
CORE - Publication Tool for DA CCM Publication Handbook



Summary	The handbook contains an overview of the data that is published, along with the relevant information required to utilize the Publication tool.
Version	2.0
Date	April 2023

Version History	Change description
2.0	Alpha Factor from MCP added
1.9	Explanation for shadow price pages extended Additional Information for Validation reduction page Caveat on minRAM_target_Core V1.4 solved
1.8.	Explanation of remedial actions impact on the domain data added
1.7	Adjusted publication timings
1.6	<ul style="list-style-type: none"> - The URLs for Core Publication Tool Go-live and API are included - The description of the Monitoring tool is updated
1.5	Publication Tool was updated in May 2022 with <ul style="list-style-type: none"> - Release of the monitoring tool - Implementation of Ext LTA inclusion approach in the Core market view
1.4	Version released Apr 2022 integrating the post-coupling pages as well as following improvements/precisions to the pre-coupling pages: <ul style="list-style-type: none"> - UCT time in download - Core market view: explanation how to model ALEGrO as part of DE-BE exchanges and hub positions - Explanation data sources RefProg - Updated references to cross-zonal capacities being the combination of final FB domain and final BEX restrictions - Explanation on IVA capping and how it plays out in the pre-final and final FB domain - Scope of network elements that can be found in the domain pages - Caveat on the minRAM_target_Core parameter Please note the introduction of the following functionalities is deferred to a next release <ul style="list-style-type: none"> - Monitoring tool - Core market view: explanation on extended LTA inclusion approach added yet correct implementation to follow in a next release
1.3	Version released Nov 2021 mainly focused on the pre-coupling pages

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1. Background

The Core Day-ahead Capacity Calculation Methodology CCM Article 25 – “Publication of data” describes the publication obligations that TSOs need to fulfil. This encompasses the set-up of a dedicated online communication platform, and a handbook (this document) to enable market participants to have a clear understanding of the different published data.

The dedicated online communication platform is named the Core Publication Tool and can be accessed via the following link: <https://publicationtool.jao.eu/core/>

2. Navigation

Various publications are structured in multiple pages and listed in the vertical navigation bar. The navigation bar is visible at all times allowing users to easily switch between the different available publications.

Also present in the vertical navigation bar are filters which allow users to:

- Filter for a specific (i) business day and if needed a specific (ii) MTU;
- Filter on specific (iii) hubs or (iv) borders

The filter functionality allows users to target their dataset of interest, and is beneficial in terms of performance.

JAO Publication Tool

DATE (i)
◀ 2021-02-10 ▶

HOUR (ii)
00:00 - 01:00 ▼

HUB (iii)
All ▼

BORDER (iv)
All ▼

🏠 Core

- Core MarketView
- Core MarketGraphs
- Core Map
- Border Data Overview
- Initial Comp.(VirginDomain)
- Pre-Final (EarlyPub)
- Final Computation
- LTN
- Remedial Action Preventive
- Remedial Action Curative
- ATCs
- Max Net Pos
- Max Exchanges (MaxBex)
- ShadowAuction ATC
- ShadowPrices
- Spanning/DFP
- Validation Reductions
- Allocated Capacities
- Net Position
- Congestion Income
- Intraday ATC
- Price Spread
- Intraday Implicit Allocation
- D2CF
- Refprog
- Reference Net Position

3. Downloading data

Users are able to download data in two formats (CSV or XML) via the “Download” button on the right upper corner. Users may opt to download data covering a range of days or a single day. If preferred, further filtering option to download specific time period is also available.

A download option for the Border Data Overview page is not planned as it is an overview page.

The main date filter in the navigation bar allows users to select and display data for a given day. Displaying multiple days in the GUI is not foreseen due to large volume of data (especially for domain pages).

The download option allows users additional filter functionality, users have an option to:

- 1.1. Download a larger dataset (>24 hours)
- 1.2. Download a shorter dataset (<24 hours)

Max Exchanges (MaxBex) Download

Date	AT+BE	AT+CZ	AT+DE	AT+FR	AT+HR	AT+HU	AT+NL	AT+PL	AT+RO	AT+SI	AT+SK	BE+AT	BE+CZ	BE+DE	BE+FR	BE+HR	BE+HU	BE+NL	BE+PL	BE+RO	BE+SI	BE+SK	CZ+AT	CZ+BE	CZ+DE	CZ+FR
2021-01-19 00:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 01:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 02:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 03:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 04:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 05:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 06:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 07:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 08:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 09:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 10:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
2021-01-19 11:00:00	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000

Note: the UCT time convention applied in the downloads, and hence can differ from the value observed in the GUI which is based on CEST time

Please consider download the Data for small batches of time (less than 30 days).

4. Filter functionality: Domain pages

In the Domain pages (Initial, Pre-Final and Final), users are able to filter within following fields:

- Pre-solved - Check box allowing user to select true or false
- TSO – picklist allowing user to select TSO(s)
- Hub from / Hub to - picklist allowing user to select multiple hubs (from/to)
- CNE – keyword based search
- Contingency – keyword based search

The filter selection will not have an effect on the downloading of data, here all the results are downloaded depending on the selected time period.

SEARCH ▼

CNE_NAME

TSO

HUB FROM

HUB TO

PRESOLVED

CONTINGENCY

TOTAL ROWS WITHOUT FILTER: 28754
 TOTAL ROWS WITH FILTER: 28754
 DISPLAYED ROWS: 100

Final Computation Download

Search for:
 Filter:
 Sort:
 Columns:
 Rows:
 Info:

Information on the CNE										Information on the Contingency																							
Date	TSO	CNE_Name	EC_Code	Direction	Hub From	Hub To	Substation From	Substation To	ElementType	ElemType	TSO	Contingency Name	BranchName	EC_Code	Hub From	Hub To	Substation From	Substation To	ElementType	Prevalent	SIAM	Imax	U	F_max	F_min	F_max	F_min	F_max	F_min	F_max	F_min	F_max	AMR
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	CEPS	Preitice-Esternicht-Preitice 442	107.CC-DE-000042	CZ	DE	Preitice	Esternicht	TieLine	*	265	985	220	384	30	0	0	154	89	91	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	CEPS	Additional branch #2: Esternicht-Preitice 442	107.CC-DE-000042	DE	CZ	Esternicht	Preitice	TieLine	*	170	985	220	384	30	0	0	149	84	88	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	CEPS	Preitice-Koon	275.TU-V432-G	CZ	CZ	Preitice	Koon	Line	*	287	985	220	384	30	0	0	153	87	89	-2	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	CEPS	Deany-Slawetice	275.TU-V433-B	CZ	CZ	Deany	Slawetice	Line	*	262	985	220	384	30	0	0	165	92	94	-2	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	APG	Kronsdorf-St. Peter 1 431	NA	147.380-0-05451P	NA	NA	NA	NA	NA	*	270	985	220	384	30	0	0	158	84	87	-3	0	
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	APG	Kronsdorf-St. Peter 1 432	147.380-0-05452N	AT	AT	Kronsdorf	St. Peter	Line	*	270	985	220	384	30	0	0	158	84	87	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	APG	St. Peter 2 - St. Peter 1 433	147.38220-SP41V	AT	AT	St. Peter 2	St. Peter 1	Transformer	*	268	985	220	384	30	0	0	156	86	89	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	APG	St. Peter 2 - St. Peter 1 434	147.38220-SP42T	AT	AT	St. Peter 2	St. Peter 1	Transformer	*	268	985	220	384	30	0	0	156	86	89	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	APG	St. Peter 2 - St. Peter 1 435	147.38220-SP43R	AT	AT	St. Peter 2	St. Peter 1	Transformer	*	268	985	220	384	30	0	0	156	86	89	-3	0		
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	OPPOSITE	AT	AT	Aachach	Heuruck	Line	SEASONAL										*	443	985	220	384	30	0	0	-154	-89	-91	3	0	
2021-09-28 00:00:00	APG	Aachach-Heuruck 2038	147-220-0-0203BF	DIRECT	AT	AT	Aachach	Heuruck	Line	SEASONAL	CEPS	Preitice-Esternicht-Preitice 442	107.CC-DE-000042	CZ	DE	Preitice	Esternicht	TieLine	*	265	985	220	384	30	0	0	154	89	91	-3	0		

5. Publication Overview

5.1. Core MarketView

The Core Market View page enables market participants to evaluate the interaction between cross-zonal capacities and cross-zonal exchanges between bidding zones. It is split in two sections.

Max Volume: publication of “Max net position” and “Max exchanges (Maxbex)” for the MTU under consideration. Although this information is published on separate pages too, it is embedded in this page to facilitate the utilisation of the “check volume” part.

Check Volume: an interactive section where user can insert volumes of commercial trades (in terms of hub-to-hub exchanges or hub net export positions) in order to test their feasibilities. The feasibility is assessed for the selected business day and MTU as explained below.

(i) Hub-to-hub

To test the feasibility of trades, users can enter for each border the volume of exchanges they are willing to trade (positive values for direction indicated and negative values if the user wants to test in the other direction) and click in the adjacent box **(i)** to run the test.

The tool will then test, as per the Ext LTA inclusion methodology implemented in Euphemia, whether the hub-to-hub exchanges fit within the union of the Final FB domain and the Final Bilateral Exchange Restrictions.

If the trades are feasible the cell turns green text “Trades feasible” is displayed. If the trades are not feasible, the cell turns red and the text “Constrained Transmission System” is displayed.

Note: the value for the DE-BE border in the max volume section represents an exchange between the German and Belgian hubs where both the ALEGrO direct DC interconnector as well as the AC grid pathways are used. Whilst the value to fill in the ‘check volume part’ for the DE-BE (DC) row corresponds to the direct exchange between Germany and Belgium through the ALEGrO interconnector, thus a range between -1000 and + 1000 MW.

Core MarketView

1 Check volume

2 Max volume

Here you can check the simultaneous execution of trading volumes of the market specified in the Core Market Clipping

Here you can find the maximal trade volumes (MTRV) which can be physically transported between two Hubs under the condition that no other trade is executed between other Hubs

Hub-to-Hub Exchanges

Hub-to-Hub	Test 1
AT>CZ	0
AT>HU	0
AT>SI	0
BE>FR	0
CZ>PL	0
CZ>SK	0
DE>AT	0
DE>BE(DC)	0
DE>CZ	0
DE>FR	0
DE>NL	0
HR>HU	0
HR>SI	0
HU>RO	0
HU>SK	0
NL>BE	0
PL>DE	0
PL>SK	0

Trades feasible (i)

Direction

Direction	Direction
AT>CZ	6307
AT>HU	3048
AT>SI	2828
BE>FR	3624
CZ>PL	3345
CZ>SK	3972
DE>AT	6413
DE>BE	4858
DE>CZ	5846
DE>FR	7956
DE>NL	2438
HR>HU	2667
HR>SI	2742
HU>RO	2878
HU>SK	3319
NL>BE	2813
PL>DE	2801
PL>SK	2160

Hub-to-Hub Positions

Hub positions	Test 1	Test 2
ALBE	0	(ii)
ALDE	0	(iii)
AT	0	
CZ	0	
BE	0	
DE	0	
FR	0	
HR	0	
HU	0	
NL	0	
PL	0	
RO	0	
SI	0	
SK	0	

OK Click here to test

Export

Export	Import
ALBE	1000
ALDE	1000
AT	-7791
CZ	-10706
BE	-4105
DE	-19869
FR	-10176
HR	-3533
HU	-6099
NL	-4830
PL	-4809
RO	-3856
SI	-4621
SK	-5788

(i) Hub positions

Users are able to check the feasibility of Hub positions (import/export positions).

- o Test 1: The tool will check if the sum of Hub positions equals to zero (ii).
- o Test 2: The tool will check whether the specified Hub positions are feasible or not by checking whether the hub positions fit within the union of the Final FB domain and the Final Bilateral Exchange Restrictions

Note: when filling in the hub positions, please be aware about the following relationship between the BE, DE, ALBE and ALDE hubs

- The ALBE and ALDE hubs represent the contribution of the ALEGrO interconnector and have to be filled in symmetrically. For example, if ALDE is filled in with 1000 MW then ALBE should be filled in with -1000 MW to configure a 1000 MW export on the German side and a 1000 MW import on the Belgian side of the ALEGrO interconnector
- The BE and DE hubs represent the net positions aside from ALEGrO. Double-counting is to be avoided. For example, to model a 3000 MW Core net import for Belgium where 1000 MW comes from ALEGrO, one has to fill in -1000 MW in ALBE row and -2000 MW in the BE row. Similar, to model a 5000 MW Core net export for Germany where 1000 MW is exported through ALEGrO, one has to fill in 1000 MW in the ALDE row and 4000 MW in the DE row.

Note 2: the check on hub-to-hub exchanges and the check on the hub positions are independent from another. This means that the hub positions specified are not taken into account when testing the feasibility of the specified hub-to-hub exchanges, and vice versa.

Hub-to-Hub	Test 1
AT>CZ	0
AT>HU	0
AT>SI	300
BE>FR	0
CZ>PL	0
CZ>SK	400
DE>AT	0
DE>BE(DC)	50
DE>CZ	0
DE>FR	0
DE>NL	-100
HR>HU	0
HR>SI	0
HU>RO	0
HU>SK	0
NL>BE	0
PL>DE	0
PL>SK	0

Trades feasible

Hub-to-Hub	Test 1
AT>CZ	0
AT>HU	10000
AT>SI	2000
BE>FR	0
CZ>PL	0
CZ>SK	-5000
DE>AT	0
DE>BE	0
DE>CZ	0
DE>FR	0
DE>NL	0
HR>HU	0
HR>SI	0
HU>RO	0
HU>SK	0
NL>BE	0
PL>DE	0
PL>SK	0

Constrained Transmission System

Hub positions	Test 1	Test 2
ALBE	-50	OK
ALDE	50	
AT	0	
CZ	0	
BE	0	
DE	100	
FR	0	
HR	-100	
HU	0	
NL	0	
PL	0	
RO	0	
SI	0	
SK	0	

Hub positions	Test 1	Test 2
ALBE	-50	OK
ALDE	50	
AT	0	
CZ	0	
BE	0	
DE	100	
FR	0	
HR	-100	
HU	0	
NL	0	
PL	0	
RO	0	
SI	0	
SK	0	

Publication time: 10.30 am (D-1)

5.2. Core MarketGraphs

The “Core Market Graphs” illustrates for each Core hub, a graph with the “Min/Max net pos” and “Max exchanges (Maxbex)” for the 24 MTUs of the selected day. Users are able to de/select specific hubs on top of the page.

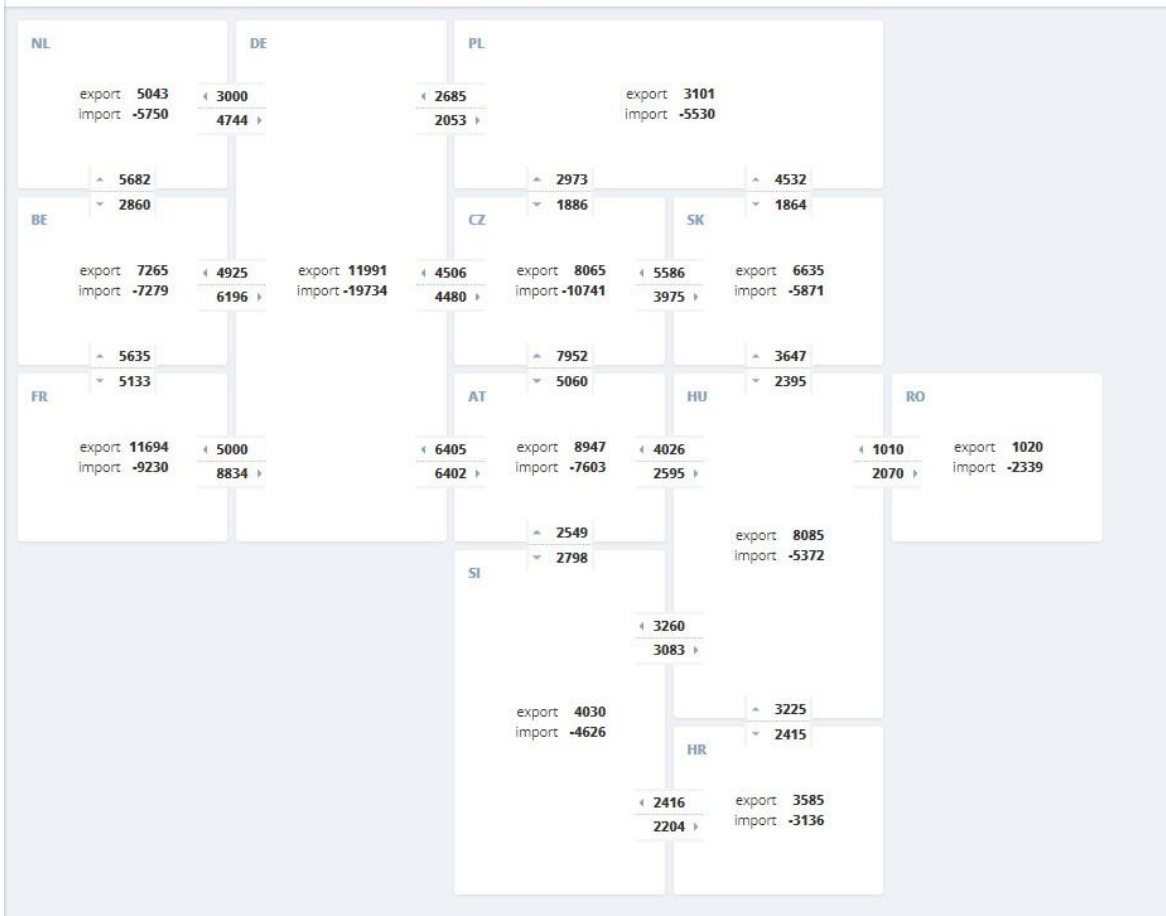


Publication time: 10.30 am (D-1)

5.3. Core Map

The “Core map” displays the maximum possible bilateral exchanges between each border and the minimum and maximum net positions of each hub on a map representing the Core configuration. The data corresponds to the MTU and Business Day as selected in the filter from the final flow-based computation.

Core max net positions and bilateral exchanges



Publication time: 10.30 am (D-1)

5.4. Border Data Overview

This page displays the following information for a selected border:

- 1.1.1. The ATC in MW offered for the Day-ahead market coupling (for the non-CORE borders)
- 1.1.2. The allocated capacity (or SEC) in MW after Market coupling
- 1.1.3. The Price Spread in €/MWh
- 1.1.4. The Congestion Income in €
- 1.1.5. The nominated volume of the long term allocated product (LTN) in MW
- 1.1.6. The Shadow Auction ATC, being the ATC that would be provided to a shadow auction mechanism, in MW
- 1.1.7. The Intraday ATC, being the left-over capacity after the FBMC expressed as initial ATC, in MW.

Please note that for the Core internal borders, the ATCs and Congestion Income are not available on a border basis and for the other borders, the long-term nominations, the Shadow Auction ATCs and the intraday ATCs will not be available.

Max Exchanges (MaxBex)

Download

Date	AT>BE	AT>CZ	AT>DE	AT>FR	AT>HR	AT>HU	AT>NL	AT>PL	AT>RO	AT>SI	AT>SK	BE>AT	BE>CZ	BE>DE	BE>FR	BE>HR	BE>HU	BE>NL	BE>PL	BE>RO	BE>SI	BE>SK	CZ>A
2021-01-19 00:00:00	5599	7153	6390	5015	2974	2796	2967	2573	1399	2830	4046	3841	3991	4218	3314	2873	2645	4418	1996	1362	3649	3594	5784
2021-01-19 01:00:00	5599	7473	6390	5013	3234	2773	2983	2573	1407	2830	4156	3936	4120	4321	3400	3116	2624	4380	1996	1370	3650	3698	6141
2021-01-19 02:00:00	5599	7301	6390	5012	3137	2792	3054	2589	1423	2830	2879	4167	4109	4575	3599	3023	2643	4286	2008	1385	3651	3037	5869
2021-01-19 03:00:00	5630	7204	6400	5037	3191	2800	2975	2593	1418	2830	2895	4366	4059	4794	3771	3075	2652	4224	2009	1380	3651	3054	6124
2021-01-19 04:00:00	5687	7514	6391	5135	3334	2807	2908	2600	1446	2830	2863	4461	4216	4898	3853	3211	2657	4150	2014	1408	3651	3016	6185
2021-01-19 05:00:00	5584	6348	6391	5301	2986	2788	2869	2590	1389	2830	3934	4923	4016	5014	4252	2886	2639	4005	2006	1352	3653	3833	6187
2021-01-19 06:00:00	5690	5695	6362	5279	3649	2727	2665	2274	1398	2812	4174	3956	3776	4000	3418	3489	2581	3718	1796	1361	3630	3687	5837
2021-01-19 07:00:00	5443	5153	6256	5151	3677	2705	2481	2401	1378	2622	4258	3918	3783	3772	3450	3885	2576	3216	1866	1343	3379	3669	5220
2021-01-19 08:00:00	5451	5132	6263	5158	3675	2728	2633	2398	1377	2624	4453	3582	3731	3672	3124	3571	2587	3528	1859	1343	3200	3596	5238
2021-01-19 09:00:00	5453	5131	6263	5159	3772	2727	2641	2399	1376	2625	4467	3600	3752	3816	3136	3629	2585	3551	1860	1342	3373	3600	5238
2021-01-19 10:00:00	5447	5128	6255	5155	3677	2713	2602	2392	1374	2624	4544	3703	3764	4130	3225	3734	2573	3500	1856	1340	3374	3660	5233
2021-01-19 11:00:00	5449	5150	6252	5157	3676	2694	2643	2376	1465	2624	4544	3511	3659	3913	3055	3540	2552	3584	1846	1429	3371	3634	5231
2021-01-19 12:00:00	5449	5150	6252	5157	3778	2708	2632	2370	1582	2624	4617	3625	3755	4039	3154	3654	2566	3537	1842	1543	3372	3662	5227
2021-01-19	5444	5152	6253	5153	3817	2673	2754	2412	1652	2625	4650	3738	3755	4166	3252	3767	2544	3866	1870	1610	3374	3663	5224

Publication time: 10.30 am (D-1)

5.7. Initial Comp.(VirginDomain)

This page contains the flow-based parameters of the selected business day and MTU of the initial flow-based computation (virgin domain, RefProg balanced).

Details of each column:

1.1.8. Date: Business Day and MTU

Information on the CNE:

- 1.1.9. TSO: Indicating the TSO defining the CNE
- 1.1.10. CNE_Name: the human readable name of the CNE as per the naming conventions defined in 10.1
- 1.1.11. EIC_Code: EIC Code of the Critical Network Element
- 1.1.12. Direction: Direction of the flow [DIRECT] or [OPPOSITE]
- 1.1.13. Hub From: The Hub the CNE is connected from
- 1.1.14. Hub To: The Hub the CNE is connected to
- 1.1.15. Substation From: The location (substation the CNE is connected from)
- 1.1.16. Substation To: The location (substation the CNE is connected to)
- 1.1.17. ElementType: Asset Type of the CNE, e.g. Busbar, DC-Link, Generation, Line, Load, PST, Tieline, Transformer
- 1.1.18. FmaxType: The Method for determining the I_{max} i.e. Type of maximum admissible power flow, e.g. Fixed, Dynamic, Seasonal

Please note: External constraints are also displayed in this page, e.g. NL_import

Information on the Contingency:

- 1.1.19. TSO: Indicating the TSO defining the Contingency
- 1.1.20. Contingency Name: The readable name of the Contingency indicating [Hub from – Hub to]
- 1.1.21. BranchName: In case of multibranch contingency the name of each branch
- 1.1.22. EIC_Code: EIC Code of the Critical Network Element
- 1.1.23. Hub From: The Hub the Contingency is connected from
- 1.1.24. Hub To: The Hub the Contingency is connected to
- 1.1.25. Substation From: The location (substation the Contingency is connected from)
- 1.1.26. Substation To: The location (substation the Contingency is connected to)
- 1.1.27. ElementType: Asset Type of the CNE, e.g. Busbar, DC-Link, Generation, Line, Load, PST, Tieline, Transformer

In case a Contingency consists of multiple branches, each branch is displayed as one row associated to the CNE to which the Contingency is applied.

Information on the CONTINGENCY								
TSO	Contingency Name	BranchName	EIC_Code	Hub From	Hub To	Substation From	Substation To	ElementType
Elia	380.33 [BE-BE] Y-Courcelles (-Bruegel - Drogebos) 380.33 [BE-BE] Y-Drogenbos (-Bruegel - Courcelles) 380.33	Y-Bruegel (-Courcelles - Drogebos) 380.33	22T-BE-IN-LI0017	BE	BE	Bruegel	Mekingen	Line
	Additional branch #2:	Y-Courcelles (-Bruegel - Drogebos) 380.33	22T-BE-IN-LI0017	BE	BE	Courcelles	Mekingen	Line
	Additional branch #3:	Y-Drogenbos (-Bruegel - Courcelles) 380.33	22T-BE-IN-LI0017	BE	BE	Drogenbos	Mekingen	Line

Detailed breakdown of RAM:

- 1.1.27.1. Presolved: if the value is TRUE then the corresponding CNEC constrains the flow-based domain, FALSE means a redundant CNEC not constraining the flow-based domain
- 1.1.27.2. RAM: remaining available margin in MW;
- 1.1.27.3. Imax: the maximum admissible current in A
- 1.1.27.4. U: reference voltage of the CNEC in kV
- 1.1.27.5. Fmax: the maximum allowable power flow of the corresponding CNEC in MW
- 1.1.27.6. FRM: flow reliability margin in MW
- 1.1.27.7. F_(ref,init): the reference flow calculated during the initial flow-based calculation in MW
- 1.1.27.8. F_nrao: expected flow change due to non-costly remedial actions optimisation in MW
- 1.1.27.9. F0core: the flow per CNEC in the situation without commercial exchanges within the Core CCR in MW
- 1.1.27.10. F0all: the flow per CNEC in a situation without any commercial exchange between bidding zones within Continental Europe and between bidding zones within Continental Europe and bidding zones of other synchronous areas in MW
- 1.1.27.11. F_uaf: the flow resulting from assumed commercial exchanges outside the Core region in MW
- 1.1.27.12. AMR: Adjustment for minimum RAM in MW
- 1.1.27.13. LTA_margin: Flow margin for LTA inclusion where $LTA_margin = \max(F_{LTAmax} + FRM - AMR - Fmax; 0)$ in MW
- 1.1.27.14. CVA: coordinated value adjustment resulting from coordinated validation process in MW
- 1.1.27.15. IVA: individual value adjustment resulting from individual TSO validation process in MW
- 1.1.27.16. Ftotal_LTN: flow after consideration of LTN ($Ftotal_LTN = (F0,core + F_LTN)$) in MW
- 1.1.27.17. One column per hub with the Power Transfer Distribution Factor value (PTDF_ALBE;PTDF_ALDE;PTDF_AT;PTDF_CZ;PTDF_BE;PTDF_DE;PTDF_FR;PTDF_HR;PTDF_HU;PTDF_NL;PTDF_PL;PTDF_RO;PTDF_SI;PTDF_SK)

Please note the attributes F_nrao, AMR, LTA_margin, IVA, CVA, Ftotal_LTN are empty/zero because these are determined later on in the capacity calculation process, and hence only relevant for the Pre-Final Computation and Final Computation pages.

Please note the attribute IVA is capped by the Core CCCT in order to ensure a non-negative RAM value. The capped IVA value can differ between the pre-final FB domain and the final FB domain because in the pre-final FB domain the RAM is expressed against a zero-balance reference, whilst in the final FB domain the RAM is expressed against a reference where zero-balance is shifted to the long-term nominations.

Scope of network elements: please note that the list of NECs (network elements combined with a contingency) displayed in the domain pages contains more than only CNECs. Hereby an enumeration of other network elements currently displayed:

- 1.1.28. Network elements which got filtered out following the 5% ptdf rule. These are monitored network elements according to the CCM and are not part of the pre-solved dataset;
- 1.1.29. Network elements with I_{max} = 9999 and that can appear at first sight as duplicates of CNECs. These CNECs relate to borders between Core and non-Core countries and are technically part of the dataset as they are needed to calculate the non-core exchanges KPI;
- 1.1.30. Technical parameters to properly bound the FB domain and thus part of the pre-solved dataset
 - 4 external constraints related to ALEGrO: External Constraint BE_AL_export, External Constraint BE_AL_import, External Constraint DE_AL_export, External Constraint DE_AL_import
 - 4 equality constraints

Publication time: 01.15 am (D-1)

5.8. Remedial Actions (Preventive/Curative)

This page displays the Remedial Actions split between curative RA's and preventive RA's.

Users are able to switch between two pages, where one page displays the Preventive RA's that are applied and the other, the Curative RA's that are applied when nRAO was used in the process. If a MTU was not optimized by nRAO this is also shown with the information that "Given hour was not optimized in NRAO), If no data is available for a specific hour, this is also displayed, this could occur due to failing of nRAO in the process,

Baseline means the Tap position of a PST in the CGM before nRAO Application.

More information on the applied RAs can be found in the Handbook for the static grid model [here](#)

Remedial Action Preventive

CORE_SEARCH		CORE_TOTAL ROWS: 5		CORE_SEARCH ROWS: 5		CORE_SHOWS ROWS: 5	
Date	pRA Name	TSO	Baseline	After NRAO			
2021-08-07 07:00:00	PST_ZANDV D1_PRA	Elia	-5	-5			
2021-08-07 07:00:00	PST_Diele_T441	Tennet DE	1	1			
2021-08-07 07:00:00	PST_VANYK D1_PRA	Elia	-2	-2			
2021-08-07 07:00:00	PST_Roehrsdorf_441	50Hertz	1	1			
2021-08-07 07:00:00	PST_ZANDV D2_PRA	Elia	-5	-5			

pRA Information		Parameters		
Date	pRA Name	TSO	Baseline	After NRAO
2021-09-29 10:00:00	Given hour was not optimized in NRAO			

Remedial Action Curative

CORE_SEARCH		CORE_TOTAL ROWS: 100		CORE_SEARCH ROWS: 100		CORE_SHOWS ROWS: 100				
Date	CNEC TSO	CNEC Name	cRA#1 Information		cRA#2 Information		cRA#3 Information		cRA#4 Information	
			Name	Baseline	After NRAO	Name	Baseline	After NRAO	Name	Baseline
2021-08-07 22:00:00	TransnetBW	Grafenmühlfeld - Hoepfingen ge (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Grafenmühlfeld - Hoepfingen ge (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							
2021-08-07 22:00:00	TransnetBW	Mehningen gn (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Mehningen gn (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							
2021-08-07 22:00:00	TransnetBW	Buers - Weststrol rt (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Buers - Weststrol rt (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							
2021-08-07 22:00:00	TransnetBW	Buers - Weststrol rt (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Buers - Weststrol rt (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							
2021-08-07 22:00:00	TransnetBW	Laufenburg ge (Alb Sued) (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Laufenburg ge (Alb Sued) (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							
2021-08-07 22:00:00	TransnetBW	Kuehmoos - Asphae rt (Wahra) (N-1) Ensdorf - VgV VIGY1 N	TOP_2N_VIGY_ironconnement_CRA							
2021-08-07 22:00:00	TransnetBW	Kuehmoos - Asphae rt (Wahra) (N-1) Ensdorf - VgV VIGY2 S	TOP_COMPLEX_VIGY_quarterbar1A_CRA							

Publication time: 10.30 am (D-1)

5.9. Validation Reductions

This page lists fulfilling Article 20(11), Article 25(2d) xi the CNE(C)s and the TSOs

- for which capacity has been reduced as an outcome of the validation processes, including a justification for this reduction
- that have been additionally added to the final list of CNECs during the validation processes, including a justification of the reasons of why adding a CNEC to ensure operational security. In this case the 'Returned Branch' attribute will contain a value.

Details on the page:

- The CNEC Name consists of the CNE / Contingency.
- "Share of IVA" indicates the actual reduction of the domain capacity.
 - If "share of IVA" column is filled with a non-zero value, then its value is a part of the IVA value from the "IVA" column
- Violated Operational Security Limits (OSL) indicate for which Elements (CNEC) a capacity reduction was applied.
- The Circumstances indicate which Netposition combination leads to the violation of the Operational Security Limits (OSL) .
- If a fallback was applied on TSO individual Validation side, this would be shown as "true".

Please note that the justification is sent by the TSOs themselves.

The TSOs 50 Hertz, Amprion, APG, TNG, TTG, TTN run the individual validation process commonly with a centralised tool DAVinCy thus resulting in common justifications. ²

² A short description of the approach of the 6 TSOs (50 Hertz, Amprion, APG, TNG, TTG, TTN): When the pattern of net positions represented by an analysed vertex of the flow-based domain cannot be realised within operational security limits while taking into account all available RAs, the domain must be contracted by applying IVA on a subset of CNECs. Normally, these would be the CNECs that are adjacent to the vertex. But a TSO can apply IVA only on its own CNECs. When one or more of the CNECs do not belong to the TSO(s) performing the individual validation, the required contraction of the domain can only be achieved by applying IVA on own CNECs that are not adjacent to the vertex. Since these "substitute" CNECs are not presolved, i.e., are "outside" of the FB domain, a first part of the IVA is needed just to shift them into the analysed vertex. Only the remainder of the IVA effectively contracts the domain.

5.11. LTN

This page displays the nominated capacity from long-term auctions in MW, per border in both directions. Most of the borders make use of FTR (financial transmission rights) thus no capacity is nominated. The borders using PTR may have physical nominations.

Long Term Nomination

Date	AT>CZ	AT>HU	AT>SI	BE>DE	CZ>AT	CZ>DE	CZ>PL	CZ>SK	DE>BE	DE>CZ	DE>PL	HR>HU	HR>SI	HU>AT	HU>HR	HU>RO	HU>SI	HU>SK	PL>CZ	PL>DE	PL>SK	RO>HU	SI>AT	SI>HR	SI>HU	SK>CZ	SK>HU	SK>PL
2021-10-14 00:00:00	0	2	216	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	397	0	0	125	0
2021-10-14 01:00:00	0	2	199	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	398	0	0	125	0
2021-10-14 02:00:00	0	2	191	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	403	0	0	125	0
2021-10-14 03:00:00	0	2	193	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	407	0	0	125	0
2021-10-14 04:00:00	0	2	203	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	399	0	0	125	0
2021-10-14 05:00:00	0	2	241	0	0	0	0	195	0	0	0	30	0	0	177	4	0	0	0	0	0	2	0	402	0	0	125	0
2021-10-14 06:00:00	0	2	265	0	0	0	0	195	0	0	0	45	0	0	152	4	0	0	0	0	0	2	0	384	0	0	125	0
2021-10-14 07:00:00	0	2	265	0	0	0	0	208	0	0	0	37	0	0	152	4	0	0	0	0	0	2	0	372	0	0	125	0
2021-10-14 08:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	379	0	0	125	0
2021-10-14 09:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	372	0	0	125	0
2021-10-14 10:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	369	0	0	125	0
2021-10-14 11:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	370	0	0	125	0
2021-10-14 12:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	373	0	0	125	0
2021-10-14 13:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	372	0	0	125	0
2021-10-14 14:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	375	0	0	125	0
2021-10-14 15:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	388	0	0	125	0
2021-10-14 16:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	389	0	0	125	0
2021-10-14 17:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	392	0	0	125	0
2021-10-14 18:00:00	0	2	265	0	0	0	0	208	0	0	0	27	0	0	152	4	0	0	0	0	0	2	0	387	0	0	125	0

Publication time: 10.30 am (D-1)

5.12. Final Computation

This page contains the final flow-based parameters of the selected business day and MTU following long term nominations (Ltnom balanced).

The detailed data items are the ones as described under 5.5 Initial Computation (Virgin Domain) plus the following data items describing the the minimum capacity targets in relation to CEP70 implementation (70%, action plan, derogation):

- 1.1.38. R_amr %: describes the target for the totality of market exchanges incl. non-Core exchanges
- 1.1.39. R_amr_justification: optional attribute through which Core TSOs can share additional information on how the R_amr has been calculated
- 1.1.40. minRAM target Core %
 - Objective: describe the capacity for Core exchanges by deducing the non-Core exchanges from the R_amr
 - the value is displaying minRAM_target_Core = R_amr – Fuaf

Scope of network elements: please note that the list of NECs (network elements combined with a contingency) displayed in the domain pages contains more than only CNECs. Hereby an enumeration of other network elements currently displayed:

- 1.1.41. Network elements which got filtered out following the 5% ptdf rule. These are monitored network elements according to the CCM and are not part of the pre-solved dataset;
- 1.1.42. Network elements with Imax = 9999 and that can appear at first sight as duplicates of CNECs. These CNECs relate to borders between Core and non-Core countries and are technically part of the dataset as they are needed to calculate the non-core exchanges KPI;
- 1.1.43. Network elements with slightly different RAM values that can appear at first sight as duplicate CNECs. These CNECs have the same name, but slightly different parameters as they represent the results of remedial actions application. Both entries are valid for the flow-based calculation.
- 1.1.44. Technical parameters to properly bound the FB domain and thus part of the pre-solved dataset
 - 4 related to ALEGrO: External Constraint BE_AL_export, External Constraint BE_AL_import, External Constraint DE_AL_export, External Constraint DE_AL_import
 - 4 equality constraints

Publication time: 10.30 am (D-1)

5.13. LTA

This page displays the in the long term (yearly/monthly) allocated capacity in MW, per border in both directions.

The LTA domain is introduced with the Extended LTA Approach where cross-zonal capacities consist of a flow-based domain without LTA inclusion and a LTA domain.

LTA

Date	AT>CZ	AT>HU	AT>SI	BE>DE	CZ>AT	CZ>DE	CZ>PL	CZ>SK	DE>BE	DE>CZ	DE>PL	HR>HU	HR>SI	HU>AT	HU>HR	HU>RO	HU>SI	HU>SK	PL>CZ	PL>DE	PL>SK	RO>HU	SI>AT	SI>HR	SI>HU	SK>CZ	SK>HU	SK>PL
2021-09-29 00:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 01:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 02:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 03:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 04:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 05:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 06:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 07:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 08:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 09:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 10:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 11:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 12:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 13:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 14:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 15:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 16:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 17:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 18:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 19:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 20:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0
2021-09-29 21:00:00	300	300	350	400	500	1949	0	1250	400	398	0	900	850	392	1000	469	0	998	0	0	0	630	600	849	0	998	999	0

Publication time: 10.30 am (D-1)

5.14. Final Bilateral Exchange Restrictions

This page displays:

- 1.1.45. In case of normal operation: the LTA domain shifted with the effect of long-term nominations (LTN). Together with the final flow-based domain it represents the cross-zonal capacities provided to the market coupling.
- 1.1.46. In case of the day-ahead capacity calculation fails to provide the flow-based parameters in three or more consecutive hours: the default FB parameters (in MW). As per Core CCM Art 4(4) the default FB parameters are defined based on the LTA capacity for each Core oriented bidding zone border, increased by the minimum of the two adjustments provided by the TSO(s) on each side of the bidding zone border. The adjustments reflect part of the LT capacity which is reserved for day-ahead, if such practice is applicable on the concerned bidding zone border. The values displayed represent the default FB parameters including the effect of long-term nominations (LTN).

Final Bilateral Exchange Restrictions

Date	AT>CZ	AT>HU	AT>SI	BE>DE	CZ>AT	CZ>DE	CZ>PL	CZ>SK	DE>BE	DE>CZ	DE>PL	HR>HU	HR>SI	HU>AT	HU>HR	HU>RO	HU>SI	HU>SK	PL>CZ	PL>DE	PL>SK	RO>HU	SI>AT	SI>HR	SI>HU	SK>CZ	SK>HU	SK>PL
2021-09-22 00:00:00	500	393	508	400	500	1949	0	1095	400	398	0	1401	1267	399	499	489	0	998	0	0	0	610	692	432	0	1153	999	0
2021-09-22 01:00:00	500	393	524	400	500	1949	0	1095	400	398	0	1401	1268	399	499	489	0	998	0	0	0	610	676	431	0	1153	999	0
2021-09-22 02:00:00	500	393	532	400	500	1949	0	1095	400	398	0	1401	1267	399	499	489	0	998	0	0	0	610	668	432	0	1153	999	0
2021-09-22 03:00:00	500	393	530	400	500	1939	0	1095	400	408	0	1401	1265	399	499	489	0	998	0	0	0	610	670	434	0	1153	999	0
2021-09-22 04:00:00	500	393	522	400	500	1939	0	1095	400	408	0	1401	1274	399	499	489	0	998	0	0	0	610	678	425	0	1153	999	0
2021-09-22 05:00:00	500	393	488	400	500	1949	0	1095	400	398	0	1401	1263	399	499	489	0	998	0	0	0	610	712	436	0	1153	999	0
2021-09-22 06:00:00	500	393	348	400	500	1949	0	1095	400	398	0	1341	1254	399	559	489	0	998	0	0	0	610	852	445	0	1153	999	0
2021-09-22 07:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1249	399	565	489	0	998	0	0	0	610	852	450	0	1166	999	0
2021-09-22 08:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1254	399	565	489	0	998	0	0	0	610	852	445	0	1166	999	0
2021-09-22 09:00:00	500	393	365	400	500	1949	0	1082	400	398	0	1341	1250	399	559	489	0	998	0	0	0	610	835	449	0	1166	999	0
2021-09-22 10:00:00	500	393	370	400	500	1949	0	1082	400	398	0	1341	1246	399	559	489	0	998	0	0	0	610	830	453	0	1166	999	0
2021-09-22 11:00:00	500	393	369	400	500	1949	0	1082	400	398	0	1341	1250	399	559	489	0	998	0	0	0	610	831	449	0	1166	999	0
2021-09-22 12:00:00	500	393	351	400	500	1949	0	1082	400	398	0	1341	1251	399	559	489	0	998	0	0	0	610	849	448	0	1166	999	0
2021-09-22 13:00:00	500	393	354	400	500	1949	0	1082	400	398	0	1335	1248	399	565	489	0	998	0	0	0	610	846	451	0	1166	999	0
2021-09-22 14:00:00	500	393	363	400	500	1949	0	1082	400	398	0	1335	1251	399	565	489	0	998	0	0	0	610	837	448	0	1166	999	0
2021-09-22 15:00:00	500	393	356	400	500	1949	0	1082	400	398	0	1335	1261	399	565	489	0	998	0	0	0	610	844	438	0	1166	999	0
2021-09-22 16:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1263	399	565	489	0	998	0	0	0	610	852	436	0	1166	999	0
2021-09-22 17:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1263	399	565	489	0	998	0	0	0	610	852	436	0	1166	999	0
2021-09-22 18:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1259	399	565	489	0	998	0	0	0	610	852	440	0	1166	999	0
2021-09-22 19:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1265	399	565	489	0	998	0	0	0	610	852	434	0	1166	999	0
2021-09-22 20:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1264	399	565	489	0	998	0	0	0	610	852	435	0	1166	999	0
2021-09-22 21:00:00	500	393	348	400	500	1949	0	1082	400	398	0	1335	1261	399	565	489	0	998	0	0	0	610	852	438	0	1166	999	0
2021-09-22 21:00:00	500	393	350	400	500	1949	0	1095	400	398	0	1401	1260	399	499	489	0	998	0	0	0	610	850	439	0	1153	999	0

Publication time: 10.30 am (D-1)

5.15. Allocation Constraints

As per the Core CCM, Belgium, Poland and the Netherlands are allowed to use external constraints.

Allocation Constraints

Date	BE		PL	
	Import	Export	Import	Export
2021-09-22 00:00:00	6500		662	5039
2021-09-22 01:00:00	6500		45	5731
2021-09-22 02:00:00	6500		0	6199
2021-09-22 03:00:00	6500		0	5987
2021-09-22 04:00:00	6500		441	5332
2021-09-22 05:00:00	6500		1084	3959
2021-09-22 06:00:00	6500		1671	1298
2021-09-22 07:00:00	6500		2211	0
2021-09-22 08:00:00	6500		2891	0
2021-09-22 09:00:00	6500		5142	0
2021-09-22 10:00:00	6500		5289	0
2021-09-22 11:00:00	6500		5380	0
2021-09-22 12:00:00	6500		5460	0
2021-09-22 13:00:00	6500		5461	0
2021-09-22 14:00:00	6500		4813	76
2021-09-22 15:00:00	6500		4665	14
2021-09-22 16:00:00	6500		4848	0
2021-09-22 17:00:00	6500		5667	0
2021-09-22 18:00:00	6500		7122	0
2021-09-22 19:00:00	6500		7607	0
2021-09-22 20:00:00	6500		7258	0
2021-09-22 21:00:00	6500		5755	79

Publication time: 10.30 am (D-1)

Reference Net Position

Date	AL	BA	BG	CH	DK1	ES	GR	IT	ME	MK	PT	RS	TR	UA
2021-01-16 00:00:00	59	1209	259	-889	2330	-1033	388	-1950	-427	-140	-2250	676	-309	44
2021-01-16 01:00:00	100	1177	63	-2129	2490	-1033	308	-1737	-343	-57	-2250	907	-388	35
2021-01-16 02:00:00	120	1223	92	-2817	2500	-586	401	-2188	-350	56	-2250	599	-435	-46
2021-01-16 03:00:00	130	1153	95	-3334	2490	-46	441	-3056	-318	89	-2250	689	-553	-46
2021-01-16 04:00:00	145	1173	210	-3401	2480	-834	257	-3027	-273	69	-2385	845	-503	-46
2021-01-16 05:00:00	92	1261	127	-3232	2500	-748	196	-3104	-277	102	-2385	878	-172	26
2021-01-16 06:00:00	-187	1291	21	-3388	2500	-227	393	-3683	-363	-106	-2370	1018	150	-57
2021-01-16 07:00:00	-277	1276	71	-2454	2480	-706	302	-4828	-232	-214	-1620	1097	150	0
2021-01-16 08:00:00	-329	1385	273	-1316	2127	-1478	317	-3412	-10	-257	-1620	863	150	24
2021-01-16 09:00:00	-344	1305	556	1458	1580	-1750	291	-2293	0	-399	-1348	604	150	31
2021-01-16 10:00:00	-360	1315	555	1623	1641	-2442	273	-1806	5	-389	-656	450	150	34
2021-01-16 11:00:00	-366	1315	535	1425	1672	-2342	250	-2251	26	-403	-756	424	150	34
2021-01-16 12:00:00	-360	1294	444	1312	1717	-2578	333	-631	11	-408	-937	407	150	34
2021-01-16 13:00:00	-350	1295	508	9	1845	-2641	325	-953	-11	-443	-874	502	150	14
2021-01-16 14:00:00	-344	1295	498	-1224	2121	-2531	240	-2154	6	-474	-845	609	150	11
2021-01-16 15:00:00	-344	1345	615	-981	1901	-2367	127	-1820	-80	-453	-1009	648	150	8

When external constraints are expressed as a limitation on the Core net position, they appear as part of the FB parameter set. This practice is applied by the Netherlands.

When external constraints are expressed as a limitation on the SDAC net position, they are sent as a separate data flow to the market coupling, called Allocation Constraints. This practice is applied by Belgium (import direction) and Poland (import and export direction). The Allocation Constraints page thus displays the Allocation constraints in MW sent by Elia and PSE.

Note: there exist also 4 external constraints related to the DE-BE HVDC interconnector ALEGrO (BE_AL_import, BE_AL_export, DE_AL_import, DE_AL_export). These external constraints are of a different nature i.e. they describe the 1000 MW technical capacity of the interconnector.

Publication time: 10.30 am (D-1)

5.19. ATCs on CORE external borders

This page displays the ATC values in MW made available for the Day-Ahead market coupling and this for the two directions of the concerned borders.

ATCs on CORE external borders

For the full list of Core external borders please see the ENTSO-E Transparency platform.

Date	AT>IT	BG>RO	DE>DK1	DK1>DE	ES>FR	FR>ES	FR>IT	IT>AT	IT>FR	RO>BG
2021-11-19 00:00:00	215	870	1740	2500	3607	3330	3479	145	1205	1174
2021-11-19 01:00:00	215	867	1760	2500	3607	3330	2856	145	1205	1174
2021-11-19 02:00:00	215	856	1760	2500	3607	3330	2637	145	1205	1174
2021-11-19 03:00:00	215	857	1760	2500	3607	3283	2593	145	1205	1174
2021-11-19 04:00:00	215	859	1720	2500	3700	3283	2637	145	1205	1174
2021-11-19 05:00:00	215	856	1690	2500	3700	3283	2564	145	1205	1174
2021-11-19 06:00:00	215	855	1650	2160	3700	3283	2564	145	1205	1175
2021-11-19 07:00:00	215	849	1440	1600	3561	3422	2408	145	1205	1181
2021-11-19 08:00:00	215	841	1440	1620	3561	3422	2517	145	1205	1189
2021-11-19 09:00:00	176	845	1440	1670	3561	3422	2408	145	1205	1188
2021-11-19 10:00:00	116	833	1440	1750	3561	3422	2654	145	1205	1197
2021-11-19 11:00:00	116	832	1440	1930	3237	3422	2306	145	1205	1198

Publication time: 10.30 am (D-1)

5.20. ShadowAuction ATC

This page displays the ATC for SDAC fall-back procedure (Shadow Auctions) per border in the two directions.

Shadow Auction ATC

[Download](#)

Date	AT>CZ	AT>DE	AT>HU	AT>SI	BE>DE(DC)	BE>FR	BE>NL	CZ>AT	CZ>DE	CZ>PL	CZ>SK	DE>AT	DE>BE(DC)	DE>CZ	DE>FR	DE>NL	DE>PL	FR>BE	FR>DE	HR>HU	HR>SI	HU>AT
2021-01-19 00:00:00	575	4805	145	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	954	1506	745
2021-01-19 01:00:00	1455	2819	585	741	999	739	1122	1622	1371	0	1012	1361	465	761	1622	641	0	2092	2869	821	1075	1705
2021-01-19 02:00:00	575	4805	145	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	954	1510	745
2021-01-19 03:00:00	575	4805	145	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	954	1502	745
2021-01-19 04:00:00	575	4805	145	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	954	1507	745
2021-01-19 05:00:00	575	4805	145	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	954	1503	745
2021-01-19 06:00:00	575	4805	59	524	250	450	619	425	2233	0	1330	4816	250	462	1000	1080	0	1600	1349	929	1498	831
2021-01-19 07:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	909	1486	831
2021-01-19 08:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	889	1493	831
2021-01-19 09:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	889	1487	831
2021-01-19 10:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	889	1496	831
2021-01-19 11:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	889	1492	831
2021-01-19 12:00:00	555	4805	59	347	250	450	619	445	2233	0	1317	4816	250	462	1000	1080	0	1600	1349	889	1499	831
2021-01-19 13:00:00	1086	2744	438	607	913	633	1173	1241	1169	381	777	1025	404	652	1317	745	263	2228	2533	799	898	1540

Publication time: 10.30 am (D-1)

5.21. ShadowPrices

This page displays the binding constraints (CNECs) after Market Coupling, with its shadow price. The shadow price represents the increase in social welfare resulting from making 1 MW more capacity available to the market on this element. The structure of the page displays CNE and Contingency EIC and Names as well as the detailed breakdown of parameters similar to the initial/final Computation page cf. 5.14 but instead pre-solved the cells are filled with the shadow price the limiting CNEC has. **Fehler! Textmarke nicht definiert.**

The Hub From/Hub To columns refer to the maxZZZPtdf columns and indicates for which cross zonal exchange the binding CNEC has its maximum sensitivity.

Net Position

Date	ALBE	ALDE	AT	BE	CZ	DE	FR	HR	HU	NL	PL	RO	SI	SK
2021-10-31 00:00:00	0	0	739.8	-142.6	1450.9	3751.5	-4851.5	-286.8	-2441.5	1391.8	1085.1	-557.6	319.1	-458.2
2021-10-31 01:00:00	0	0	619.6	-15	2539	2472.5	-4513.6	-348	-2292.6	1302.8	1069.7	-792.4	300.1	-342.1
2021-10-31 02:00:00	0	0	743.8	275.1	3544.6	1255	-5116.4	-311	-2281.7	1383.4	1099.3	-696.5	394	-289.6
2021-10-31 02:00:00	0	0	505.1	-162.5	3401.3	1259	-3819.2	-321	-2246.5	835	1294.2	-821.8	340	-263.6
2021-10-31 03:00:00	0	0	-1420.3	-131.8	4323.5	-3104.2	1504.2	-21	-2289.2	370.9	1729.5	-461.1	-211.6	-288.9
2021-10-31 04:00:00	0	0	-1408	-247.5	4227.1	-3780.6	1743.3	-111.2	-2371.2	809.6	1609.4	-588.5	339	-221.4
2021-10-31 05:00:00	0	0	-1515.3	25.4	4285.7	-3412.4	1188.7	-127	-2536	791.2	1488.3	-297.2	316	-207.4
2021-10-31 06:00:00	0	0	-885.2	-96.7	3752.7	-2307.4	244.5	32	-2619.1	742.8	1627.7	-470.7	278	-298.6
2021-10-31 07:00:00	0	0	601.5	-264.4	1391.3	3418	-2444.5	-247	-2534.5	683.9	787	-1314.5	304.8	-381.6
2021-10-31 08:00:00	0	0	996.4	-218.6	1937.7	2260.9	-2460.9	-301	-2196.1	653.4	746.6	-1248.1	233	-403.3
2021-10-31 09:00:00	0	0	882.9	-285.5	2627.2	690.8	-1631	-371	-2155.4	658.4	839.3	-1007.9	168	-415.8
2021-10-31 10:00:00	0	0	911.1	-259	2588.7	282.6	-1323.7	-353	-1999.3	663.2	1057.9	-1249.2	154.9	-474.2
2021-10-31 11:00:00	0	0	-1012.9	106.1	3174.1	-3420.1	2207.3	-297	-1877.7	-7.4	1910.1	-537.9	157	-401.6
2021-10-31 12:00:00	0	0	-1006.2	87.2	3265.9	-3780.2	2364.9	-245	-1809.2	31.2	1970.2	-589.1	184	-473.7
2021-10-31 13:00:00	0	0	-931.1	-170.5	3423.8	-3731.2	2134.1	-191	-1868.8	722.6	1906.6	-1050.5	229.9	-473.9
2021-10-31 14:00:00	0	0	-1098.3	-57.1	3206.3	-3364.1	2079.9	-85	-2234.5	725.2	1783.6	-756.8	269	-468.2

Publication time initial: 15:50 pm (D-1)

5.25. Intraday ATC

This page displays the remaining capacity left after the Day-Ahead capacity allocation, expressed as initial ID ATCs for two directions of the CORE borders in MW.

The initial ATC takes into account how each Core TSO defines the parameters wrt virtual capacity. As defined in the Core ID CCM, Core TSOs are allowed to remove virtual capacity prior to extracting the left-overs.

The initial ATCs are subject to decrease/increase actions. As for the former CWE borders a reporting solution for this decrease/increase was in place, it has been kept in the Core Publication Tool. A full overview of the resulting ID ATCs for all Core borders as applied in XBID can be consulted on the ENTSO-E transparency platform.

Intraday ATC

Date	AT>DE		BE>DE		BE>FR		BE>NL		DE>AT		DE>BE		DE>FR		DE>NL		FR>BE		FR>DE		NL>BE		NL>DE	
	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease	Initial	In/Decrease
2021-10-21 00:00:00	5404	0	1066	-457	2072	0	1077	0	11521	0	1762	0	11479	0	11526	0	1181	0	6490	0	1830	0	6841	0
2021-10-21 01:00:00	6105	0	1018	-786	1690	0	1011	0	11159	0	2035	0	11415	0	11460	0	1512	0	6860	0	2131	0	7322	0
2021-10-21 02:00:00	5038	0	860	-733	1389	0	849	-849	11265	0	2105	0	11574	0	11578	0	1587	0	7031	0	2206	0	7629	0
2021-10-21 03:00:00	5879	0	856	-729	1475	0	847	-847	11270	0	2243	0	11608	0	11580	0	1609	0	6704	0	2367	0	7231	0
2021-10-21 04:00:00	5654	0	1103	0	1986	0	1090	0	11399	0	2322	0	11853	0	11797	0	1643	0	6433	0	2453	0	6993	0
2021-10-21 05:00:00	5368	0	1111	0	1965	-1965	1094	0	11773	0	2396	0	12613	0	12365	0	1710	0	6064	0	2522	0	6488	0
2021-10-21 06:00:00	5513	0	1180	-1053	2099	0	1155	0	12492	0	2283	0	13059	0	10409	0	1578	0	6266	0	2284	0	8545	0
2021-10-21 07:00:00	5375	0	1087	0	1931	0	1064	0	12822	0	2108	0	13389	0	10505	0	1458	0	6099	0	2108	0	8310	0
2021-10-21 08:00:00	5622	0	1172	0	2152	0	1158	0	12178	0	2062	0	12402	0	9754	0	1391	0	6533	-100	2062	0	9215	0
2021-10-21 09:00:00	6242	0	1225	-1098	2161	0	1196	0	11164	0	2082	0	11167	0	9156	0	1449	0	7287	-10	2084	0	10103	0
2021-10-21 10:00:00	6137	0	1285	-340	2299	0	1260	0	11161	0	2209	0	11320	0	9259	0	1533	0	7169	-4	2212	0	9976	0
2021-10-21 11:00:00	5868	0	1317	-700	2462	0	1309	0	11240	0	2444	0	11357	0	9077	0	1616	0	7026	-3000	2450	0	10105	0
2021-10-21 12:00:00	5764	0	1265	-691	2420	-1000	1238	0	11056	0	2555	0	11130	0	8837	0	1657	0	7112	0	2563	0	10580	0
2021-10-21 13:00:00	5729	0	1263	0	2434	-2000	1228	0	10858	0	2631	0	10951	0	8659	0	1699	0	7165	0	2642	0	10919	0
2021-10-21 14:00:00	5770	0	1356	0	2600	-500	1325	0	11047	0	2533	0	11159	0	8814	0	1644	0	7105	0	2540	0	10472	0
2021-10-21 15:00:00	6003	0	1414	-414	2557	0	1391	0	11196	0	2091	0	11355	0	9246	0	1452	0	7153	0	2093	0	9967	0
2021-10-21 16:00:00	5720	0	1146	0	2085	0	1130	0	11835	0	2103	0	12229	0	9625	0	1429	0	6737	0	2104	0	9504	0
2021-10-21 17:00:00	5863	0	1045	0	1870	0	1025	0	11638	0	2326	0	11960	0	9557	0	1582	0	6851	-3000	2329	0	9644	0

Publication time initial: 15:50 pm (D-1) Publication time Increase/Decrease: 08:00 am (D+1)

5.26. Price Spread

This page indicates the market price spread in €/MWh for the two directions of the defined borders.

Price Spread

Date	AT>CZ	AT>DE	AT>HU	AT>SI	BE>DE	BE>FR	BE>NL	CZ>AT	CZ>DE	CZ>PL	CZ>SK	DE>AT	DE>BE	DE>CZ	DE>DK1	DE>FR	DE>NL	DE>PL	DK1>DE	DK1>NL	ES>FR	FR>BE
2023-03-28 00:00:00	-6.35	-13.04	-3.41	0.98	-96.32	-43.23	-75.1	6.35	-6.69	24.62	1.56	13.04	96.32	6.69	0	53.09	21.22	31.31	0	21.22	0	43.23
2023-03-28 01:00:00	-4.64	-9.36	-2.52	0.66	-67.99	-30.29	-45.79	4.64	-4.72	22.81	1.12	9.36	67.99	4.72	0	37.7	22.2	27.53	0	22.2	0	30.29
2023-03-28 02:00:00	-5.17	-6.18	-2.66	0.84	-35.33	-5.2	-19.9	5.17	-1.01	24.09	1.44	6.18	35.33	1.01	0	30.13	15.43	25.1	0	15.43	0	5.2
2023-03-28 03:00:00	-5.89	0.92	-7.13	-0.41	-11.14	6.96	-7.87	5.89	6.81	20.77	-1.17	-0.92	11.14	-6.81	0	18.1	3.27	13.96	0	3.27	0	-6.96
2023-03-28 04:00:00	-2.99	-1.67	-1.61	0.71	-7.9	4.76	-5	2.99	1.32	15.86	0.83	1.67	7.9	-1.32	0	12.66	2.9	14.54	0	2.9	0	-4.76
2023-03-28 05:00:00	-3.48	-1.86	-1.68	0.65	-8.86	6.18	-7.53	3.48	1.62	12.19	1.13	1.86	8.86	-1.62	0	15.04	1.33	10.57	0	1.33	0	-6.18
2023-03-28 06:00:00	0.32	0.13	0.89	-0.87	0.01	-0.04	0	-0.32	-0.19	-5.89	0.47	-0.13	-0.01	0.19	0	-0.05	-0.01	-5.7	0	-0.01	0	0.04
2023-03-28 07:00:00	1.07	1.4	1.15	-0.16	-0.14	-0.06	0.01	-1.07	0.33	-46.98	0.09	-1.4	0.14	-0.33	0	0.08	0.15	-47.31	0	0.15	12.51	0.06

Publication time: 15.50 pm (D-1)

5.27. Spanning/DFP

This page displays MTUs in which a fallback was applied during capacity calculation like spanning or default flow-based parameters due to technical or other issues in the daily process.

Spanning / DFP

Date	Computation	Type
2021-01-10 18:00:00	Initial	Spanning
2021-01-10 18:00:00	Final	Spanning
2021-01-10 18:00:00	Pre-Final	Spanning
2021-01-10 19:00:00	Initial	Spanning
2021-01-10 19:00:00	Final	Spanning
2021-01-10 19:00:00	Pre-Final	Spanning

Publication time: when available

5.28. Alpha factor from MCP

This page shows the Alpha Factor from DA Market Clearing Point indicating the share of cross-zonal capacity provided by the FB domain and LTA domain from the SDAC.

- If $\alpha = 0$, it means that the total cross zonal capacity is provided by the LTA domain. Shadow prices are applicable to LTA constraints only.
- If $\alpha = 1$, it means that the total cross zonal capacity is provided by the FB domain. Shadow prices are applicable to FB constraints only
- If α is between 0 and 1, it means that the total cross zonal capacity is provided by both the FB domain and LTA domain. Shadow prices are applicable to both FB constraints and LTA constraints.

The alpha factor is the outcome of the market coupling optimization algorithm introduced by the new Extended LTA Inclusion approach referred to in DA CCM Art. 18.

Alpha factor from MCP

Date	α
2023-03-21 00:00:00	0.7721001036
2023-03-21 01:00:00	0.3323826917
2023-03-21 02:00:00	0.731488905
2023-03-21 03:00:00	0.9231341875
2023-03-21 04:00:00	0.7513501187
2023-03-21 05:00:00	0.7588399086
2023-03-21 06:00:00	1
2023-03-21 07:00:00	1
2023-03-21 08:00:00	1
2023-03-21 09:00:00	1
2023-03-21 10:00:00	1
2023-03-21 11:00:00	1
2023-03-21 12:00:00	1
2023-03-21 13:00:00	1
2023-03-21 14:00:00	1
2023-03-21 15:00:00	1
2023-03-21 16:00:00	0.9776109424
2023-03-21 17:00:00	1
2023-03-21 18:00:00	1
2023-03-21 19:00:00	1
2023-03-21 20:00:00	1
2023-03-21 21:00:00	0.9482902687
2023-03-21 22:00:00	0.8273137761
2023-03-21 23:00:00	1

Publication time: 15.50 pm (D-1)

6. Monitoring Tool

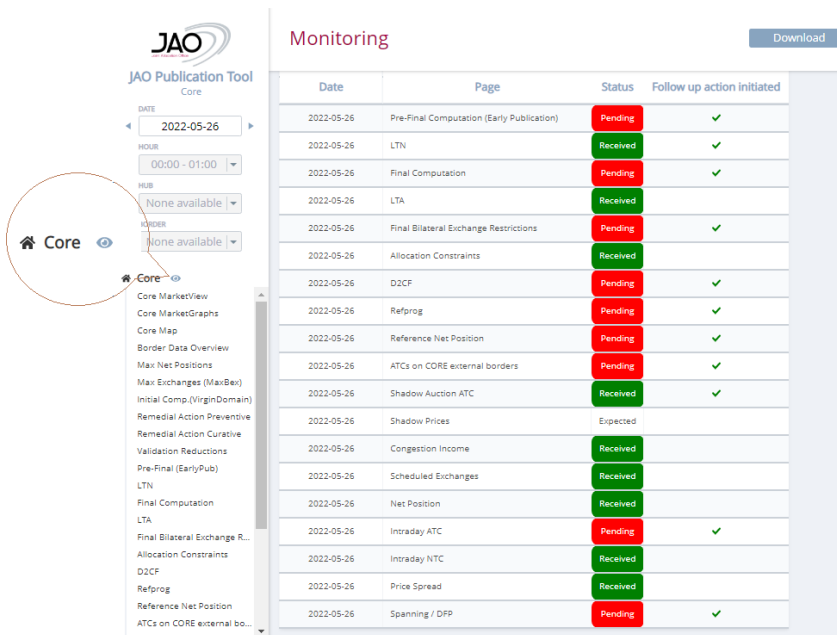
The Monitoring Tool is part of the continuous monitoring implementation in line with Art 26(2) of the Core DA CCM. It provides a dashboard reflecting the data completeness for each of the data items (pages) that can be consulted through the Publication Tool.

The dashboard displays the Date, Page, Status and Follow up action initiated for the selected Business Day. The Status can be one of the following values:

- Expected: the publication of the page has not yet reached the target time
- Received: the publication of the page has been completed
- Pending: the publication of the page has not yet been completed whilst the target time for the publication is reached
- Spanning/DFP
 - In case Spanning/DFP is detected, the Spanning/DFP label is applied to those pages which are impacted.
 - In such case, the Spanning/DFP page itself will be marked as Received
 - The Spanning/DFP page itself is left blank by default. Only in case Spanning/DFP is detected, it will be filed in and marked as 'Received'

The column 'Follow up action initiated' is marked with a green check to signal that publication has not been done by target time and an automatic alarm is sent to JAO operators, so that corrective measures can be done to retrieve the data for publication. As soon as the data publication is done, the Status label will change from Pending to Received, to signal data has been updated.

The Monitoring Tool allows to download the historical overview per page in csv file format and is available through the Monitoring button in the Publication Tool landing page.



Date	Page	Status	Follow up action initiated
2022-05-26	Pre-Final Computation (Early Publication)	Pending	✓
2022-05-26	LTN	Received	✓
2022-05-26	Final Computation	Pending	✓
2022-05-26	LTA	Received	✓
2022-05-26	Final Bilateral Exchange Restrictions	Pending	✓
2022-05-26	Allocation Constraints	Received	✓
2022-05-26	D2CF	Pending	✓
2022-05-26	Refprog	Pending	✓
2022-05-26	Reference Net Position	Pending	✓
2022-05-26	ATCs on CORE external borders	Pending	✓
2022-05-26	Shadow Auction ATC	Received	✓
2022-05-26	Shadow Prices	Expected	
2022-05-26	Congestion Income	Received	
2022-05-26	Scheduled Exchanges	Received	
2022-05-26	Net Position	Received	
2022-05-26	Intraday ATC	Pending	✓
2022-05-26	Intraday NTC	Received	
2022-05-26	Price Spread	Received	
2022-05-26	Spanning / DFP	Pending	✓

7. Backup Tool

In case a critical issue occurs with the Core Capacity Calculation Tool, a Backup Tool is used to generate the capacity calculation outputs for the Market Coupling. In such case, a more limited set of information is published on the Publication Tool, namely for the concerned business day data is published on the following pages whilst the other pages will remain empty:

- Spanning/DFP – indicating the concerned Business Day consists of Default FB parameters
- Final Bilateral Exchange Restrictions – in this case representing the Default FB parameters
- Allocation Constraints
- LTA
- LTN

8. Web Service

On <https://publicationtool.jao.eu/core/api>, users will find:

- Endpoint (drop down): Displays the different available publications.
- Request-tab: Displays the parameter structure which will be needed to retrieve the data, as it is a GET-method it will be needed to append the parameters to the URL
- Response-tab: displays how the response will be structured
- Test-tab: what the URL looks like with the provided parameters.

API

ENDPOINT

Max Exchanges (MaxBex) ▾

URL

GET <https://publicationtool.jao.eu/core/api/core/maxExchanges/index>

Request Response **Test**

DATE (UTC)

2022-06-08T23:00:00.000Z

Try

REQUESTED URL (GET)

<https://publicationtool.jao.eu/core/api/core/maxExchanges/index?date=2022-06-08T23%3A00%3A00.000Z>

REQUEST HEADERS

```
{
  "Authorization": "Bearer ***Enter Your Personal Token Here (Optional for now)***"
}
```

RESPONSE HEADERS

```
{
  "content-type": "application/json; charset=utf-8",
  "date": "Fri, 10 Jun 2022 10:32:08 GMT",
  "transfer-encoding": "chunked",
  "x-frame-options": "DENY"
}
```

9. Publication tool (underlying architecture)

The publication tool website is developed with a .netCore backend and a react frontend, communicating via rest-api. A .netCore service runs on a separate server saving all data retrieved via FTP into an SQL-database.

10. Annex

10.1. Naming Convention for CNECs

Core TSO have defined the following naming conventions for CNECs.

- Line: "AVELGEM-HORTA 380.101"
- PST: "PST ZANDVLIET 1"
- Tripod line: "Y-DELLMENSINGEN-HOHENECK-VÖHRINGEN rot", where
 - The Y stands for the node connecting all three branches of the tripod.
 - The firstly mentioned substation after the Y defines the branch of the tripod that is monitored i.e. Dellmensingen to the Y-node in this case
- TSOs harmonize the descriptive name of cross-border network elements with their neighbors

10.2. Naming Convention for RAs

10.2.1. Remedial Action Naming conventions

For Topological and PST Remedial Actions, the agreed naming conventions are the followings:

10.2.2. Topological

- Opening a line: TOP_OPEN_SubstationA_SubstationB_ElementIdentifier, Example: *TOP_OPEN_Mercator_Horta_73*
- Closing a line: TOP_CLOSE_SubstationA_SubstationB_ElementIdentifier, Example: *TOP_CLOSE_Mercator_Horta_73*
- Split in multiple nodes: TOP_#NODES_Substation, Examples: *TOP_2N_Dellmensingen; TOP_3N_VIGY*

10.2.3. Complex action

TOP_COMPLEX_SubstationA_SubstationB_SubstationC_...

- Example: TOP_COMPLEX_GYOR_LITR_GABC

TSOs may include an optional suffix ' _PRA' or ' _CRA' in case the RA is specifically designed to be applied only as PRA or CRA. The example should read: *TOP_COMPLEX_GYOR_LITR_GABC_CRA*"

10.2.4. PST taps

PST_SubstationName_Enumeration Example: *PST_DIELE_441; PST_VANYK_2*

10.2.5. Miscellaneous

- Special protection schemes that are applied in case of tripping of network elements are indicated with prefix "SPS" e.g. "SPS1_Pleinting_St. Peter Tr3_CRA".
- Transformers with angle regulation are indicated with prefix "AT" e.g. "AT_Mikulowa_1_PRA", "AT_Mikulowa_2_PRA", "AT_Mikulowa_1_CRA", "AT_Mikulowa_2_CRA". Their impact as remedial action is implemented as a change of the phase angle between the coupled grids (400/220kV) .