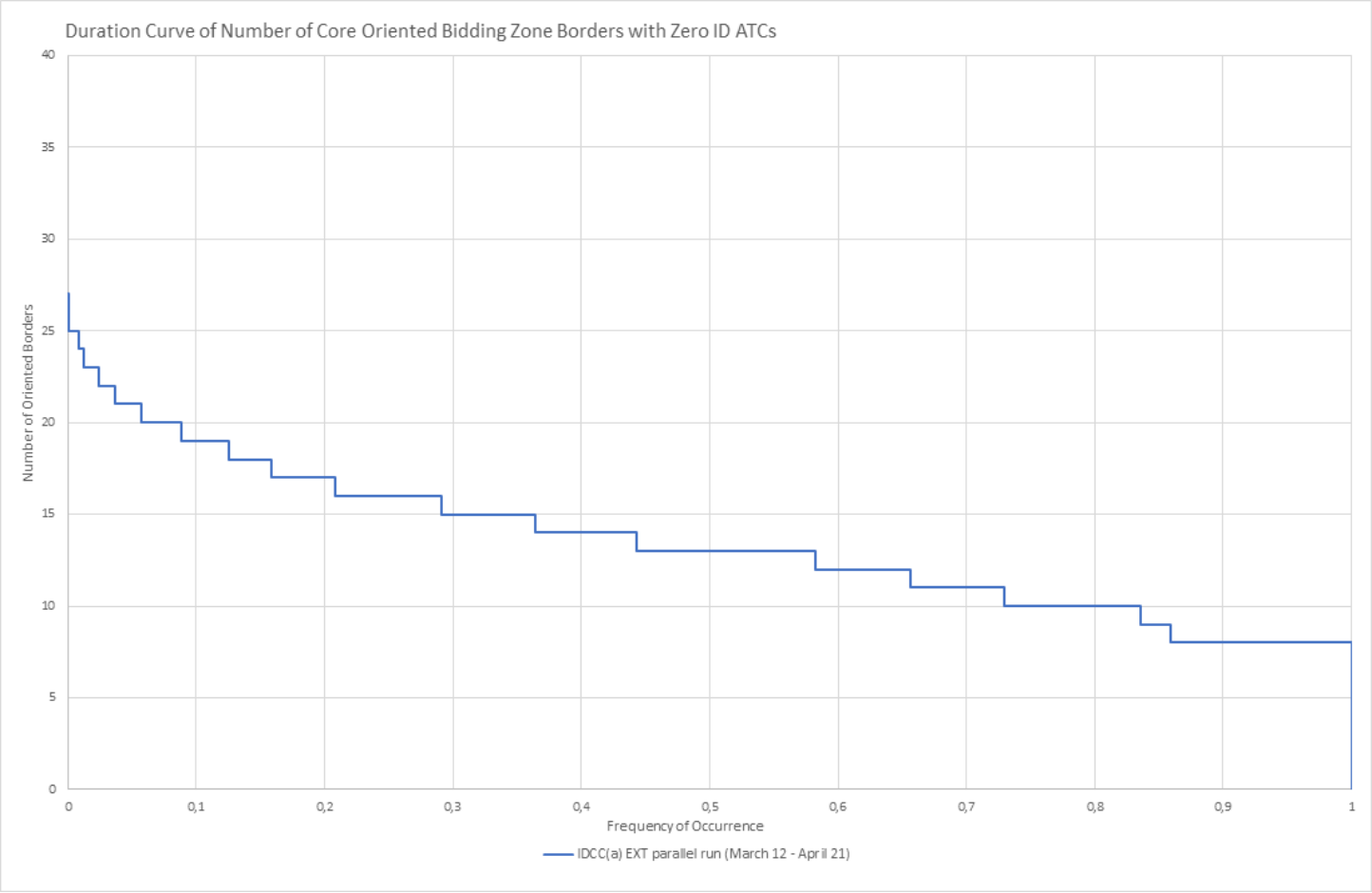


- Plot shows the frequency of time with specific number of borders with simultaneous zero ATC in IDCC(a) //run.
- In IDCC(a) it happens 14% of the time that there are more than 30 borders with zero ATC at the same time.
- The situation with 10 or less borders having zero ATC values occurs 16% of the time.

2. Intraday Capacity Calculation

B. MALFLIET

Zero ATC values – IDCC(a) EXT//run results – since last CG (12/03/24 – 21/04/24)

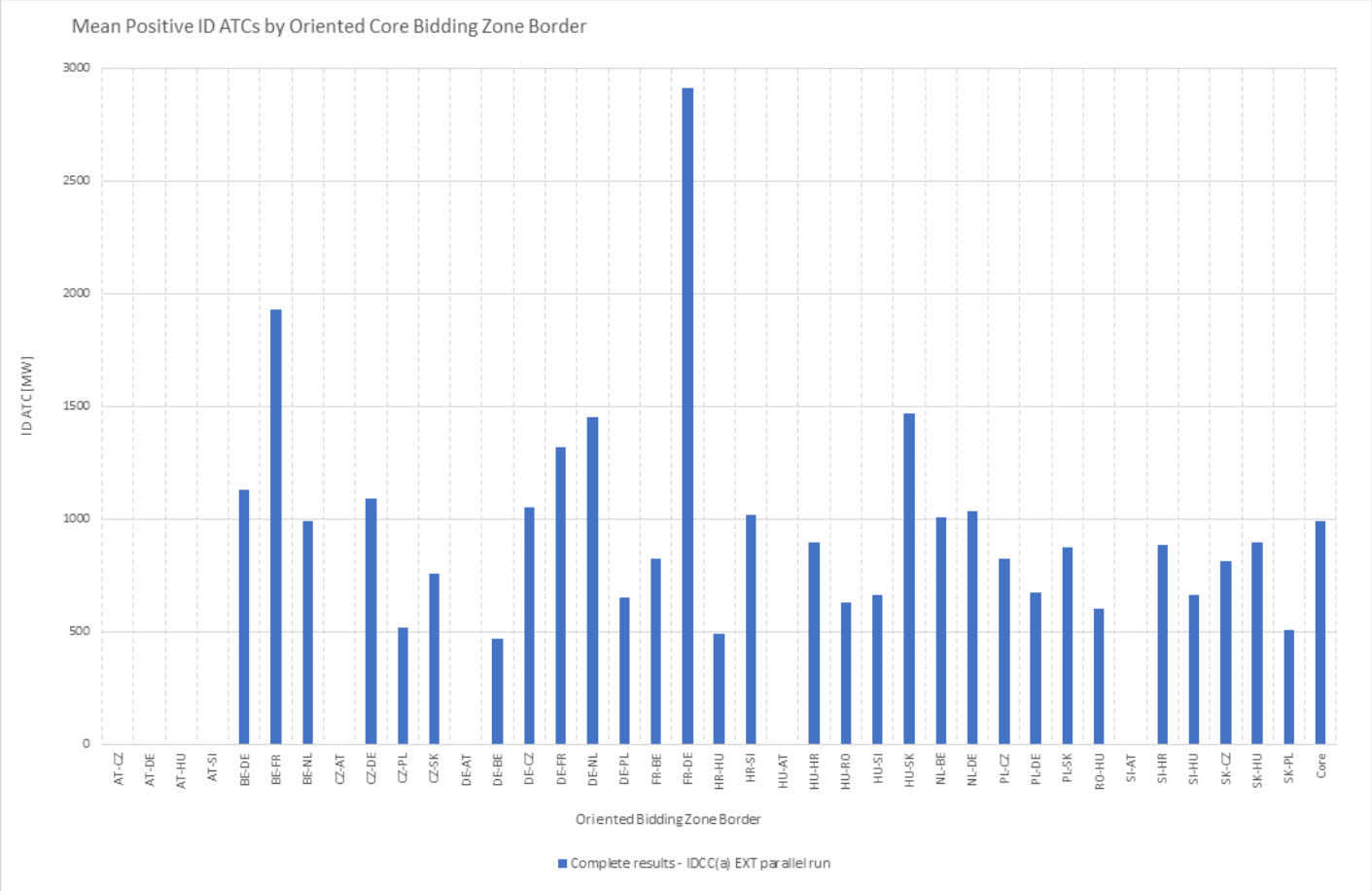


- Recent results of IDCC(a) //run show that high number of borders with simultaneous zero ATC is less frequent than in overall results.

2. Intraday Capacity Calculation

B. MALFLIET

Mean positive ID ATCs – IDCC(a) EXT//run results (08/12/23 – 21/04/24)

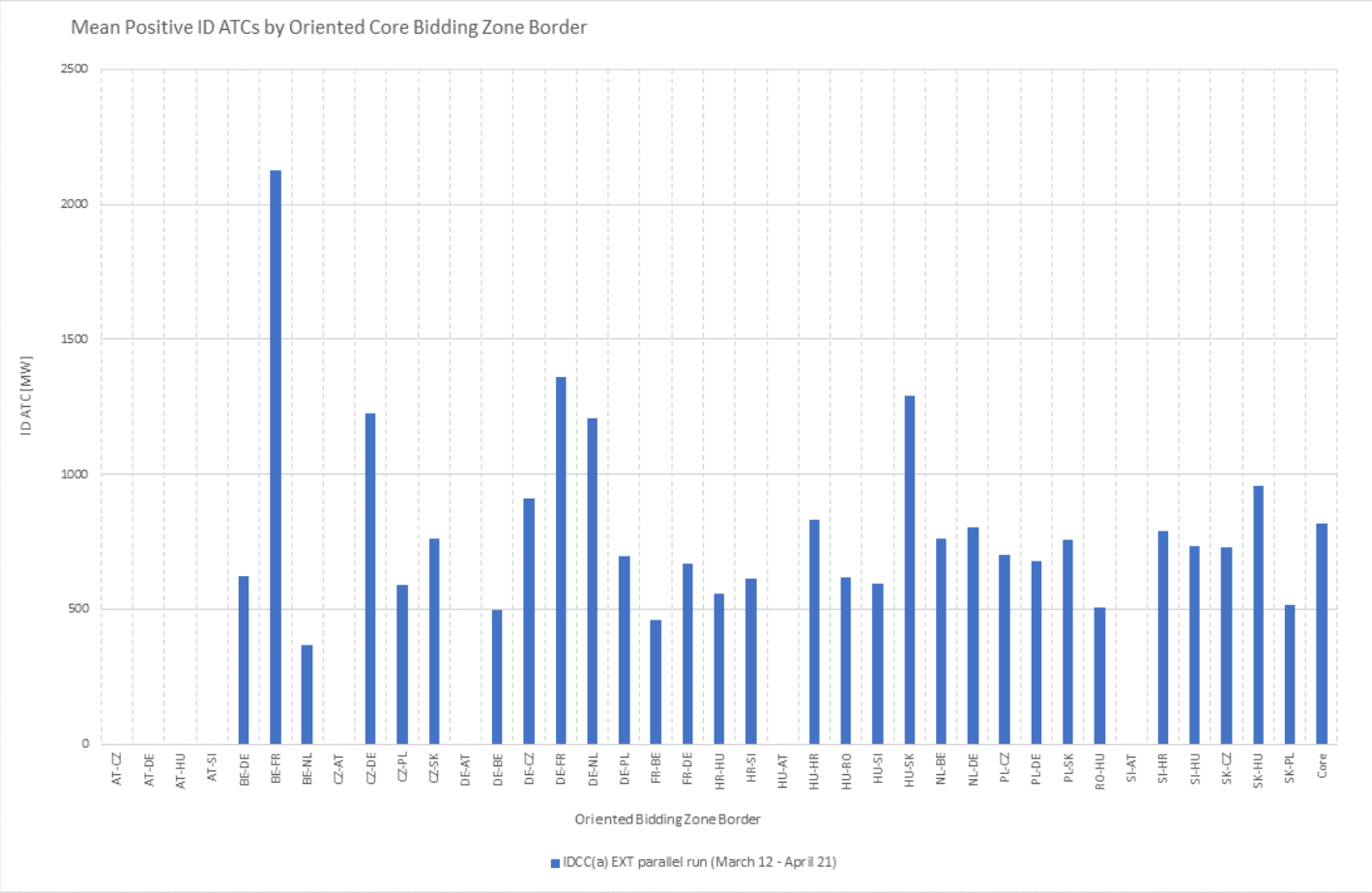


- On all AT borders there are zero ATCs from IDCC(a) //run due to APG´s decision to provide zero capacities for IDA1 as long as there is no common DACF including possible trades from IDA1 in place, which is seen as risk for operational security.
- Various results per BZ border but on Core level average positive ATCs from IDCC(a) //run are approximately 1000 MW.
- It´s important to focus on most relevant borders/directions.

2. Intraday Capacity Calculation

B. MALFLIET

Mean positive ID ATCs – IDCC(a) – Since last CG (12/03/24 – 21/04/24)

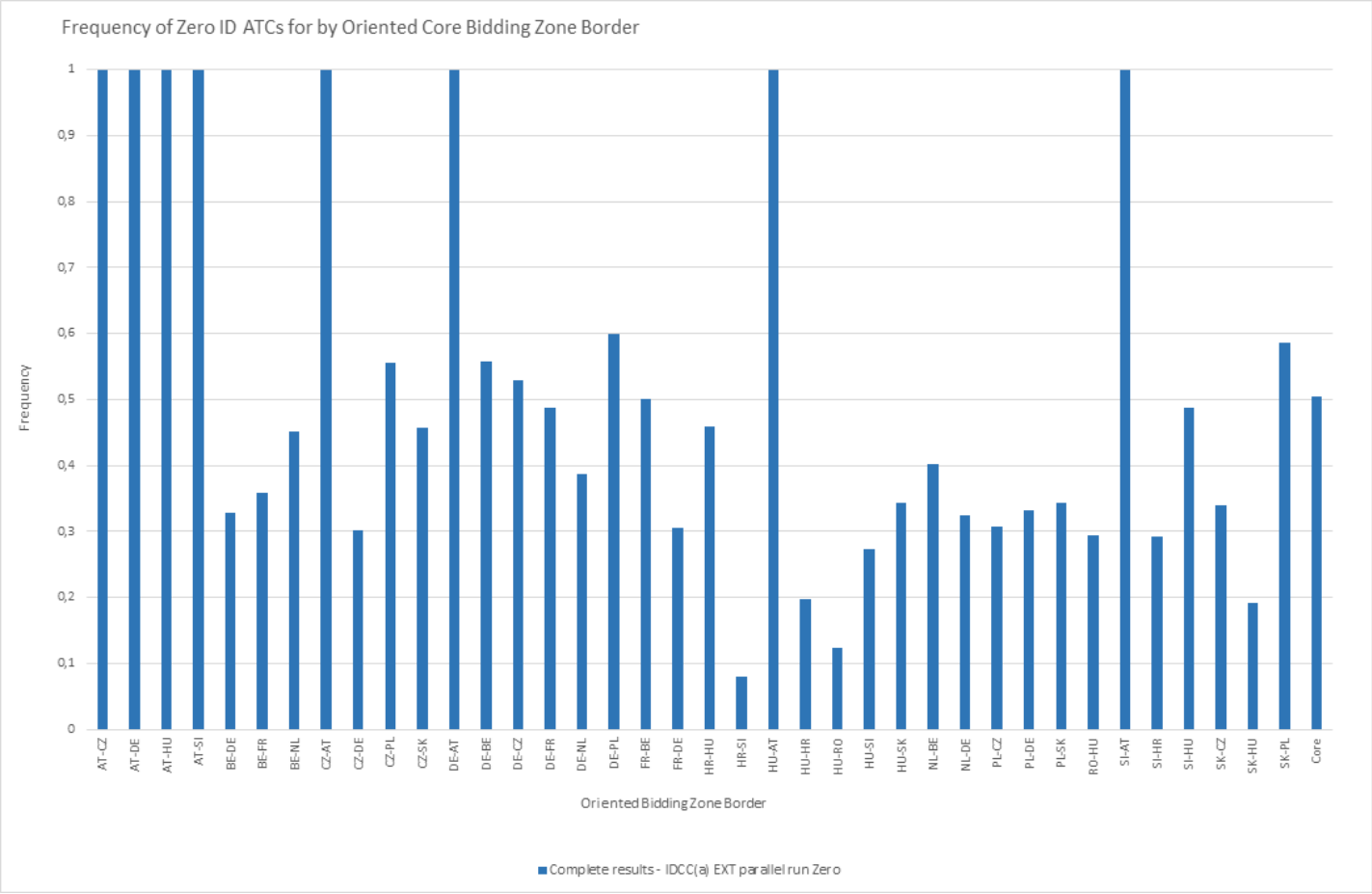


- Various results per BZ border but on Core level average positive ATCs from IDCC(a) //run are slightly lower than overall results.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of zero ID ATCs – IDCC(a) – (08/12/23 – 21/04/24)

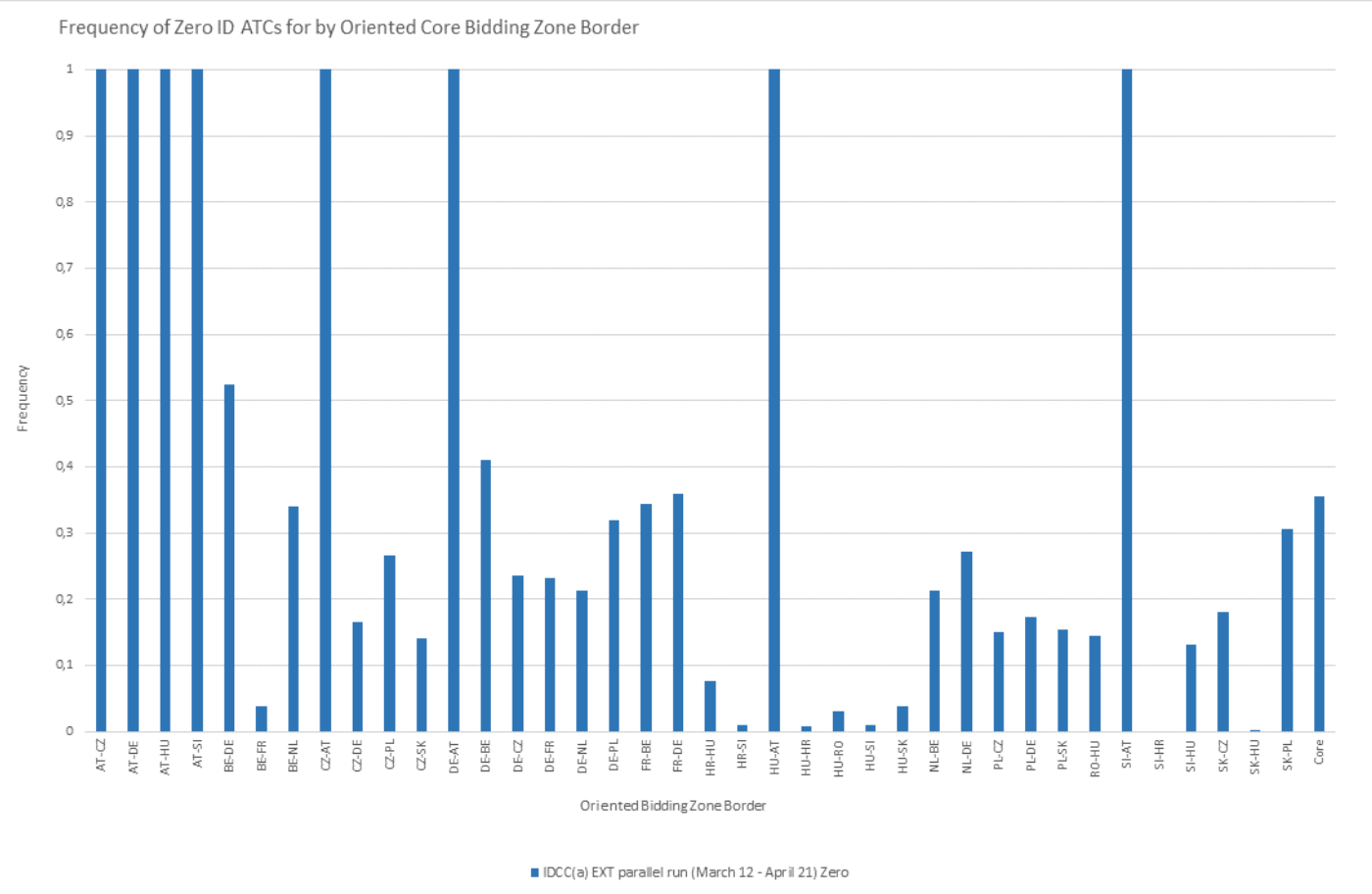


- On all AT borders the frequency of zero ATCs from IDCC(a) //run is 100% due to APG´s decision to provide zero capacities for IDA1 as long as there is no common DACF including possible trades from IDA1 in place, which is seen as risk for operational security.
- On the other borders, the frequency of zero ATC is in a range from 8% to 60%.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of zero ID ATCs – IDCC(a) – Since last CG (12/03/24 – 21/04/24)

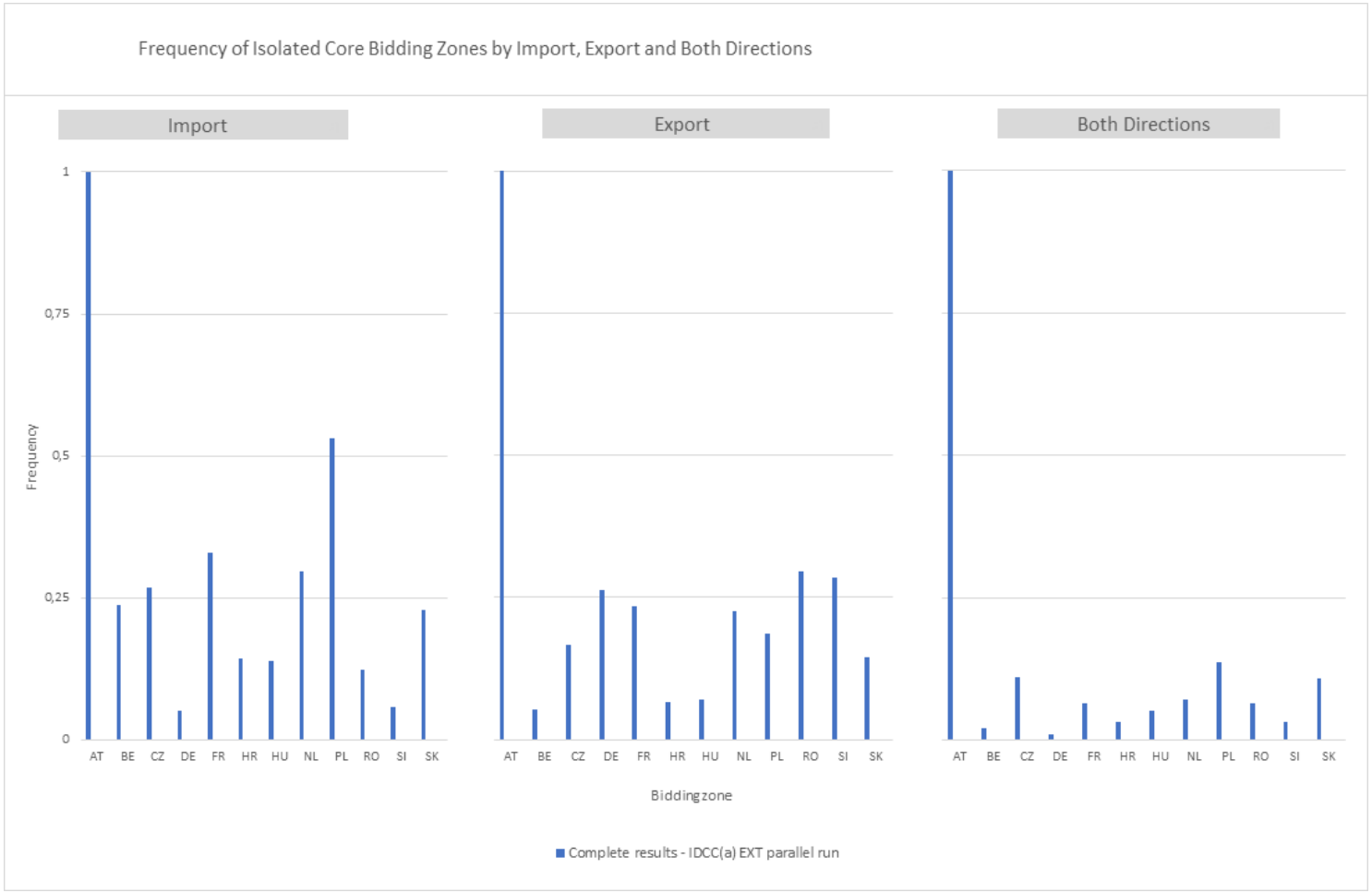


- Recent IDCC(a) //run results show lower frequency of zero ATCs on almost all Core borders.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of Isolated Core BZs – IDCC(a) – (08/12/23 – 21/04/24)

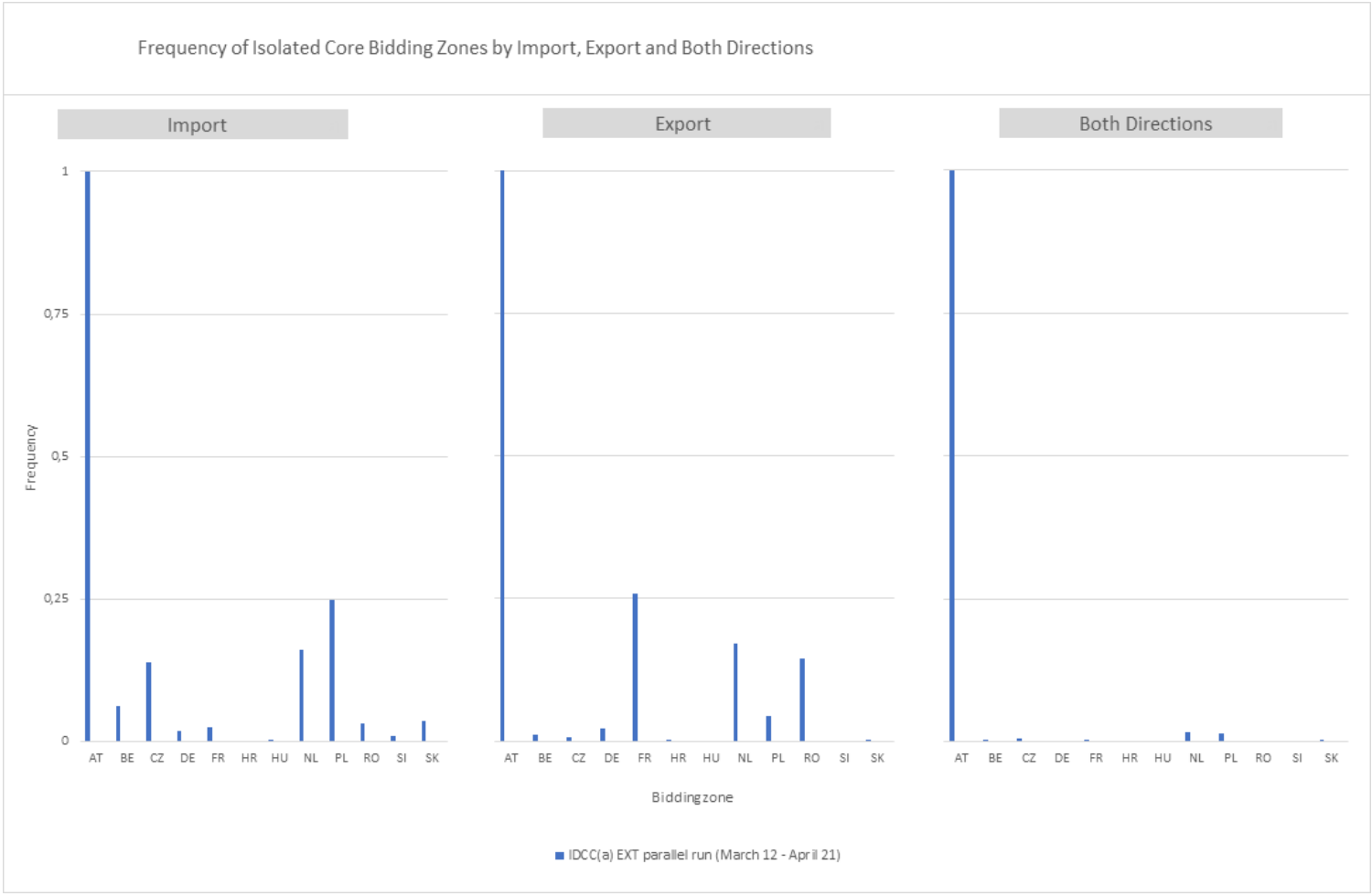


- Frequency of total isolation in both directions (meaning no import nor export possible) is below 15% for all bidding zones (except for AT, where it is a consequence of APG´s decision).

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of Isolated Core BZs – IDCC(a) – Since last CG (12/03/24 – 21/04/24)



- Frequency of isolation decreased for all bidding zones.
- Frequency of total isolation in both directions (meaning no import nor export possible) is very exceptional.

2. Intraday Capacity Calculation

KPIs – IDCC(b) – Background and summary

Background on EXT//run results from BD20221205 – BD20240421 (482 BDs)

- DA leftovers represent ID ATCs after increase/decrease as submitted to XBID at 22:00
- **Note:** Due to issues in the EXT//Run the following 21 BDs were excluded from the ATC comparison: 03/03/23, 22-24/07/23, 15/02/2024, 14/03/2024, 16-18/03/2024, 29/03 – 09/04/2024. Due to incomplete data for DA leftovers from 29/10, this BD was also excluded. As a result, KPIs comparing ATCs contain results of 482 business days.

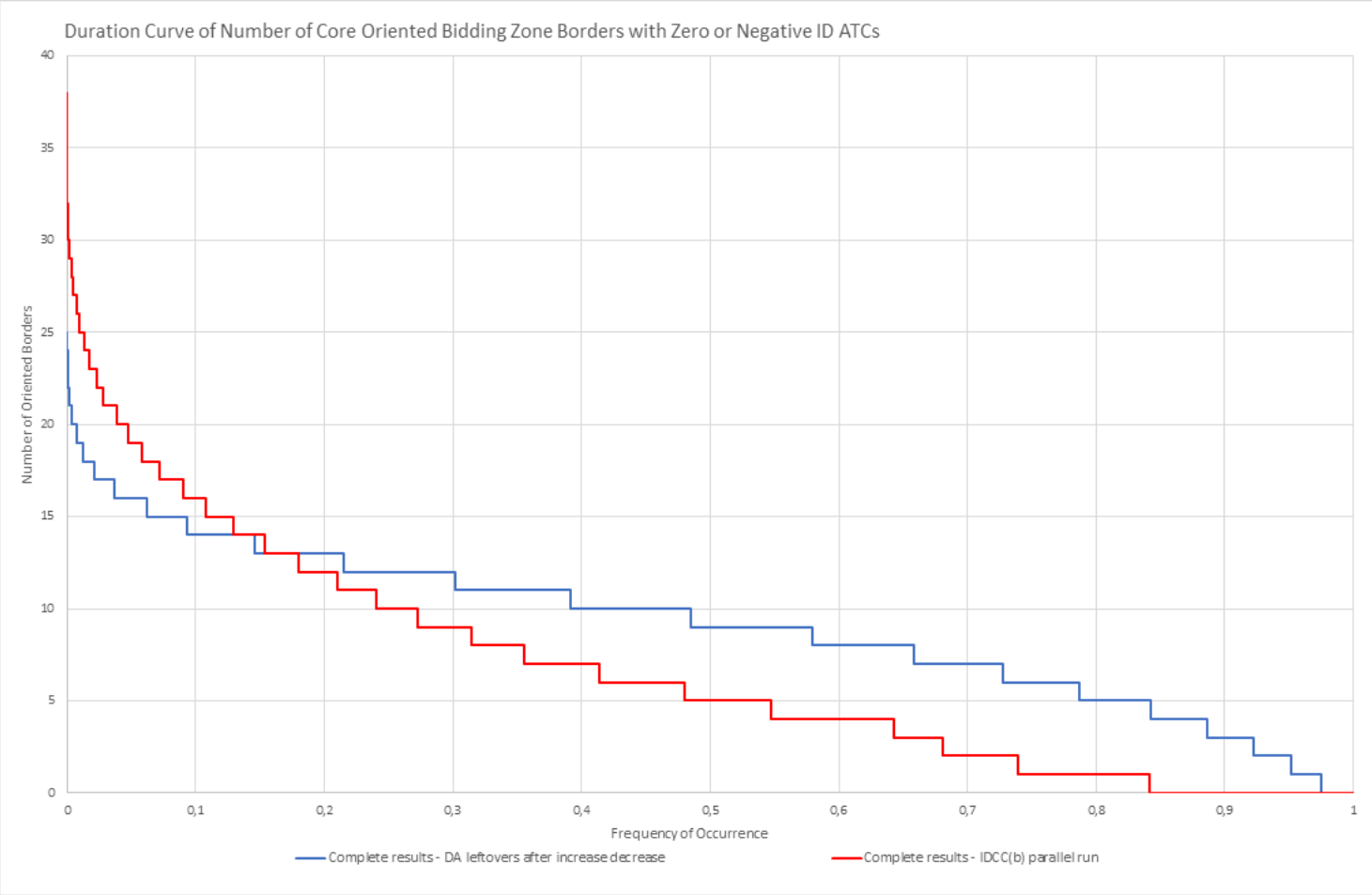
Summary of the observed results

- Stable results are observed in the past months
- When comparing the IDCC EXT//Run results with the current operational ID ATCs (DA leftovers after increase / decrease) the following is observed:
  - Number of occurrences of BZ borders with zero or negative ATCs in //run is lower compared to DA leftovers.
  - On average positive ATCs from IDCC//run are slightly lower than DA leftover, yet there is a more equal distribution across borders. When observing the results, it is important to focus on most relevant borders/directions (e.g., some of the reductions are in directions which are not often used by the market).
  - Frequency of isolation is significantly increased for NL. Few other BZs (BE, CZ, RO export) have also increased isolation compared to DA leftovers. The root cause are pre-congestions in the grid model (DACF) used as starting point for IDCC_B.

2. Intraday Capacity Calculation

B. MALFLIET

Negative or zero ATC values – IDCC(b) – complete results (05/12/22 – 21/04/24)

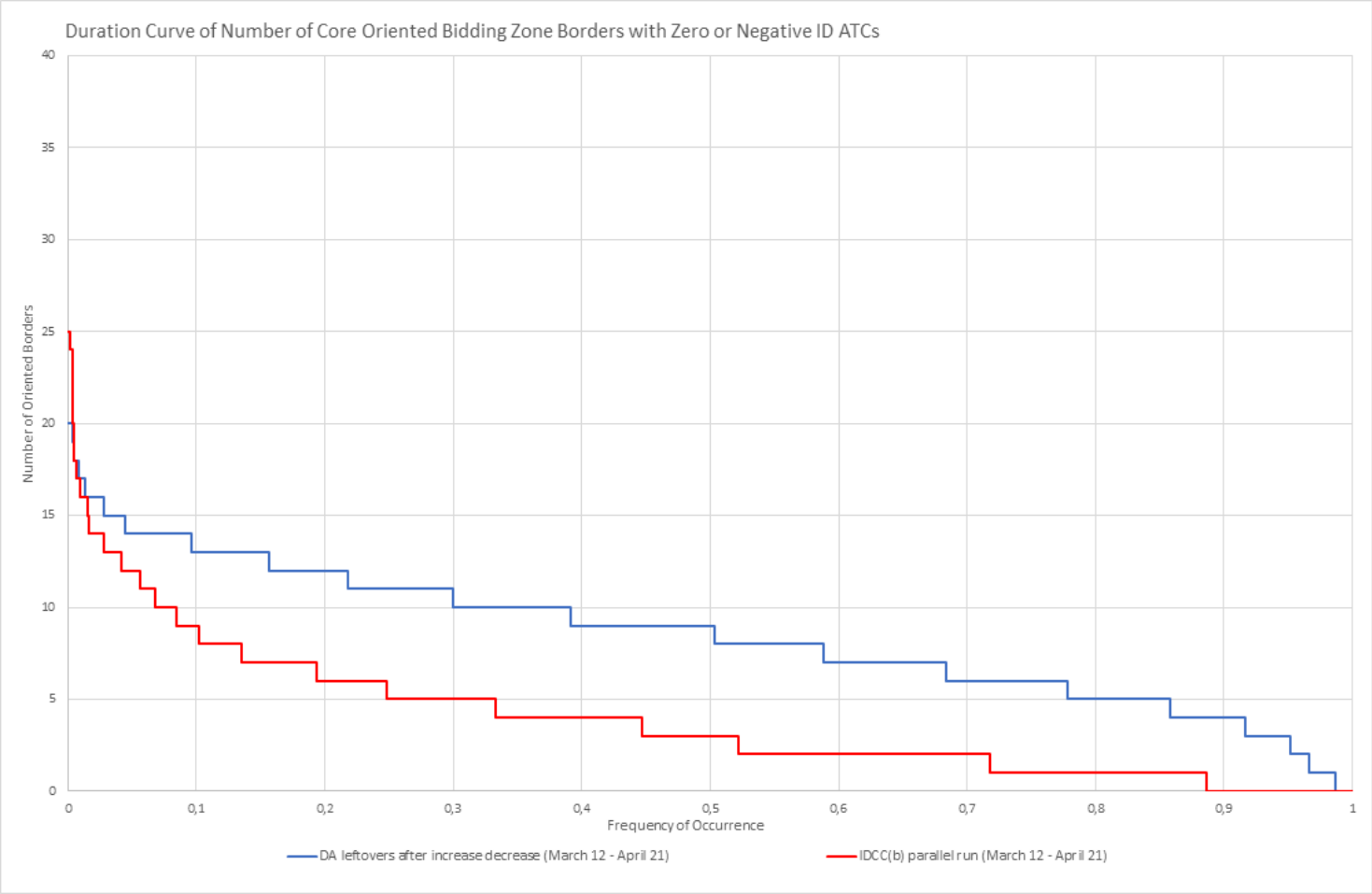


- Number of occurrences of BZ borders with zero or negative ATCs in //run is lower compared to DA leftovers.
- In IDCC(b) //run, 16% of the time all the borders have positive ATC; in DA leftovers after inc./dec. process it´s only 3%.
- In IDCC(b) //run, 76% of the time 10 or less borders have simultaneously zero or negative ATC values (for DA leftovers it´s 61%).

2. Intraday Capacity Calculation

B. MALFLIET

Negative or zero ATC values – IDCC(b) – since last CG (12/03/24 – 21/04/24)

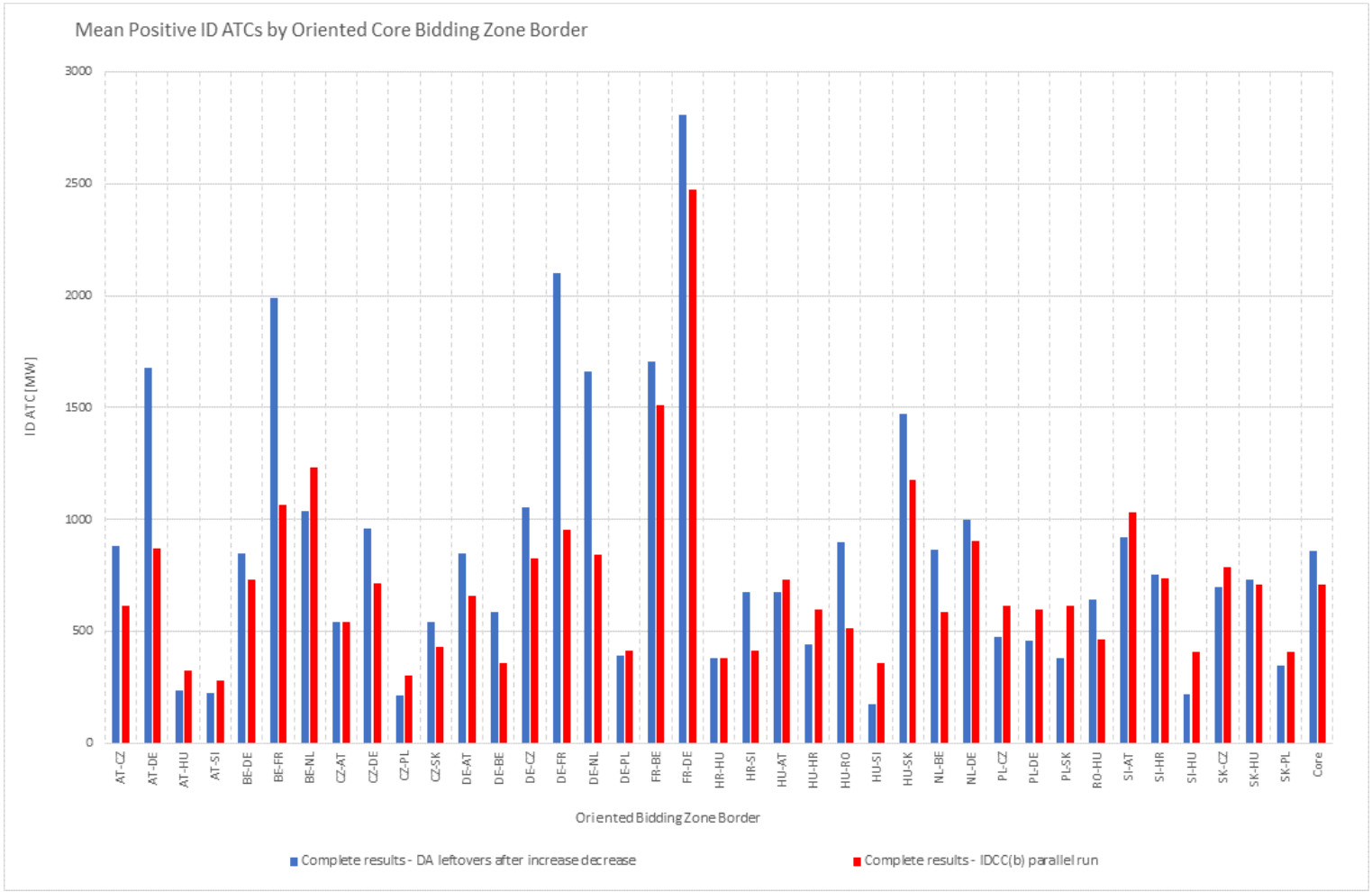


- Recent results show that simultaneous occurrence of high number of borders with negative or zero ATC in IDCC(b) //run is much less frequent compared to DA leftovers.
- In IDCC(b) parallel run, there are less than 5 borders with zero or negative ATC 66% of the time; in DA leftovers it´s only 14%.

2. Intraday Capacity Calculation

B. MALFLIET

Mean positive ID ATCs – IDCC(b) – complete results (05/12/22 – 21/04/24)

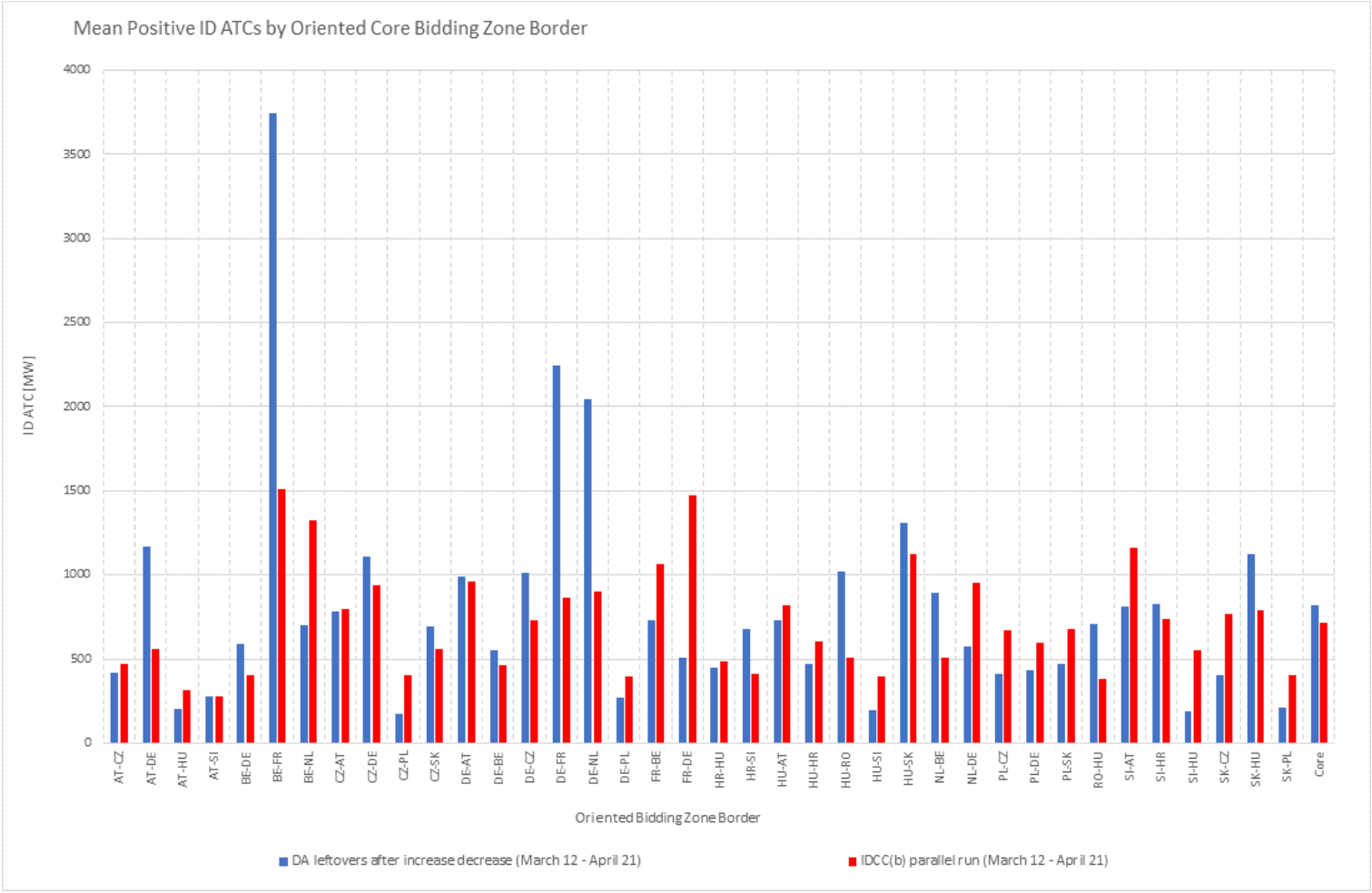


- Various results per BZ border but on average positive ATCs from IDCC(b) //run are slightly lower than DA leftovers.
- It´s important to focus on most relevant borders/directions (some of the reductions are in directions which are not often used by the market).

2. Intraday Capacity Calculation

B. MALFLIET

Mean positive ID ATCs – IDCC(b) – since last CG (12/03/24 – 21/04/24)

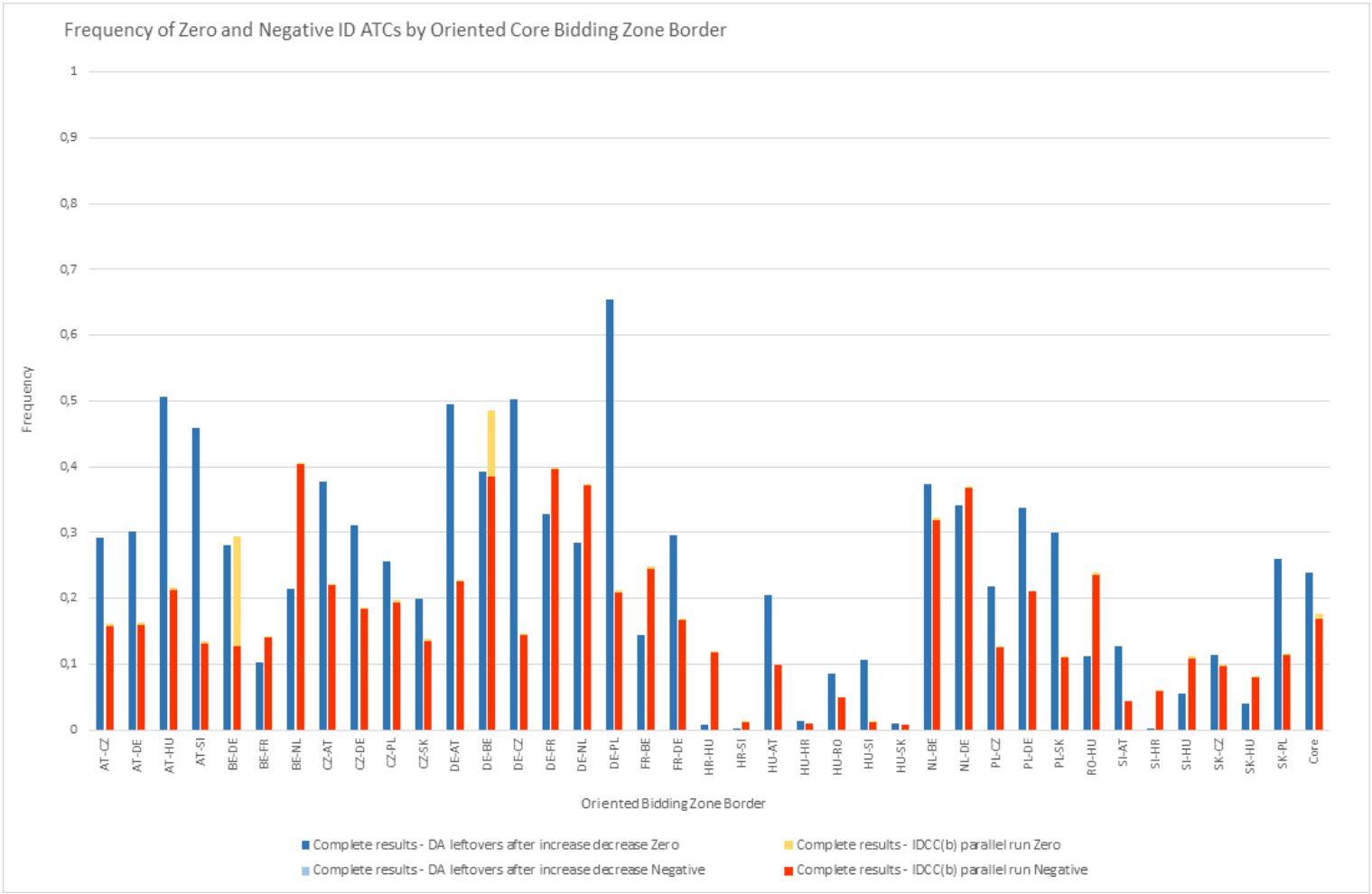


- Recent results show that mean positive ATCs on some borders in IDCC(b) parallel run are lower than DA leftovers, but there are many other borders with increased level of average ATC. On the Core level, average ATCs are slightly lower than DA leftovers.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of zero or negative ID ATCs – IDCC(b) – complete results (05/12/22 – 21/04/24)

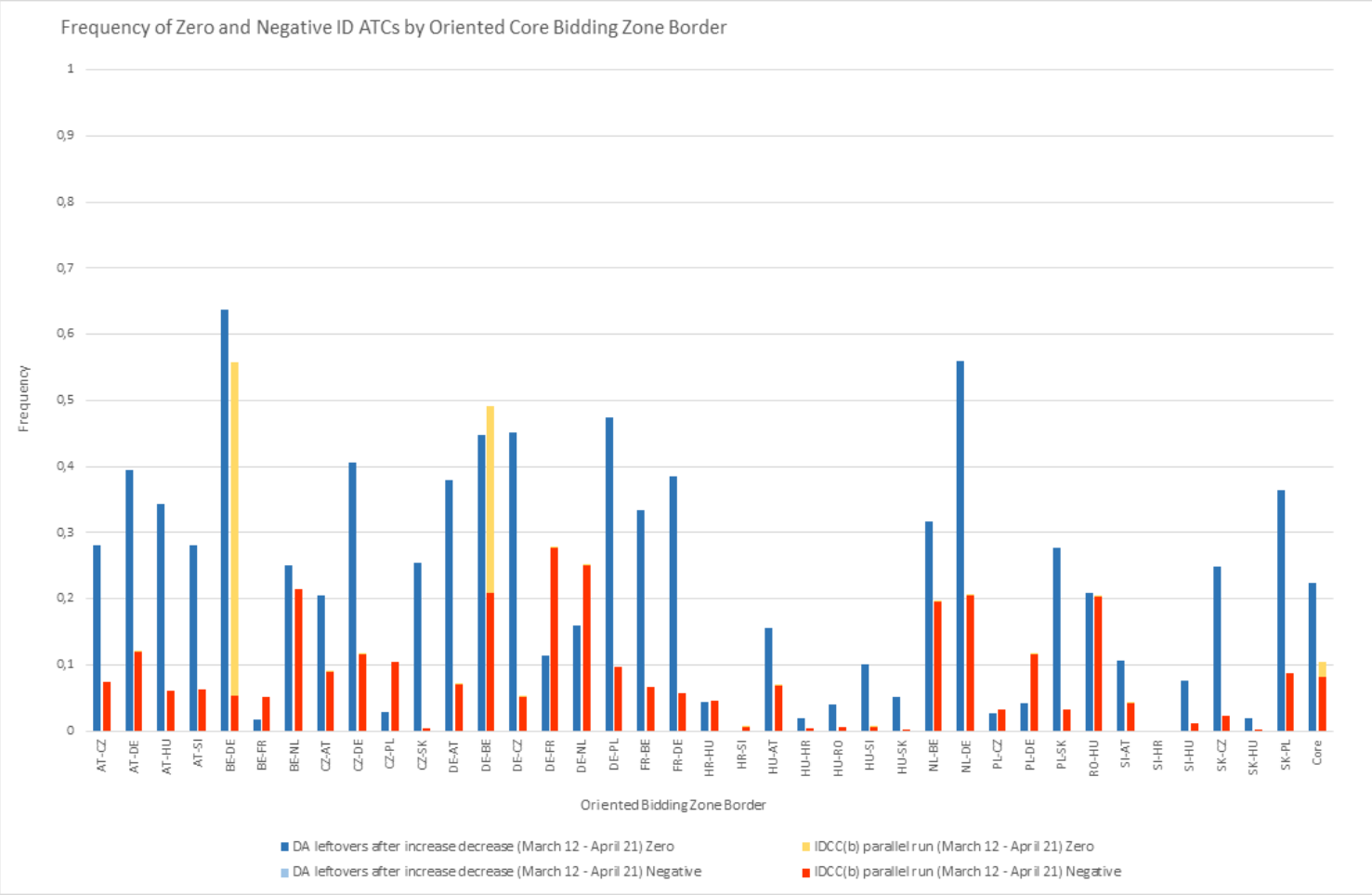


- Frequency of zero or negative ATCs in IDCC(b) //run is significantly lower compared to DA leftovers for many Core borders.
- On Core level, the frequency of non-positive ATCs in //run is lower by 7 percentage points compared to DA leftovers.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of zero or negative ID ATCs – IDCC(b) – since last CG (12/03/24 – 21/04/24)

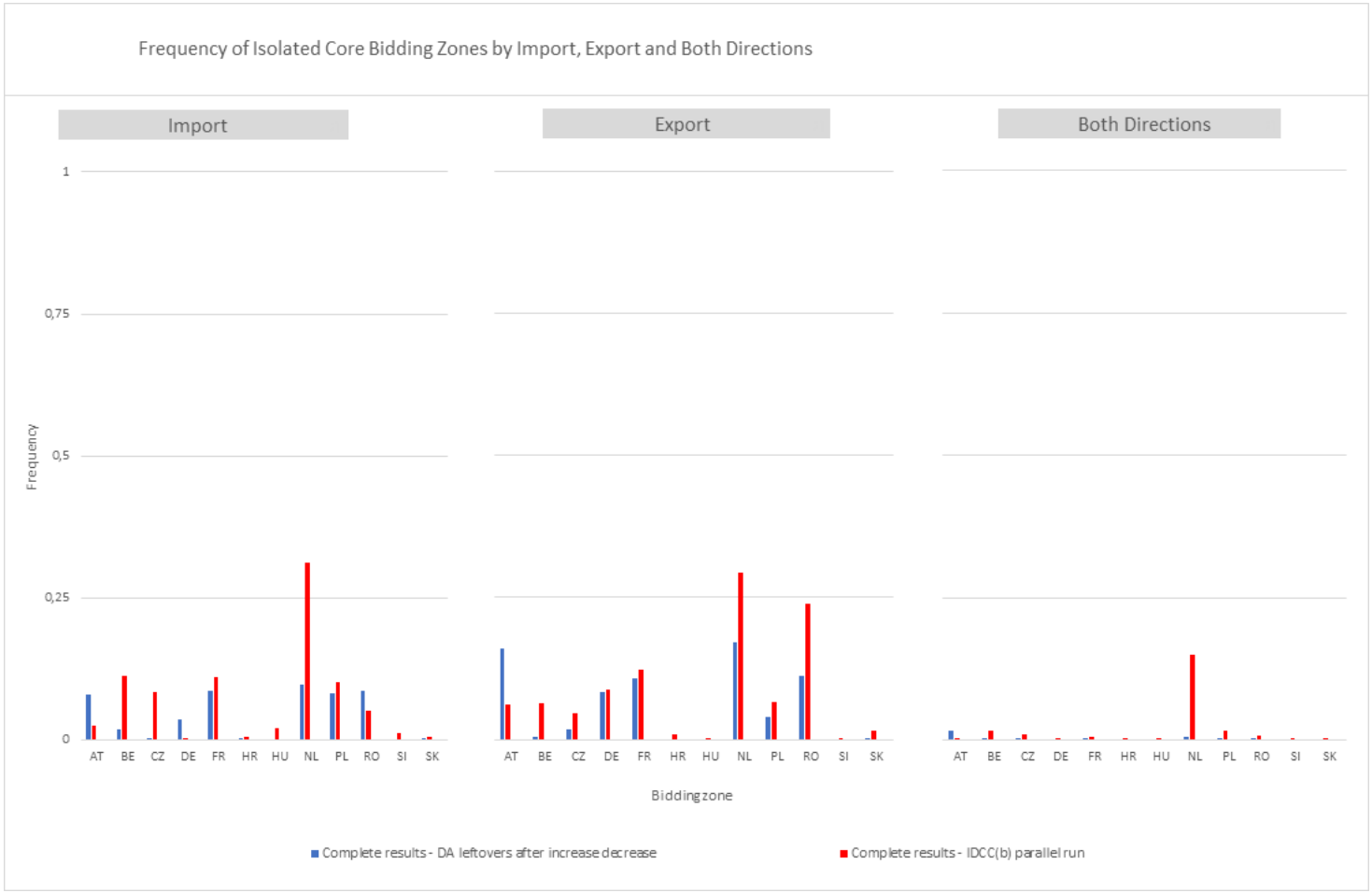


- Recent period shows even better results in terms of frequency of zero and negative ID ATC in IDCC(b) //run.
- On Core average level, the frequency of zero and negative ID ATC in IDCC(b) //run is lower than for DA leftovers.

2. Intraday Capacity Calculation

B. MALFLIET

Frequency of Isolated Core BZs – IDCC(b) – complete results (05/12/22 – 21/04/24)

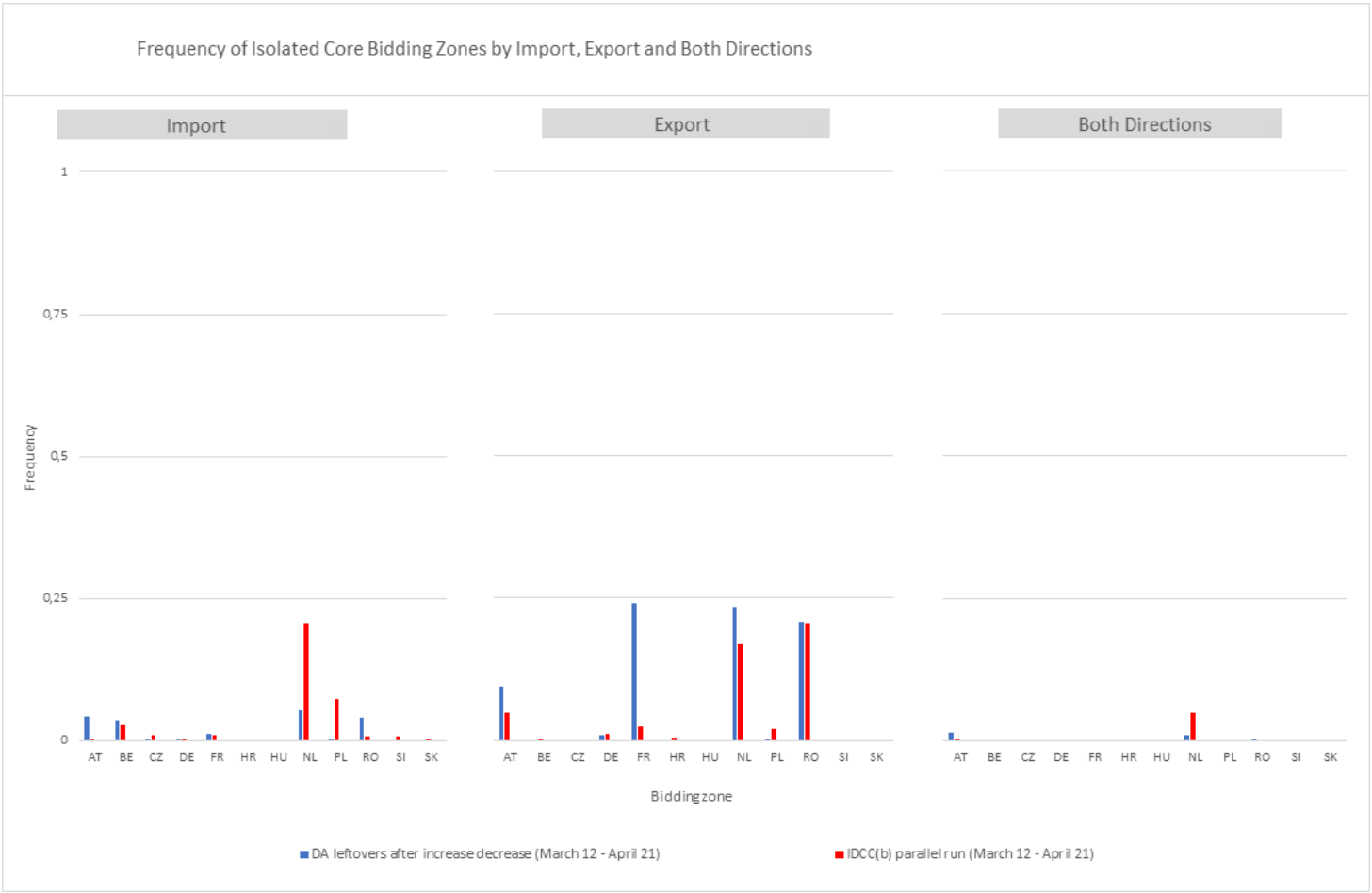


- Frequency of isolation is significantly increased especially for NL. Few other BZs (BE, CZ, RO export) have also increased isolation compared to DA leftovers.
- For other bidding zones there is only small or no increase of isolation.
- In general, frequency of total isolation in both directions (with no possibility to import nor export) is very rare.

2. Intraday Capacity Calculation

B. MALFLIET

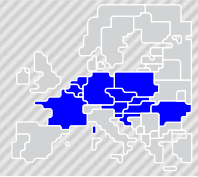
Frequency of Isolated Core BZs – IDCC(b) – since last CG (12/03/24 – 21/04/24)



- Recent results show small increase in the isolation for IDCC(b) //run compared to operational DA leftovers only for NL and PL. For all other bidding zones, the level of isolation is similar to DA leftovers or smaller.

2. Intraday Capacity Calculation

B. MALFLIET



BZ isolations: Explanation on where pre-congestions are located and next steps

Reminder

- On 12/03 in Core CG, market parties were informed by TSOs on the root cause of the frequent bidding zone isolations in IDCC(b). It was acknowledged in that CG meeting that more transparency is needed on the location of the pre-congestions and on the perspective/planning of concrete mitigation measures.

On the next slides, information can be found on the location of the pre-congestions.

TSOs are defining the scope of the capacity improvement study, in which mitigation measures to reduce bidding zone isolations will be defined.

- No improvement with respect to bidding zone isolations are to be expected prior to go-live.

Next steps

- June 2024: Core TSOs to define the scope and planning of the common capacity improvement study
- Core TSOs to continuously look for improvements to the IDCC process to reduce bidding zone isolation frequency and improve the CC results in general

2. Intraday Capacity Calculation

KPI on pre-congested CNE – Introduction

Purpose of the KPI: monitoring IDCC(b) performance at all **Core borders & hubs** from **pre-congested** point of view - Analysed period: **11/04 – 22/04**

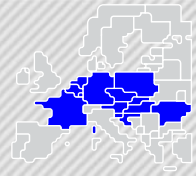
- A CNE is pre-congested if **RAM<=0**
- A pre-congested CNE is ATC extraction limiting (**ATC ELP CNE**) if **z2z PTDF>=3%** for the respective border
- Input data → Final FB Domain
  - EIC_Code, TSO, RAM, PTDF
- **Quantification method is the percentage of pre-congestion indicator (PPI). PPI [%] shows a percentage of the study period in which a CNE was an ATC ELP CNE for a BZ border.**
- Remarks:
  - Only TS in which an ID FB Domain was computed are considered
  - A CNE shared between TSOs is indicated as: BE-FR
  - Alegro network element (DC interconnector) is displayed as being connected with BE-D7-AL
- Pre-congestion KPI report output:
  - Critical days
  - An overview on the study period including:
    - All ATC ELP CNEs
    - TSOs with their ATC ELP CNEs
    - Top ATC ELP CNEs

Key message and observations

- The analysis allows to have a better view on which congestions are reducing the cross-border ATCs
- The highest amount of congestions are still located in the area around the Northern Europe wind infeeds
- The impact can mainly be seen on the DE-NL border and the parallel path via NL-BE, DE-BE and BE-FR borders

2. Intraday Capacity Calculation

KPI on pre-congested CNE – Explanation of "percentage of pre-congestion" indicator



Example: calculating PPI for "NE1" of TSO "A"

In the table, "1" means NE1 is an ATC ELP CNE, "0" means otherwise.

Assume TSO "A" on date "20240330" has NE1 with negative RAM at hour 9:00,10:00 and 11:00. NE1 becomes an ATC ELP CNE for some of Core borders as following:

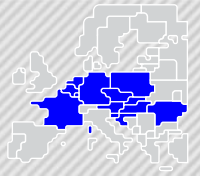
Date	Hour	TSO	NE_EIC	CNE	C (Contingency)	RAM	BE>DE	BE>NL	BE>FR	DE>BE	NL>BE
20240430	09:00	A	NE1	CNE1	C1	-19	1	1	1	0	0
20240430	09:00	A	NE1	CNE1	C2	-57	0	1	0	1	0
20240430	09:00	A	NE1	CNE1			1	1	1	1	0
20240430	10:00	A	NE1	CNE1	C1	-6	0	0	1	0	0
20240430	11:00	A	NE1	CNE1	C1	-14	1	0	1	0	1
20240430	11:00	A	NE1	CNE1	C2	-21	0	1	0	1	0
20240430	11:00	A	NE1	CNE1			1	1	1	1	1
20240430		A	NE1	CNE1			8%	8%	13%	8%	4%

- For each hour, we consider all borders that are congested: on **20240330** at **9:00** NE1 congested BE>DE, BE>NL, BE>FR and DE>BE.
- Calculating PPI: for "**20240330**", we sum all hours that a border is congested and calculate its percentage over 24 hours: PPI for NE1 for border "BE>DE" is (2/24)x100=8%
- PPI [%]= $\frac{\sum h_{ATC-ELP-CNE}\,[\mathrm{h}]}{T_{study-period}\,[\mathrm{h}]} \times 100$
  - where $T\_(study-period)$ [h] for one day will be 24 hours, for one week 168 hours.

TSO Legend			
D2-TenneT GmbH	**BE**-Elia	**PL**-PSE	**RO**-Transelectrica
D4-TransnetBW	**FR**-RTE	**CZ**-ČEPS	**SI**-ELES
D7-Amprion	**NL**-TenneT B.V.	**HR**-HOPS	**SK**-SEPS
D8-50Hertz	**AT**-APG	**HU**-MAVIR	**LU**-CREOS

2. Intraday Capacity Calculation

N. FARROKHSERESHT



KPI on pre-congested CNE – Critical days: 14/04

The percentage (in %) of study period (14/04) in which a Critical Network Element for a BZ border is being an ATC Extraction Limiting Pre-congested (ELP) CNE

CNE	NE_EIC	TSO	BE>DE	BE>NL	DE>AT	DE>BE	DE>FR	DE>NL	FR>BE	NL>BE	PL>DE
[D2-NL] Diele - Meeden SCHWARZ [DIR] [D2]	10T-DE-NL-00001V	D2-NL	0	50	0	50	50	50	0	0	0
[D2-NL] Diele - Meeden WEISS [DIR] [D2]	10T-DE-NL-00002T	D2-NL	0	50	0	50	50	50	0	0	0
[D7-D7] Pfungstadt - Urberach GRIESH O [OPP]	11T0-0000-0872-S	D7	0	0	17	17	17	17	0	17	0
[D7-D7] Buerstadt - Pfungstadt RIED O [OPP]	11T0-0000-0816-3	D7	0	0	13	13	13	13	0	13	0
[BE-BE] Y-Mercator (-Doel - Lillo) 380.51 [DIR]	22T-BE-IN-LI014Z	BE	0	0	0	21	21	0	0	21	0
[BE-FR] Achene - Lonny 380.19 [OPP] [BE]	10T-BE-FR-000015	BE-FR	0	0	0	13	0	13	13	13	0
[BE-DE] ALEGRO	ALEGRO	BE-D7-AL	42	0	0	4	0	0	0	0	0
[NL-BE] Maasbracht - Van Eyck 380 White/28 [DIR] [BE]	10T-BE-NL-00001I	BE-NL	0	0	0	8	8	0	8	8	0
[NL-BE] Maasbracht-Van Eyck 380 W [DIR] [NL]	10T-BE-NL-00002G	BE-NL	0	0	0	8	8	0	8	8	0
[D7-D2] Guetersloh - Bechterdissen SENNE S1 [OPP] [D2]	11T-D2-D7-00257J	D2-D7	0	0	0	8	0	13	0	0	13
[D7-D2] Guetersloh - Bechterdissen SENNE N2 [OPP] [D2]	11T0-0000-0072-V	D2-D7	0	0	0	8	0	13	0	0	13
[D8-D8] Lauchstaedt - Vieselbach 471 [DIR]	11TD8L471------J	D8	0	0	8	0	8	0	0	0	8
[D8-D8] Lauchstaedt - Vieselbach 472 [DIR]	11TD8L472------B	D8	0	0	8	0	8	0	0	0	8
[NL-BE] PST Van Eyck 2 [DIR] [BE]	22T-BE-PST--002U	BE-NL	0	0	0	4	4	0	4	4	0
[NL-NL] Diemen-Lelystad 380 W [OPP]	49T0000000000096	NL	0	0	0	4	4	4	4	0	0
[NL-NL] Diemen-Lelystad 380 Z [OPP]	49T000000000010L	NL	0	0	0	4	4	4	4	0	0
[NL-NL] Krimpen a/d IJssel-Geertruidenberg 380 W [DIR]	49T0000000000274	NL	0	0	0	4	4	0	4	4	0
[NL-NL] Krimpen a/d Ijssel-Geertruidenberg 380 Z [DIR]	49T0000000000282	NL	0	0	0	4	4	0	4	4	0

Example: Y-Mercator (-Doel - Lillo) 380.51 of “BE” was ATC ELP CNE for “DE>BE” for “21%” of the time (~ 5 hours) on 14th April.

Note: the appearance of ALEGrO in this list this simply reflects that the DA market got allocated the full 1000 MW capacity in one direction, in this case from BE to DE. Hence no capacity is left in ID in this direction. This can also be the case of AC lines.

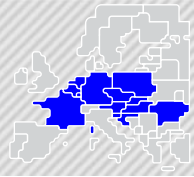
2. Intraday Capacity Calculation

KPI on pre-congested CNE –Critical days: 16/04

The percentage (in %) of study period (16/04) where a Critical Network Element for a BZ border is being ATC Extraction Limiting Pre-congested (ELP) CNE

CNE	NE_EIC	TSO	AT>DE	BE>NL	CZ>AT	CZ>DE	DE>BE	DE>FR	DE>NL	PL>CZ	PL>DE	PL>SK	RO>HU
[D2-D8] Helmstedt - Wolmirstedt 491 [OPP] [D8]	11T-D2-D8-000205	D2-D8	17	0	17	17	0	0	17	0	17	0	0
[D2-D8] Helmstedt - Wolmirstedt 492 [OPP] [D8]	11T-D2-D8-000213	D2-D8	17	0	17	17	0	0	17	0	17	0	0
[D2-NL] Diele - Meeden SCHWARZ [DIR] [D2]	10T-DE-NL-00001V	D2-NL	0	17	0	0	17	17	17	0	0	0	0
[D2-NL] Diele - Meeden WEISS [DIR] [D2]	10T-DE-NL-00002T	D2-NL	0	17	0	0	17	17	17	0	0	0	0
[D8-D8] Lauchstaedt - Vieselbach 471 [DIR]	11TD8L471------J	D8	0	0	8	0	8	8	0	8	8	8	0
[D8-D8] Lauchstaedt - Vieselbach 472 [DIR]	11TD8L472------B	D8	0	0	8	0	8	8	0	8	8	8	0
[RO-RO] Resita - Timisoara c1 [DIR]	30TRESI220TIMI1L	RO	0	0	0	0	0	0	0	0	0	0	25
[RO-RO] Resita - Timisoara c2 [DIR]	30TRESI220TIMI2J	RO	0	0	0	0	0	0	0	0	0	0	25
[RO-RO] Portile de Fier - Resita c1 [DIR]	30TPDFE220RESI1S	RO	0	0	0	0	0	0	0	0	0	0	21
[RO-RO] Portile de Fier - Resita c2 [DIR]	30TPDFE220RESI2Q	RO	0	0	0	0	0	0	0	0	0	0	21

2. Intraday Capacity Calculation



KPI on pre-congested CNE – All ATC ELP CNEs during the study period 11/04 – 22/04

The percentage (in %) of study period (11th to 22nd April) where a Critical Network Element for a BZ border is being ATC Extraction Limiting Pre-congested (ELP) CNE

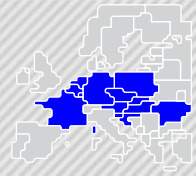
All Core borders

All CNEs

CNE	NE_EIC	TSO	AT>CZ	AT>DE	AT>HU	AT>SI	BE>DE	BE>FR	BE>NL	CZ>AT
[AT-D2] St. Peter 2 - Pleinting 258 [DIR] [AT]	10T-AT-DE-000037	AT-D2	2	2	0	0	0	0	0	0
[AT-HU] Wien Suedost - Gyoer 245 [DIR] [AT]	10T-AT-HU-00002U	AT-HU	0	0	1	0	0	0	0	0
[AT-SI] Obersielach - Podlog 247 [DIR] [AT]	10T-AT-SI-00003P	AT-SI	1	1	1	1	0	0	0	0
[BE-FR] Achene - Lonny 380.19 [OPP] [BE]	10T-BE-FR-000015	BE-FR	0	1	0	0	0	0	0	0
[NL-BE] Maasbracht - Van Eyck 380 White/28 [DIR] [BE]	10T-BE-NL-00001I	BE-NL	0	0	0	0	0	0	0	0
[NL-BE] Maasbracht-Van Eyck 380 W [DIR] [NL]	10T-BE-NL-00002G	BE-NL	0	0	0	0	0	0	0	0
[CZ-D8] Hradec - Rohrsdorf 445 [OPP] [D8]	10T-CZ-DE-00002U	CZ-D8	1	0	1	1	0	0	0	0
[D2-NL] Diele - Meeden SCHWARZ [DIR] [D2]	10T-DE-NL-00001V	D2-NL	0	0	0	0	2	0	18	0
[D2-NL] Diele - Meeden WEISS [DIR] [D2]	10T-DE-NL-00002T	D2-NL	0	0	0	0	2	0	18	0
[NL-D7] Maasbracht - Oberzier SELFK WS [DIR] [D7]	10T-DE-NL-00005N	D7-NL	0	0	0	0	4	4	0	0
[NL-D7] Maasbracht - Siersdorf SELFK SW [DIR] [D7]	10T-DE-NL-00006L	D7-NL	0	0	0	0	3	3	0	0
[D7-D2] Hanekenfaehr - Doerpen West [OPP] [D2]	11T-D2-D7-00002F	D2-D7	0	0	0	0	6	0	0	0
[D7-D2] Dettingen - Grosskrotzenburg [OPP] [D2]	11T-D2-D7-00030A	D2-D7	0	0	0	0	0	0	0	2
[D7-D2] Urberach - Grosskrotzenburg [OPP] [D2]	11T-D2-D7-000318	D2-D7	0	0	0	0	0	0	0	2
[D7-D2] Guetersloh - Bechterdissen SENNE S1 [OPP] [D2]	11T-D2-D7-00257J	D2-D7	0	4	0	0	0	0	0	2
[D2-D8] Helmstedt - Wolmirstedt 491 [OPP] [D8]	11T-D2-D8-000205	D2-D8	0	2	0	0	0	0	0	2
[D2-D8] Helmstedt - Wolmirstedt 492 [OPP] [D8]	11T-D2-D8-000213	D2-D8	0	2	0	0	0	0	0	2
[D4-D7] Daxlanden - Weingarten ge (Germersheim Sued) [OPP] [D	11T-D4-D7-00003S	D4-D7	0	0	0	0	1	1	0	1
[D8-D8] Roehrsdorf - Roehrsdorf PST442 [DIR]	11T0-0000-0012-I	D8	2	0	2	1	0	0	0	0
[D7-D2] Guetersloh - Bechterdissen SENNE N2 [OPP] [D2]	11T0-0000-0072-V	D2-D7	0	1	0	0	0	0	0	0
[D7-D7] Gronau - Gronau TR 441 E [DIR]	11T0-0000-0620-R	D7	0	0	0	0	1	1	0	0
[D7-D7] Hanekenfaehr - Meppen MEPPEN [OPP]	11T0-0000-0640-J	D7	0	0	0	0	1	0	0	0

2. Intraday Capacity Calculation

N. FARROKHSERESHT



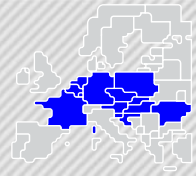
KPI on pre-congested CNECs – Core TSOs with ATC ELP CNE during the study period 11/04 – 22/04

The percentage (in %) of study period in which all CNEs of a Core TSO for a BZ border were being ATC Extraction Limiting pre-congestion CNE

	AT	AT-D2	AT-HU	AT-SI	BE	BE-FR	BE-NL	CZ	CZ-D8	D2	D2-D7	D2-D8	D2-NL	D4-D7	D7	D7-NL	D8	NL	RO	SK	BE-D7-AL
AT>CZ	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
AT>DE	0	1	0	0	0	1	0	0	0	4	3	1	0	0	0	0	0	0	0	0	0
AT>HU	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
AT>SI	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
BE>DE	0	0	0	0	0	0	0	0	0	1	6	0	2	0	2	3	0	2	0	0	68
BE>FR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0
BE>NL	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
CZ>AT	0	0	0	0	0	0	0	0	0	2	2	1	0	0	4	0	1	0	0	0	0
CZ>DE	0	1	0	0	0	0	0	0	0	3	3	1	0	0	2	0	0	0	0	0	0
CZ>PL	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
CZ>SK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DE>AT	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	0	2	0	0	0	0
DE>BE	0	0	0	0	2	2	1	0	0	0	3	0	18	0	4	0	1	3	0	0	69
DE>CZ	0	0	0	0	0	0	0	1	0	2	0	0	0	0	1	0	1	0	0	0	0
DE>FR	0	0	0	0	2	0	1	0	0	0	2	0	18	0	4	0	2	3	0	0	0
DE>NL	0	0	0	0	0	2	0	0	0	0	3	1	18	0	4	0	0	1	0	0	0
DE>PL	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0
FR>BE	0	0	0	0	0	2	1	0	0	0	2	0	0	0	0	0	0	3	0	0	0
FR>DE	0	0	0	0	0	2	0	0	0	0	0	0	2	0	2	3	0	0	0	0	0
HR>HU	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
HR>SI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HU>AT	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	0	0	0	0	0	0
HU>HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HU>RO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
HU>SI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HU>SK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL>BE	0	0	0	0	2	2	1	0	0	2	10	0	2	0	6	0	0	6	0	0	0
NL>DE	0	0	0	0	2	0	0	0	0	2	10	0	2	0	6	3	0	6	0	0	0
PL>CZ	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0
PL>DE	0	1	0	0	0	0	0	0	0	3	3	1	0	0	2	0	2	0	0	0	0
PL>SK	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0
RO>HU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0
SI>AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SI>HR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SI>HU	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
SK>CZ	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
SK>HU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SK>PL	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

2. Intraday Capacity Calculation

N. FARROKHSERESHT



KPI on pre-congested CNECs –Top ATC ELP CNEs during the study period 11/04 – 22/04

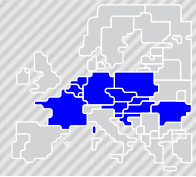
The percentage (in %) of study period (11th to 22nd April) in which a Critical Network Element for a BZ border is being ATC Extraction Limiting Pre-congested (ELP) CNE

CNE	NE_EIC	TSO	BE>DE	BE>NL	DE>BE	DE>FR	DE>NL	NL>BE	NL>DE	RO>HU
[BE-DE] ALEGRO	ALEGRO	BE-D7-AL	69	0	69	0	0	0	0	0
[D2-NL] Diele - Meeden SCHWARZ [DIR] [D2]	10T-DE-NL-00001V	D2-NL	2	18	18	18	18	2	2	0
[D2-NL] Diele - Meeden WEISS [DIR] [D2]	10T-DE-NL-00002T	D2-NL	2	18	18	18	18	2	2	0
[D7-D2] Hanekenfaehr - Doerpen West [OPP] [D2]	11T-D2-D7-00002F	D2-D7	6	0	0	0	0	9	9	0
[D7-D2] Meppen - Y Niederlangen [OPP] [D2]	11T0-0000-0983-G	D2-D7	5	0	0	0	0	9	9	0
[RO-RO] Portile de Fier - Resita c1 [DIR]	30TPDFE220RESI1S	RO	0	0	0	0	0	0	0	16
[RO-RO] Portile de Fier - Resita c2 [DIR]	30TPDFE220RESI2Q	RO	0	0	0	0	0	0	0	16
[RO-RO] Resita - Timisoara c1 [DIR]	30TRESI220TIMI1L	RO	0	0	0	0	0	0	0	16
[RO-RO] Resita - Timisoara c2 [DIR]	30TRESI220TIMI2J	RO	0	0	0	0	0	0	0	16
[D7-D2] Guetersloh - Bechterdissen SENNE S1 [OPP] [D2]	11T-D2-D7-00257J	D2-D7	0	0	3	0	4	0	0	0
[BE-BE] Y-Mercator (-Doel - Lillo) 380.51 [DIR]	22T-BE-IN-LI014Z	BE	0	0	3	3	0	3	3	0
[D7-D2] Dettingen - Grosskrotzenburg [OPP] [D2]	11T-D2-D7-00030A	D2-D7	0	0	2	2	2	0	0	0
[D7-D2] Urberach - Grosskrotzenburg [OPP] [D2]	11T-D2-D7-000318	D2-D7	0	0	2	2	2	0	0	0
[D7-D7] Dettingen - Urberach (NEU) KARLST S [DIR]	11T0-0000-0871-V	D7	0	0	2	2	2	0	0	0
[D7-D7] Pfungstadt - Urberach GRIESH O [OPP]	11T0-0000-0872-S	D7	0	0	2	2	2	2	0	0

[BE-DE] ALEGRO was out of service for a part of the studied period.

2. Intraday Capacity Calculation

B. MALFLIET



Q&A

Background question:

- The technical settings used for IDCC(a), namely rAMR_id, rLTAincl_id, and the z2z PTDF threshold (% and RAM threshold) have also not yet been clearly published. Some values were communicated during the last Core CG but it is unclear if these are the ones applied for the parallel runs, or if TSOs continue to iterate on those.

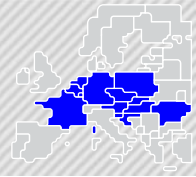
Question: Do TSOs intend to publish those parameters on the Jao website? If so, when and where?

Answer TSOs:

- Go-live parameter publication is foreseen on the JAO website and is expected to be done by the time of this meeting.

2. Intraday Capacity Calculation

B. MALFLIET



Q&A

Background question:

- Less important, but some of the more recent and useful features of the PuTo are missing from the parallel run page. The ‘cloud‘ widget to access the api test page is missing so a manual modification of the url is required. In addition, the endpoints for testing the ID1 items are missing.

Question: Can the cloud widget and endpoints for testing the ID1 items be included for IDCC?

Answer TSOs:

- TSOs are in alignment with JAO on this.

Background question:

- For IDCC(a), parallel run results show a higher isolation frequency for several BZs compared to the current DA leftover extraction.

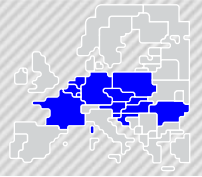
Question: Can the TSOs comment on whether they believe the rise in isolation frequency is purely caused by AT not offering capacity? Or can it also be attributed to the return to an iterative model (eliminating the MIN_ATC term from the optimization approach) with LTA_margin instead of Balas?

Answer TSOs:

- In the figure provided bv the MPs.

the initial ATCs seem to have been used, not yet taking into account capacity reductions, such as APG not providing capacity in the EXT//run. Therefore, the rise in isolation frequency is not caused by APG not providing capacity on their borders.

- Core TSOs stress that there are currently no capacities offered to the market at 15:00 and therefore the comparison between current DA leftover process and IDCC(a) at 15:00 can not be made one-on-one.
- The differences can be explained by:
  - Differences in the process:
    - Absence of increase/decrease process in IDCC(a)
  - From business perspective: earlier provisioning of capacities, so less time to validate and less accurate forecasts available.



2. Intraday Capacity Calculation

Q&A

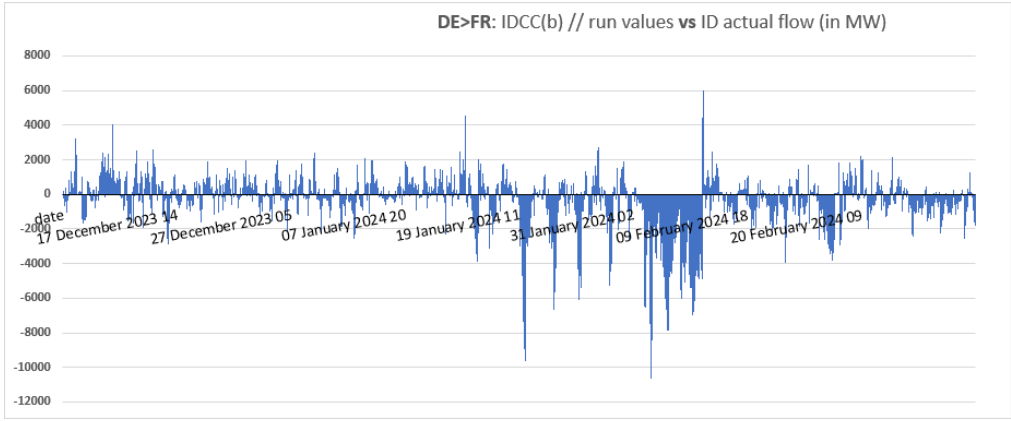
Question: Can TSOs explain what will be proposed if the new methodology used for IDCC(b) does not allow for intraday flow to be realised?

Answer TSOs:

- The process of coordinated intraday capacity calculation is defined by ACER and set out in the ID CCM. This methodology is fundamentally different from the current process and might lead to reduced capacities at certain borders and certain timestamps compared to the current operational process. The aim of the IDCC process is to optimize the capacities over the complete Core region, and can therefore not be judged by the results on a single border.
- The current process is extracting capacities from a D-2 common grid model. It hereby propagates the use of virtual capacities, which is amongst others mitigating the lower quality of these grid models, into the ID timeframe. With the implementation of IDCC(b)
  - Virtual capacities are no longer included in the capacities provided to the market at 22:00
  - A huge step forward is made as capacities are now properly calculated using a D-1 common grid model.
  - However, some pre-congestions remain in the D-1 grid model as it does not include all coordinated RA which are only determined in the subsequent hours
- To put the evolution in perspective
  - With the introduction of Core FB MC in 2022, the propagation of virtual capacities boosted ID capacities
  - The introduction of IDCC_B distributes capacities more equally across borders. On some borders this can lead to less capacities than with the current process. Grid model quality improves. There are still some data quality issues causing BZ isolation yet in general capacities are still higher and BZ isolation lower compared to the period before Core go-live
- Outlook
  - TSOs are continuously seeking improvements in the DACF CGM creation process to reduce precongestions and improve the capacities in ID.
  - Main known improvements are the introduction of an IDCC(c) step at 04:00 which uses a coordinated IDCF with much less pre-congestions allowing a more accurate determination of ID ATCs, and the introduction of the ROSC process which will allow to use all coordinated RA in the IDCF and IDCC processes.

Background question:

- Over the same period used for the parallel run, the IDCC(b) values available in the publication tool were compared to the actual intraday flow realised. On certain borders, the actual intraday flow could not be realised.
- If we consider DE>FR border, the graph produced below illustrates the issue. When it is negative, it means that with the new IDCC(b) methodology, the actual intraday flow could not be realised, which is inefficient for the market.



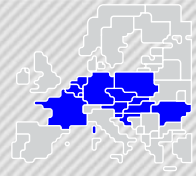
Question: Can TSOs explain what will be proposed if the new methodology used for IDCC(b) does not allow for intraday flow to be realised?

Answer TSOs:

- The graph will be updated after alignment between IDCC experts and the market parties. Based on this, further discussion can take place during the CG meeting.

2. Intraday Capacity Calculation

B. MALFLIET



Q&A

Background question:

- We do not fully understand what is the method used to compute the published initial & final NTCs. In our understand, the capacities extracted from the FB domain are ATCs, not NTCs, meaning that the latter are recalculated based on the former.
- The general definition is that ATC = NTC – AAC (already allocated capacity), but we cannot always reverse-engineer the published NTCs using the published ATCs and scheduled exchanges as AAC.

Question: Can TSOs explain how NTC values are computed? In particular for IDCC(a) where no negative ATCs can exist, how come some NTCs are negative ?

Answer TSOs:

- The ATCs are indeed defined as NTC = ATC + AAC, where AAC entails all already allocated capacities from LT and DA timeframe, plus any already allocated capacities in ID, if applicable. This is how the NTCs can be negative for IDCC(a) without AACs from ID timeframe.

2. Intraday Capacity Calculation

Q&A

Background question:

- We do not fully understand the response the TSOs provided in the meeting minutes of the last Core CG:

> Core TSOs to clarify whether the PL AC are considered for IDCC.
>
> - *The Polish Allocation Constraint will be present in ID (CT and IDA) trading as it is today, but it will not have any impact at IDCC. Publishing AC in JAO PuTo is only for transparency information about what AC was before each IDCC (also before IDAs).*

- In the current leftover capacity extraction process, the Polish allocation constraint is internalized as a new CNEC in the Final ID PTDF that is used for extraction. This can be seen in the intermediate domains published as CSV on the JAO website. Therefore, the allocation constraint currently has an impact on ID ATCs.

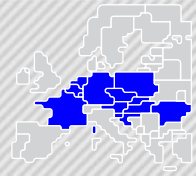
Question: Will the constraint continue to be integrated as a CNEC in the extraction domain under the new IDCC(a) process?

Answer TSOs:

- We have two types of allocation constraints: External Constraints and Allocation Constraints (currently in use by PSE). It is true that the mentioned inclusion as CNEC in the domain is only when using External Constraints. In the case of the allocation constraint used by PSE, such CNECs are not used. Polish AC is only for the balance constraint, not the grid constraint.
- In conclusion Polish AC will not be taking part as CNEC in the extraction domain under the new IDCC(a) process.

2. Intraday Capacity Calculation

B. MALFLIET



Q&A

Background question:

- For IDCC(b), some zones including BE & NL also seem to showcase higher isolation frequency in the parallel runs.

Question: Can the TSOs detail what concrete actions they will implement to ensure a better decongestioning of the IDCC(b) domain to allow more capacity on these borders during the interim period (until ROSC is ready)?

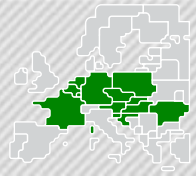
Answer TSOs:

- There are no capacity improvements foreseen until the go-live of IDCC(a-b).
- Until ROSC go-live:
  - Capacity improvement study will be performed as required by the ID CCM
  - TSOs will implement IDCC(c) to release capacities based on the more decongested IDCF CGM.
  - TSOs will continuously look for improvements in the local and central processes to improve the capacities and mitigate bidding zone isolations.

3. AOB & closure

Next meeting and communication channels

R.OTTER /
S. VAN CAMPENHOUT



Next Core Consultative Group in 2024

- 17/10/2024 – regular CG call

Existing Core communication channels

Core Consultative Group mailing list

- Register for future updates by subscribing to https://magnusenergypmo.hosted.phplist.com/lists/?p=subscribe

Core section on ENTSO-E website

- Upload of methodologies and reports on public consultations, current status of the Core CCR program, CG minutes
- Link: https://www.entsoe.eu/network_codes/ccr-regions/#core
- **[NEW]:** Work is ongoing to update the website with the IDCC processes. This is planned to be finalized prior to go-live.

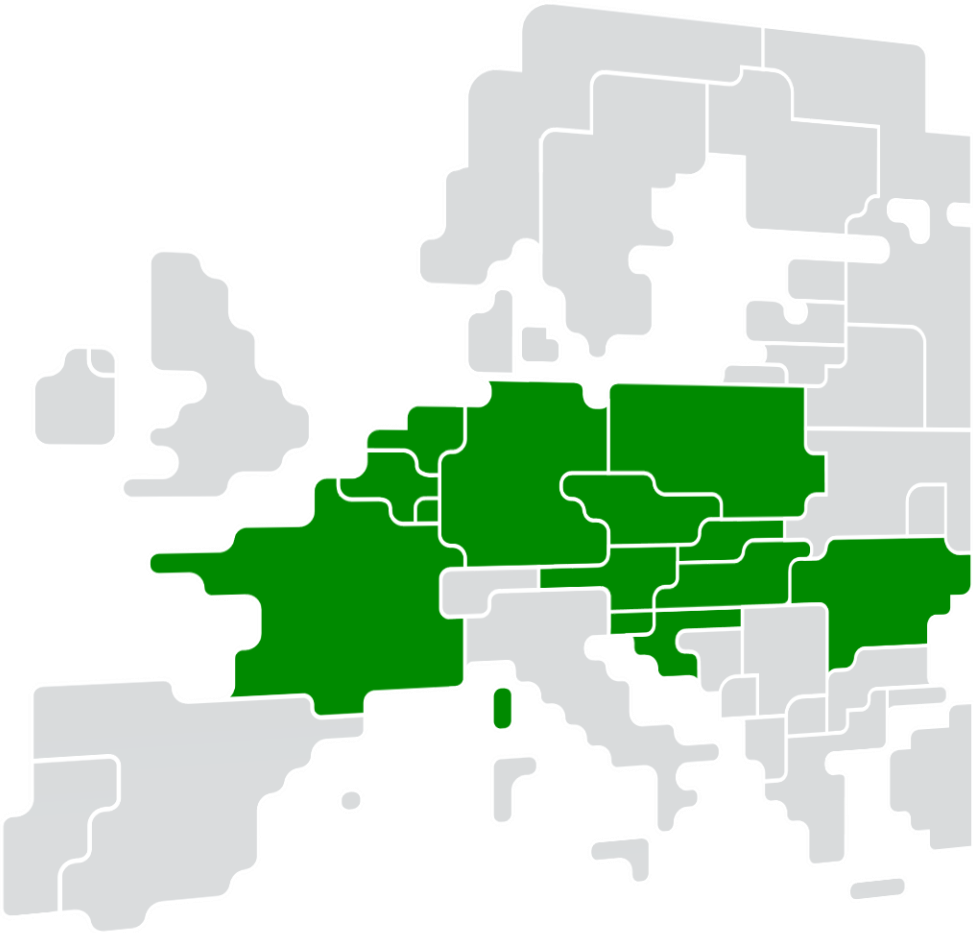
ENTSO-E newsletter

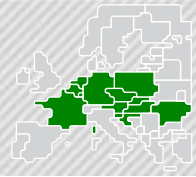
- Regular updates on the different CCRs (e.g., submitted methodologies, launch of public consultations)
- Subscription via https://www.entsoe.eu/contact/

Q&A forum on JAO website

- Provides space to Market Participants to ask questions about the External Parallel Run and other relevant topics:
- Link: http://coreforum.my-ems.net/
- Efforts are ongoing to ensure questions are answered within a month.

APPENDIX





Scope of discussions Consultative Group/Core CCR vs. MCCG/MCSC

- As to ensure clear alignment, the following table aims to clarify which topics and discussions fall within the scope of CG/Core versus MCCG/MCSC. Only the main/overlying topics currently discussed in the respective projects are listed.
- The stakeholder managers of the respective projects and fora are in direct alignment to ensure any questions outside “their” scope can be redirected accordingly.

	Core CCR	MCSC
General Scope	• Capacity calculation	• Capacity allocation
Intraday Auctions (IDA)	• Capacity calculation (IDCC)	• Timings • Products & user interfaces • Central testing
Advanced Hybrid Coupling	• Design & Implementation into DACC • Impact assessment	• Testing allocation algorithm • Central testing
15 min MTU	• Regional testing	• Timings • Products & user interfaces • Central testing

Appendix

Glossary

ACER	Agency for the Cooperation of Energy Regulators
AHC	Advanced Hybrid Coupling
BZ	Bidding Zone
CACM	Capacity Allocation and Congestion Management
CC	Capacity Calculation
CCR	Capacity Calculation Region
CGM	Common Grid Model
CGMES	Common Grid Model Exchange Standard
CNEC	Critical Network Element with a Contingency
CS	Cost Sharing
CSA	Coordinated Security Analysis
CSAM	Coordinated Security Analysis Methodology
CROSA	Coordinated Regional Operational Security Assessment
DA	Day-Ahead
ENTSO-E	European Network of Transmission System Operators for Electricity
FAT	Final Acceptance Test
FIT	Functional Integration Test
FB	Flow Based
GSK	Generation Shift Key
GLSK	Generation Load Shift Key
IDCC	Intraday Capacity Calculation
IGM	Individual Grid Model
IVA	Individual Validation Adjustment
KPI	Key Performance Indicator
LF-SA	Load Flow Security Analysis
NRA	National Regulatory Authority
NRAO	Non-costly Remedial Action Optimization
RA	Remedial Action
RAO	Remedial Action Optimizer
RFI	Request for Information
RFP	Request for Proposal
ROSC	Regional Operational Security Coordination
RD&CT	Redispatching and Countertrading
RSC	Regional System Operator
TSO	Transmission System Operator
SHC	Simple Hybrid Coupling
SO GL	System Operation Guideline
SAT	Site Acceptance Testing
SIT	System Integration Testing
V1/V2	Version 1/ Version 2
XNE	Cross-border element