

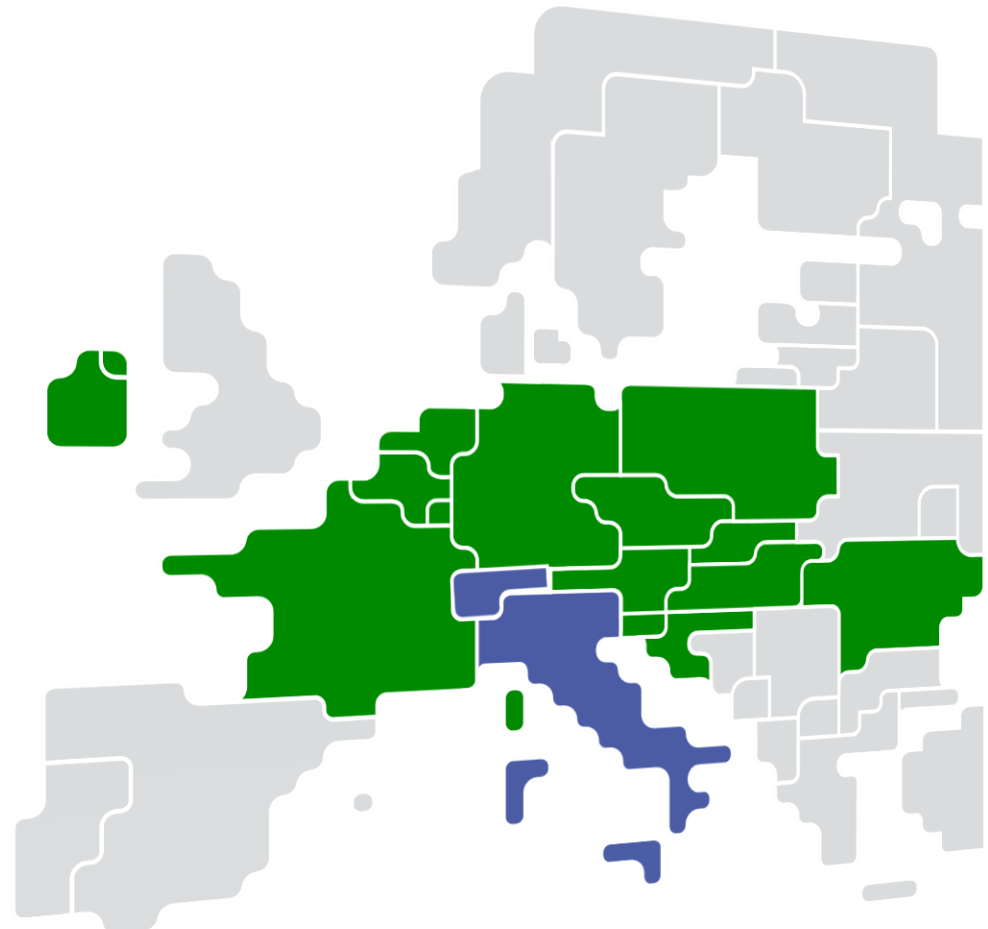


# Core/CE Consultative Group & IN STK Forum

17 March 2026

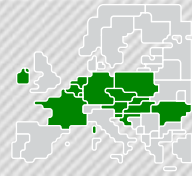
09:00 – 17:00 (CET)

Online



# 1. Welcome and Introduction

Practicalities, announcements and reminders



## Co-chairs



**Zélie GAUTIER**  
Market Participants Engie



**Steve VAN CAMPENHOUT**  
STK Manager Core



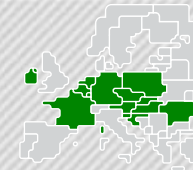
**Henry NOLLER**  
STK Manager CE

## 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
  - **The meeting will be recorded**
- Follow up
  - Minutes and final meeting documents will be shared with CCG distribution list
  - JAO Q&A forum
- *Note: Co-chairs will not officially chair IN STK Forum section of the meeting. This will be chaired by the IN Steering Committee member*

# 1. Welcome and Introduction

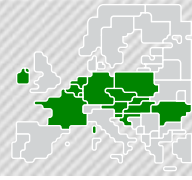
Z. GAUTIER



## Agenda (1/2)

#	TOPIC	WHO	TIMING
1	<b>Welcome and Introduction</b> <ul style="list-style-type: none"><li>• Announcements</li><li>• Agenda</li><li>• Introduction to new meeting forum</li></ul>	STK managers Z. GAUTIER	09:00 – 09:15
2	<b>Core / CE / IN Program Update</b> <ul style="list-style-type: none"><li>• Key considerations and outlook</li></ul>	STK managers J. SCHWACHHEIM	09:15 – 09:30
<b>CCR Central Europe</b>			
3	<b>Day-Ahead Capacity Calculation</b> <ul style="list-style-type: none"><li>• CE DA CC implementation status</li><li>• First amendment of CE DA CCM: Scope &amp; timeline</li><li>• Clarification on granularity of capacity calculation</li></ul>	L WACHTER-KOLLMANN F. CHIANESE	09:30 – 10:00
<b>CCR Core</b>			
4	<b>Long-Term Capacity Calculation</b> <ul style="list-style-type: none"><li>• EXT//run results</li><li>• Status of LTCCM amendment</li></ul>	P. BRHLIKOVA ACER	10:00 – 11:00 Break: 11:00 – 11:15
5	<b>Intra-Day Capacity Calculation</b> <ul style="list-style-type: none"><li>• Go-live monitoring of IDCC(d)</li><li>• IDCC(e) planning</li><li>• minRAM study timeline and status</li></ul>	P. THOMAS	11:15 – 12:00 Lunch: 12:00 – 13:00

# 1. Welcome and introduction



## Agenda (2/2)

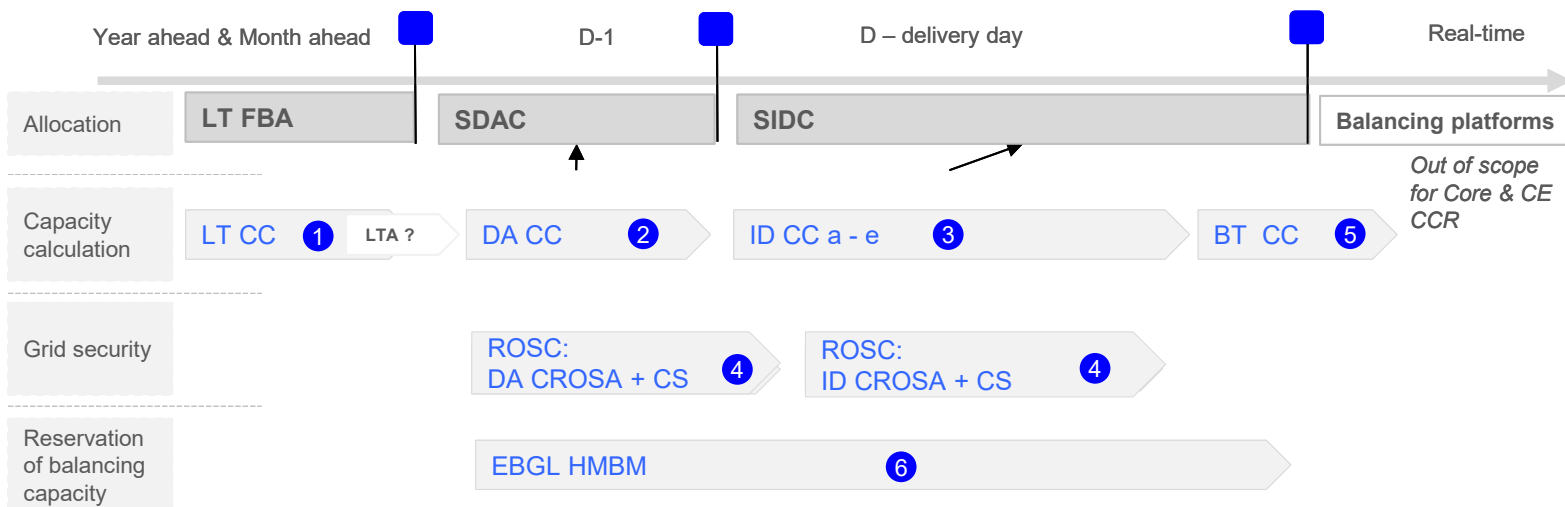
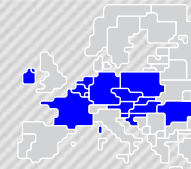
#	TOPIC	WHO	TIMING
6	<b>Day-Ahead Capacity Calculation</b> <ul style="list-style-type: none"><li>Removal of LTA inclusion: Core TSOs to clarify when DA DFP statistical domains will be made available for MPs</li><li>Update on AHC<ul style="list-style-type: none"><li>Go-live planning</li><li>Update on additional SPAICC like run</li><li>Core TSOs to clarify if shadow prices for AHC borders will be published on JAO</li></ul></li><li>CH integration in Core: go-live</li><li>CGM Roadmap</li><li>GLSK Study Outcomes</li></ul>	R. KAISINGER	13:00 – 14:30
<b>CCR Italy North</b>			Break: 14:30 – 15:00
7	<b>IN STK Forum</b> <ul style="list-style-type: none"><li>Update on LTCC methodology amendment</li><li>Update on the Fallback Procedures Methodology</li></ul>	H. HATZ R. GERMANA J. SCHWACHHEIM	15:00 – 15:45
8	<b>AOB &amp; Closure</b> <ul style="list-style-type: none"><li>Next Core/CE CG &amp; IN STK Forum meeting</li></ul>	STK managers	15:45 – 16:00

## 2. Core / CE Program Update

### Key considerations and outlook (1/3)

STK manager

Pre-read



#### 1 Long-Term CC

- Core TSOs are implementing a Flow-based capacity calculation by November 2026
- Core TSOs submitted amendments consisting of tuning the LT flow-based domain to a historical benchmark and of the removal of LTA inclusion
  - In February 2026, Core NRAs escalated the LTCCM 1st amendment to ACER (escalation duration is maximum 6 months)
- CE: formal expansion to LT timeframe is subject to a future amendment of CCR determination, envisaged after FCA 2.0.

#### 2 Day-Ahead CC

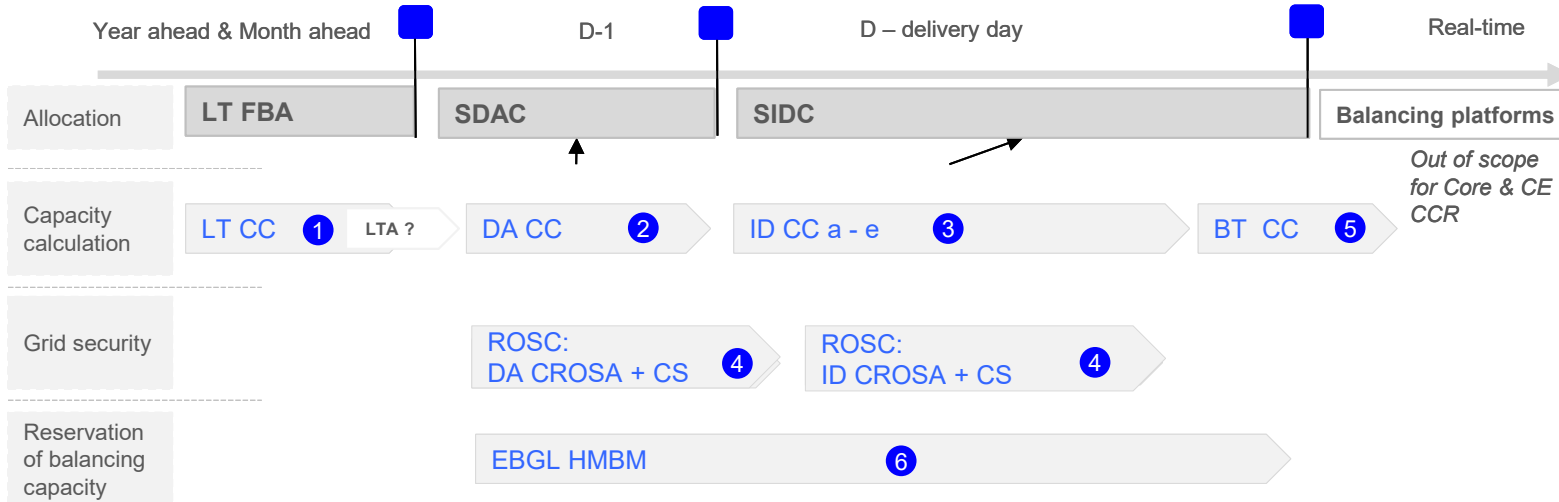
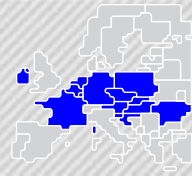
- Core Advanced Hybrid Coupling (AHC): enables the single day-ahead market coupling to allocate Core capacities between Core and non-Core exchanges on EU borders in the most efficient manner – *covered as separate topic*
- Coordinated validation (CV): stepwise implementation with first steps planned in Core in the course of 2026/2027. Completion of this implementation will be done in Central Europe. Go-live of ROSC is a pre-condition to fully enable the RA potential.
- Swiss integration: transition solution for Swiss integration until go-live of Central Europe DACC – *covered as a separate topic*
- CE: DA implementation is planned for January 2028 in accordance with the Central Europe DA CCM

## 2. Core / CE Program Update

### Key considerations and outlook (2/3)

STK manager

Pre-read



### ③ Intraday

- Core: completion of recalculations of IDCC(d) (April 2026) and IDCC(e) (Oct 2026) and TSOs are conducting a minRAM study – *covered as separate topic*
- Core: flow-based allocation of IDAs and Advanced Hybrid Coupling: part of the 5th amendment of the Core ID CCM
  - Facilitate transition to FB for IDA in Core in line with MCSC planning
  - Advanced hybrid coupling: PoC to develop a technical concept that is compatible with a 'hybrid' set-up in allocation i.e., IDAs in FB and continuous trading in ATC
  - Timing of implementation of AHC to be defined - either still in Core or directly in Central Europe
- CE: Following the ACER decision no. (10/2025) on the amendment to the determination of capacity calculation regions, CE TSOs are working on the CE ID CCM. The public consultation is expected in Q3 2026.

### ④ ROSC and Cost Sharing

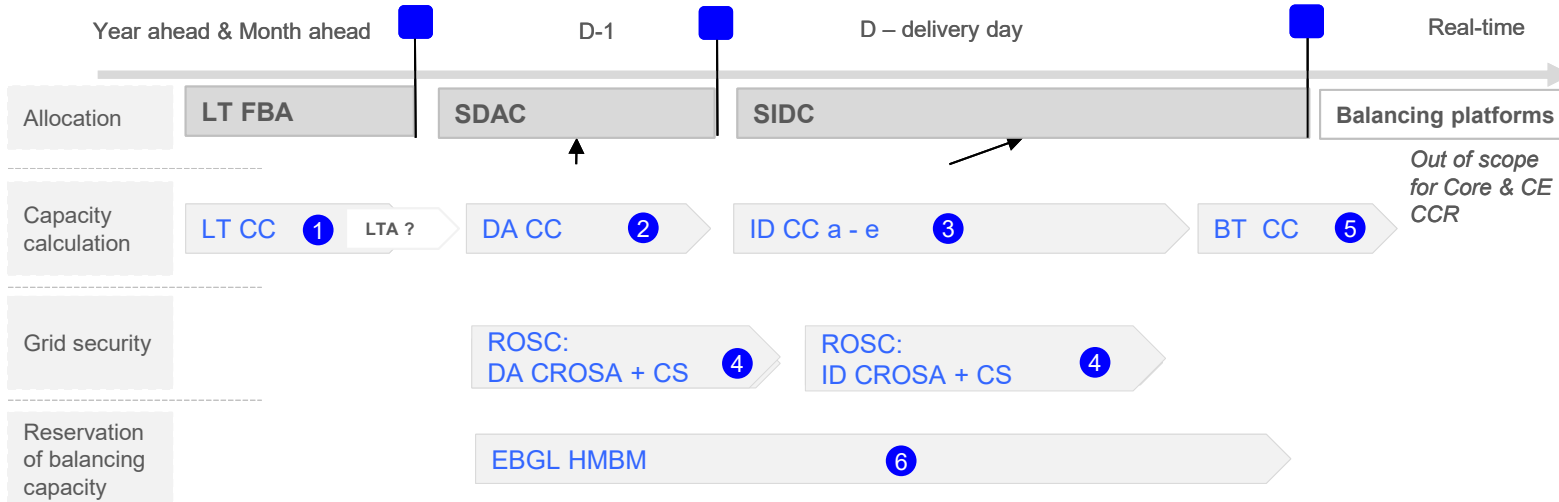
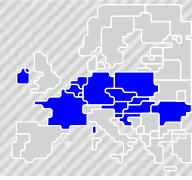
- Following the ACER decision no. (10/2025) on the amendment to the determination of capacity calculation regions, the target for the implementation of ROSC & CS is in CE. Assessment on way forward ongoing.

## 2. Core / CE Program Update

### Key considerations and outlook (3/3)

STK manager

Pre-read

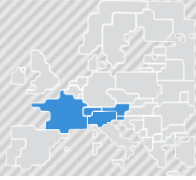


#### ⑤ BTCC

- The ambition is to implement balancing timeframe capacity calculation directly in CE, after implementation of IDCC & ROSC/CS in CE
- Formal expansion of CE to balancing timeframe is subject to a future amendment of CCR determination

#### ⑥ EBGL HMBM: harmonized market-based methodology

- Market-based allocation is governed by the pan-EU methodology for harmonizing processes for the allocation of cross-zonal capacity for the exchange of balancing capacity or sharing of reserves.
- If one or more TSOs within a CCR trigger the application of market-based allocation, the regional methodologies for capacity calculation and ROSC are to be amended to enable this application
- TSO are currently assessing the implementation approach and aim to have a plan end of 2026. This is done in CE context.



### Preparatory steps – status and outlook

The aim of today is to be informed of the steps Italy North (IN) TSOs are taking to prepare for the Central Europe CCR Transition

#### Status of TSO preparations

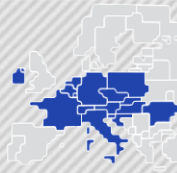
- High-level planning
  - IN TSOs' planning for the CE transition is ongoing, and the Italy North roadmap has been updated to include CE DA go-live as the first CE milestone with an impact on Italy North CCR
- Impact assessment and CE transition plan
  - IN TSOs and RCCs are conducting an impact assessment of CE DA CCM & go-live, considering affected Italy North processes, methodologies, procedures, systems, tools, contracts and reporting obligations
  - Based on the impact assessment, a CE transition plan will be created, including expected amendment and public consultation timelines for relevant TCMs
- Alignments between Italy North and CE & Core TSOs
  - Cross-regional coordination is already ongoing, and expected to increase over the next two years until CE DA go-live

#### Outlook

- IN TSOs aim to inform stakeholders of expected amendment and public consultation timelines for relevant TCMs in the next IN STK Forum in October
- Amendment processes including public consultations for relevant TCM are expected to take place in 2027

Members of the Stakeholder Forum are welcome to raise questions to Julius Schwachheim, the IN TSO Chairman. If a question requires further consideration by IN TSOs, this will be tackled after the meeting, and a written response will be provided.

# 3. Central Europe: Day-Ahead Capacity Calculation



## CE DA CC implementation status

### Reminder

- Central Europe CCR is the merger of Core and Italy North CCRs, with Switzerland integrated as a ‘technical counterparty’ (iTCP). The goal of the CE DA CCM is to create a single harmonized day-ahead flow-based capacity calculation for all CE bidding zone borders, with the iTCP included to the fullest extent while not participating in market coupling.

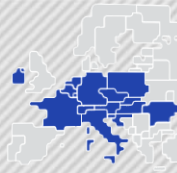
### CE TSOs and iTCP are working towards implementing CE DA CC for a January 2028 go-live.

- The focus for the next 6 months is as follows:
  - Finalisation of the first amendment of the CE DA CCM to prepare submission to NRAs by 17/07/2026
  - Finalise design for the IDCC(a) process, which will go live together with CE DA CC
  - Development of the iTCP proof-of-concept by the end of Q2 2026 to perform testing in Q3 2026

### CE DA implementation timeline

- January – June 2027: Internal parallel run (6 months)
- July – December 2027: External parallel run (6 months)
  - At this stage, the first results regarding the impact on the market is expected to be made available
- 15/01/2028: Implementation deadline for CE DA CC go-live

# 3. Central Europe: Day-Ahead Capacity Calculation



## First amendment of the CE DA CCM: Scope & Timeline

### Reminder

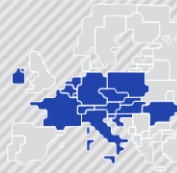
- The first amendment of the CE DA CCM is foreseen in July 2026, 18 months after the initial submission, as specified in the methodology.

### Concretely, the below topics are within scope for the first amendment of the CE DA CCM

- **To align with the Core DA CCM 4<sup>th</sup> amendment:**
  - Changes due to the Celtic interconnector
  - Consideration of 110kV elements as CNECs after validation
  - Harmonised GLSKs
  - Integration of new inner-German HVDC lines
  - Clarification of operational security limits
  - Removal of LTA inclusion
- **To be amended for CE purposes:**
  - The update of remaining cross-zonal capacities after SDAC to be used for intraday will be amended to address any incompatibility with SIDC, Core ID CCM and Italy North ID CCM
  - PiSa HVDC
  - Calculation of ramping constraints

### Timeline for submission

- April 2026: Public Consultation (4 weeks) of first amendment of CE DA CCM
- 17/07/2026: Deadline for submission of first amendment of CE DA CCM to CE NRAs



## Clarification on granularity of capacity calculation

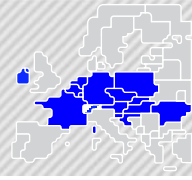
### Introduction

- During the 16/10/2025 Core/CE CG, the action was set for CE TSOs to clarify why the capacity calculation remains in hourly granularity.

CE TSOs would like to inform market parties of the reasoning why the capacity calculation process will not change to 15-minute granularity and will remain hourly for CE DA go-live, namely due to:

- Forecast quality: in particular nodal injections/withdrawals, is not good enough to reap the benefits from a CC MTU of 15-min.
  - TSOs could compute CZCs for 96 MTUs, but the differences within one hour are rather random than based on truly forecasted trends
  - Note also that grid topology is kept at a 60-min granularity in later operational security processes (e.g. DACF)
- Performance: TSOs already have concerns regarding the performance of the CC process for both DA and ID.
  - Even if the 96 MTUs are parallelised, performance would still be further strained than it is today
  - Process improvements need to be researched and implemented
- Input provision: Before considering a switch to 15min MTU, TSOs would have to develop tools for creating 96 IGMs instead of 24

## 4. Long-Term Capacity Calculation



### LTCC EXT//RUN

Core TSOs are performing the LT CC EXT//run (followed by publication and allocation process supported by JAO) until November 2026, with several processes completed: Yearly 2026, M-1 2026, M-2 2026, M-3 2026.

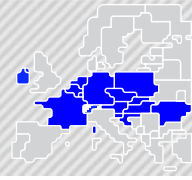
- **Yearly 2026 and March run (M-3 2026) were performed without any issues.**
- **Highlighted issues:**
  - **January run (M-1 2026):** : Outages for 50Hertz were not mapped in the CGMs for January. The configuration file was corrected and is being used for CGM creation starting from the February 2026 process. TSOs concluded that no rerun needed – due to no impact on the final results.
  - **February run (M-2 2026):** Core TSOs unanimously concluded to re-run the February process due to inconsistent ATC benchmark inputs.
- The CC and allocation results are available continuously via the Publication Tool [\[LINK\]](#) and JAO's website [\[LINK\]](#).
  - The auction results are available [\[LINK\]](#).

### Next steps

- **November 2025 – November 2026:** Core TSOs perform the EXT//run in preparation for November 2026 go-live of LTCC and LTFBA
- **May – June 2026:** Dedicated LTFBA + LTCC workshop, co-hosted by ENTSO-E & ACER, with market parties on the go-live preparation
- **Q4 2026:** Core TSOs provide follow-up of EXT//run and outcome of LT CCM amendment process in Core CG

In case of questions regarding the capacity calculation results please consult the LTCC Q&A Forum [\[LINK\]](#).

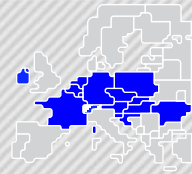
## 4. Long-Term Capacity Calculation



LTCC EXT//RUN

Core TSOs will perform the following CC runs that will be followed by allocation. Data are published once the processes are finalized:

Period of data provision (Month/Year)	CC run start	CC run end	Status
Yearly 2026	17.11.2025	21.11.2025	Process completed successfully
Monthly Jan 2026	08.12.2025	12.12.2025	Process completed; Outages for 50Hertz were not mapped in the CGMs (rerun not needed)
Monthly Feb 2026	05.01.2026	09.01.2026	Process completed; inconsistent ATC benchmark inputs
Monthly Feb 2026 re-run	14.01.2026	14.01.2026	Process completed successfully
Monthly Mar 2026	02.02.2026	06.02.2026	Process completed successfully
Monthly Apr 2026	02.03.2026	06.03.2026	Process completed successfully
Monthly May 2026	13.04.2026	17.04.2026	
Monthly Jun 2026	04.05.2026	08.05.2026	
Monthly Jul 2026	01.06.2026	05.06.2025	
Monthly Aug 2026	29.06.2026	03.07.2026	
Monthly Sep 2026	03.08.2026	07.08.2026	
Monthly Oct 2026	31.08.2026	04.09.2026	
Monthly Nov 2026	05.10.2026	09.10.2026	
Monthly Dec 2026	02.11.2026	06.11.2026	



For definitions of the published outputs (datasets/pages) and their scope during EXT//RUN, MPs can refer to the 'Publication Handbook' [\[LINK\]](#)

- **Main published outputs**

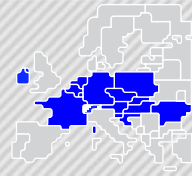
- Final FB domain (border view): Core MarketGraphs / Core Map show final FB domain values per border (yearly/monthly selection).
- Domain components: Max Net Positions (per hub), Max Exchanges (MaxBex) (per border direction).
- Validation impacts: Validation Reductions shows applied reductions and justifications (yearly/monthly) → no reductions apply for LTCC.
- Detailed domain (constraint level): Final Computation and Final Computation Splitting provide CNEC-level details (e.g., RAM/Fmax/AMR and PTDFs per border).
- Constraints & inputs: Allocation Constraints and Maintenance (limits + maintenance period), Used Grid Model (CGM summary), RefProg, Reference Net Position.
- ATC view: LT ATCs shows LT ATC values [MW] per border direction → only indicative, extracted ATCs are not used in operational process.
- Timestamp overview: Border Data Overview provides timestamp definition.

- **Navigating and using the data**

- It is advised to start from Core MarketGraphs / Core Map to understand the final domain outcome per border; then drill down into MaxBex / Max Net Positions for components.
- Diving deeper, use Final Computation / Splitting when you need constraint-level explanations (CNECs, contingencies, PTDFs).
- For automation, data is available via Publication Tool Web Services (REST): GET over HTTPS, JSON responses, parameters UTF-8 encoded.
- For process overview, use the Monitoring page to check publication completeness and timing: Deadline, Page, Status (Received / Expected / Pending), Date Received, Follow-up action initiated.

- For Max Net Positions a correction of the displayed values is expected due to inconsistency with the final FB domain.

# 4. Long-Term Capacity Calculation



## LTCC EXT//RUN: Allocation results

Core TSOs provide the 2026 yearly and monthly (January-March) allocation results:

- 2025 NTC market bids used for 2026 yearly and monthly auctions
- No filtering for collaterals has been applied
- For borders with two auctions (FR, CZ-DE), 2025 NTC allocation auction prices are averaged

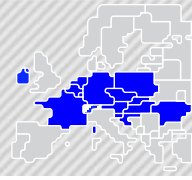
### Yearly 2026 allocation

### January 2026 allocation

Border	2025 ATC benchmark	Accepted Volume_AC	Accepted Volume_DC	Accepted Volume Sum	2025 NTC allocation Volume	Auction Price	2025 NTC Allocation Auction Price
AT to CZ	250	434	0	434	200	3.83	4.51
AT to DE	1225	159	0	159	1960	5.47	3.49
AT to HU	313	439	0	439	250	13.49	14.56
AT to SI	375	663	0	663	300	7.76	9.16
BE to DE	325	0	260	260	260	9.66	9.66
BE to FR	313	260	0	260	250	2.6	3.25
BE to NL	591	335	0	335	473	7.81	7.4
CZ to AT	250	512	0	512	200	3.11	3.97
CZ to DE	750	10	0	10	600	4.25	2.68
CZ to PL	0	105	0	105	0	14.15	0
CZ to SK	625	461	0	461	500	7.53	7.42
DE to AT	1225	569	0	569	1960	8.04	6.78
DE to BE	325	0	260	260	260	4	4
DE to CZ	375	43	0	43	300	7.54	6.47
DE to FR	750	530	0	530	600	4.53	4.35
DE to NL	1034	1030	0	1030	827	3.45	3.59
DE to PL	0	3	0	3	0	19.94	0
FR to BE	2000	1276	0	1276	1600	14.37	11.36
FR to DE	1250	1328	0	1328	1000	22.99	20.83
HR to HU	500	264	0	264	400	6.37	5.85
HR to SI	625	420	0	420	500	1.62	1.5
HU to AT	313	254	0	254	250	2.46	2.5
HU to HR	625	217	0	217	500	3.71	2.64
HU to RO	438	377	0	377	350	5.1	5.38
HU to SI	188	15	0	15	150	4.87	3.01
HU to SK	1000	586	0	586	800	1.72	1.53
NL to BE	591	625	0	625	473	3.21	3.57
NL to DE	1034	736	0	736	827	5.54	5.5
PL to CZ	0	0	0	0	0	10.24	0
PL to DE	0	259	0	259	0	12.74	0
PL to SK	0	0	0	0	0	11.98	0
RO to HU	438	361	0	361	350	4.77	4.78
SI to AT	375	369	0	369	300	1.33	1.41
SI to HR	625	667	0	667	500	3.56	4.53
SI to HU	188	37	0	37	150	9.48	7.75
SK to CZ	500	288	0	288	400	2.37	2.1
SK to HU	875	541	0	541	700	6.87	6.5
SK to PL	0	270	0	270	0	10.73	0
<b>Total</b>	<b>20291</b>	<b>14443</b>	<b>520</b>	<b>14963</b>	<b>18190</b>	<b>273.19</b>	<b>182.03</b>

Border	2025 ATC benchmark	Accepted Volume_AC	Accepted Volume_DC	Accepted Volume Sum	2025 NTC allocation Volume	Auction Price	2025 NTC Allocation Auction Price
AT to CZ	150	277	0	277	150	4.66	5.5
AT to DE	1030	771	0	771	2060	2.85	2.15
AT to HU	152	185	0	185	152	18.5	18.76
AT to SI	300	407	0	407	300	8.54	9.77
BE to DE	240	0	240	240	240	9.38	9.38
BE to FR	438	131	0	131	675	2.05	1.13
BE to NL	146	170	0	170	146	6.45	6.77
CZ to AT	60	88	0	88	60	6.02	6.75
CZ to DE	301	377	0	377	301	2.44	2.67
CZ to PL	0	68	0	68	0	20.75	0
CZ to SK	300	237	0	237	300	15.19	14.54
DE to AT	1430	1462	0	1462	2860	17.03	15.72
DE to BE	240	0	240	240	240	4.32	4.32
DE to CZ	200	61	0	61	200	15.26	13.2
DE to FR	400	230	0	230	400	4.66	4.11
DE to NL	254	321	0	321	254	3.99	4.1
DE to PL	0	9	0	9	0	30.21	0
FR to BE	275	248	0	248	350	10.75	9.59
FR to DE	260	258	0	258	350	17.42	17.11
HR to HU	50	20	0	20	50	9.88	8.87
HR to SI	150	11	0	11	150	1.61	0.8
HU to AT	90	27	0	27	90	1.65	1.35
HU to HR	50	13	0	13	50	2.52	1.3
HU to RO	120	123	0	123	120	4	4
HU to SI	50	0	0	0	50	3.28	1.21
HU to SK	50	36	0	36	50	4.06	3.62
NL to BE	146	126	0	126	146	3.65	3.46
NL to DE	254	424	0	424	254	5.25	5.72
PL to CZ	0	6	0	6	0	16.33	0
PL to DE	0	1	0	1	0	12.97	0
PL to SK	0	31	0	31	0	23.61	0
RO to HU	120	150	0	150	120	5.5	5.82
SI to AT	130	148	0	148	130	1.4	1.45
SI to HR	150	132	0	132	150	3.96	3.78
SI to HU	50	24	0	24	50	12.99	10.88
SK to CZ	300	331	0	331	300	2.42	2.48
SK to HU	150	119	0	119	150	9.5	8.55
SK to PL	0	3	0	3	0	15.26	0
<b>Total</b>	<b>8036</b>	<b>7025</b>	<b>480</b>	<b>7505</b>	<b>10898</b>	<b>340.31</b>	<b>208.86</b>

# 4. Long-Term Capacity Calculation



## LTCC EXT//RUN: Allocation results

Core TSOs provide the 2026 yearly and monthly (January-March) allocation results:

- 2025 NTC market bids used for 2026 yearly and monthly auctions
- No filtering for collaterals has been applied
- For borders with two auctions (FR, CZ-DE), 2025 NTC allocation auction prices are averaged

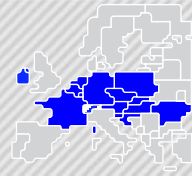
### February 2026 allocation

### March 2026 allocation

Border	2025 ATC benchmark	Accepted Volume_AC	Accepted Volume_DC	Accepted Volume Sum	2025 NTC allocation Volume	Auction Price	2025 NTC Allocation Auction Price
AT to CZ	150	157	0	157	150	4.28	4.43
AT to DE	1030	394	0	394	2060	2.34	1.21
AT to HU	152	59	0	59	152	14.88	13.5
AT to SI	300	534	0	534	300	5.09	6.58
BE to DE	240	0	240	240	240	5.91	5.91
BE to FR	438	271	0	271	200	1.52	1.78
BE to NL	146	265	0	265	146	6.16	6.67
CZ to AT	60	200	0	200	60	5.55	6.54
CZ to DE	301	188	0	188	301	2.44	1.77
CZ to PL	0	74	0	74	0	20.68	0
CZ to SK	300	146	0	146	300	15.22	13.02
DE to AT	1430	1675	0	1675	2860	16.75	16.05
DE to BE	240	0	240	240	240	5.45	5.43
DE to CZ	200	24	0	24	200	15.58	12.52
DE to FR	400	214	0	214	400	5.7	4.75
DE to NL	254	198	0	198	254	6.22	5.85
DE to PL	0	0	0	0	0	31.58	0
FR to BE	275	511	0	511	200	8.56	9.58
FR to DE	260	216	0	216	170	12.8	12.57
HR to HU	50	14	0	14	50	8.85	6.16
HR to SI	150	46	0	46	150	1.07	0.59
HU to AT	90	56	0	56	90	2.39	2.32
HU to HR	50	29	0	29	50	2.16	1.61
HU to RO	120	111	0	111	120	3.69	3.56
HU to SI	50	0	0	0	50	2.66	1.46
HU to SK	50	21	0	21	50	3.74	2.9
NL to BE	146	118	0	118	146	4.37	3.88
NL to DE	254	332	0	332	254	4.49	5
PL to CZ	0	0	0	0	0	23.61	0
PL to DE	0	68	0	68	0	21.36	0
PL to SK	0	5	0	5	0	30.84	0
RO to HU	120	158	0	158	120	3.66	4
SI to AT	130	122	0	122	130	2.37	2.35
SI to HR	150	53	0	53	150	4.15	2.81
SI to HU	50	16	0	16	50	12.43	7.46
SK to CZ	300	76	0	76	300	3.75	2.26
SK to HU	150	224	0	224	150	6.03	6.58
SK to PL	0	0	0	0	0	16.44	0
<b>Total</b>	<b>8036</b>	<b>6575</b>	<b>480</b>	<b>7055</b>	<b>10093</b>	<b>344.77</b>	<b>181.1</b>

Border	2025 ATC benchmark	AcceptedVolume_A_C	AcceptedVolume_DC	Accepted Volume Sum	2025 NTC allocation Volume	Auction Price	2025 NTC Allocation Auction Price
AT to CZ	150	140	0	140	150	3.64	3.5
AT to DE	897	112	0	112	2060	4.02	1.05
AT to HU	152	305	0	305	152	9.94	11.5
AT to SI	217	257	0	257	300	6.11	5.69
BE to DE	173	0	173	173	240	6	5.4
BE to FR	275	285	0	285	200	1.25	1.35
BE to NL	146	136	0	136	146	5.54	5.2
CZ to AT	40	221	0	221	60	5.51	6.79
CZ to DE	301	9	0	9	301	4.75	1.94
CZ to PL	0	3	0	3	0	21.99	0
CZ to SK	300	190	0	190	300	13.22	12.05
DE to AT	1430	1295	0	1295	2860	14.82	13.67
DE to BE	173	0	173	173	240	5.52	5.02
DE to CZ	187	8	0	8	180	13.68	9
DE to FR	400	421	0	421	400	3.62	3.5
DE to NL	254	228	0	228	254	4.06	3.82
DE to PL	0	4	0	4	0	31.48	0
FR to BE	200	250	0	250	200	16.1	15.88
FR to DE	290	407	0	407	350	19.15	18.9
HR to HU	50	67	0	67	50	4.74	4.51
HR to SI	150	50	0	50	150	0.79	0.43
HU to AT	60	113	0	113	90	2.03	1.97
HU to HR	33	70	0	70	50	1.85	1.62
HU to RO	120	130	0	130	120	3.06	3.21
HU to SI	50	23	0	23	50	1.86	1.26
HU to SK	50	7	0	7	50	6.58	3.06
NL to BE	146	130	0	130	146	5.13	4.18
NL to DE	254	260	0	260	254	4.33	4.21
PL to CZ	0	13	0	13	0	11.65	0
PL to DE	0	7	0	7	0	12.22	0
PL to SK	0	52	0	52	0	20.56	0
RO to HU	120	111	0	111	120	3	2.72
SI to AT	83	32	0	32	130	2.71	1.22
SI to HR	150	103	0	103	150	2.4	2.14
SI to HU	50	125	0	125	50	6.37	6.62
SK to CZ	300	88	0	88	300	3.62	1.37
SK to HU	150	102	0	102	150	6.76	5.11
SK to PL	0	201	0	201	0	21.3	0
<b>Total</b>	<b>7351</b>	<b>5955</b>	<b>346</b>	<b>6301</b>	<b>10253</b>	<b>311.36</b>	<b>167.89</b>

## 4. Long-Term Capacity Calculation



### LTCC EXT//RUN

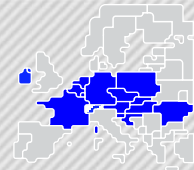
Core TSOs use set of KPIs to monitor and continuously assess progress EXT // RUN. These cover:

- KPI 1 with AMR/minRAM levels,
- KPI 2 shows the distribution of Pre-solved CNECs,
- KPI 3 with individual validation adjustment usage (currently not used in the process),
- KPI 4 shows the number of successfully computed timestamp scenarios,
- KPI 5 maps distribution of planned outages across TSOs' grids.

KPIs assessment summary for EXT // RUN:

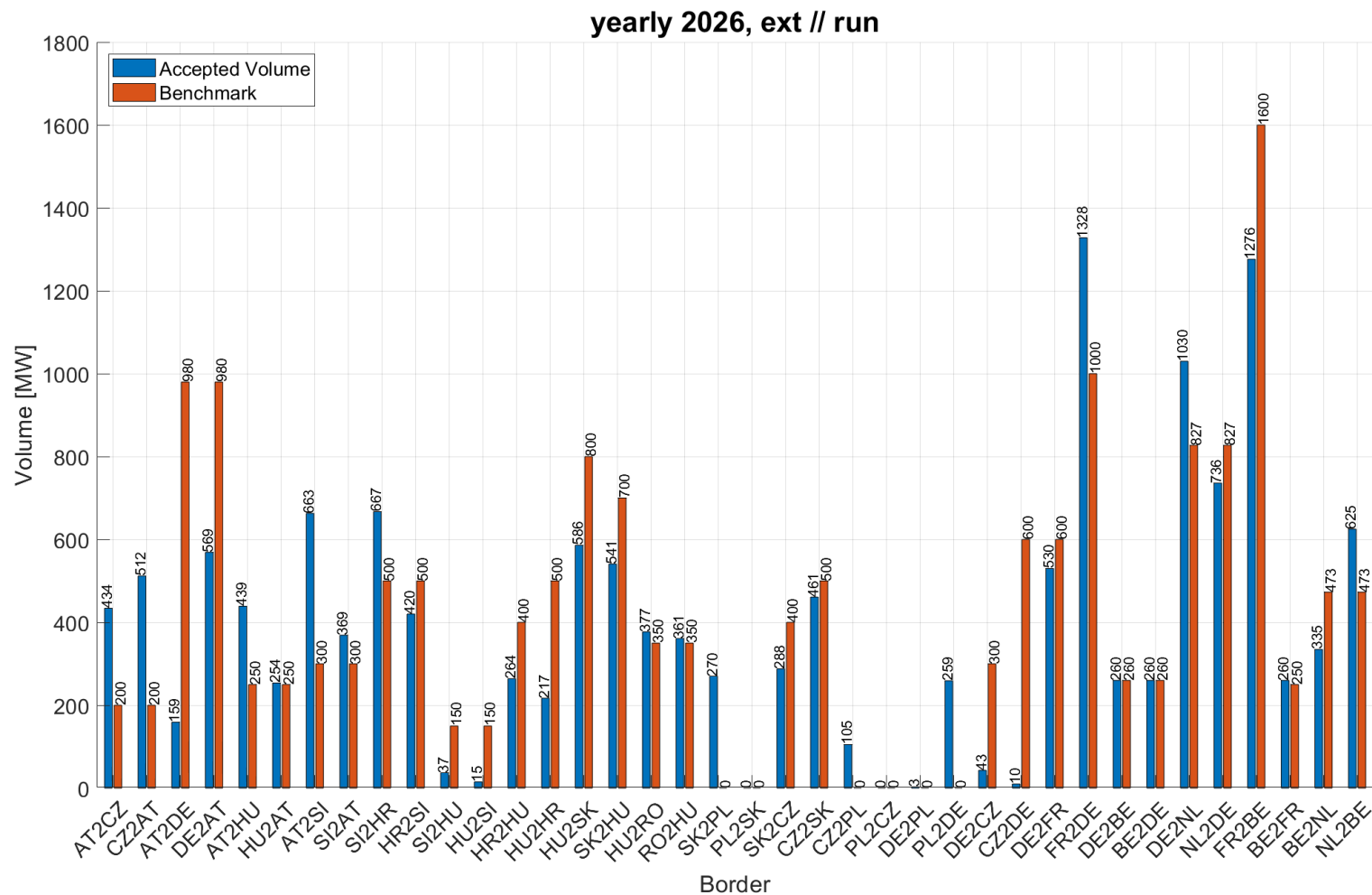
EXT//RUN	KPI 1	KPI 2	KPI 3	KPI4	KPI 5
<b>Yearly 2026</b>	AMR requirements vary across CNECs but remain within expected ranges, with several CNECs requiring higher AMR values (up to ~70%).	Distribution is consistent across TSOs and scenarios. No TSO shows disproportionate pre-solving, indicating homogeneous constraint behaviour and stable FB domain.	No IVA applied in line with expectation of LTA inclusion removal.	All 24 scenarios successful.	Outages follow expected seasonal distribution; volume variation across scenarios is as expected.
<b>Monthly Jan 2026</b>	AMR distribution is consistent with the yearly run but with lower overall AMR requirements across CNECs.	Distribution is even and consistent across TSOs and scenarios. No TSO shows disproportionate pre-solving.		All 9 scenarios successful.	Outage volumes are lower compared to Y2026, consistent with January winter period Disclaimer: known issue with 50Hertz outages.
<b>Monthly Feb 2026</b>	Compared to January, higher AMR values appear in several CNECs, with some reaching above 80–90%, indicating tighter constraints for February. This aligns with the more constrained winter grid conditions and expected load patterns.	Very similar to January, with stable region-wide distribution.		All 8 scenarios successful.	Outage volumes are higher than January, due to corrected inclusion of D8 (50Hz) outages. Distribution is balanced across TSOs.
<b>Monthly Mar 2026</b>	AMR values vary across CNECs, with several reaching relatively high levels on parent level (up to around 70–80% of Fmax) – distributed across multiple TSOs.	The number of pre-solved CNECs is distributed across TSOs and scenarios. No TSO shows a disproportionately higher share compared to others.		All 9 scenarios successful.	The total number of outages decreases slightly towards later time series.

# 4. Long-Term Capacity Calculation

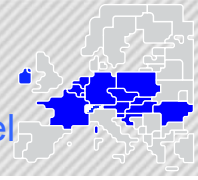


LTCC EXT//RUN

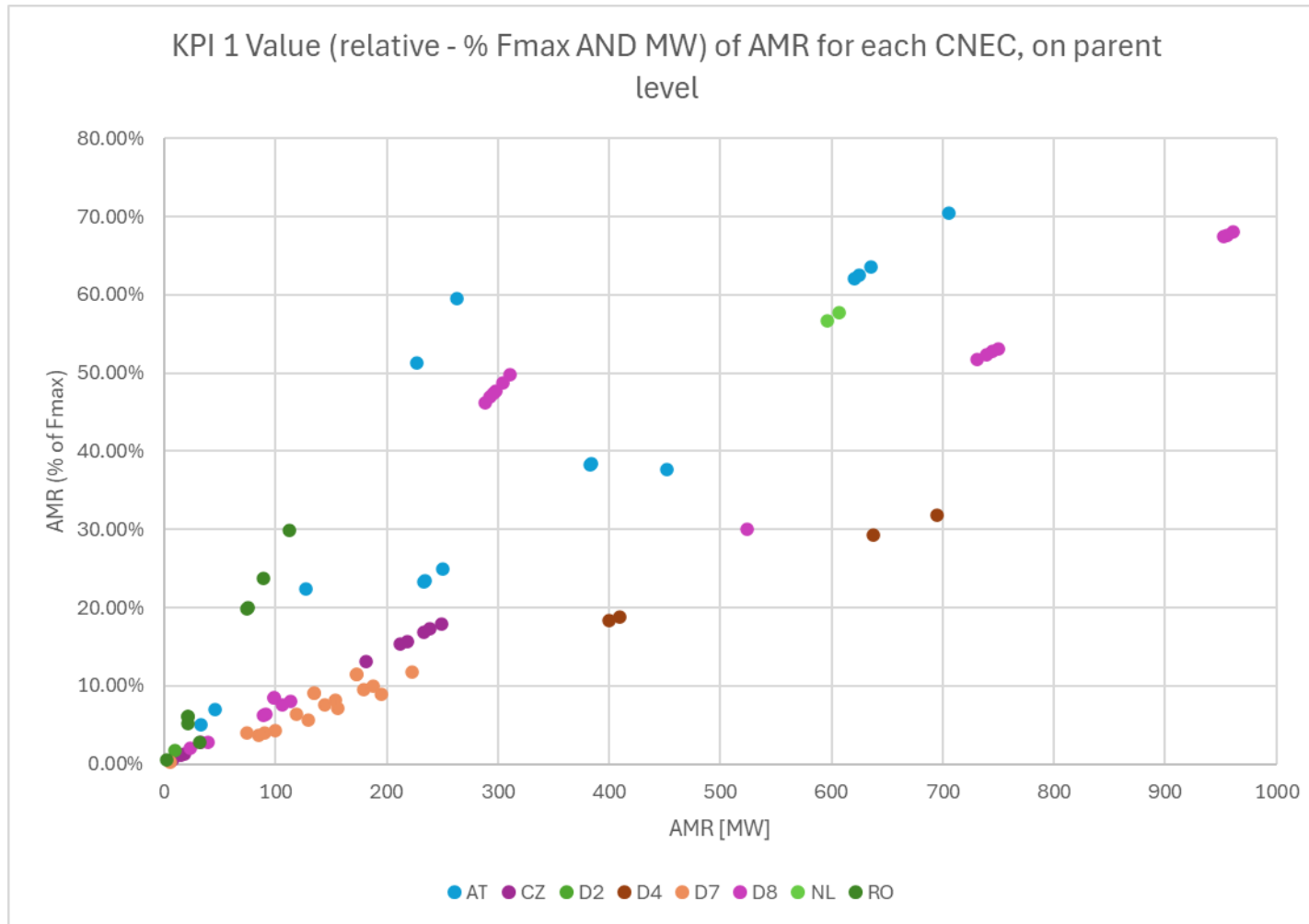
Overview of benchmark vs allocated volumes for Y 2026 run:



## 4. Long-Term Capacity Calculation

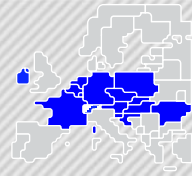


LTCC EXT//RUN Y2026: KPI 1 - Value (relative % Fmax and MW) of AMR for each CNEC, on parent level

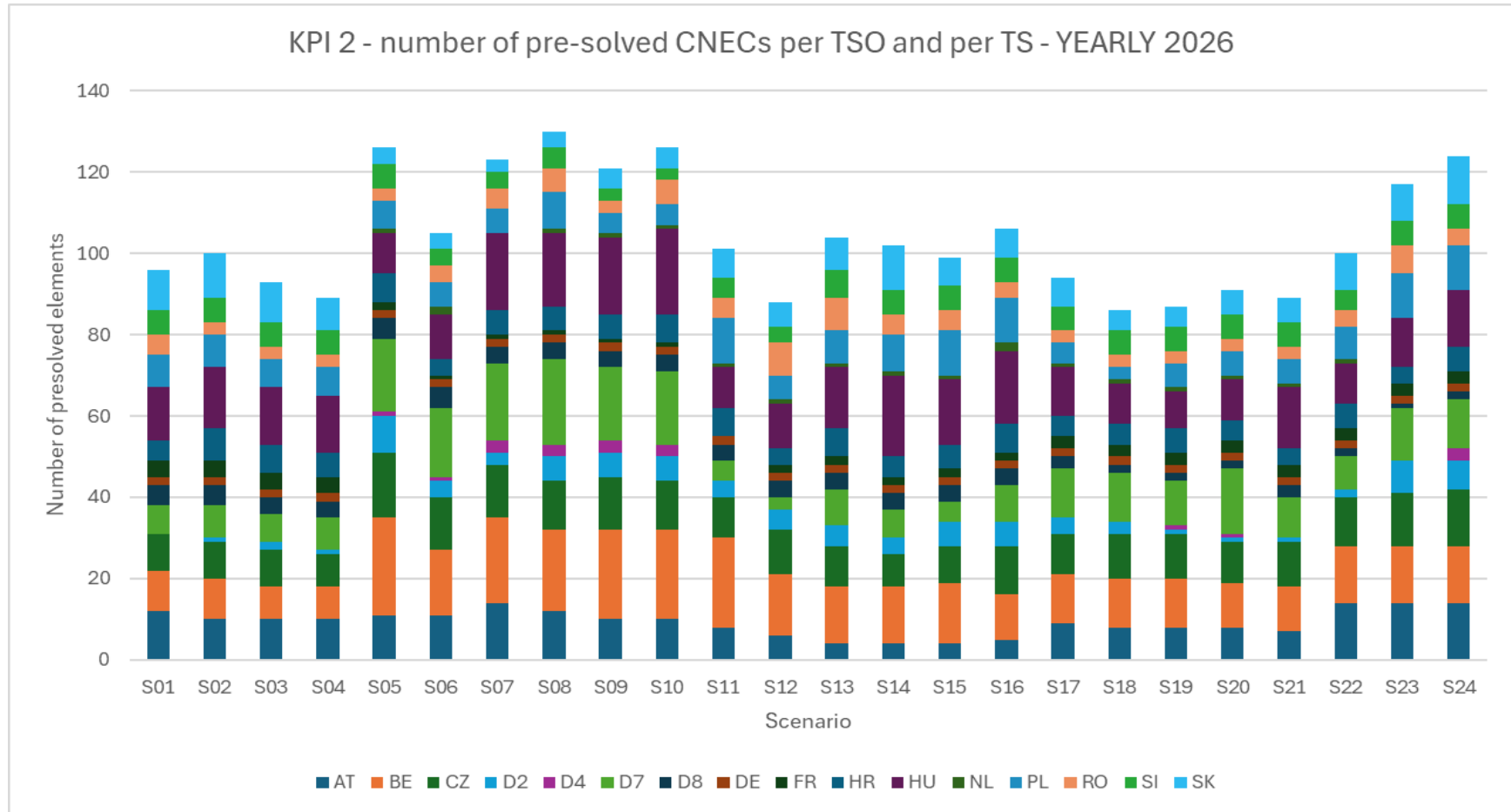


- Graph shows % resulting of AMR needed to accommodate the ATC benchmark.

# 4. Long-Term Capacity Calculation

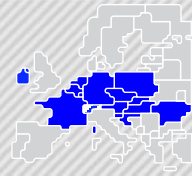


LTCC EXT//RUN Y2026: KPI 2 - CNEC ID - number of pre-solved CNECs per TSO and per TS

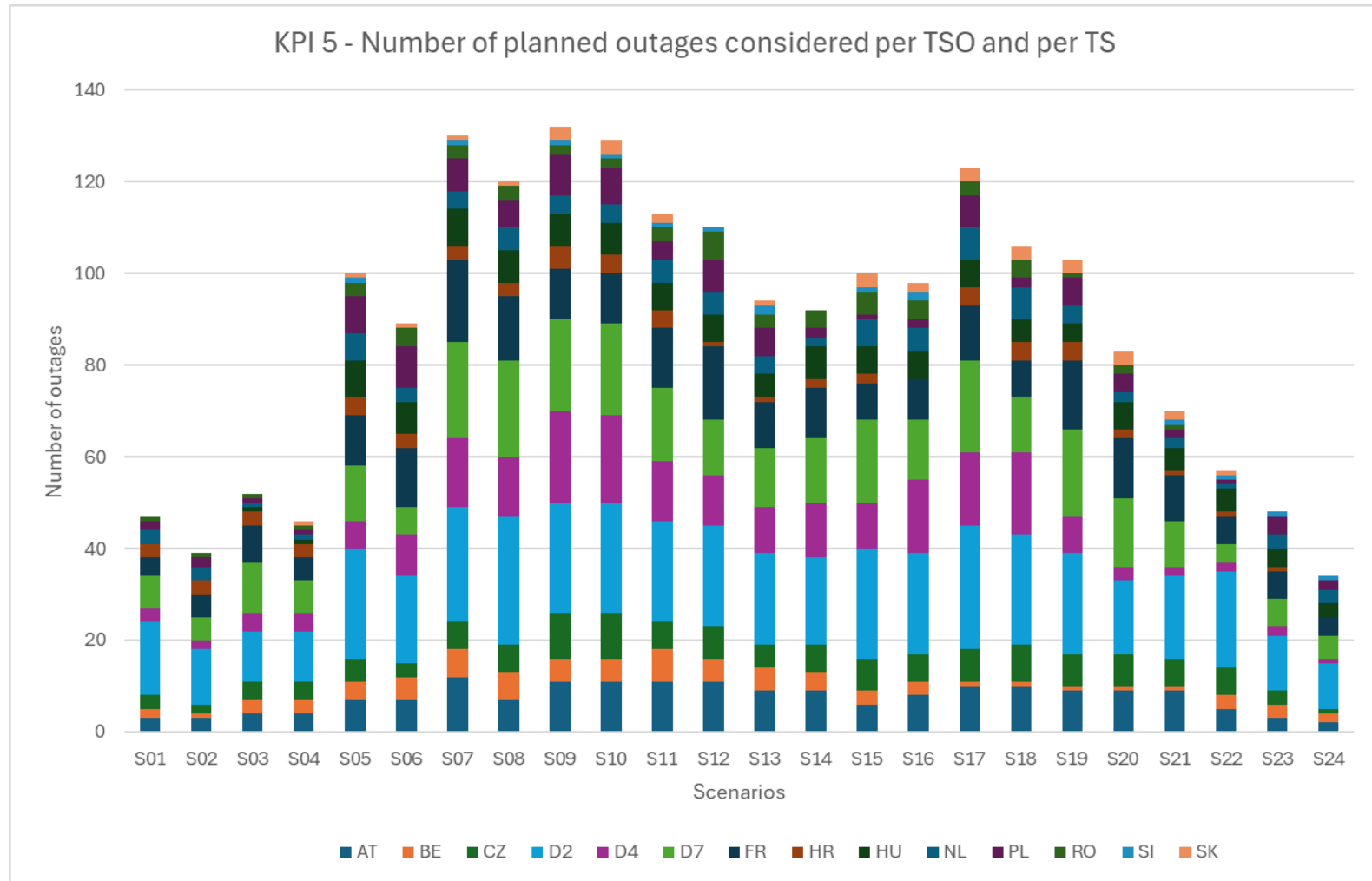


- Graph shows distribution of pre-solved CNECs on child/TS level before the benchmark application with region-wide distribution.

# 4. Long-Term Capacity Calculation

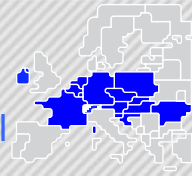


LTCC EXT//RUN Y2026: KPI 5 - Number of planned outages considered per TSO and per TS



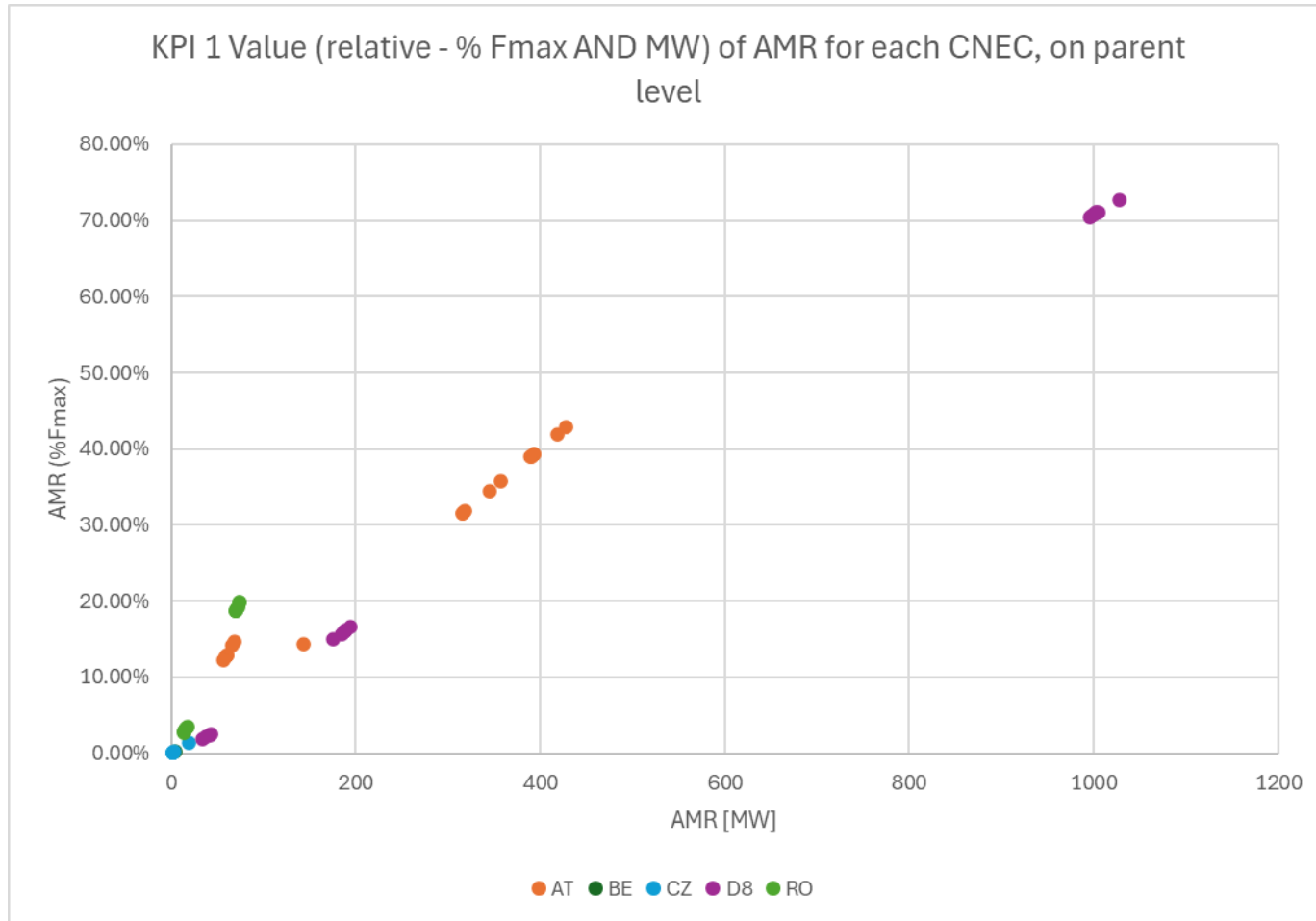
- Graph shows number of outages across selected TSs, showcasing seasonality. At the same time, the effect of outages on the final domain is minimized due to the benchmark application.

## 4. Long-Term Capacity Calculation



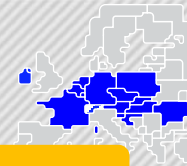
LTCC EXT//RUN Jan 2026: KPI 1 - Value (relative % Fmax and MW) of AMR for each CNEC, parent level

Pre-read



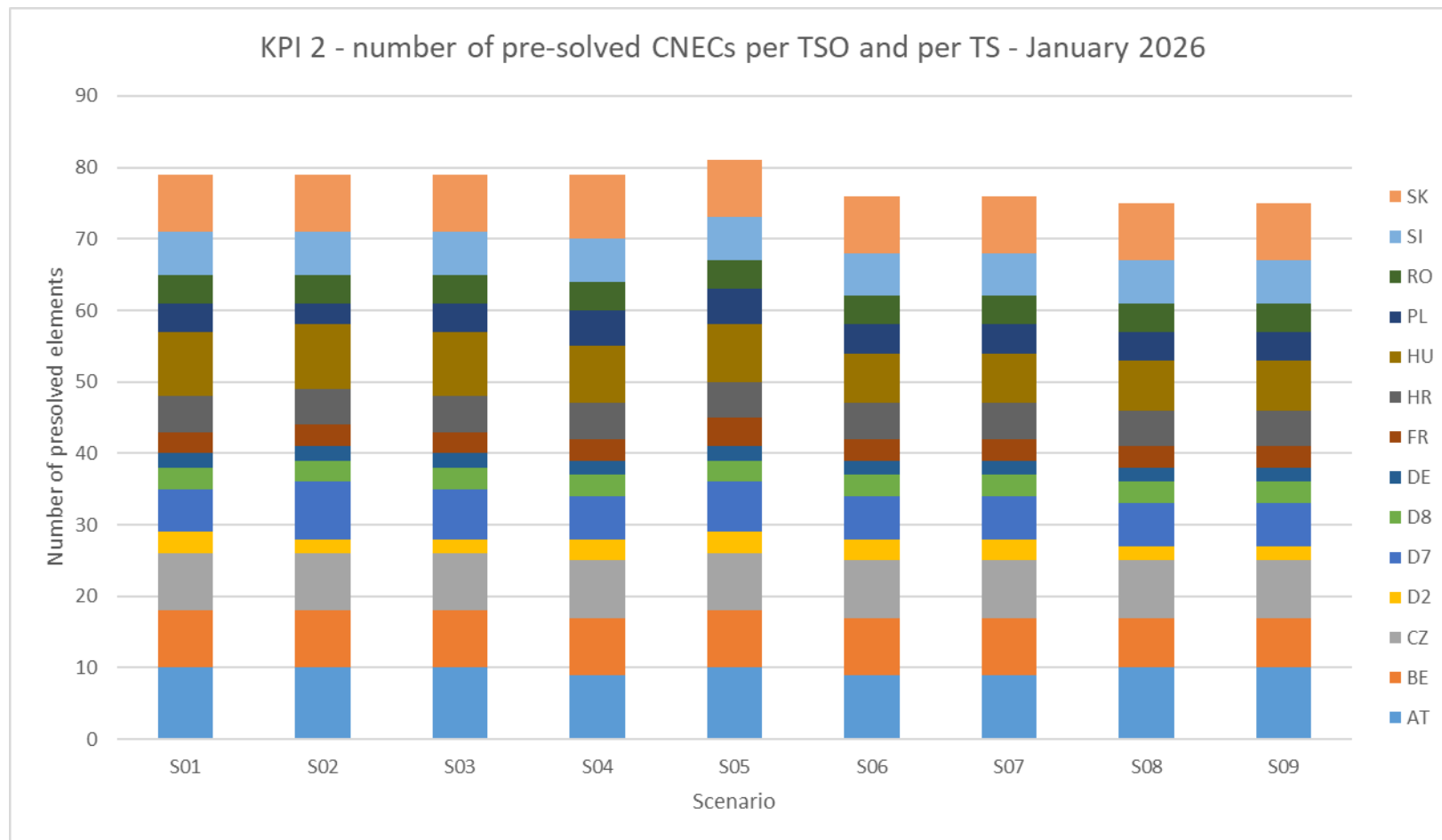
- Graph shows % resulting of AMR needed to accommodate the ATC benchmark.

## 4. Long-Term Capacity Calculation



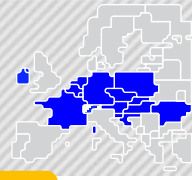
LTCC EXT//RUN Jan 2026 KPIs: KPI 2 - CNEC ID - number of pre-solved CNECs per TSO and per TS

Pre-read



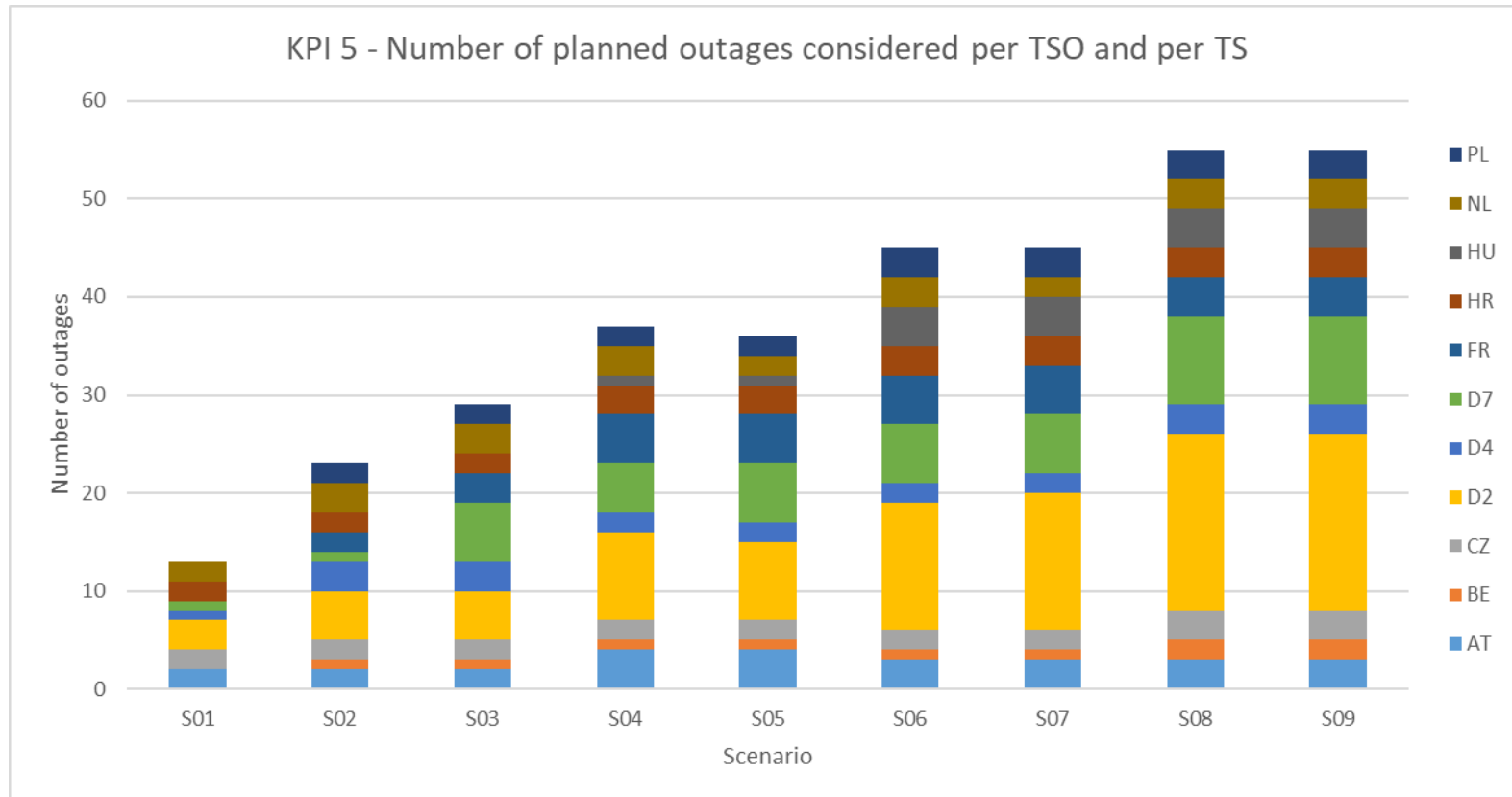
- Graph shows distribution of presolved CNECs on child/TS level before the benchmark application with region-wide distribution.

## 4. Long-Term Capacity Calculation



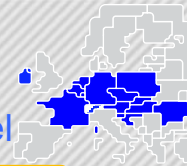
LTCC EXT//RUN Jan 2026 KPIs: KPI 5 - Number of planned outages considered per TSO and per TS

Pre-read



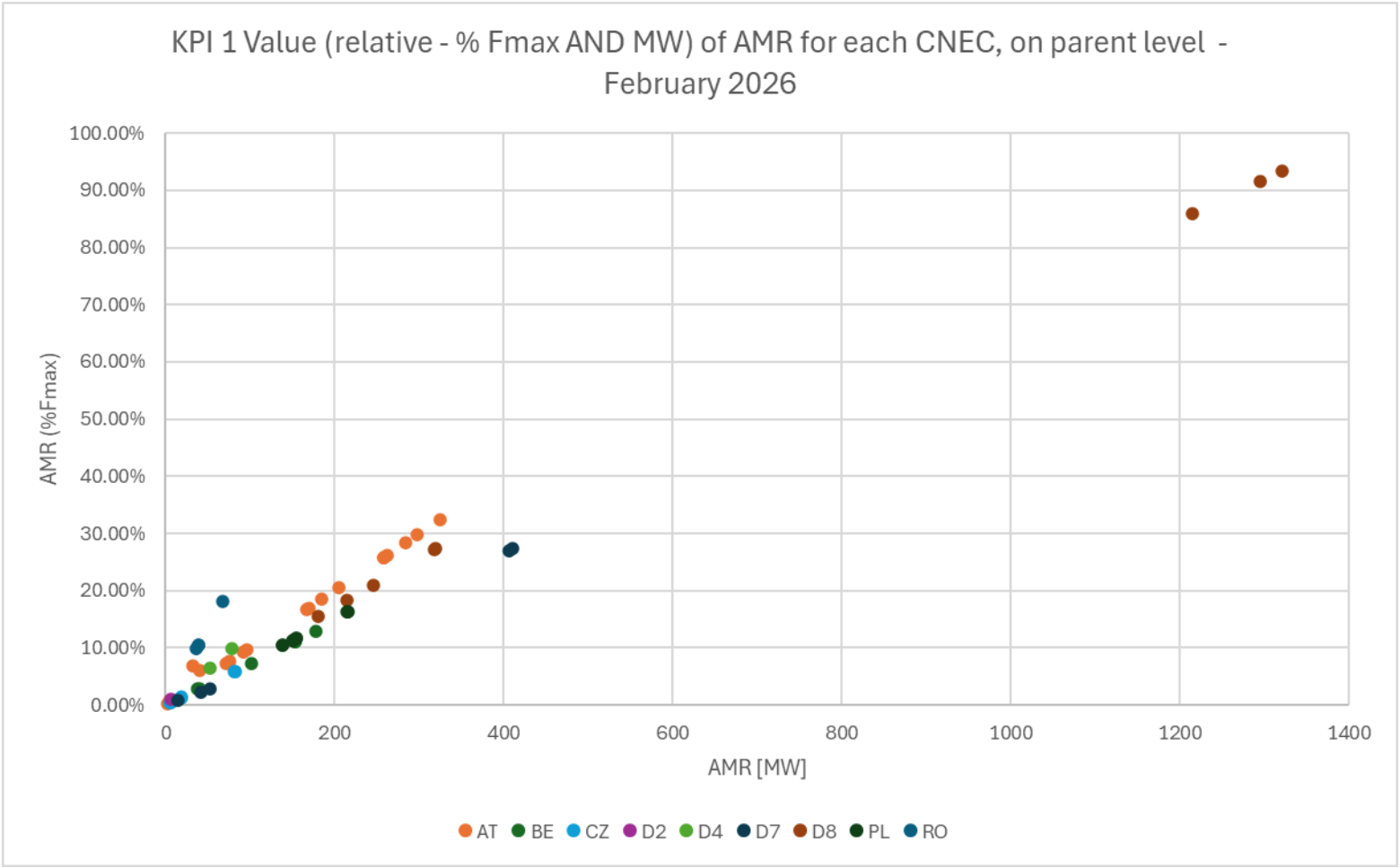
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## 4. Long-Term Capacity Calculation



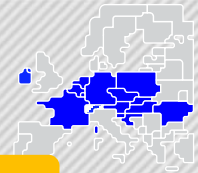
LTCC EXT//RUN Feb 2026: KPI 1 - Value (relative % Fmax and MW) of AMR for each CNEC, parent level

Pre-read



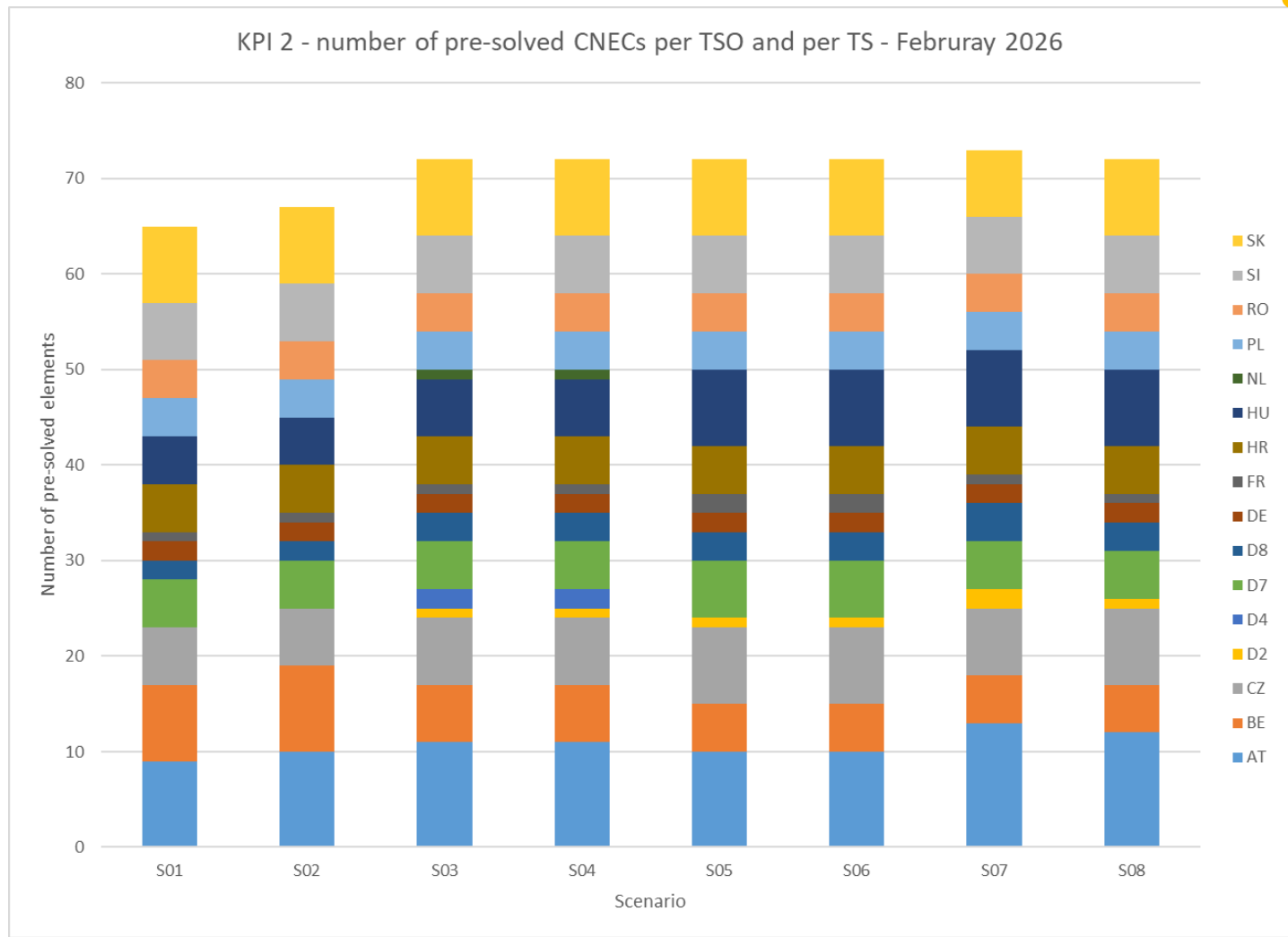
- Graph shows % resulting of AMR needed to accommodate the ATC benchmark.

# 4. Long-Term Capacity Calculation



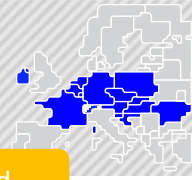
LTCC EXT//RUN Feb 2026 KPIs: KPI 2 - CNEC ID - number of pre-solved CNECs per TSO and per TS

Pre-read



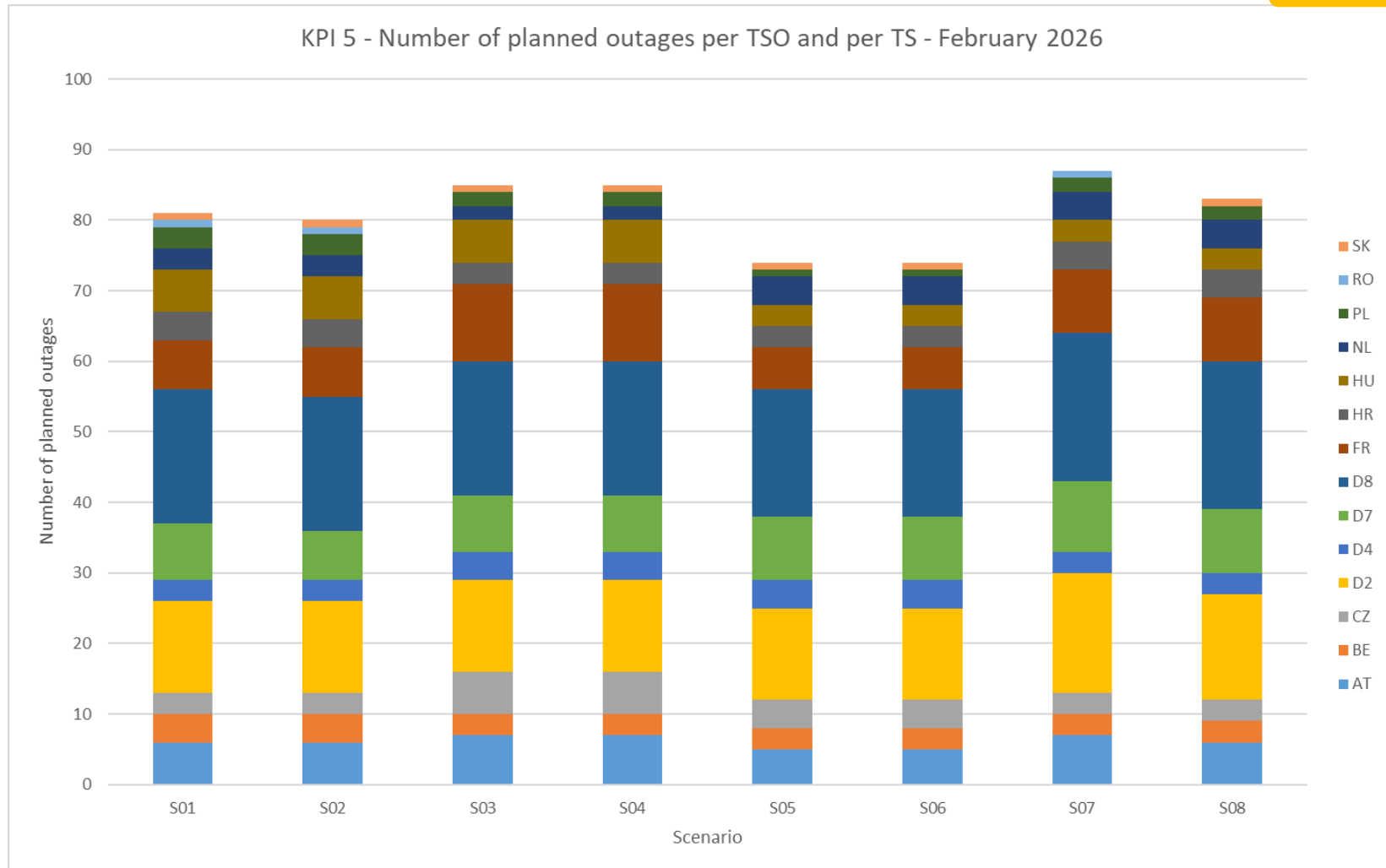
- Graph shows distribution of presolved CNECs on child/TS level before the benchmark application with region-wide distribution.

## 4. Long-Term Capacity Calculation



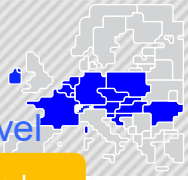
LTCC EXT//RUN Feb 2026 KPIs: KPI 5 - Number of planned outages considered per TSO and per TS

Pre-read



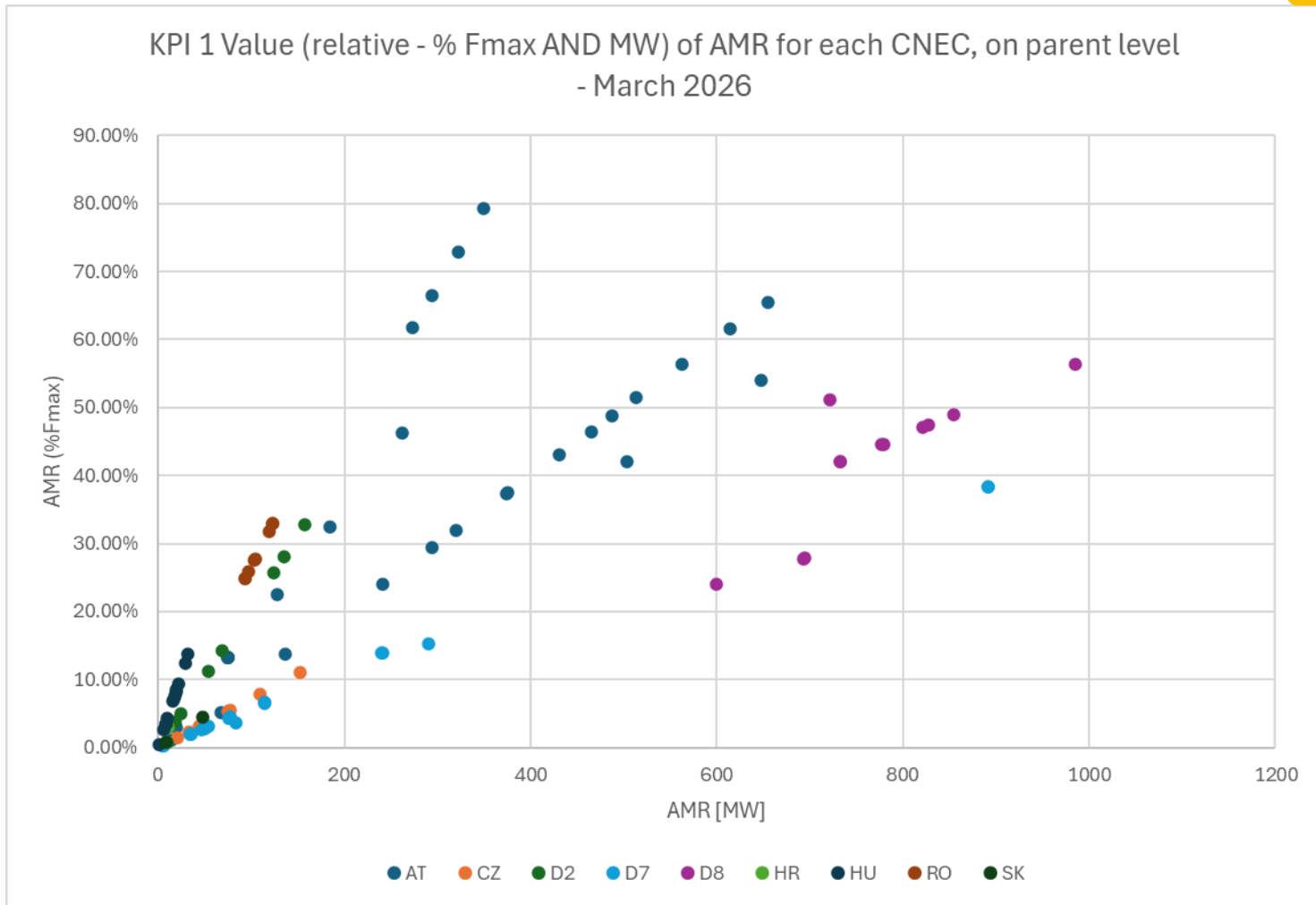
- Graph shows number of outages across selected TSs, showcasing seasonality. At the same time, the effect of outages on the final domain is minimized due to the benchmark application.

## 4. Long-Term Capacity Calculation



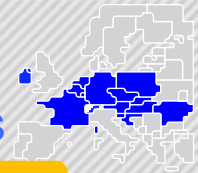
LTCC EXT//RUN March 2026: KPI 1 - Value (relative % Fmax and MW) of AMR for each CNEC, parent level

Pre-read



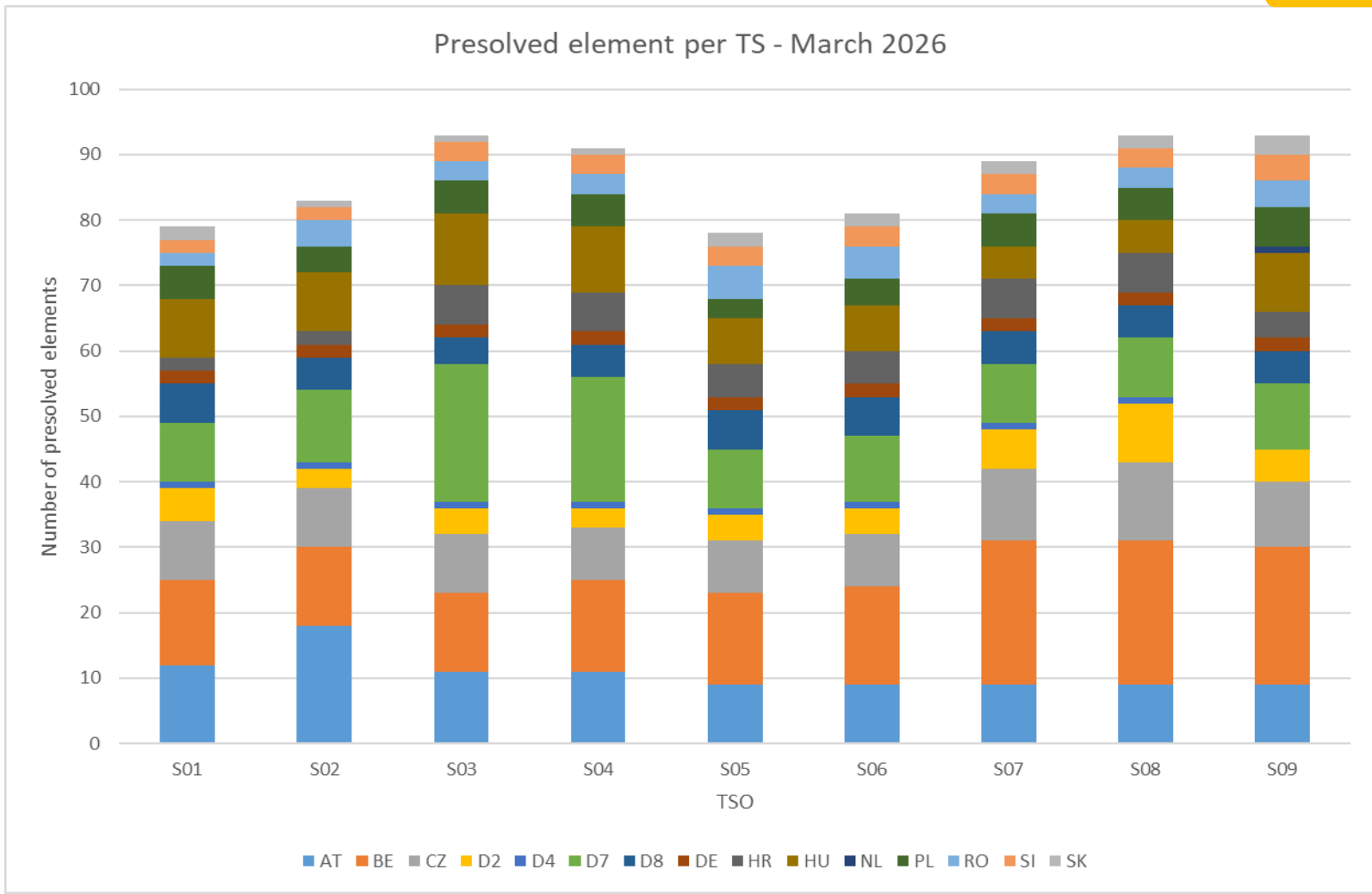
- Graph shows % resulting of AMR needed to accommodate the ATC benchmark.

# 4. Long-Term Capacity Calculation



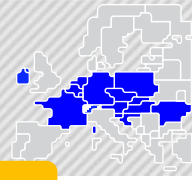
LTCC EXT//RUN March 2026 KPIs: KPI 2 - CNEC ID - number of pre-solved CNECs per TSO and per TS

Pre-read



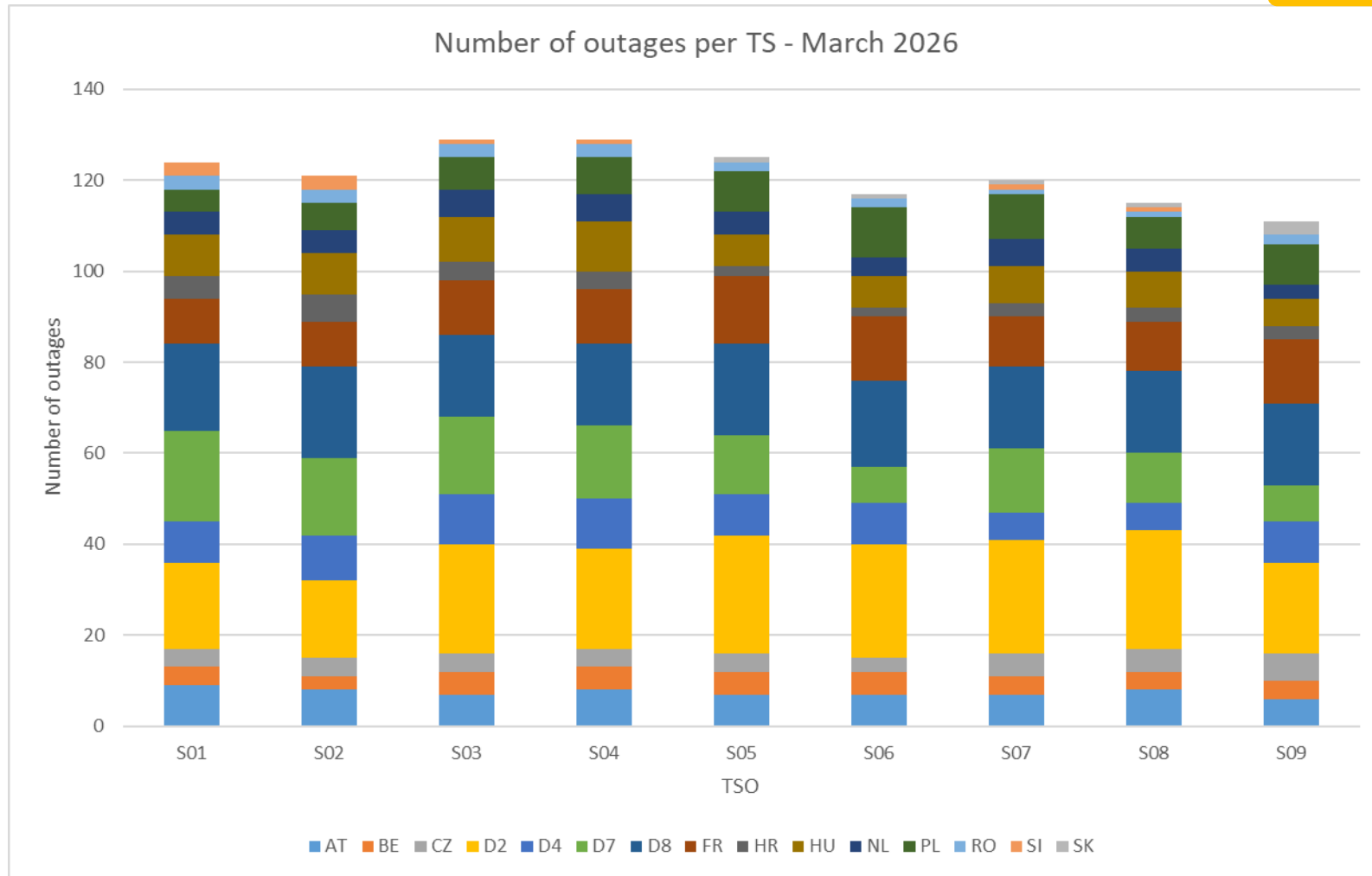
- Graph shows distribution of presolved CNECs on child/TS level before the benchmark application with region-wide distribution.

## 4. Long-Term Capacity Calculation



LTCC EXT//RUN March 2026 KPIs: KPI 5 - Number of planned outages considered per TSO and per TS

Pre-read



- Graph shows number of outages across selected TSs, showcasing seasonality. At the same time, the effect of outages on the final domain is minimized due to the benchmark application.



European Union Agency for the Cooperation  
of Energy Regulators

# Amendment to the Core Long Term CCM

CoreCE Consultative Group meeting

17 March 2026

- Pursuant to Article 10 of the **FCA Regulation**, the TSOs of each CCR are required to jointly develop a proposal for a common CCM for the long-term timeframes within their respective region and to submit it to the NRAs of that region for approval.
- On **21 November 2026**, Core TSOs submitted the proposal for the 1<sup>st</sup> amendment to the Core Long-Term Capacity Calculation Methodology (Core LT CCM) to the Core NRAs.
- **19 January 2026** Core NRAs started the approval process (the date when the last Core NRA received a proposal).
- On **4 February 2026**, Core NRAs referred the proposal to ACER pursuant to Article 4(10) of the FCA Regulation, as they couldn't reach a common agreement on several key aspects of the TSO proposal.

- By Decision **No 14/2021 of 3 November 2021**, ACER approved the Core LT CCM, on which the Core NRAs could not agree.
- The methodology introduces a **flow-based approach for yearly and monthly timeframes**, using multiple grid scenarios and common grid models to determine long-term capacities.
- Following an appeal by Polish TSO on ACER Decision No 14/2021 , the Board of Appeal remitted the case to the competent body of ACER.
- After the Board of Appeal decision, ACER amended the Decision No 14/2021 and approved the Core LT CCM by Decision **No 03/2023 of 18 January 2023**.
- The main changes introduce clarifications and improvements to the rules governing the validation of calculated capacities by the Core TSOs, as well as refinements to certain implementation provisions of the long-term flow-based capacity calculation.
- The plan was to start applying the methodology for capacity calculation for the year 2024; however, this has not yet occurred. Long term capacity calculation in Core is still being performed using the NTC approach.

- A procedure with reference number **ACER-ELE-2026-001** has been initiated to adopt a decision in this regard.
- ACER is required to adopt the decision by **4 August 2026**.
- However, Core TSOs would like to start with the implementation at the go-live of the Core LT CCM in **November 2026**.
- Therefore, ACER will aim to finalise the decision by **June 2026** (BoR meeting – **10 June 2026**).
  - To leave maximum time for the Core TSOs for the preparation of go-live

## Main changes in the proposal:

- Introduction of **historical ATC benchmark** to the Core LT CCM
  - ATC benchmark enables reshaping of the flow-based domain to accommodate historical benchmark values.
  - It is foreseen as an effective measure to ensure that sufficient capacities are offered for long-term flow-based allocation.
  - They are based on the historically offered yearly and monthly capacities in 2025, with certain adjustments.
- The integration of the **SEM - France bidding zone border** into the Core CCR once Celtic interconnector commissioning is finalized



- The process is still in the investigative phase.
- So far, ACER has identified the need to further examine the TSOs' proposal.
- In addition to the usual meetings that are part of the process, ACER will also organise smaller meetings with the respective TSOs and NRAs to discuss specific aspects of the proposal.





# Thank you for your attention.

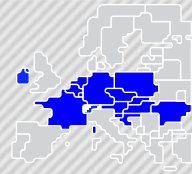


European Union Agency for the Cooperation  
of Energy Regulators

 [info@acer.europa.eu](mailto:info@acer.europa.eu)  
 [acer.europa.eu](http://acer.europa.eu)

 [@eu\\_acer](https://twitter.com/eu_acer)  
 [linkedin.com/in/EU-ACER/](https://www.linkedin.com/in/EU-ACER/)

# 4. Long-Term Capacity Calculation



Q&A based on questions provided before the meeting

Answers are not by definition a common TSO position

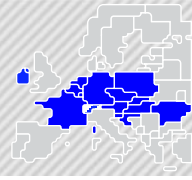
// run for LTFBA

- Q: For the Yearly 2026 run in France in Max Net Positions, will the final Yearly value be the minimum of the following 24 run (scenarios)/values (see below in yellow)
- A: It is a known issue with the publication of the EXT//RUN when Max NP is shown per the TS domain and not the final merged domain. TSOs are working on fixing the issue. In general, the final domain is the intersection of TS domains; the final Max NP will follow this logic and can be expected to be on the lower end (it can be even lower than the minimum of the 24 TS after merging).

On the concept of Max NP and the displayed values, the optimisation is done for the potential exchanges based on the trading opportunity given by the FB domain, not the real trading outcome NP (e.g. from DA). It is the Max Exchange possible based on the Yearly or Monthly calculation outcomes with benchmark application.

Date	Min ALBE	Min ALDE	Min AT	Min BE	Min CZ	Min DE	Min FR	Min HR	Min HU	Min NL	Min PL	Min RO	Min SI	Min SK	Max ALBE	Max ALDE	Max AT	Max BE	Max CZ	Max DE	Max FR	Max HR	Max HU	Max I
2026 S01	-1000	-1000	-9232	-7459	-5409	-14931	-10710	-8086	-6683	-7007	-6957	-2435	-6251	-7230	1000	1000	6560	8188	6285	11345	7466	5306	10452	6
2026 S02	-1000	-1000	-9196	-7646	-5431	-14974	-11016	-4100	-6549	-7259	-6942	-2408	-6151	-7230	1000	1000	6581	8173	6510	11688	7481	4122	10387	6
2026 S03	-1000	-1000	-8877	-7288	-5268	-14777	-10618	-4696	-6786	-7122	-6872	-2409	-6169	-7229	1000	1000	6503	8367	6165	11334	7249	4015	10342	6
2026 S04	-1000	-1000	-8899	-7451	-5277	-14912	-11018	-5602	-6660	-7113	-6748	-2390	-6225	-7048	1000	1000	6528	8320	6309	11539	7537	4957	10306	6
2026 S05	-1000	-1000	-10793	-10307	-7002	-17979	-7589	-3656	-7178	-7555	-5319	-1998	-7342	-3769	1000	1000	4886	7778	9711	15704	11507	4045	8113	7
2026 S06	-1000	-1000	-10761	-6968	-6846	-17737	-5748	-3027	-7237	-7288	-5303	-2098	-7154	-3890	1000	1000	4734	7421	9843	14843	9881	3931	7781	7
2026 S07	-1000	-1000	-10710	-9903	-5615	-17282	-5682	-3358	-7596	-6797	-5382	-1940	-6963	-4380	1000	1000	4783	8004	9436	11618	11119	3453	9277	7
2026 S08	-1000	-1000	-9605	-9757	-6443	-18235	-6020	-4980	-7412	-7438	-5207	-1936	-6822	-4831	1000	1000	4722	8011	9188	12095	10930	4947	8602	8
2026 S09	-1000	-1000	-10005	-9922	-5632	-17439	-5620	-3061	-7621	-5281	-5969	-2069	-6173	-3990	1000	1000	4588	8159	7856	11641	10984	3759	8274	7
2026 S10	-1000	-1000	-10256	-9924	-5673	-17438	-5619	-9090	-7614	-5283	-5961	-2252	-6331	-3989	1000	1000	4719	8159	7880	11637	10982	4856	8950	7
2026 S11	-1000	-1000	-6985	-7716	-6198	-16453	-7793	-2876	-7149	-4758	-6027	-1960	-4040	-5289	1000	1000	4997	4894	8220	8591	8705	1088	6407	6
2026 S12	-1000	-1000	-7092	-6319	-6496	-17709	-7920	-4237	-7161	-4903	-4419	-1842	-3116	-5984	1000	1000	4732	5779	8345	8997	7966	3485	6465	7
2026 S13	-1000	-1000	-6664	-6167	-6264	-17531	-7630	-4130	-8263	-4976	-5972	-2328	-4632	-5441	1000	1000	6186	5809	8097	9018	7325	3808	7429	7
2026 S14	-1000	-1000	-7175	-6469	-5417	-16035	-7153	-4498	-8038	-5159	-6551	-2528	-4867	-5645	1000	1000	6118	5917	8320	8816	6263	4248	7405	6
2026 S15	-1000	-1000	-7075	-7110	-5470	-16694	-6806	-4423	-6060	-4773	-5735	-1934	-4936	-5391	1000	1000	5544	6301	7433	7872	8962	3006	5594	6

# 4. Long-Term Capacity Calculation



Q&A based on questions provided before the meeting

Answers are not by definition a common TSO position

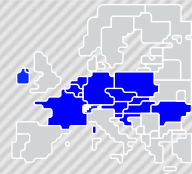
// run for LTFBA

- Q: For the Monthly February 2026 run in Max Net Positions, we see high values (up to more than 10GW in France as shown below): are they realistic as we have never seen this in the past
- A: NP BZs are optimised in a way to find Min and Max NP for the specific BZ, it is a hypothetical scenario based on optimisation and not on the real trading outcome. In line with the previous answer, the currently displayed NPs are per the TS domain and not the final domain.

Net positions published on JAO do not reflect the real trading outcome. It is not possible to give a quantitative prediction of the outcomes of the auctions, as they will strongly depend both on the size of the final domain, and the behavior of the market through the bids of market participants.

Date	Min ALBE	Min ALDE	Min AT	Min BE	Min CZ	Min DE	Min FR	Min HR	Min HU	Min NL	Min PL	Min RO	Min SI	Min SK	Max ALBE	Max ALDE	Max AT	Max BE	Max CZ	Max DE	Max FR	Max HR	Max HU	Max NL
2026 S01	-1000	-1000	-11122	-10065	-6116	-14989	-9950	-5540	-6075	-7001	-5478	-2069	-6477	-7083	1000	1000	6620	7677	5481	11333	9033	4905	10360	6859
2026 S02	-1000	-1000	-11120	-9971	-6123	-14941	-9923	-5540	-6063	-6978	-5493	-2064	-6398	-7076	1000	1000	6641	7682	5481	11213	8997	4903	10361	6832
2026 S03	-1000	-1000	-8884	-10406	-6120	-12926	-9340	-5618	-6179	-6941	-5140	-2072	-6133	-7075	1000	1000	6735	8099	5694	10103	10097	4984	10737	5032
2026 S04	-1000	-1000	-8884	-10406	-6120	-12926	-9340	-5618	-6179	-6941	-5140	-2072	-6133	-7075	1000	1000	6735	8099	5694	10103	10097	4984	10737	5032
2026 S05	-1000	-1000	-8867	-7685	-6153	-14466	-10935	-5647	-6754	-7009	-5157	-2080	-6228	-7048	1000	1000	6640	8364	6161	10651	8839	5014	10408	6437
2026 S06	-1000	-1000	-8867	-7685	-6153	-14466	-10935	-5647	-6754	-7009	-5157	-2080	-6228	-7048	1000	1000	6640	8364	6161	10651	8839	5014	10408	6437
2026 S07	-1000	-1000	-9114	-10583	-5814	-13802	-11176	-5521	-7347	-6486	-5314	-2169	-6257	-7262	1000	1000	5723	8445	6148	10562	11229	4627	10791	5502
2026 S08	-1000	-1000	-9361	-10568	-6171	-13844	-11174	-5554	-7281	-6492	-5381	-2158	-6265	-6840	1000	1000	6740	8443	6068	10596	11209	4623	10745	5498

# 4. Long-Term Capacity Calculation



Q&A based on questions provided before the meeting

Answers are not by definition a common TSO position

// run for LTFBA

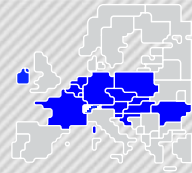
- Q: For the Yearly 2026 run in France in User Grid Model, we see the same value 73808 MW for France. Why do we have the same values for all the different runs (S01 to S08) ?
- A: The screenshot shows monthly run User Grid Models, while the question refers to yearly. It is correct that for the monthly calculation, one grid model corresponding to the respective season is used for all time stamps, hence the values are the same. In the case of yearly (see the screenshot below), all seasonal grid models are used, and therefore, the values would change across TSs based on seasons. Please also note that the differentiating factor of these timestamp CGMs is the mapped outages.

Information about the Used Grid Model

Date	AT	BE	CZ	DE/LU	FR	HR	HU	NL	PL	RO
2026 S01	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S02	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S03	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S04	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S05	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S06	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S07	9931	8010	8763	29196	73808	1050	6169	11207	21838	802
2026 S08	9931	8010	8763	29196	73808	1050	6169	11207	21838	802

## 4. Long-Term Capacity Calculation

P. BRHILKOVA

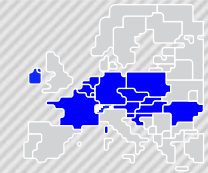


Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

// run for LTFBA

- Q: Market participants note that the Core NRAs did not approve the initial amendment to the long-term capacity calculation methodology. Currently, ACER is conducting a consultation regarding the proposed amendments. Considering the ongoing decision-making process, is it likely that the go-live for the LT FB will be postponed from November 2026 to November 2027, rather than being implemented as originally scheduled?
- A: *To be addressed orally given that ACER have presented the status of the LTCCM amendment escalation*
- Q: Generally, market participants would appreciate a clear and direct channel of communication concerning the implementation of flow-based allocation in the long-term timeframe, as well as timely updates on any changes. Questions submitted via JAO have not always received responses. It is essential for market participants to understand the various issues involved to ensure appropriate implementation on their side.
- A: Core TSOs appreciate the reaction and highlight that any capacity calculation questions can be raised via the Core SG Q&A forum. For allocation related questions, Sava Comonos (Conomos@jao.eu) is the contact person.



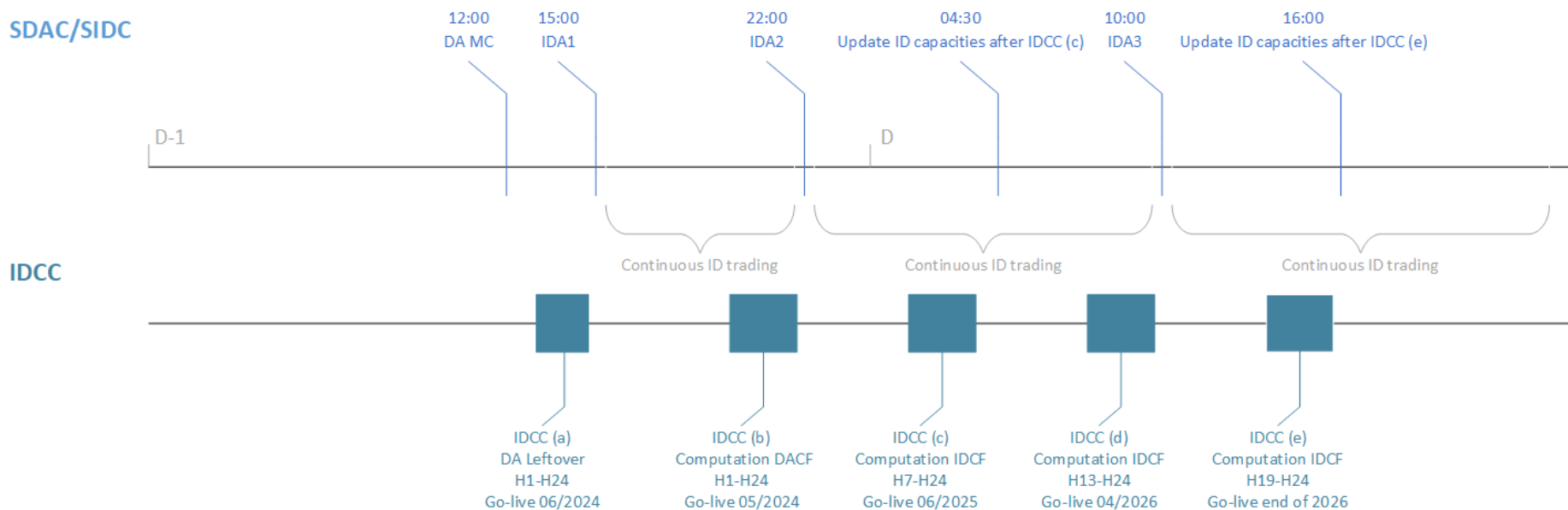
## IDCC Process Overview

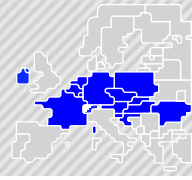
### Introduction

- Core TSOs have implemented IDCC(a-c) and are working towards go-live of IDCC(d) and IDCC(e) in 2026.
- The capacities are provided simultaneously to the JAO publication tool and to XBID. Once the capacities are accepted by XBID, they are available for trading.
  - For example, the intraday capacity calculation methodology requires the capacities for IDCC(c) to be published and submitted by 04:30. The target timing that TSOs have implemented to deliver and publish the capacities is 04:13, whereas 04:30 is taken as strict deadline.

Find below an overview of the respective IDCC processes in relation to market coupling:

### SDAC/SIDC





## IDCC(d) go-live planning

### Reminder

- IDCC(d) will provide updated capacities before 10:00 for IDA3, after which the remaining capacities will be released to intraday continuous trading.

Core TSOs are glad to report the current process stability and KPI results from the IDCC(d) external parallel run. The Core IDCC(d) parallel run is demonstrating good stability.

- From the KPIs, it is also possible to conclude a stable pattern since start of external parallel run.
- See results of the IDCC(d) parallel run on the next slides.

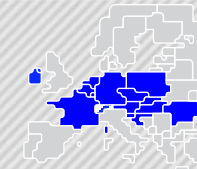
### Core TSOs are aiming for an IDCC(d) go-live on April 28th 2026

- The next milestone is the implementation of the go-live Core Capacity Calculation tool release and switch to production in April after finalizing the remaining tests.

### Status of individual validation

- Core TSOs deem the current // run results representative, thus no significant impact is expected from the deployment of individual validation. In any case, TSOs continue to monitor the KPI results. Fallback procedures have been defined in case the regular process for individual validation fails.

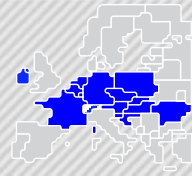
# 5. Intraday Capacity Calculation



## Overview of individual validation

Note: “none” for fallback means no reduction in capacities applied in case the individual validation fails.

Core TSOs	Happy flow validation	IVA	Start date	ATC	Start date	Fallback procedures currently applied	Fallback procedure after go-live
<b>50Hertz</b>	IVA	Yes	BD20260203	Yes, as fallback	Before GL	None	ATC fallback
<b>Amprion</b>	IVA	Yes	BD20260203	Yes, as fallback	Before GL	None	ATC fallback
<b>APG</b>	Both IVA/ATC	Yes	BD20260203	Yes	Before GL (as IVA Fallback), Mid March (ATC Validation)	None	ATC fallback for IVA validation
<b>ČEPS</b>	IVA	Yes	30/03	No	N/A	None	None
<b>ELES</b>	IVA	Yes	Last week of March	No	N/A	None	None
<b>ELIA</b>	N/A	No	N/A	No	N/A	N/A	N/A
<b>HOPS</b>	IVA	Yes	by the end of April	No	N/A	None	None
<b>MAVIR</b>	IVA	Yes	BD20260406	No	N/A	Calculated IVA in the vicinity of the realized MCP for the presolved elements either via CB file or GUI	Calculated IVA in the vicinity of the realized MCP for the presolved elements either via CB file or GUI
<b>PSE</b>	Both IVA/ATC	Yes	19/05	Yes	Before GL	None	None
<b>RTE</b>	ATC	No	N/A	Yes	From GL	None	None
<b>SEPS</b>	IVA	Yes	BD20251201 (//run validation)	No	N/A	None	None
<b>TTN</b>	IVA	Yes	BD20260414	Yes, as fallback	Before GL	None	ATC fallback
<b>TTG</b>	IVA	Yes	BD20260203	Yes, as fallback	Before GL	None	ATC fallback
<b>Transelectrica</b>	IVA	Yes	BD20251028 (//run validation)	No	No	None	None
<b>TBW</b>	IVA	Yes	BD20260203	Yes, as fallback	Before GL	None	ATC fallback



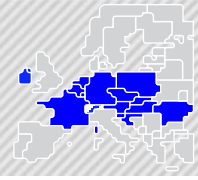
### Background of KPI results (85 BDs):

- Three KPIs are presented:
  - Frequency of Zero and Negative ATCs
  - Frequency of Import, Export and Total Bidding Zone isolations
  - Mean Positive ATCs
- The KPIs show the difference (in ATCs, bidding zone isolations, ..) compared to what would have been the ATCs when IDCC(d) had not been there. Hence, it does not show the difference between the results from IDCC(d) and IDCC(c) but considers the AACs until IDCC(d).
- KPIs are focused on comparison between two datasets:
  - The capacity results for the INT // run for IDCC(d)
  - The results from the operational IDCC(c) process from the same BDs.
- The deltas are defined as:
  - $IDCC_d^{ATC\_before} = IDCC_c^{NTC} - IDCC_d^{AAC}$  where  $AAC(x) = NTC(x) - ATC(x)$
  - $\Delta KPI = KPI(IDCC_d^{ATC}) - KPI(IDCC_d^{ATC\_before})$
  - In which the KPI function is the applicable KPI for the graph
- During the last weeks, several issues have occurred that are external and not directly related to the stability process itself. On January 7th, 17th and 18th, a triggered fallback was observed.

### Disclaimers

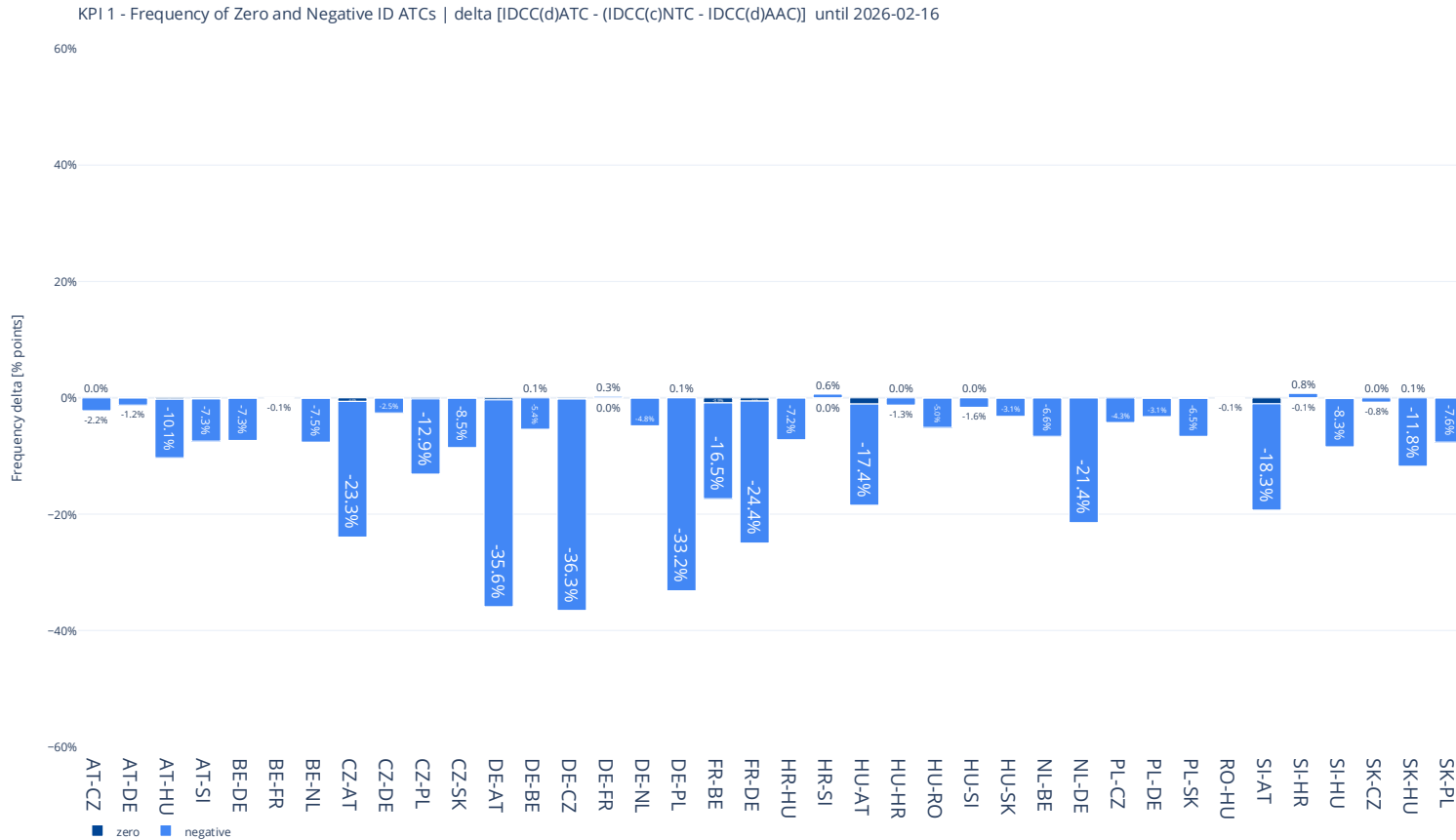
- TSOs are still developing their individual validation tools. As agreed, all TSOs will start performing individual validation 6 weeks before go-live.

# 5. Intraday Capacity Calculation



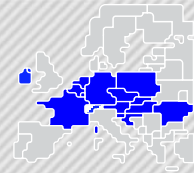
IDCC(d) EXT // run - KPI results BD20251021 – BD20260216

KPI1: Frequency of Zero and Negative ID ATCs (delta), **negative** value is **improvement** here



- This graph shows how many Zero and Negative ATCs there are in IDCC(d) compared the results from IDCC(c).
- Overall, less Negative ATCs occur after to the IDCC(d) calculation.

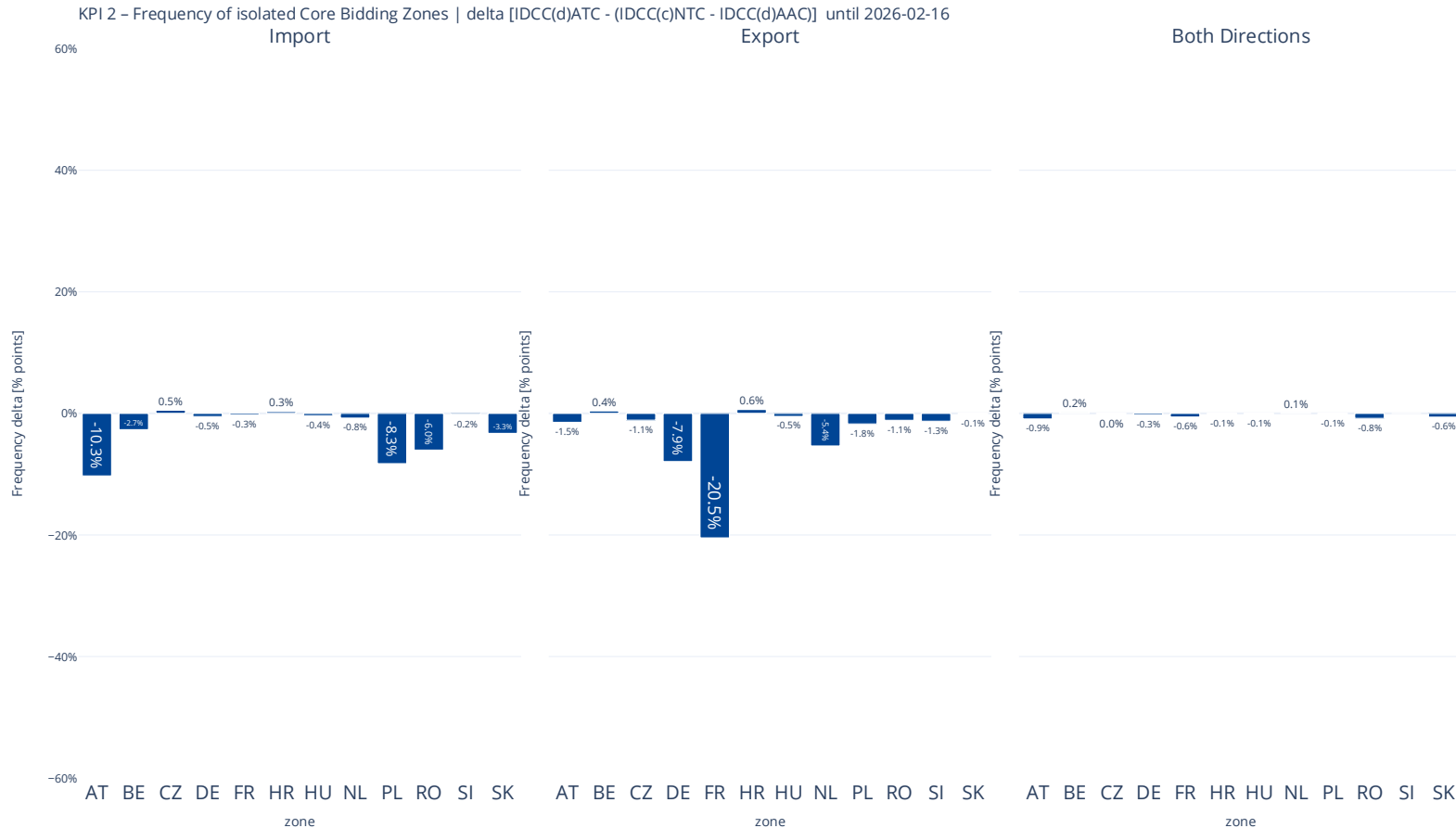
# 5. Intraday Capacity Calculation



Pre-read

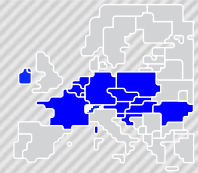
IDCC(d) EXT // run - KPI results BD20251021 – BD20260216

## KPI2: Frequency of isolated Core Bidding Zones(delta), **negative** value is **improvement** here



- Bidding Zone isolation means that there is no more cross border capacity (ATC <= 0) left for that certain Bidding Zone
- The graph shows the difference in BZ isolation for Import, Export and Both directions. Overall, less BZ isolations occur after the IDCC(d) calculation.

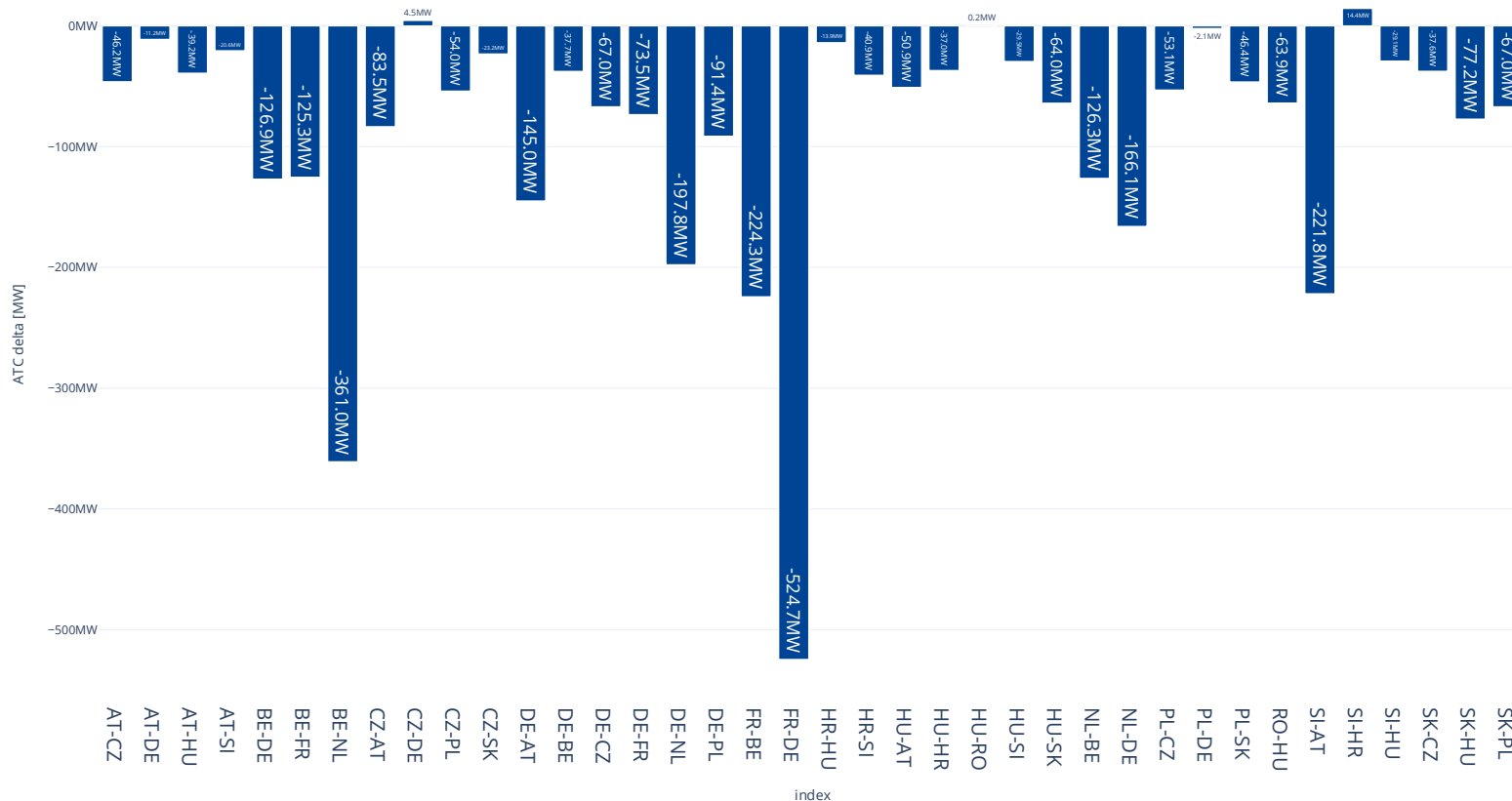
# 5. Intraday Capacity Calculation



IDCC(d) EXT // run - KPI results BD20251021 – BD20260216

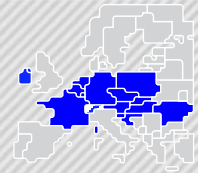
## KPI3: Mean Positive ID ATCs (delta), positive value is improvement here

KPI 3 – Mean Positive ID ATCs | delta [IDCC(d)ATC - (IDCC(c)NTC - IDCC(d)AAC)] until 2026-02-16



- This graph shows the difference in mean positive ATCs per bidding zone border.
- Overall, the results show a lower positive mean ATC for most bidding zone borders. This can be explained by the reflow effect describing situations where the average positive ATC across all borders may decrease, as additional but lower positive capacities can now be offered on more borders and in more situations.

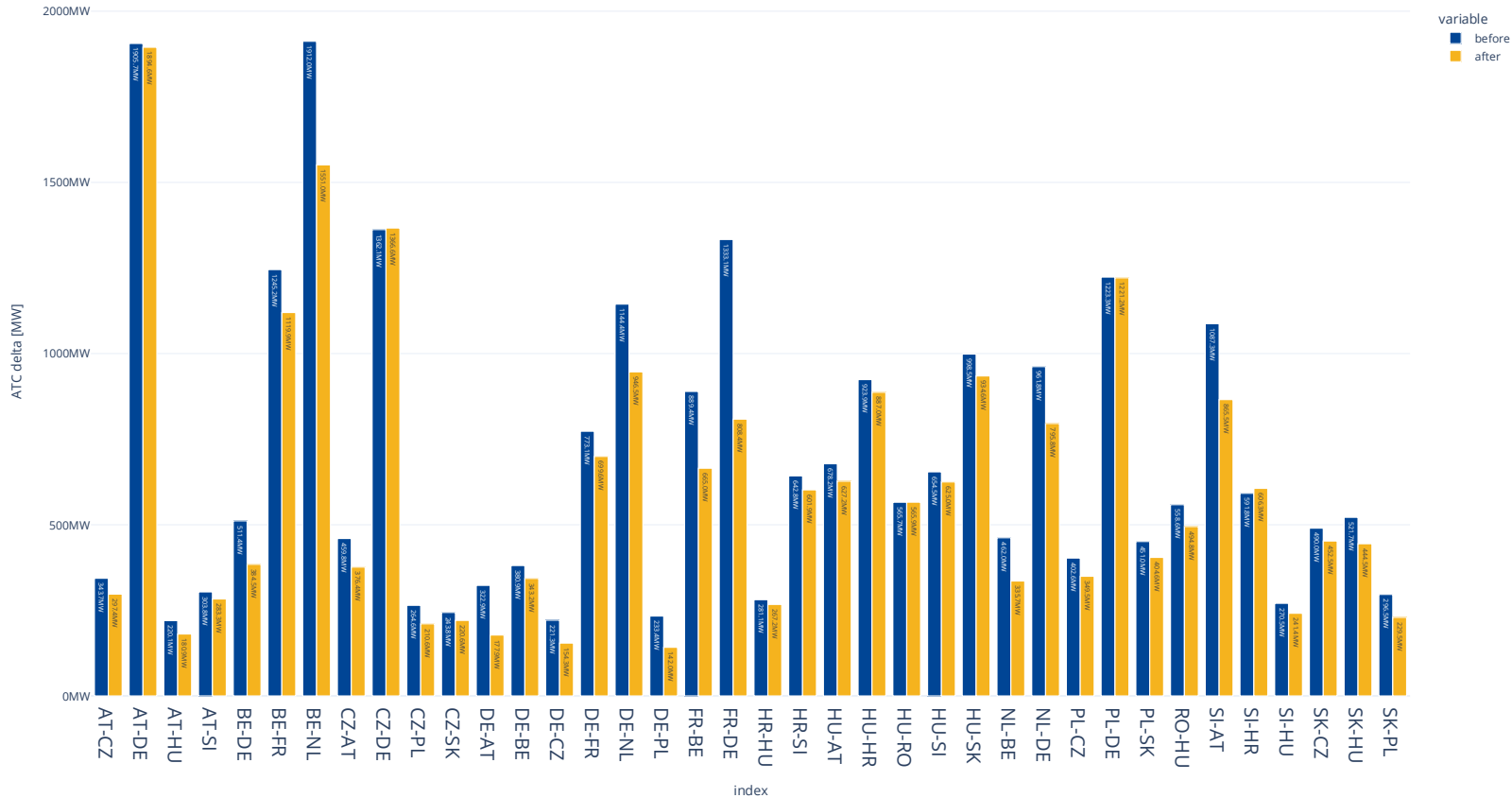
# 5. Intraday Capacity Calculation



IDCC(d) EXT // run - KPI results BD20251021 – BD20260216

## KPI3: Mean Positive ID ATCs (delta), multiple bar version

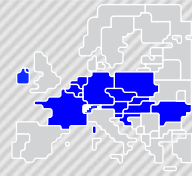
KPI 3 – Mean Positive ID ATCs | after: IDCC(d)ATC | before: (IDCC(c)NTC - IDCC(d)AAC) until 2026-02-16



- This graph shows the mean positive ATCs per bidding zone border for IDCC(d) and IDCC(c).
- Before: IDCC(c), After: IDCC(d)

## 5. Intraday Capacity Calculation

P. THOMAS



### IDCC(e) go-live planning

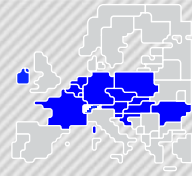
#### Reminder

- IDCC(e) aims to provide updated capacities before 16:00, which will be released directly to intraday continuous trading.

#### Core TSOs plan to go-live with IDCC(e) in October 2026

#### IDCC(e) implementation timeline:

- **March 2026:** IDCC(e) INT //run
- **April – September 2026:** IDCC(e) EXT //run
- **October 2026:** IDCC(e) go-live



### minRAM Study Timeline and Status

#### Reminder

- Core TSOs are conducting a minRAM assessment in which a 5% minRAM requirement is applied around RefProg and capped using a pre-defined MACZT capping value for each TSO region.
- The study covers BD samples from January to September 2025, which includes at least 4 months of individual validation. Results will be shared with MPs through the usual channels.
- Core TSOs initially aimed to finalise the report in March 2026, but due to delays during the individual validation phase, it is now postponed to late Q2.

#### Core TSOs are finalizing the computations and have started analyzing and assessing the results

#### Status update on Capacity Improvement Study deployment in Q1/Q2 2026

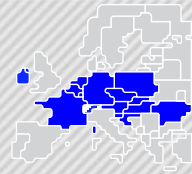
- Feasibility of further improvements are subject to the performance gains in CCCT 4.2 and needs an assessment once on production.

#### Next steps

- Expectation is to give update on the minRAM results during the next CG meeting in October 2026.

## 5. Intraday Capacity Calculation

P. THOMAS



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

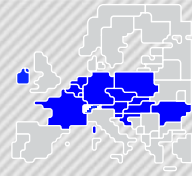
### Recent capacity curtailments, DA/ID deliverability and intraday continuous liquidity

*Associated TSOs to respond in the coming weeks offline, so following questions will not be addressed today*

- Q: Several borders experienced significant capacity curtailments for delivery period 07-03-2026 (e.g., SI-AT, HU-AT, AT-DE, AT-CZ, GR-IT). Can TSOs provide a short ex-post root-cause report per border: binding assets/CNECs, why risk was not prevented earlier, and what will change in CC/validation to reduce recurrence?
- Q: Why did some borders fall to only a few MW remaining after curtailment? Is this driven mainly by modelling uncertainty, stability constraints, or remedial-action feasibility/lead-time limits?
- Q: How long in advance will be the new API format be communicated to MPs ? We want to avoid the ID scenario when the production API was changed on D day, creating many operational issues.
- A: With the start of the external parallel run, the API format will be in use for the external parallel-run publication tool under <https://parallelrun-publicationtool.jao.eu/>. The API format in the production environment of the JAO publication tool will change with the go-live date.

*Given the nature of the following questions, TSOs deem it more appropriate for market parties to raise these in MCSC context.*

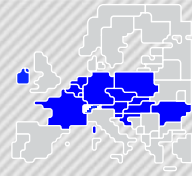
- Q: In stress periods, intraday continuous market liquidity often drops at the same time as ATC is reduced. Which liquidity KPIs do TSOs/NEMOs track (order-book depth, bid-ask spreads, matched volume per MTU, active participants) and how are these correlated with ID ATC reductions and balancing costs?
- Q: Should ID auctions (IDAs) play a stronger resilience role when continuous ID liquidity is weak? What changes (products, capacity allocation to IDAs, gate closures) would be required to make IDAs effective for CE/SEE corridors?



## Introduction

### Objectives for today's discussion

- Present to MPs considerations around the removal of LTA inclusion regarding when DA DFP statistical domains will be made available to MPs.
- Present to MPs a status update on AHC including:
  - Go-live planning
  - Additional SPAICC-like run
  - Publication of shadow prices for AHC
- Present to MPs the status of the CH consideration solution and monitoring since go-live
- Present to MPs the CGM roadmap for 2026 as Core TSO response to ACER recommendations following high price spikes in SEE in 2024
- Present to MPs the GLSK study outcomes that were incorporated into the Core DA CCM 4<sup>th</sup> amendment



### Removal of LTA inclusion

#### Introduction

- Core DA CCM 4<sup>th</sup> amendment topics were presented to MPs on 16/10
- Core TSOs included the removal of LTA inclusion in the 4<sup>th</sup> amendment of the Core DA CCM submitted to NRAs in early December
- During the CG on 16/10, Core TSOs presented the proposals for substituting uses of LTA in Core DA CC
  1. Happy Flow
  2. Default flow-based parameters (DFPs)
  3. Shadow Auction ATCs (SA ATCs)
- MPs asked when DA DFP statistical domains will be made available

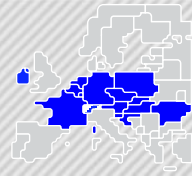
#### Core TSOs to set parameters for DFPs and publish first set of DFPs for market participants in Q2/2026

#### Background

- LTA inclusion is performed via the Extended LTA Inclusion (ELI), where both the Core flow-based domain and LTA domain are provided to SDAC/Euphemia
- The removal of LTA inclusion is an underlying assumption in all ENTSO-E & ACER models for a revised forward market design
- Proposals for substituting all uses of LTAs and handling of PTR borders have been developed

#### Next steps

- Regulatory approval of Core DA CCM 4<sup>th</sup> amendment: oral update by NRAs
- Removal of LTA inclusion go-live together with LTCC go-live November 2026



### AHC

#### Reminder

- According to the Core DA CCM, Core TSOs shall:
  - By 31<sup>st</sup> of March 2025:
    - Have developed AHC
    - Have updated the explanatory note
    - Published an analysis that allows market participants to understand the impact of AHC
  - By 30<sup>th</sup> of June 2025:
    - Implemented AHC [...] The implementation is subject to the readiness of SDAC

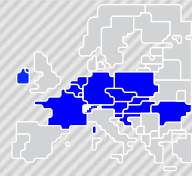
#### Objectives for today's discussion

- Present to MPs a status update on AHC including:
  - Go-live
  - Additional SPAICC-like run
  - Publication of shadow prices with AHC

Go-live date for AHC is 20 May 2026 with commitment to go-live before summer (see MCCG material from 04/03 - [LINK](#))

#### Next steps

- 03-04/2026: FIT & SIT testing with SDAC
- Conduct EXT//RUN
- Core AHC go-live on 20/05

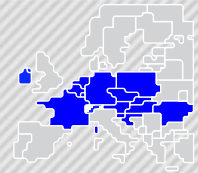


### AHC

#### Core TSOs to clarify if shadow prices for AHC borders will be published on JAO

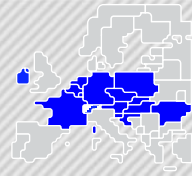
- MPs requested information on whether shadow prices for AHC borders will be published on JAO
- Core TSOs will publish all shadow prices for limitations in the Core FB domain, including Core AHC borders
- Core TSOs cannot publish information on limitations outside of their CCR, e.g.,
  - NTCs/ATCs form neighboring CCR limit exchanges on an AHC border (e.g., SEE CCR)
  - CNECs in neighboring CCR limit exchanges on an AHC border via neighboring CCR's AHC (e.g., Nordic CCR)

# 6. Day-Ahead Capacity Calculation



## AHC



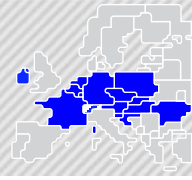


## AHC

### Additional SPAICC-like run

- During Core CG 10/2025, MPs requested another SPAICC-like run in case AHC is further delayed
- On 05/12, Core TSOs and MPs aligned on the framework for an additional SPAICC-like run for AHC
  - SPAICC like run #5 will be performed in the coming weeks.
  - Given limited IT environment availability due to multiple parallel changes / testing phases, the number of BDs for AHC SPAICC-like run #5 is limited to 7
  - Structure of AHC data will remain unchanged, as no changes to CCCT have been made in the meantime
- MPs provided the following BDs in line with principles agreed during preceding SPAICC-like runs (e.g. no public holidays)

Date	Specificity	Week/Weekend	Post-15min?
11/05/25	Very low, negative prices (BE, NL, DE, ...) + minimal Day-ahead prices, including periods of negative prices too	Weekend (Sunday)	No
1/07/25	Very high prices (heat wave)	Week (Tuesday)	No
24/10/25	Extreme: <b>High</b> DE wind (45 GW avg)	Week (Friday)	Yes
8/11/25	Extreme: <b>Low</b> DE wind (2 GW avg)	Weekend (Saturday)	Yes
14/11/25	max. Day-ahead prices after October 2025	Week (Friday)	Yes
26/11/25	Excellent example of the impact of the Genoa cyclone in the SEE and CE region when due to sudden precipitation, snow melting, high wind generation and solar generation, it was very stressful day for entire power system in the region	Week (Wednesday)	Yes
20/12/25	maybe keep this date → the goal is to have a date to test the update for minimum RAM at 70% in NL. TSOs may wish to determine the most suitable day for this.	Weekend (Saturday)	Yes



### CH Consideration

#### Introduction

- The CH consideration solution allows Swissgrid to participate in the Core day-ahead capacity calculation through the individual validation step.
  - If operational security within the Swiss transmission system cannot be maintained using remedial actions, Swissgrid may activate security constraints by including Swiss critical network elements in the Core day-ahead flow-based domain for market coupling, potentially limiting day-ahead market coupling.
- This milestone partially fulfils the initial objectives set out for the Swissgrid consideration in Core day-ahead capacity calculation. The originally targeted solution of coordinated NTC calculation on Swiss-Northern Borders and joint cross-regional validation of cross-zonal capacities will not be implemented.
  - Core TSOs, Swissgrid, Core NRAs, and EICoM have jointly decided to bypass this step and allocate resources towards implementation of Coordinated Validation and day-ahead capacity calculation in Central Europe CCR (with Swissgrid as an equitable member).
- Future considerations regarding Swissgrid's participation in Central Europe day-ahead capacity calculation will be governed under the Central Europe CCR day-ahead capacity calculation implementation project.

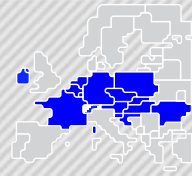
#### The CH consideration solution in Core day-ahead capacity calculation went live on BD 11/03

#### Core TSOs to present proposed approach to process monitoring of the CH consideration solution

- Swissgrid will ensure the Core reporting tooling considers CH information when generating the annual, quarterly, monthly and minMACZT reports. Swissgrid will report the studied Core circumstances and congested network element that led to IVA application

#### Next steps

- Present monitoring of CH consideration solution during October CG



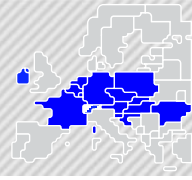
An impact assessment was performed in August 2025 as part of the go-live preparatory activities by TSOs.

#### Simulation Approach

- 21 BDs (504 timestamps) retrieved from Core AHC SPAICC-like run #4 were simulated.
- For each timestamp, 20 Core circumstances are selected based on the approach designed for Core Coordinated Validation
- Security analysis is performed on each of the 20 selected Core circumstances on the CH VNECs submitted to the CCCT
- RAO considering non-costly and costly RAs (internal RD) from Swissgrid is executed when violations are identified.
- If violations persist after exhausting available RAs, CRV principles are applied to determine the share of capacity reductions between NTCs on the Swiss Northern Borders and Core
  - 20% of Fmax is always guaranteed for Core on CH elements
  - IVAs on non-CNECs (PTDF < 5%) are transferred to a suitable CH CNEC (lowest angle difference to overloaded element)

#### Main outcomes of the impact assessment

- The simulated period shows a 3% frequency of IVA submission. More recent Swissgrid-internal simulations in the past two months (as preparation for go-live) have even shown no IVA submission necessary.
- On the few occasions where IVA application was deemed necessary, the overloaded elements show a high loading with Core exchanges at the studied circumstances (up to 95% of Fmax).
- The impact of Core capacity reductions submitted by Swissgrid are mostly visible on Germany and France
- The impact on market coupling results has not been analysed.



#### Introduction

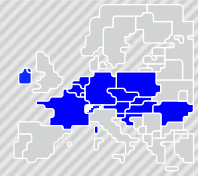
- In response to high electricity prices in the summer of 2024 in South-Eastern Europe, the European Commission established the Energy Union Task Force and requested ACER to assess measures to increase cross-zonal capacities and flexibility.
- At the MESC meeting on 03/12/2025, ACER presented recommendations to TSOs regarding potential short-term measures (before summer 2026) to increase capacities, including further improvements in grid model quality and use of the most representative IGMs across CCRs and RCCs (Energy Traders Europe also reiterated expectations for having improved CGMs)

#### Objective

- Core TSOs to present the CGM improvement roadmap, as part of the continuous improvement of the CGM and as the Core TSOs' response to ACER recommendations and MP expectations

*Note: The current set and timeline of developments for CGM improvements are indicative and non-exhaustive, and their implementation is subject to an assessment of the impact on the quality of the CC process.*



# 6. Day-Ahead Capacity Calculation

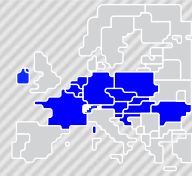


## CGM roadmap

	2025	2026				2027
	Q4	Q1	Q2	Q3	Q4	Q1
<b>Development 1 UA/MD DACF model split</b> <i>Split of joint UAMD DACF model into single UA and single MD model</i>		went live on 20/01/2026				
<b>Development 2 Core &amp; Italy North common D-2 CGM</b> <i>Core &amp; Italy North common D2CF CGM creation; pre-requisite for Central Europe CCR</i>						
<b>Development 3 Integration of D2CF models of Balkan TSOs</b> a) Agreeing and signing of NDA b) Testing and quality assessment c) Balkans D2CF implementation						
<b>Development 4 Integration of D2CF models of UA and MD</b> a) UA and MD adherence to NDA b) Testing and quality assessment c) UA and MD D2CF implementation						
<b>Development 5 Extension of NPF to further non-Core BZs</b> <i>Development of NPF for all BZs in D2CF CGM</i>						
<b>Development 6 Country GLSK for non-Core TSOs</b> <i>Switching from load only shifting to prop. to gen&amp;load shifting for non-Core TSOs</i>						
<b>Development 7 Target flow for (AT) PSTs*</b> <i>Implementation of target flow solution for (AT) PSTs</i>						
<b>Development 8 Integration of German HVDCs</b> <i>Modeling of Inner German HVDCs</i>						
<b>Development 9 Integration of Ireland**</b> <i>Integration of Ireland D2CF in CGM</i>						

\* exact timeline and geographical scope is subject to further technical assessment  
 \*\*to be confirmed in February '26 once further assessing vendor and TSO readiness

 Developments related to ACER recommendation  
 Other Developments



### GLSK study outcomes

#### Introduction

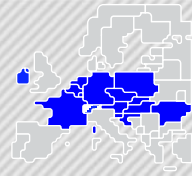
- The Core DA CCM requires Generation Shift Key (GSK) harmonisation as a ‘post go-live study’. Two Generation Load Shift Key (GLSK) studies have been performed.
- The aim is to adhere to the legal obligation to harmonise GSKs and reflect findings of GLSK studies

#### Objectives for today’s discussion

- Present to MPs the GLSK study outcomes that were incorporated into the Core DA CCM 4<sup>th</sup> amendment

#### Background

- Request from the Core DA CC methodology according Article 9(6): “all TSOs shall develop a proposal for further harmonisation of GLSK methodology.... The proposal shall at least include”:
  - a) The criteria and metrics for defining the efficiency and performance of GLSKs and allowing for quantitative comparison of different GLSKs;
  - b) A harmonised generation shift key methodology combined with, where necessary, rules and criteria for TSOs to deviate from the harmonised generation shift key methodology



### GLSK study outcomes

#### Core GLSK Study 1

- **Conceptual work** on GLSK targets and fundamentals
- **KPIs** for evaluation and quantitative comparisons of GLSKs per TSO
- Assessment of qualitative status quo of GLSK and individual grid model (IGM) modelling via questionnaires
- Large-scale **historical data analysis** of GLSK related data for one year

#### Outcome

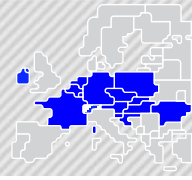
- Set of **KPIs** for GLSK evaluation
- Definition of main KPI for assessment of GLSK quality
- Quantitative assessment of status quo

#### Core GLSK Study 2

- Selection of candidate GLSK strategies for evaluation
- **Modelling of several GLSK strategies**
- **Simulation** of the performance of various GLSK strategies, simulating them being applied for each TSO

#### Outcome

- Quantitative results and KPI analysis
- Identification of well-performing GLSK strategies
- Request for amendment



### GLSK study outcomes

#### Fundamentals

- **Primary target:** modelling of shift of system state to potential market situations, in particular to the Market Clearing Point (MCP)
- **Main KPI:** Mean absolute error of **nodal forecasting error** (NFE): Delta of nodal powers in Day Ahead Congestion Forecast (DACF) IGMs and corresponding D2CF IGM, which is shifted by the GLSK to the MCP.

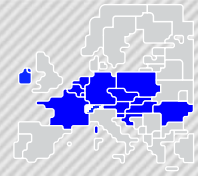
#### Simulations

- For each TSO, 9 GLSK methodologies (plus parameter variations) have been simulated for the year 2023.
- GLSK methodologies are selected based on 3 design choices: **computation principle** of GLSK values, **node selection** and the **LSK** component.

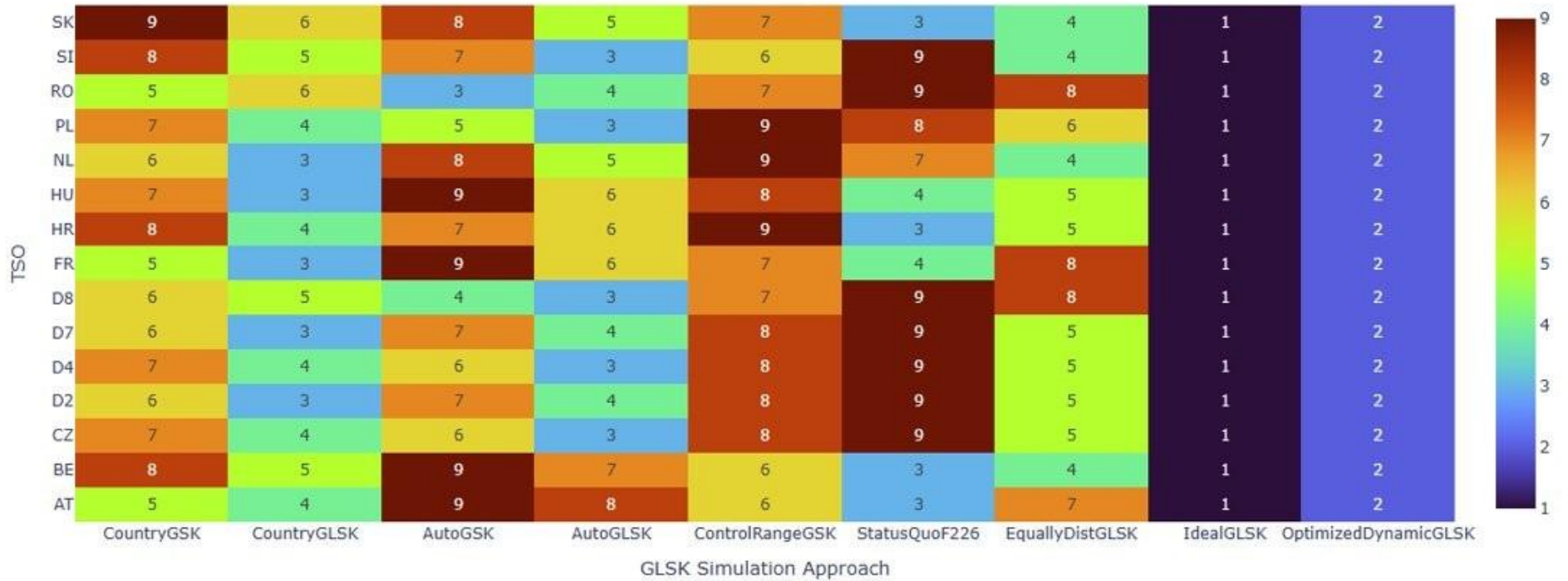
#### Conclusions

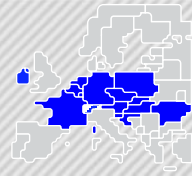
- In the comparison of GLSKs with pure GSKs, the GLSK variant performs generally better, and including load nodes is beneficial.
- The statistical node selection sometimes improved and sometimes decreased the performance compared to simply considering all nodes. Therefore, allow for node selection.
- The **Country GLSK** as a simple method performs comparatively well for many TSOs. A complex GLSK based on machine learning and optimization (**Dynamic optimized GLSK**) performs best for all TSOs.

# 6. Day-Ahead Capacity Calculation



GLSK study outcomes



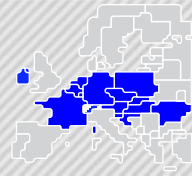


### GLSK study outcomes

#### Approach to the amendment of Article 9:

1. Define the NFE as quality metric for GLSK.
    - The NFE is the most suitable KPI to measure GLSK quality.
  2. Define the Country GLSK as the baseline for GLSK quality.
    - Ease of implementation and good performance qualifies the Country GLSK as the harmonised approach.
  3. Definition of monitoring and requirements for TSOs to adopt the harmonised GSK methodology
    - Allow TSOs to use any GLSK methodology as long as it outperforms the harmonised approach.
    - Annual monitoring based on the NFE will be introduced to ensure consistent GLSK quality.
- 1a. The quality of the GSK shall be quantified by evaluating the nodal forecasting error (NFE). The NFE is defined as the sum of absolute deviations between nodal power injections or withdrawals in the DACF IGM at the Day-Ahead market clearing point (MCP) and those in the D2CF IGM shifted to the Day-Ahead MCP using the GSK.
  - 4a. Core TSOs shall implement the harmonised GSK methodology where the GSK values of each node contained in a TSO's IGM shall be defined in proportion to the absolute values of power injections and withdrawals in the IGM.
  - 4b. Core TSOs may deviate from the harmonised GSK methodology pursuant to paragraph 4a if the deviating strategy outperforms the harmonised GSK in terms of the NFE.
    - (a) As part of the reporting obligation pursuant to Article 26, the CCC shall monitor on an annual basis, for each TSO applying a GSK methodology deviating from the harmonised GSK methodology, the difference between the NFE of the harmonised GSK and their applied GSK methodology.
    - (b) A positive NFE difference indicates that a Core TSO's GSK outperforms the harmonised GSK.
    - (c) In case the reported NFE difference is negative, the concerned TSOs shall apply the harmonised GSK methodology as soon as possible.
    - (d) When switching to a deviating GSK methodology, the concerned TSOs shall provide an analysis covering a period of at least 6 months that shows that the deviating GSK methodology outperforms the harmonised GSK methodology.

Following the outcomes from the GLSK study, DE TSOs (TTG, AMP, 50Hz, TBW) have adapted their GLSK approach with CEPS and TTN intending to do so by the start of April.



### Publication of information

#### Current publication practice

- To date, TSOs communicated changes to capacity calculation inputs across different platforms, including the JAO Message Board and website, the ENTSO-E website and individual TSOs websites, examples:
  - Publications regarding changes in the GLSK method:
    - Go-live DE-LU - [LINK](#)
    - Announcement NL - [LINK](#)
    - Announcement BE - [LINK](#)
  - Explanation of the Core NPF approach - [LINK](#)
- As these publications are currently dispersed and often mixed with operational and market updates, Market Participants have expressed the need for a single, centralized location where all information related to capacity calculation inputs can be accessed

#### Core TSOs share the ambition and are working toward consolidating relevant documentation on the ENTSO-E website:

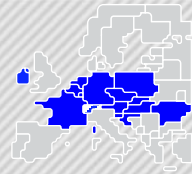
- Day-ahead capacity calculation explained – [LINK](#)
- This platform will serve as the central repository for study results, methodological explanations, and related communications.

#### Next steps

- Core TSOs will notify Market Participants once the information has been collated and is available on the ENTSO-E website

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

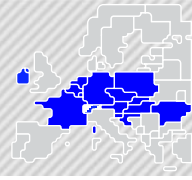
Answers are not by definition  
a common TSO position

### AHC, non-Core influence and deliverability across timeframes 1/2

- Q: With AHC planned/ongoing, will TSOs publish 'before/after' comparisons for periphery corridors (all / from Nordics, AT–SI–HR–HU and neighbours): changes in RAM distribution on key CNECs, UAF shifts, and any systematic change in decoupling/fallback risk?
- A: Other than during the external parallel run, there is no 'parallel' publication of flow-based parameters or differences between standard hybrid coupling (SHC) and advanced hybrid coupling (AHC). Changes of CNEC properties, such as RAM or Fuaf, can be observed during the external parallel run or manually computed by mapping the forecasted exchanges on Core AHC bidding zone borders. And no, there is no systematic change in risk for decoupling or fallback.
- Q: The agenda references the CH interim solution monitoring after go-live and multiple modelling workstreams (CGM roadmap, NPF forecast approach, GLSK study outcomes). Can TSOs provide a consolidated 'model quality dashboard' (D-2 vs real time) and explain how model quality errors translate into reduced DA/ID capacities and volatility?
- A: The monitoring of the Swiss consideration in Core day-ahead capacity calculation is within the scope of existing reporting and monitoring requirements as per capacity calculation methodology (e.g. monthly KPIs, quarterly and annual reports).  
A publication of differences between D-2 forecasts and real-time by means of a dashboard is not planned. The harmonised GLSK approach as proposed in the 4th amendment to the Core DA CCM foresees a monitoring of the nodal forecast error as part of the annual report.  
Interested parties may compare results from DA CC with the different stages of IDCC (e.g. reference loadings on CNECs). The necessary data is published daily on the JAO publication tool.
- Q: Will additional SPAICC benchmark days explicitly include 'bad days' (high volatility / low wind / high demand / constrained grid) so that changes are tested under canyon-shape conditions, not only average days?
- A: The business days for the AHC SPAICC-like run #5 were provided by market participants earlier this year. If any 'bad days' are among them is for market participants to judge.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

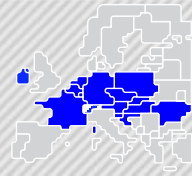
Answers are not by definition  
a common TSO position

### AHC, non-Core influence and deliverability across timeframes 2/2

- Q: Could TSOs further elaborate on the AHC implementation timeline now that the go-live date has been scheduled on the 20 May 2026? Is the 20 May the delivery date or the trading date?
- A: 21 May is the first delivery date with the associated day-ahead capacity calculation process starting on 19 May and the results being available on 18 May in the morning.
- Q: When will the AHC SPAICC like run start? Will there be information on the run provided before the go-live?
- A: Yes. The planning for AHC SPAICC-like run #5 is being finalised and, yes, the results of the AHC SPAICC-like run #5 will be published before the go-live of AHC.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

### DA CH consideration go-live (Swissgrid) — monitoring, transparency, non-regression 1/3

- Q: A Core TSO press release confirms go-live for Swissgrid's inclusion in Core DA capacity calculation for business day 11 March 2026, via the individual validation step. What are the concrete monitoring KPIs that will be reported to MPs after go-live (frequency of Swiss CNE activation, impact on RAM/MACZT, shadow prices, impact on price coupling and UAF)?
- A: The reporting largely follows the requirements of the Core DA CCM. Among the KPIs are the frequency of IVA application. Should a Swiss CNEC limit SDAC, this will be published – as for CNECs from Core TSOs – on the JAO publication tool.

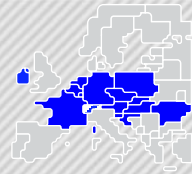
The following Core monthly operational KPIs have been extended to also feature CH information.

- Adjustment for minimum RAM inclusion:
  - KPI1: Average maximum AMR per CNE
  - KPI2: Average maximum AMR per TSO
- TSOs adjustment after validation:
  - KPI3: Share of MTUs with intervention per TSO
  - KPI4: Average IVA applied for each CNE affected by TSO intervention
- Market Impact Assessment:
  - KPI11: Most often presolved CNEs (top 20)
  - KPI12: Most limiting CNEs (top 20)

Furthermore, during the daily process, if a CNEC is sent by Swissgrid during individual validation it shall appear on the “Validation Reductions” and “(pre-) Final FB Computation” reports on the JAO publication tool. If the CNEC happens to limit the market, it will also be visible on the “Active FB constraints” panel.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

### DA CH consideration go-live (Swissgrid) — monitoring, transparency, non-regression

2/3

- Q: The press release states that Swissgrid may include Swiss critical network elements into the Core DA flow-based domain for SDAC when operational security cannot be maintained with remedial actions. How will MPs be informed in advance when such constraints are activated (lead time, publication of affected CNEs, expected capacity impact)?
- A: There is not dedicated information stream other than that, in such a case, Swiss CNECs with an IVA appear in the Core day-ahead flow-based domain.

Note that Swiss CNECs without IVAs will never limit the Core day-ahead flow-based domain. So, it is advised to monitor the 'Validation Reductions' data on the JAO publication tool to spot market time units for which Swiss CNECs with IVA are part of the Core day-ahead flow-based domain.

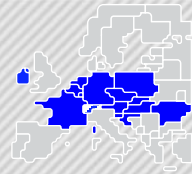
Similar as for other Core TSOs. As stated on previous point, the information on the CH constraints will be published on the JAO Publication Tool.

- Q: The originally targeted solution (coordinated NTC calculation on Swiss-Northern borders and joint cross-regional validation) will not be implemented, and resources are redirected towards coordinated validation in Central Europe CCR. What residual risks remain from bypassing that step (loop flows, cross-border capacity volatility), and what is the roadmap to address them?
- A: Other than the full consideration of the Swiss bidding zone borders in the Central Europe day-ahead capacity calculation process there is not (intermediate) measures foreseen.

The implemented solution already provides the visibility between the two regions and some control on level of transit flows by Swissgrid, despite the tight link to the cross-border capacities on Swiss-Northern Borders not being fully fulfilled. The tighter integration, with joint calculation of capacities, shall be materialized by implementation of the DA CC process in Central-Europe region, scheduled for January 2028.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

### DA CH consideration go-live (Swissgrid) — monitoring, transparency, non-regression

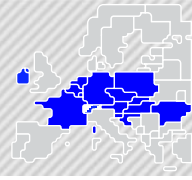
3/3

- Q: Which transparency obligations apply to Swissgrid under the amended Swiss Consideration Package (referenced as Article 17 in the press release), and where will MPs see the relevant artefacts (CNE list, PTDFs, RAM, validation logs)?
- A: The reporting requirements largely resemble the requirements for Core TSOs. Swiss CNEC properties, such as PTDFs, RAMs and IVAs, will be daily published on the JAO publication tool (IVAs only in case they are applied). Note that Swissgrid will also publish a static grid model twice a year, in line with Core TSOs.

The mentioned information will be registered in the publication tool as for any other Core TSO. There MPs can consult the CNECs sent by Swissgrid with the associated PTDFs and RAMs, as well as the justification for the submission of validation reductions, as well as the studied circumstance that led to its application.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

### CE/SEE resilience, extreme volatility and liquidity 1/2

- Q: Do TSOs agree that cross-zonal capacity availability is a primary mitigant of price spikes in low-liquidity bidding zones (incl. potential Energy Community integration effects)?
- A: Note that ACER is currently reviewing the price spikes in CEE/SEE in 2024 and proposing measures to mitigate their reoccurrence in the future.

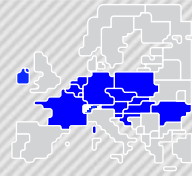
For TSOs reaction on this topic we kindly refer to this recent MESC communication [[LINK](#)].

- Q: Do TSOs observe a shift from classic “duck curve” behaviour to more abrupt “canyon-shaped” price patterns (sharp troughs and spikes driven by RES forecast error, ramping constraints, and sudden ATC reductions)? How is this reflected in uncertainty treatment (FRM/minRAM/AMR) and in feasibility of remedial actions close to real time?
- A: Indeed, the pattern of prices does change, in particular on sunny days.

There is no changed treatment in uncertainty. Capacity calculation is performed for every hour individually, without any time coupling. FRM is not driven by hour-to-hour changes but by forecast uncertainty for a specific hour. In a regime with 70% and corresponding AMR, FRM is partially rendered void and TSOs ensure operational stability via the validation stage, during which all available remedial actions need to be considered before IVAs are applied.

## 6. Day-Ahead Capacity Calculation

R. KAISINGER



Q&A based on questions provided before the meeting

Answers are not by definition  
a common TSO position

### CE/SEE resilience, extreme volatility and liquidity 2/2

- Q: Can TSOs commit to a CE/SEE periphery stress test (HR–SI–AT–HU chain) covering: (i) high-RES volatility days, (ii) high outage days, (iii) days with strong non-Core/non-EU loop flows—publishing the impacts on DA/ID RAM, MACZT(70%), and liquidity metrics?
- A: Core TSOs do not apply any ‘liquidity metric’ in capacity calculation. The process is non-discriminatory and does not favor cross-zonal capacities to or from certain bidding zones. RES volatility can be observed across the entire Core CCR and not only in this corridor.

When performing a SPAICC, it has been the practice to do that with market participants’ input, in particular regarding the business days to analyze (for reference, the latest exchange took place December 2025). The objective of the SPAICC – so far – has been to assess the impact of planned outages and other expected major changes on the level of cross-zonal capacities. The request here seems to deviate from this objective and is hence not (fully) covered by the SPAICC.

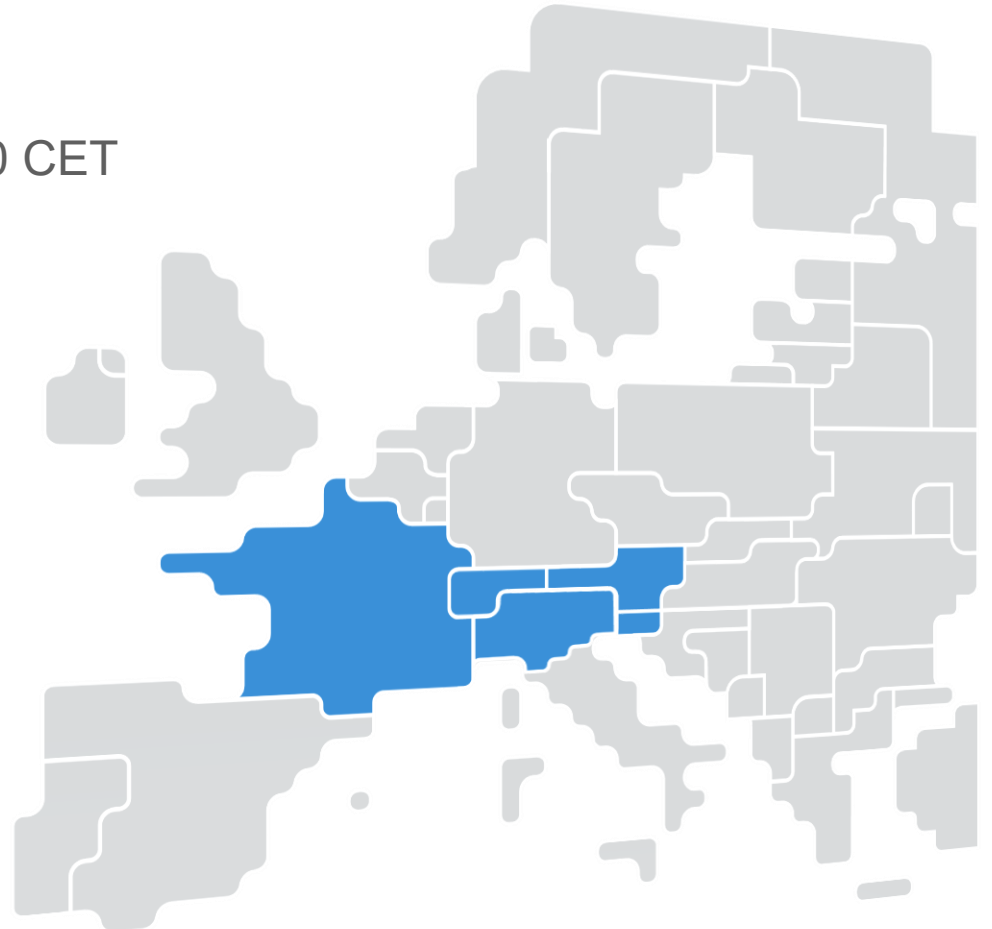
- Q: What concrete measures are planned to prevent the transfer of physical risk mitigation from long-term instruments into DA/ID only, especially for CE/SEE where forward markets are shallow or absent?
- A: If the question targets security of supply risks, then capacity calculation is not the correct instrument. For the longer term, there are the ERAA and NRAA processes with the vehicles to set-up appropriate instruments in case of security of supply risks (e.g. capacity markets). In the medium term, ENTSO-E performs the seasonal outlooks for summer and winter, respectively. On the short term, RCCs perform short-term adequacy assessments. Neither of these processes directly interfaces with day-ahead or intraday capacity calculation.



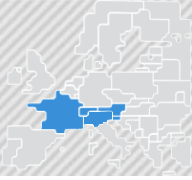
# Italy North Stakeholder Forum

17<sup>th</sup> March 2026, 15:00-16:00 CET

Online



# 7. Long-Term Capacity Calculation



## IN LT CCM amendment



In the framework of the Italy North Region, the LTCC PT is responsible for the capacity calculation process for long term timeframes.

- All TSOs of the Italy North CCR and Swissgrid are represented in the PT.
- Coreso and TSCNET are also represented in the PT.

Aim of today is to inform stakeholders on the approval of the IN LT CCM amendment by IN NRAs and on the updated timeline for the implementation of Export Corner

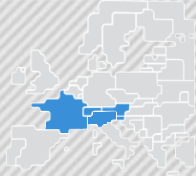
### Introduction

- With the go-live of Export Corner calculation for Intra-day in November 2023 and for Day-ahead in June 2024, it will be necessary to take the new process into account in the LTCC process. However, due to the limited amount of available historical data, it was decided to target the business year 2027 calculation as a first attempt for the go-live of the updated process. At the latest, the implementation will take place during the business year 2028 calculation.

### Status

- IN NRAs approved the amendment proposal for the IN LT CCM for the implementation of Export Corner in the LTCC process by Q4 2027 at the latest.
- IN TSOs will perform additional testing with an expanded data sample during the coming months.
- The feasibility of implementing Export Corner will be reassessed on a yearly basis, depending on results of additional testing.

Further updates will be given during the next Stakeholder Forum. Members of the stakeholder forum are welcome to raise questions to Hans Hatz, the lead of the LTCC PT. If a question requires further consideration by the whole LTCC PT, this will be tackled after the call, and a written response will be provided.



### IN DA Fallback Procedures Methodology

In the framework of the Italy North Region, the MTF is responsible for market aspects on the North Italian borders

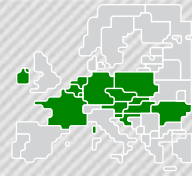
- All TSOs of the Italy North CCR and Swissgrid are represented in the TF.
- ADMIE and ESO participate to the TF as observers.

Aim of today is to be informed on the submission of the IN DA Fallback Procedures Methodology amendment package to IN NRAs for approval

#### Information

- Core TSOs agreed on a practical arrangement to update the Core Fallback Procedures Methodology (in case of decoupling) to prevent having to approve regional specifics of the methodology.
- IN NRAs requested IN TSOs to update the IN Fallback procedures methodology consistently with the practice in Core CCR.
- The IN Fallback procedures methodology now includes Shadow Auction Rules (identical to Core CCR) as part of Annex 1; any IN regional specificities can be added to a dedicated annex in the future.
- On 12/12/25, a public consultation concluded, and a public consultation report was prepared by IN TSOs.
- The amendment was submitted by IN TSOs to the Lead NRA on 19/02; individual submissions to respective NRAs is ongoing.

Members of the stakeholder forum are welcome to raise questions to Roberto Germana, the lead of the MTF. If a question requires further consideration by the whole MTF, this will be tackled after the call, and a written response will be provided.



## Communication Channels

### Existing Core communication channels

#### Core/CE 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

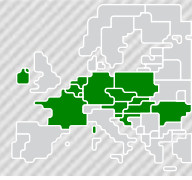
- Upload of methodologies and reports on public consultations, current status of the Core CCR program, CG minutes
- Link: [https://www.entsoe.eu/network\\_codes/ccr-regions/#core](https://www.entsoe.eu/network_codes/ccr-regions/#core)
- Work is ongoing to update the legal framework section of the ENTSO-E website. This will show the active CCMs (/amendments). A press release will be sent out once this is final.

#### 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.

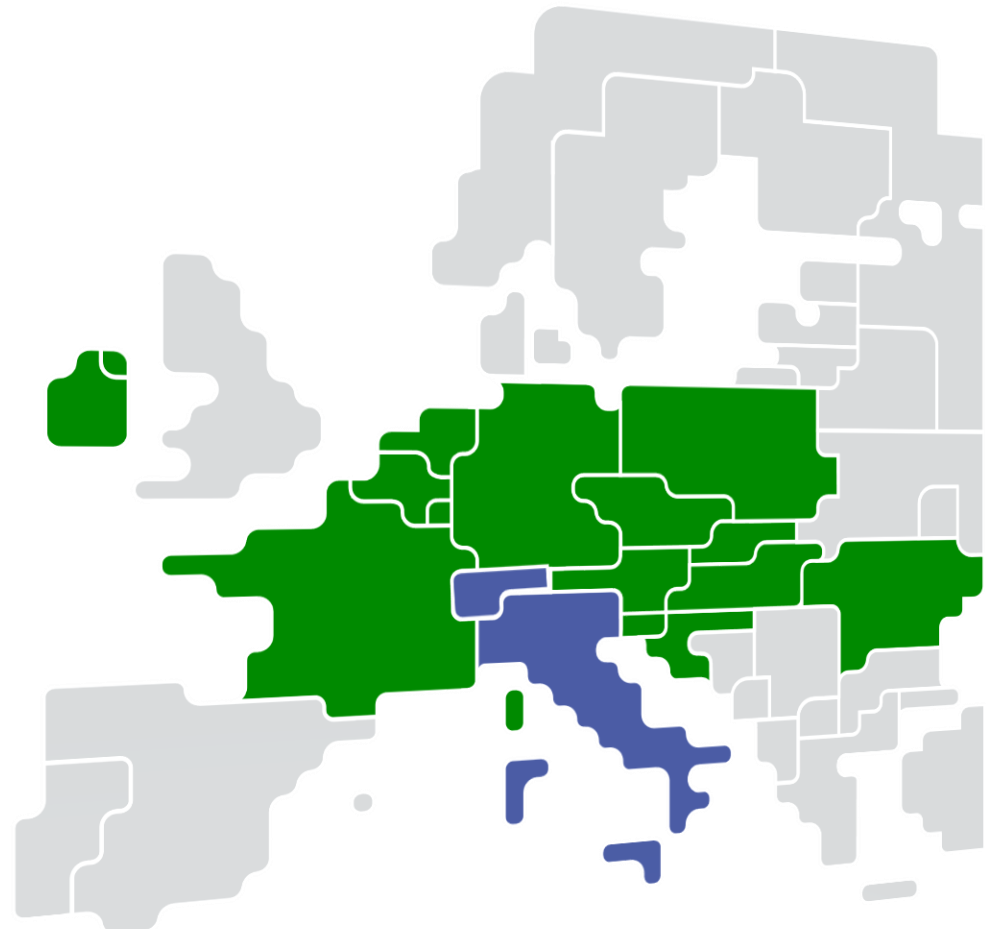


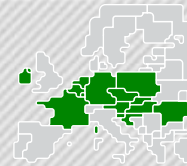
## Next CCG & IN STK Forum

### Next Core & CE Consultative Group & IN STK Forum (TBD)

- Between 16 and 27 November 2026 (physically)
  - Date and location tbd
  - IN STK Forum physical meeting tbd based on number of topics

# APPENDIX



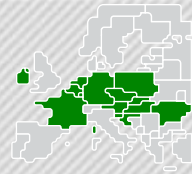


## Scope of discussions

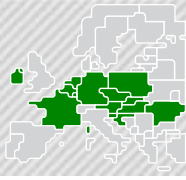
### Scope of discussions Consultative Group/Core CCR vs. MCCG/MCSC

- 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	<ul style="list-style-type: none"> <li>• Capacity calculation</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity allocation</li> </ul>
Intraday Auctions (IDA)	<ul style="list-style-type: none"> <li>• Capacity calculation (IDCC)</li> </ul>	<ul style="list-style-type: none"> <li>• Timings</li> <li>• Products &amp; user interfaces</li> <li>• Central testing</li> </ul>
Advanced Hybrid Coupling	<ul style="list-style-type: none"> <li>• Design &amp; Implementation into DACC</li> <li>• Impact assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Testing allocation algorithm</li> <li>• Central testing</li> </ul>
15 min MTU	<ul style="list-style-type: none"> <li>• Regional testing</li> </ul>	<ul style="list-style-type: none"> <li>• Timings</li> <li>• Products &amp; user interfaces</li> <li>• Central testing</li> </ul>



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



### Lessons from the JAO 'domain issue' incident report

- Q: A JAO incident report (P1) describes a registrar-level administrative validation error that suspended the JAO domain, required a secondary domain to restore partial service, and led to auction cancellations and temporary credit-limit process issues. What redundancy and failover mechanisms exist (or are planned) to avoid 'single points of failure' for critical market infrastructure (JAO portals, eCAT connectivity, authentication, DNS/registrar dependencies)? A: <...>
- Q: Will TSOs/NEMOs/JAO align on tested fallback playbooks and communication SLAs for digital/platform incidents (first notice, update frequency, clear guidance to MPs, and post-mortem timing) similar to what is expected for algorithm/coupling fallbacks?
- Q: For platform incidents that cancel auctions or disrupt access, what is the standardised recovery protocol (re-run auctions, alternative submission channels, temporary domains, credit-limit handling) and how is this coordinated across borders and timeframes?
- Q: Given the growing security and resilience concerns, will TSOs/NEMOs/JAO publish an annual 'operational resilience' KPI set (incident frequency/severity, time-to-detect, time-to-restore, communications performance) alongside market coupling/capacity KPIs?

*JAO will provide answers to these questions in the coming weeks which will then be distributed to MPs*