WG European Market Design & System Operation

Jun 22nd 2020

13:00 – 16:00

Agenda

System operation

1. Incentive transparency on congestion mgmt (Martin Funck)
2. Update on emergency & restoration (Peter Van Meirhaeghe)

European market design

3. Update on CEP70 (Steve Van Campenhout)
   - Successful go-live
   - Outlook for the coming years
4. Intraday evolutions
   - NLL ID nomination gate extension (Jean-Michel Reghem)
   - Analysis of continuous trading usage on Belgian borders (Jean-Michel Reghem)
   - Implementation of 15' and 30' MTU for ID XB exchanges (Jean-Michel Reghem)
   - EFET's vision on intraday market design (Jérôme Le Page, EFET)
5. Update on Core LTCCM (Bert Dobbelaere)

AOB

1. Incentive transparency on congestion mgmt

Presentation of the first deliverables of the incentive about transparency for congestion management

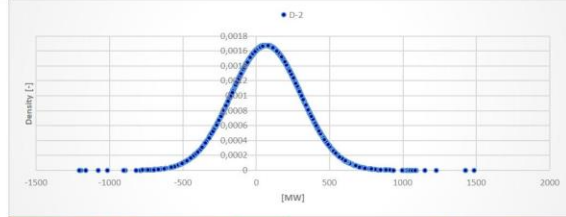
As proposed in response to the incentive on “Improvement of transparency as regards the detection and management of Congestion” defined in the CREG decision (B)658E/52 of 28 June 2018, Elia will publish **a quarterly report on Congestion Management** on its website covering a period of three months, within one and a half months after the end of the concerned period. This report will contain the following information:

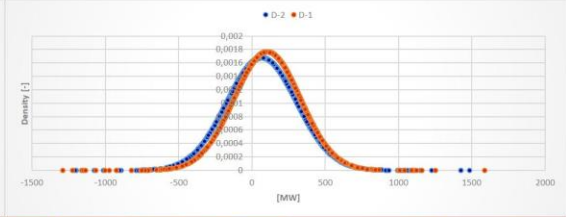
- Information on the quality of the following forecasts used as operational input data for the creation of the Individual Grid Models (IGM):
    i. Quality of production forecasts calculated based on a comparison of the forecasts with real-time measurements, categorized based on production type;
    ii. Quality of forecasted data of grid topology based on a comparison of the forecasts with real-time measurements, for the following grid elements: phase-shifter transformers at Zandvliet and Van Eyck, bus bar couplers at the 380kV stations of Horta, Avelgem, Courcelles.
    iii. Quality of Total Load forecasts based on a comparison of the Total Load forecast with real-time measurements, a comparison between the load forecasts in day-ahead and in intraday, and information on the correction of the Total Load forecasts for use in the files of the Common Grid Model.
- Information on the quality of output data:
    i. Quality of load flow calculations for Congestion Relevant Grid Elements based on a comparison between the Common Grid Model files that Elia received from the Regional Security Coordinator (RSC) and real-time measurements.
    ii. Quality of forecasted data on international flows based on a comparison with real-time measurements.
- Information about the timing, power, location, and purpose for activations of Costly Remedial Actions by Elia.

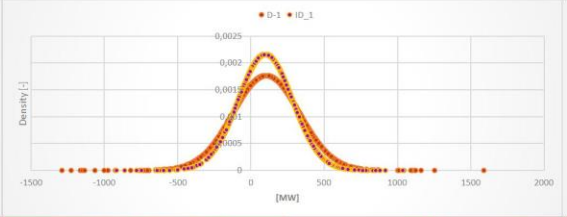
Step 1- Quality of inputs data to create IGM

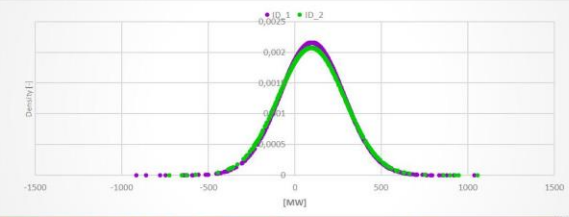
The objective of these KPIs are to compare the forecasted data used as input to create the IGM with the real time measurement data.

Offshore wind production









D-2		D-1		ID_1		ID_2	
Mean of the absolute error [MW]	66,61	Mean of the absolute error [MW]	104,25	Mean of the absolute error [MW]	98,61	Mean of the absolute error [MW]	94,83
Mean of the absolute error (% of installed capacity)	3%	Mean of the absolute error (% of installed capacity)	5%	Mean of the absolute error (% of installed capacity)	4%	Mean of the absolute error (% of installed capacity)	4%
Mean of the relative error (% of actual production)	1169%	Mean of the relative error (% of actual production)	147%	Mean of the relative error (% of actual production)	5019%	Mean of the relative error (% of actual production)	22168%
Standard deviation [MW]	237,96	Standard deviation [MW]	226,10	Standard deviation [MW]	184,81	Standard deviation [MW]	192,36
Maximum errors [MW]	1485,19	Maximum errors [MW]	1587,90	Maximum errors [MW]	1035,94	Maximum errors [MW]	1056,99
Absolute P95 error [MW]	474,05	Absolute P95 error [MW]	478,27	Absolute P95 error [MW]	444,35	Absolute P95 error [MW]	459,36
Mean of the installed capacity [MW]				2183,49			

The following KPI are reported:

- Mean of the absolute error [in MW]:
- Mean of the absolute error [in % of the installed capacity]
- Mean of the relative error [in % of the actual production]
- Standard deviation [in MW]
- Maximum error [in MW] is the maximum of all absolute errors for a production type.
- Absolute P95 error [in MW]

For the following data:

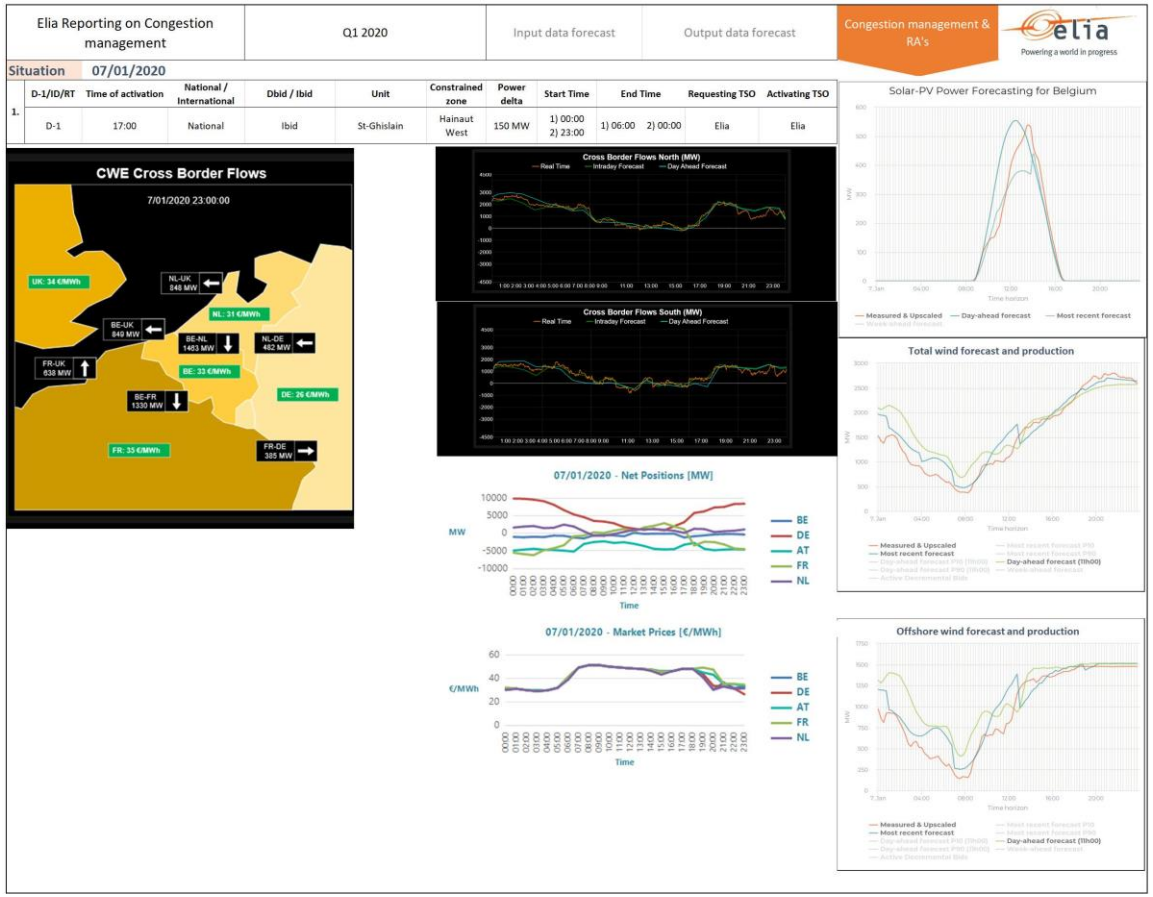
- Offshore wind production
- Onshore wind production
- Solar production
- CIPU production
- CHP & other non-CIPU production
- Total load
- Residual load
- Topological means.

Step 2 - Quality of output data

The objective of these KPIs are to compare the loading on relevant line forecasted in the CGM with the real time measurement data.

CNE	Absolute error [MW]				Relative error [% of rated power]				Sensitive relative error [% of the available margin]			
	D-2	D-1	ID_3h	ID_15h	D-2	D-1	ID_3h	ID_15h	D-2	D-1	ID_3h	ID_15h
220.513	16	8	11	7	3,04%	1,47%	2,04%	1,34%	2,00%	0,60%	1,19%	0,61%

Transparency about redispatching

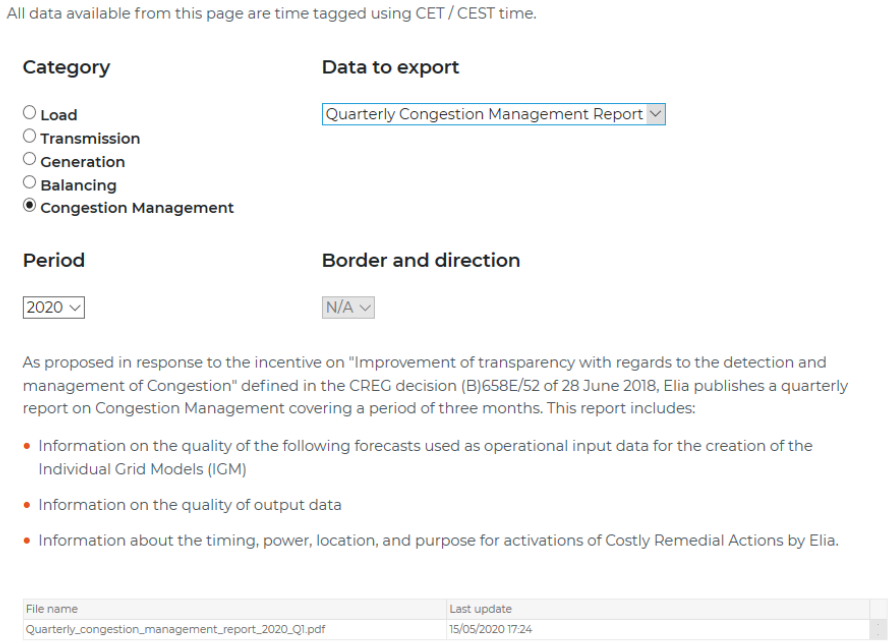


For each activation of costly remedial action, Elia includes in this reporting a contextual report of the activation.

The following information are included:

- Timing,
- Power delta,
- Location,
- Purpose for activations of Costly Remedial Actions by Elia
- Contextual graphs

This quarterly reporting is available on Elia website


All data available from this page are time tagged using CET / CEST time.

Category

- Load
- Transmission
- Generation
- Balancing
- Congestion Management

Data to export

Quarterly Congestion Management Report

Period

2020

Border and direction

N/A

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- Information on the quality of the following forecasts used as operational input data for the creation of the Individual Grid Models (IGM)
- Information on the quality of output data
- Information about the timing, power, location, and purpose for activations of Costly Remedial Actions by Elia.

File name	Last update
Quarterly_congestion_management_report_2020_Q1.pdf	15/05/2020 17:24

Each reporting is available 6 weeks after the end of the relevant period on the following section of Elia Website: Grid Data / Data Download

In case of questions or feedback regarding this reporting, don't hesitate to contact

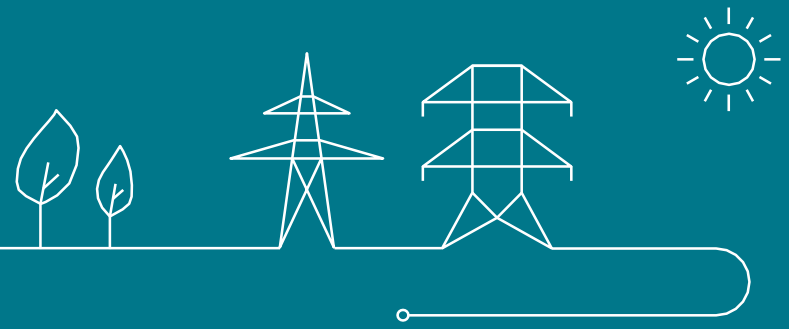
Martin Funck

martin.funck@elia.be

2. Update regarding emergency & restoration

Overview and timing of NCER implementation

NC ER implementation



Current status of NCER documents

NCER document	To be appoved by	Status	Next steps
Terms & Conditions for Restoration Service Providers (black start)	Creg	V 1.01 Approved	V 2.0 to be submitted by 01/03/2021
Rules for suspension and restoration of market activities and rules imbalance settlement during market suspension	Creg	V 1.0 Not approved	V 1.01 to be submitted
Test Plan	Minister	V 1.0 Partially approved	V 1.01 to be submitted by 15/10/2020.
System Defense Plan (SDP = reviewed reddingscode)	Minister	V1.01 approved (under certain conditions) for a period of 2 years	V 2.0 to be submitted by 19/12/2021
Restoration Plan (RP = reviewed reconstruction code)			
List of SGUs identified for defense and restoration plan			
List of High priority SGUs for defense and restoration plan	Minister	V 1.01 partially approved	V 2.0 was submitted 19/06/2020

Test Plan

First version submitted by ELIA Nov 22nd 2019

- TP identifies the equipment and capabilities for SDP and RP that have to be tested
- TP includes periodicity and conditions of tests following minimum requirements of NCER art 44 to 47.
  - Art 44: Black start plants or RSPs offering islanding + quick synchronization
  - Art 45: Defense service providers offering Demand Response
  - Art 46: RSP which is a HVDC offering black start
  - Art 47: Under frequency load shedding relays

  → Not applicable in Belgium
- TP shall follow methodology laid down in connection codes (new entities) or national law (existing entities).

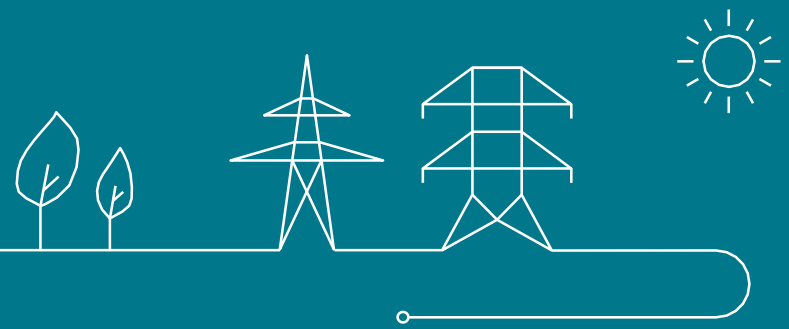
Ministerial decision April 15th 2020

- Conditions for black start tests are approved
- Elia has to submit an adapted version of TP before 15th October including:
  - Establishing an exhaustive list of existing and new equipment and capabilities that are relevant for SDP & RP, **irrespective if contracted or not** by TSO, irrespective if mentioned in art 44-47 or not. Specify periodicity and conditions of tests. Identify concerned SGUs.
  - Determining the applicable tests, including the **required capabilities**, who is **responsible to execute** the test and **who bears the costs**
  - Specifying the **reference values** in **normal/alert state** and in **emergency state**

- **New public consultation of test plan** planned from 17th August until 17th September 2020

Black start tender 2021-2023

T&C Restoration Service Providers applicable as from 2024

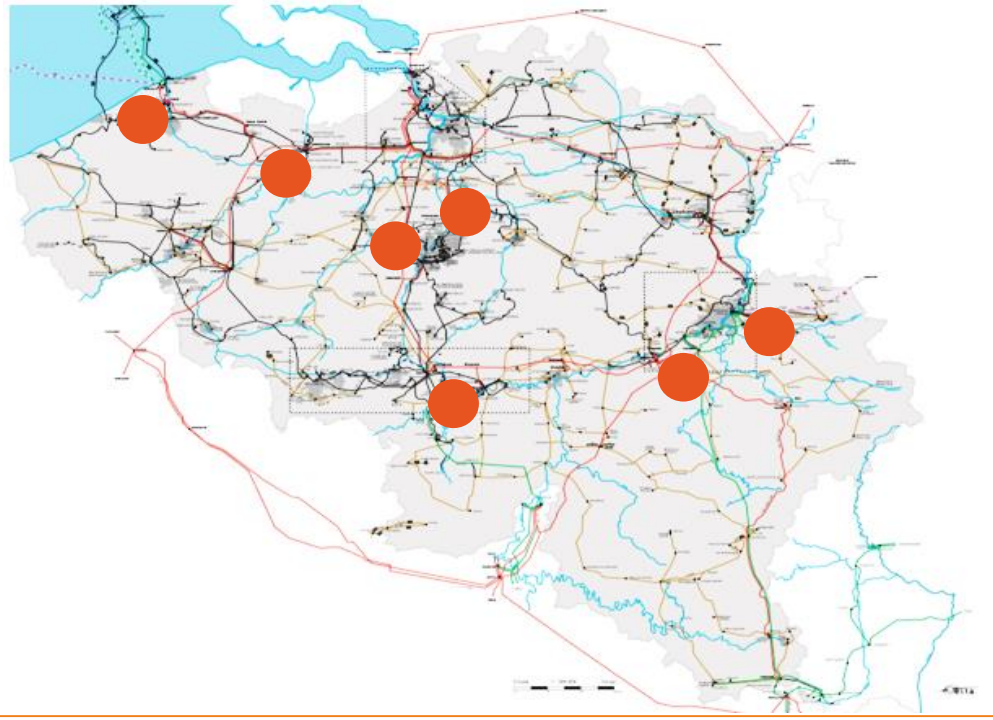


Tendering process new black-start plants for period 2021 - 2023

T&C RSP

Testplan

Call for candidates – 12/05/2020 to 05/06/2020



Call for tender

15/06/2020 to 03/07/2020

24/07: Report to Creg

25/09 Creg report on prices

(Royal decree)

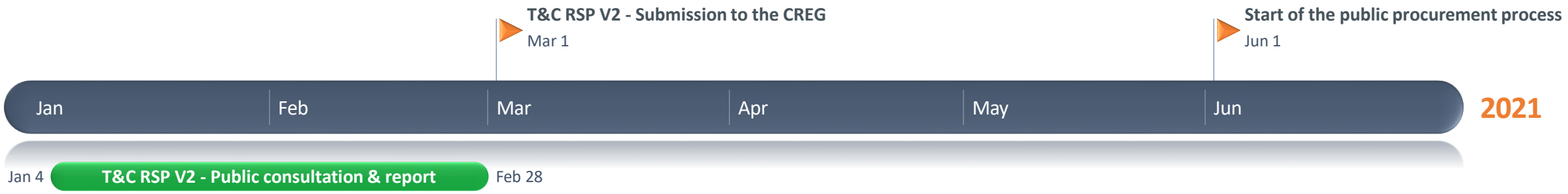
Award 5 contracts

Slide for illustration of the process: the dots do not reflect the result of the call for candidates

T&C RSP version 2 for period 2024 – to be defined

- A new version of the T&C RSP (V2) will be written based on
  - The new design proposal for the restoration services consulted in 2018
  - The CREG's approval decision on the T&C RSP V1.1
- The main changes introduced in the T&C RSP V2 are:
  - Extending the participation of the Black-start service to more restoration facilities (combination small CHP – Large Thermal unit)
  - Proposing a new public procurement process for the Black-start service that will allow more assets to offer the service
  - Changing the settlement of the Black-start service via the introduction of a **cost-plus approach** for the remuneration of the service

- **High-level expected planning**



Implementation of measures for SDP

Notification of system state to stakeholders

NC ER implementation

“Be prepared” notifications for efficient reactions in case of emergency and blackout

		Emergency Elia	Blackout Elia	Grid Restoration Elia
	Type of signal	All notifications include “Be prepared” signals		
Prep.	**Required action**	The stakeholder has to **indicate his preferred communication channel(s)** and register to the Mail or SMS or SCADA channels		
Signal activated	**Signal activation**	Manual activation by Elia or automatic activation if frequency < 49.80 Hz or > 50.20 Hz	Manual activation by Elia	Manual activation by Elia
	Immediate actions	• Manually acknowledge the reception of the SCADA signal • Stop all tests and maintenance works as far as reasonably possible and follow further instructions	• Manually acknowledge the reception of the SCADA signal • Get prepared to execute Elia’s instructions without undue delay	• Manually acknowledge the reception of the SCADA signal • Get prepared to execute Elia’s instructions without undue delay
	Action to be avoided	Stakeholders should avoid to phone the control centers of Elia		
	Later actions	Execute instructions provided by Elia	Elia will inform about the blackout & impacted areas	Execute instructions provided by Elia
Signal deactivated	**Signal deactivation**	Manual deactivation by Elia		
	Required action	Manually acknowledge the reception of the SCADA signal deactivation		

Key milestones for stakeholders

Registration of the preferred com channel in the connection contract in September and a GO-LIVE in December

September 2020

- **Elia will provide a functional note** providing detailed explanation on the notifications and a **technical note** describing the requirements for the SCADA communication channels
- **KAMs** will inform their clients and verify if client has an interest for the SCADA channel

From September to December 2020

- **Stakeholders will be asked to register** to the different communication channels.

→ connection contract for grid users.

→ separate platform for other stakeholders

December 2020

- **GO LIVE** of Emergency Elia, Blackout Elia and Grid Restoration Elia,

SGUs and NEMOs can register their choice via the contract, public authorities can contact their SPOC

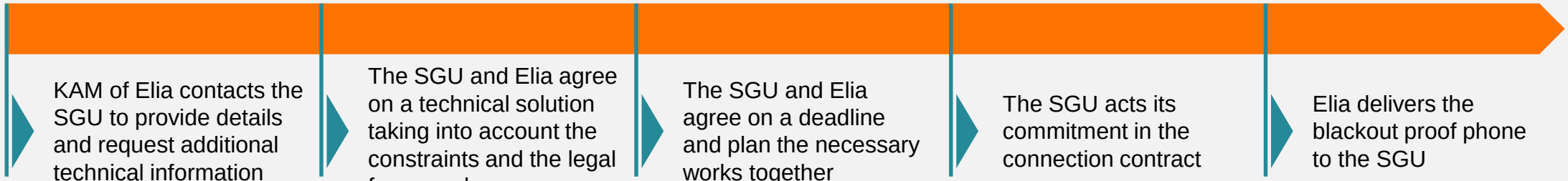
SGUs and NEMOs	SGUs and NEMOs will have the opportunity to register their choice digitally via Appendix 7 of their contract If needed, contact your KAM
Public authorities	Public authorities can communicate their choice to their SPOC Elia for all Emergency matters. A dedicated mail will be sent by the SPOC Elia for Emergency matters.

Blackout proof phones roll out

NC ER implementation

SGUs will be contacted by Elia's KAM to provide necessary information and define the technical solution together with its data communication experts

Approach proposed to SGUs



SGUs expected contribution

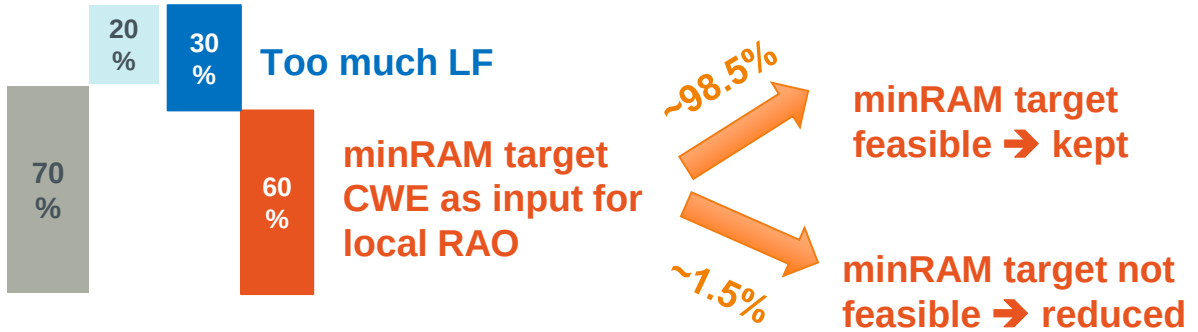
- **Communicate the necessary information** to Elia such that the best technical solution can be chosen
- **Finance the work and equipment** necessary for a blackout proof connection within their own battery limits
- **Realize the adaptations and works on their site** within the agreed deadlines

3. Update on CEP70

CEP is operational since Apr 1st

MNCC: usage of capacity by exchanges outside CWE (NLL typically biggest contributor) – *in this example MNCC has a relieving effect*

CEP target for all market exchanges (CWE & non-CWE)



Process and local tooling went successfully live on April 1st

- **Calculation minRAM target CWE:** local tooling takes 70% as a starting point, calculates MNCC (best forecast approach) and loopflows, and sets the CWE MinRAM target in accordance with the derogation on loopflows
- **Local RAO:** the relevant vertices from the CWE FB domain are selected as the market coupling point around which an optimizer tries to solve overloads with non-costly (PST taps, topological actions) and costly (internal RD, wind curtailment) RAs
- **Result:** the minRAM value is confirmed if the RAO is able to alleviate the congestions, and reduced if the local RAO is not able to alleviate the congestions.
  - During the period Apr-May for ~98.5% of all CNECs across all MTUs the RAO confirmed the minRAM value
  - From a CEP compliance point-of-view it should be understood that a local RAO has its limitations cf. lack of RA potential highlighted as foreseeable ground in Elia's derogation
- **Publication:** MNCC, LoopFlows, minRAM CWE target and minRAM reduction (if any) are published in the field minRAM justification

RA: remedial action RAO: remedial action optimizer

Elia will publish a report on the alleviation of the foreseeable grounds

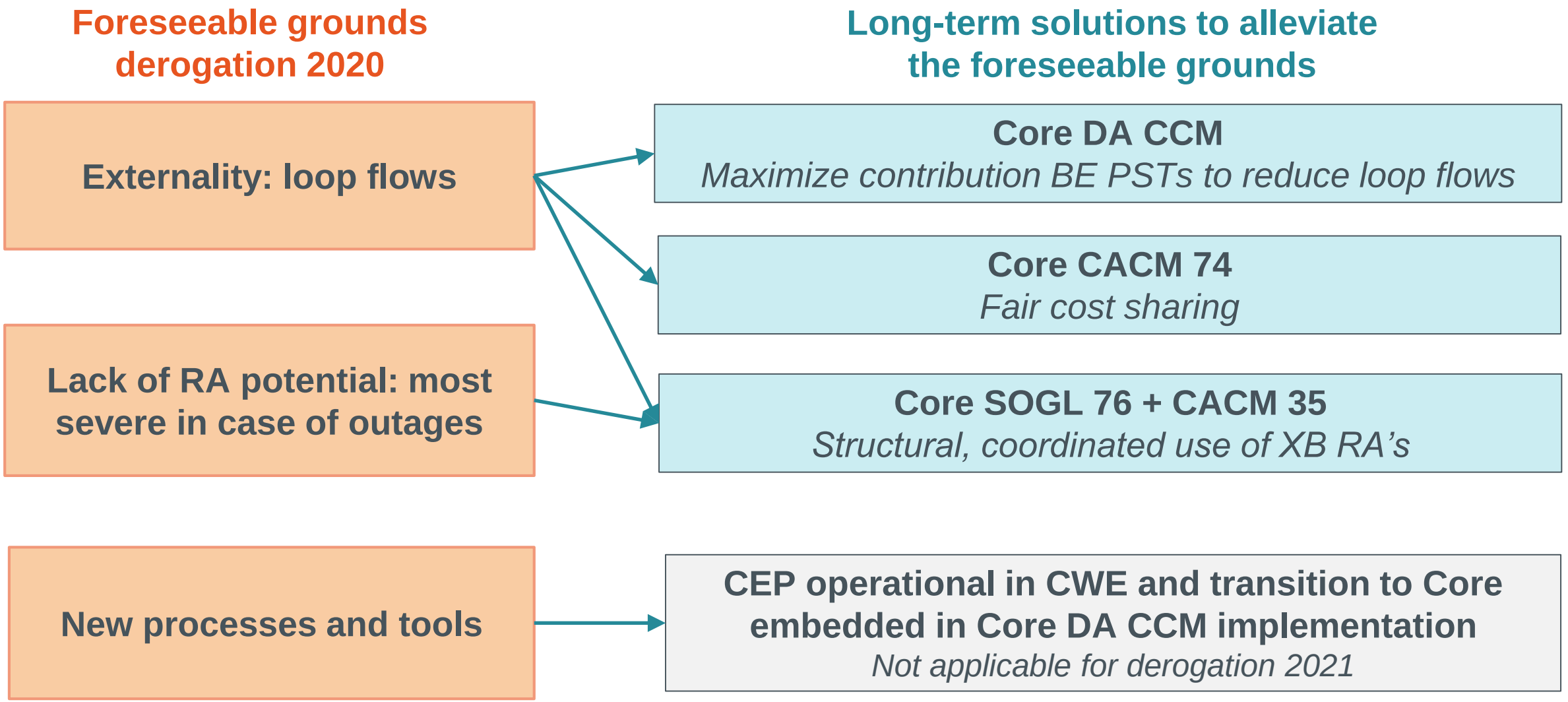
- As requested by CEP Art. 16(9)

> Where a derogation is granted, the relevant transmission system operators shall develop and publish a methodology and projects that shall provide a long-term solution to the issue that the derogation seeks to address. The derogation shall expire when the time limit for the derogation is reached or when the solution is applied, whichever is earlier.

- Practicalities
  - 1-2 pager in EN
  - Aim is to publish the report by end of June

- Today Elia presents the content and key messages of this report

Pre-requisites to alleviate the foreseeable grounds - overview



Pre-requisites to alleviate the foreseeable grounds - timing

Core DA CCM
Maximize contribution BE PSTs to reduce loopflows

- Status: implementation ongoing
- Go-live: May-Sep 2021

Core CACM 74
Fair cost sharing

- In Mar 2020 NRAs referred TSOs proposal to ACER , who's formal decision is due by Sep 2020
- Implementation timings unknown yet very unlikely to be prior 2022

Core SOGL 76 + CACM 35
Structural, coordinated use of cross-border remedial actions

<u>CACM 35</u>

- In Mar 2020 NRAs referred TSOs proposal to ACER, who's formal decision is due by Sep 2020
- Implementation timings unknown yet very unlikely to be prior 2022

<u>SOGL76</u>

- In Jun 2020 NRAs referred TSOs proposal to ACER, who's formal decision is due by Dec 2020
- Implementation timings as proposed by Core TSOs
  - Interim solution: 2y – *amendment detailing content & approach 1y after approval*
  - Target solution: 4y7m

Pre-requisites to alleviate the foreseeable grounds – key messages

- As the milestones of the Core RDCT 35/74/76 methodologies are uncertain, Elia does not have all the answers at this moment on the question by when all grounds for the derogation will be alleviated
- Yet it is obvious that not all required methodologies will be implemented prior to 2022
- Hence Elia will re-submit a derogation for 2021, thus again for a 1-year period, evolving the derogation from 2020 in the following way
  - Loopflows: two phases
    - Phase 1: CWE cf. until Core DA goes live ➔ status quo
    - Phase 2: as from Core DA go live ➔ higher flexibility to use PSTs to lower loop flows. This is expected to decrease the extent of the derogation, but PSTs alone will certainly not completely alleviate the loop flows
  - Lack of RA potential: no implementations expected in 2021 ➔ status quo

- Elia will provide an update of this report in 2021, in line with renewal of its derogation

4. Intraday evolutions

NLL ID nomination gate extension

Change on ID nomination gate closure timing on BE-GB border

From delivery day 5/05/2020 onwards, Nemo Link has extended the ID nomination gate closure with 5 minutes.

The ID nomination deadline is now 70 minutes before delivery.

https://www.nemolink.co.uk/intraday/nemo-link-announces-its-updated-intraday-nomination-timings/

Change on ID nomination gate closure timing on BE-GB border

Nemo Link's Updated Intraday Auction & Nomination Gate Timings CE(S)T

(Effective from 05 May 2020 for delivery day D)

Auction

Auction 1* Opens	21:45 (D-1)
Auction 1* Closes	22:10 (D-1)
Delivery Period	00:00-06:00 (D)

Nominations

Gate	1	2	3	4	5	6
Open	22:15 D-1	23:00 D-1	00:00	01:00	02:00	03:00
Close	22:50 D-1	23:50 D-1	00:50	01:50	02:50	03:50
For	00:00-06:00	01:00-06:00	02:00-06:00	03:00-06:00	04:00-06:00	05:00-06:00

Auction

Auction 2* Opens	03:30 (D)
Auction 2* Closes	03:55 (D)
Delivery Period	06:00-12:00 (D)

Nominations

Gate	7	8	9	10	11	12
Open	04:00	05:00	06:00	07:00	08:00	09:00
Close	04:50	05:50	06:50	07:50	08:50	09:50
For	06:00-12:00	07:00-12:00	08:00-12:00	09:00-12:00	10:00-12:00	11:00-12:00

Auction

Auction 3 Opens	09:30 (D)
Auction 3 Closes	09:55 (D)
Delivery Period	12:00-18:00 (D)

Nominations

Gate	13	14	15	16	17	18
Open	10:00	11:00	12:00	13:00	14:00	15:00
Close	10:50	11:50	12:50	13:50	14:50	15:50
For	12:00-18:00	13:00-18:00	14:00-18:00	15:00-18:00	16:00-18:00	17:00-18:00

Auction

Auction 4 Opens	15:30 (D)
Auction 4 Closes	15:55 (D)
Delivery Period	18:00-24:00 (D)

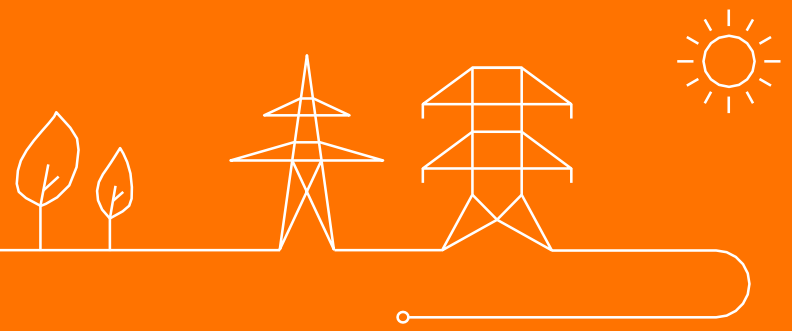
Nominations

Gate	19	20	21	22	23	24
Open	16:00	17:00	18:00	19:00	20:00	21:00
Close	16:50	17:50	18:50	19:50	20:50	21:50
For	18:00-24:00	19:00-24:00	20:00-24:00	21:00-24:00	22:00-24:00	23:00-24:00

* Please note it will not be possible to contact JAO by telephone during Auctions 1 and 2

nemolink

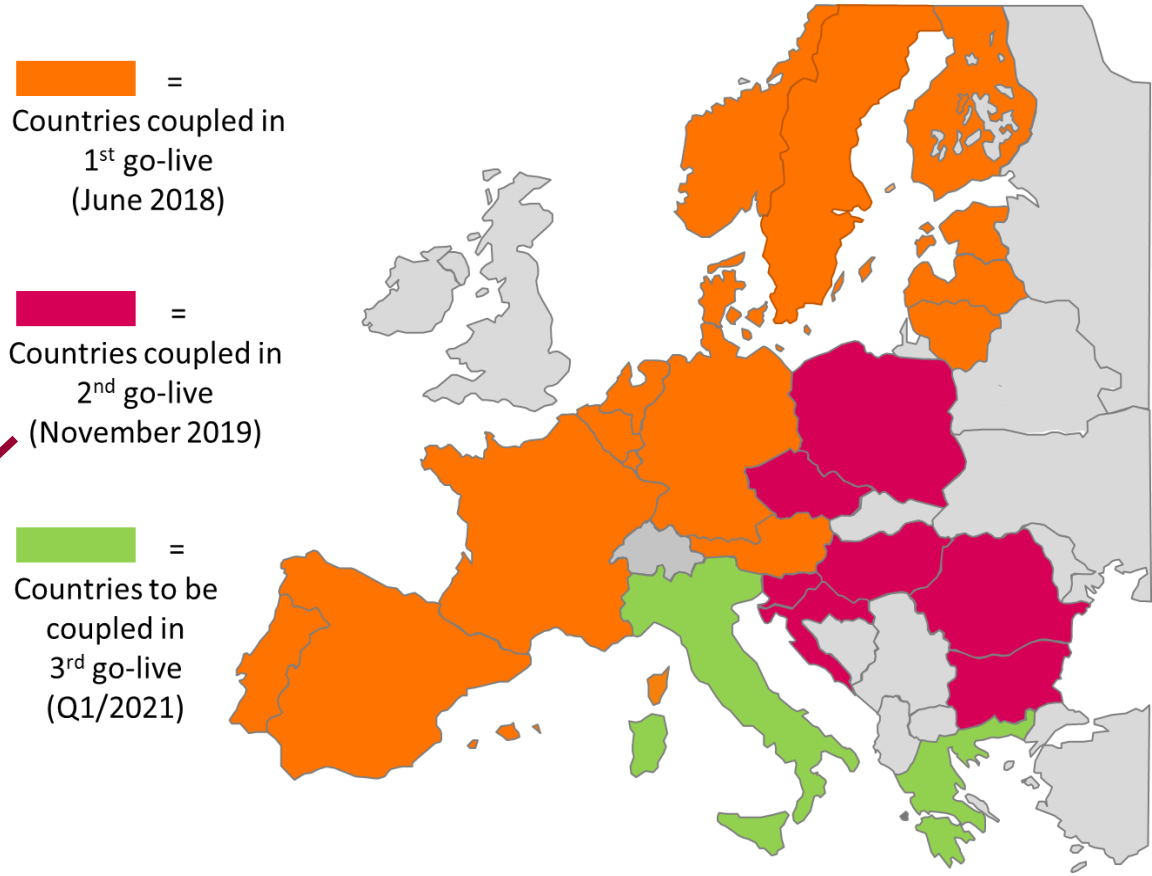
Analysis of continuous trading usage on Belgian borders



Jeanmichel.reghem@elia.be

Number of trades in SIDC per Quarter since Go Live

Period	Number of trades
Mid-June to September 2018	3.5 million
October to December 2018	4.3 million
January to March 2019	4.8 million
April to June 2019	5.8 million
July to September 2019	5.6 million
October to December 2019	7.2 million
January to March 2020	8.3 million



2019 “XBID” Figures

2nd Wave Go Live: (19/11/2019)

- 14 → 21 countries
- 24 → 31 coupled bidding zones
- 25 → 32 TSOs
- 3 → 10 NEMOs

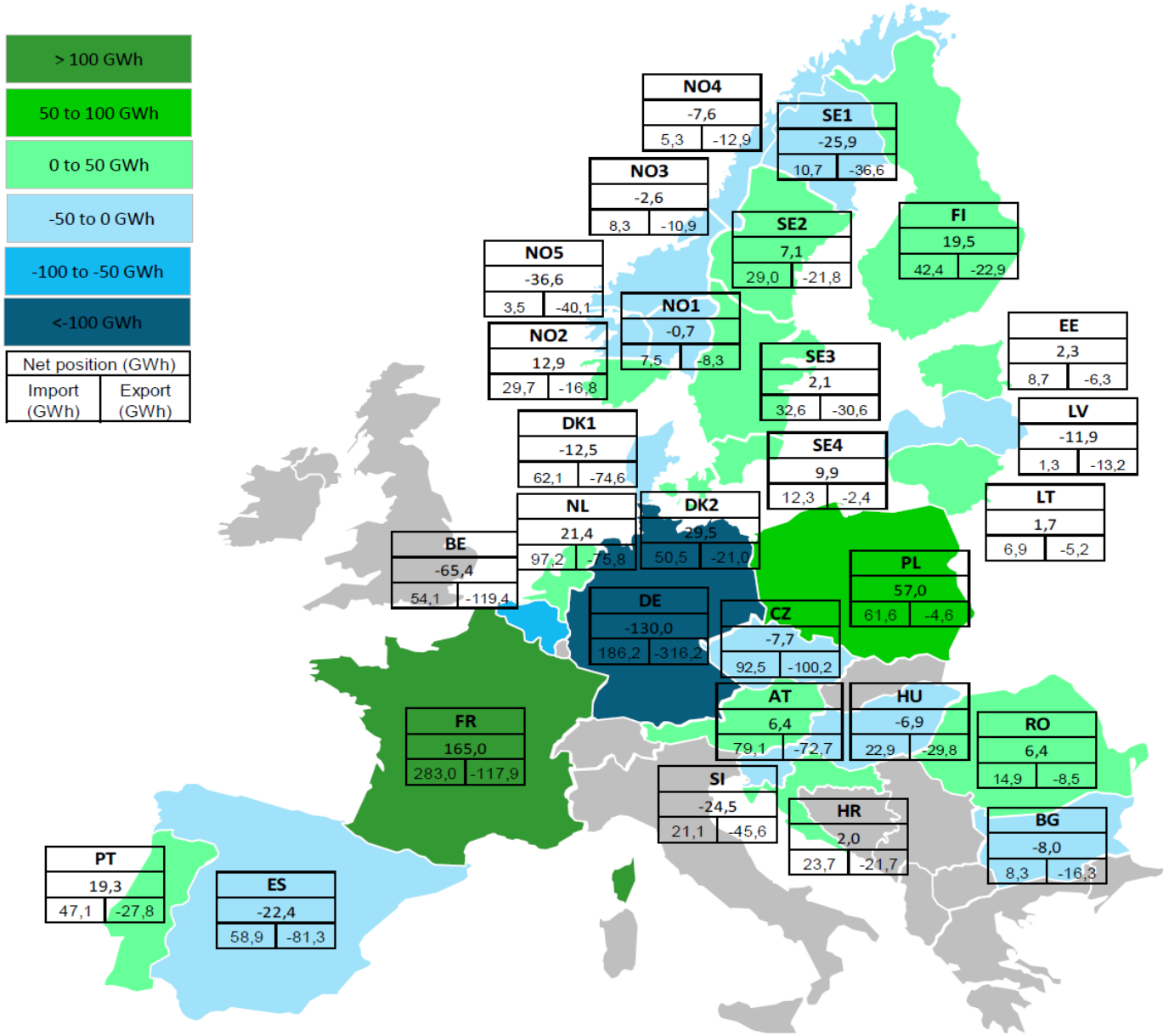
Trading volume

- 2019: 58 TWh in SIDC continuous (~160 GWh/day) and 30 millions trades (~80k / day)
- Average: 700.000 orders placed on NEMOs’ LTS per day
- <20ms for processing an order (2nd wave release optimization)

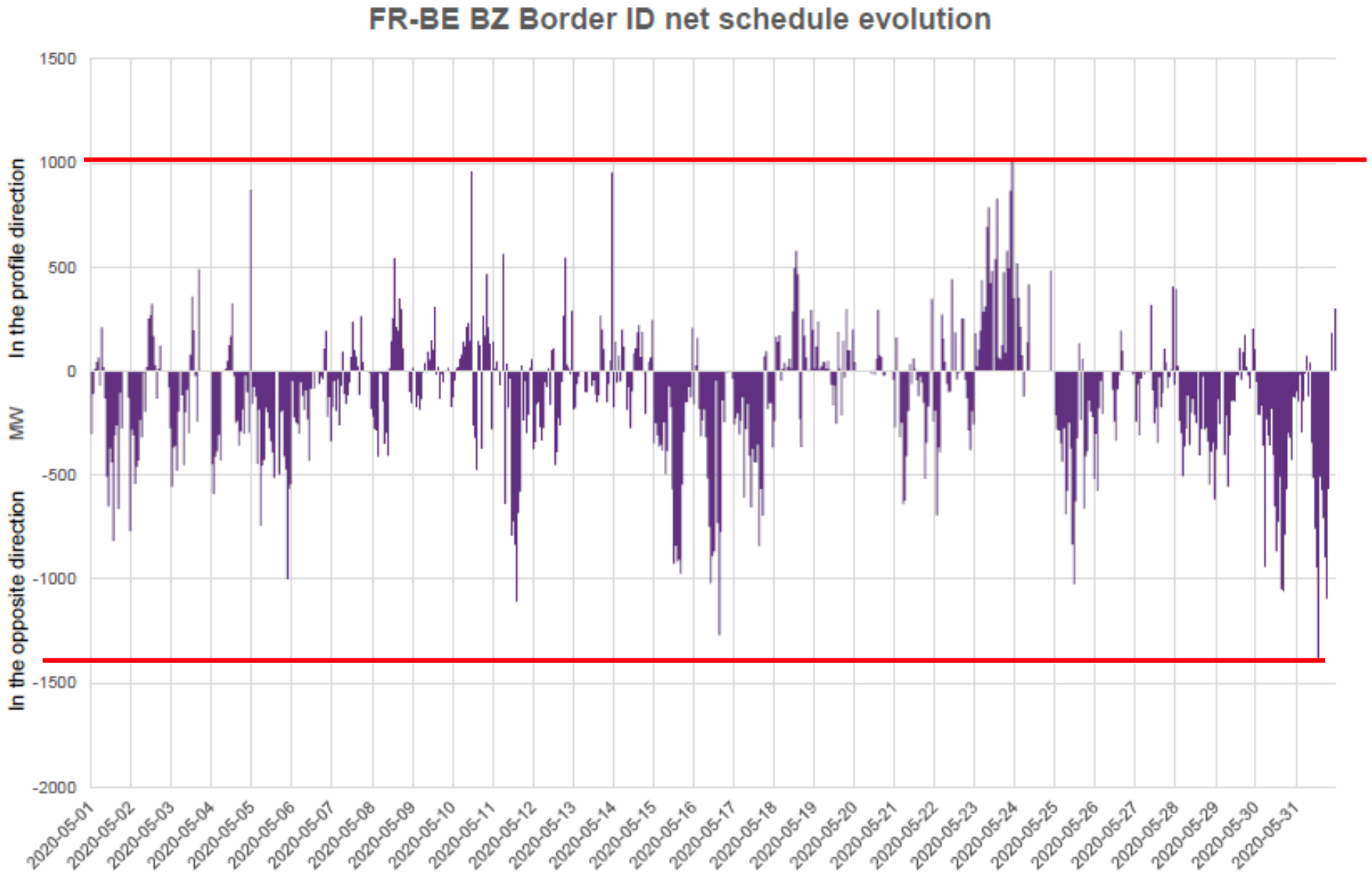
Price

- 2019: Annual average clearing price ~40€/MWh (BE: 39.99€/MWh)
  Difference with SDAC price per BZ (average): [-20€/MWh - + 6€/MWh]
  Volume weighted price per contract ranges between -179 and + 415€/MWh

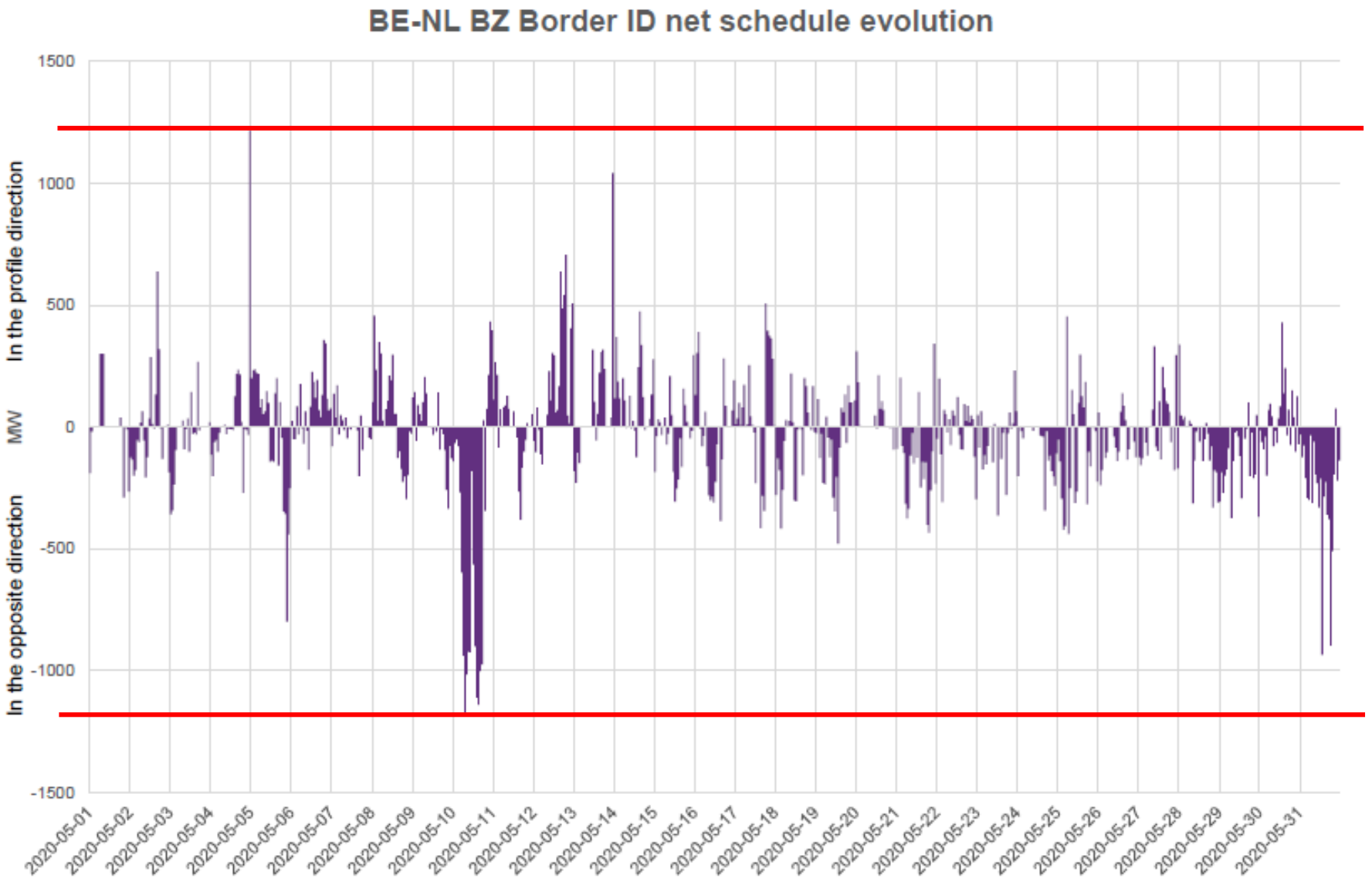
May 2020 – Monthly ID Implicit Net Position



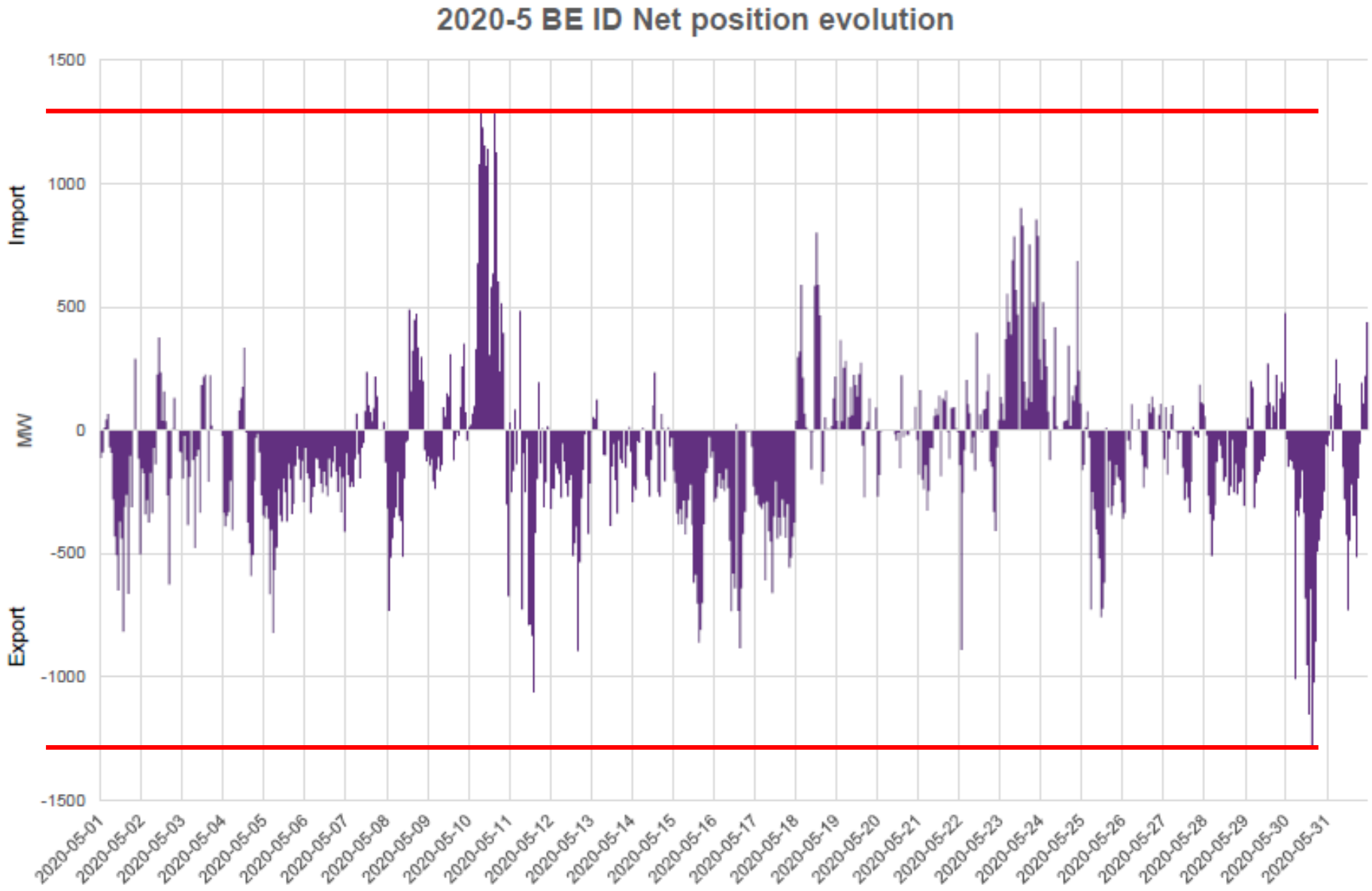
May 2020 – FR-BE Border – Net Scheduled Flow MWh/hour



May 2020 – BE-NL Border – Net Scheduled Flow MWh/hour



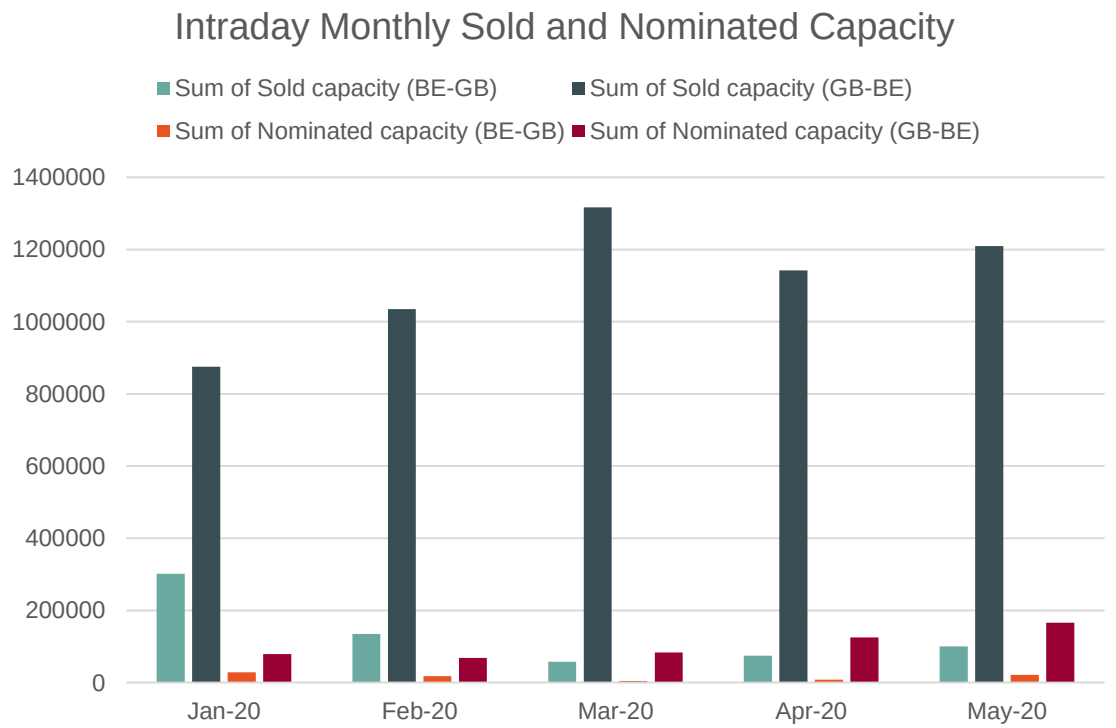
May 2020 – BE ID Net Position evolution (XBID only)



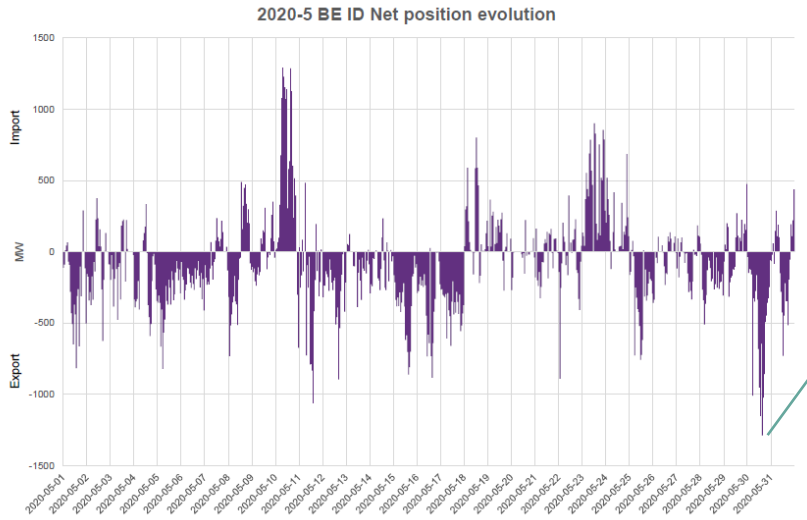
ID on Nemo Link (Explicit) – Monthly Sold and Nominated capacity

NLL intraday sold and nominated volumes (MWh). Jan - May 2020

Values	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Grand Total
Sum of Sold capacity (BE-GB) ORP ID	301535	134920	57646	74751	99984	668836
Sum of Sold capacity (GB-BE) ORP ID	875282	1034853	1316595	1142373	1209581	5578684
Sum of Nominated capacity (BE-GB) ORP ID	28737	18003	5003	7813	21632	81188
Sum of Nominated capacity (GB-BE) ORP ID	79106	68652	83435	125516	165664	522373
Hourly average Nominated (BE-GB)	39	26	7	11	29	22
Hourly average Nominated (GB-BE)	106	99	112	174	223	143

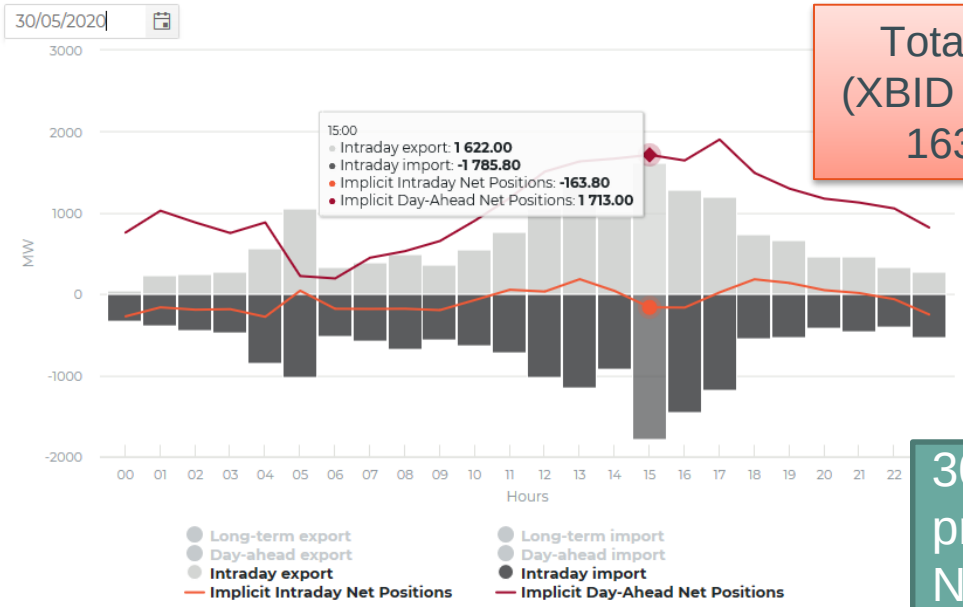


Relation XBID – NemoLink ID explicit

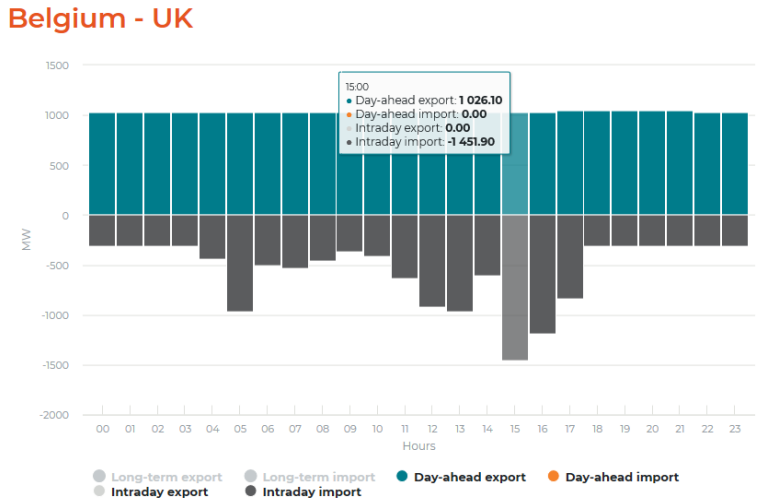


Saturday 30/5 15:00 → XBID NP = ~ 1290 MWh export
BE-FR: 1048.3MW ID export (netted) (1121 export – 73.3 import)
BE-NL: 239.8 MW ID export (netted) (500.4 export – 260.6 import)

Nemo Link: Flow reversal DA/ID:
From 1000MWh export → 451.9 import (1451.9 MW ID nominated)

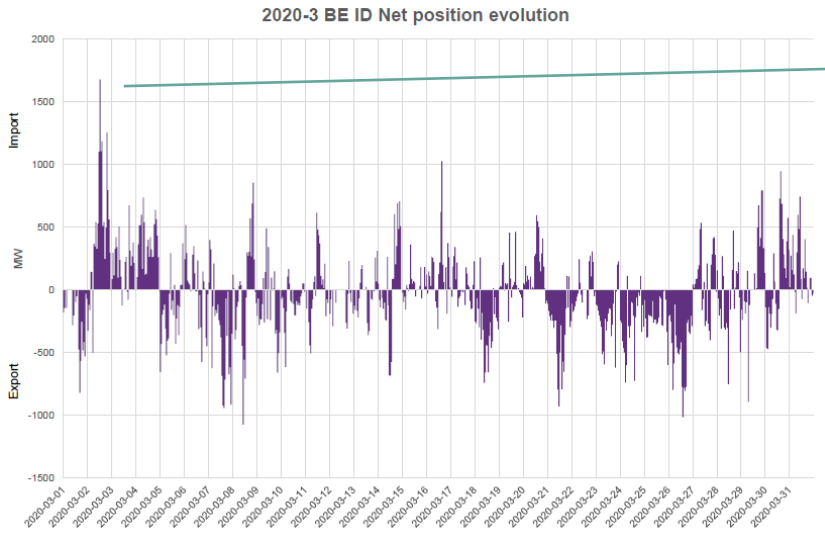


Total ID NP BE (XBID + Nemolink): 163.8 import



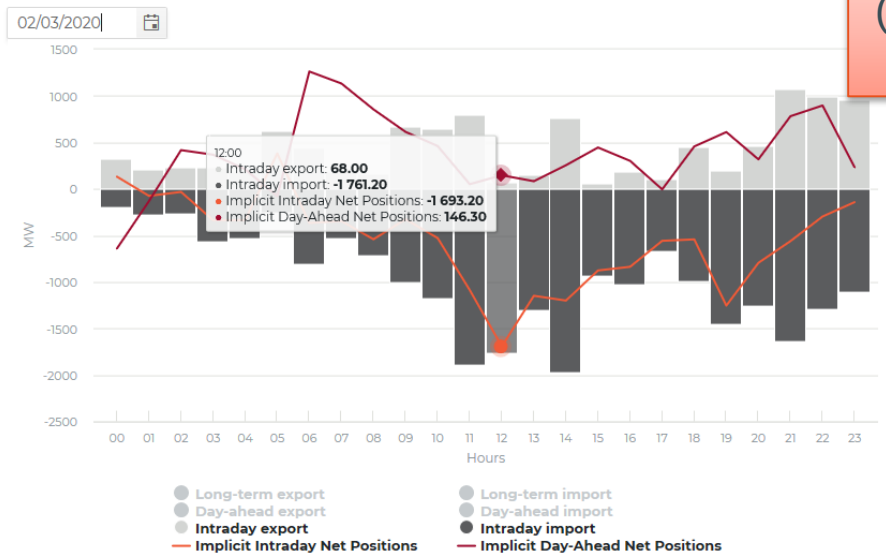
30/5 15:00: CWE/BE DA price: 2.17€/MWh GB DA price: 13.17€/MWh → full export
No specific element in BE to explain this transit.
Inertia issue in GB?

Other example – 2/3/2020 → XBID import for BE MPs imbalance



Monday 2/3 12:00 → XBID NP = ~ 1700 MWh import
BE-FR: -1524.8 MW ID import (netted) (22.4 export - 1547.2 import)
BE-NL: - 153.6 MW ID import (netted) (45.6 export – 199.2 import)

Nemo Link: ~No flow (DA = 0 – ID = 14.8 MW import)



Total ID NP BE (XBID + Nemolink): -1693.2 import

30/5 15:00:

BE DA Net Position: 146.3 MW

CWE/BE DA price: 35.13€/MWh GB DA price: 35.96€/MWh → < 2.6% Losses

Other example – 2/3/2020 → Cause?

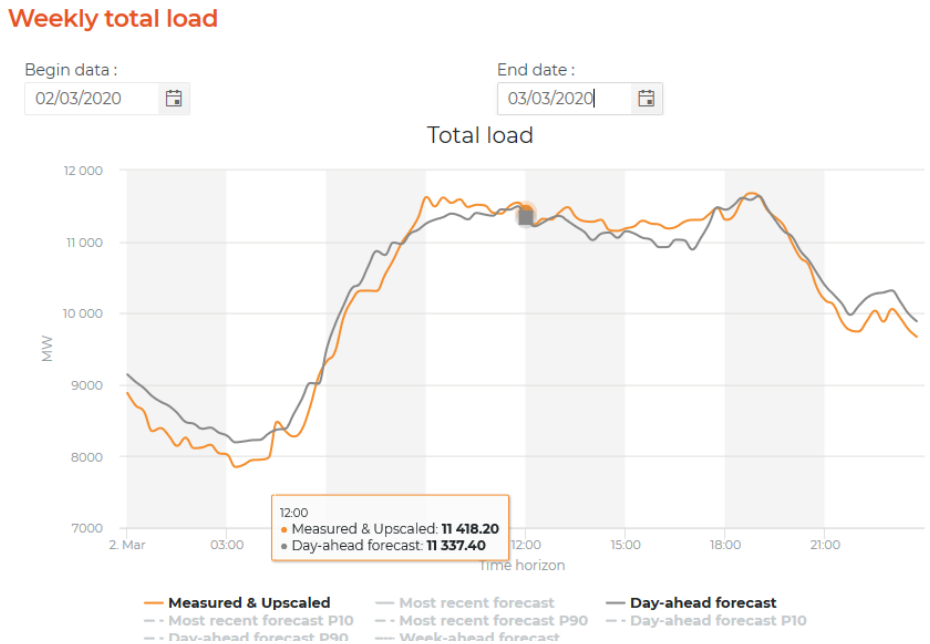
2/3 12:00 BE DA price: 35.13€/MWh (CWE price convergence)
Normal Load (Monday Spring – no covid),
Low wind ~200 MW (400 MW below DA forecast)
Low solar ~550 MW (DA Forecast ok)

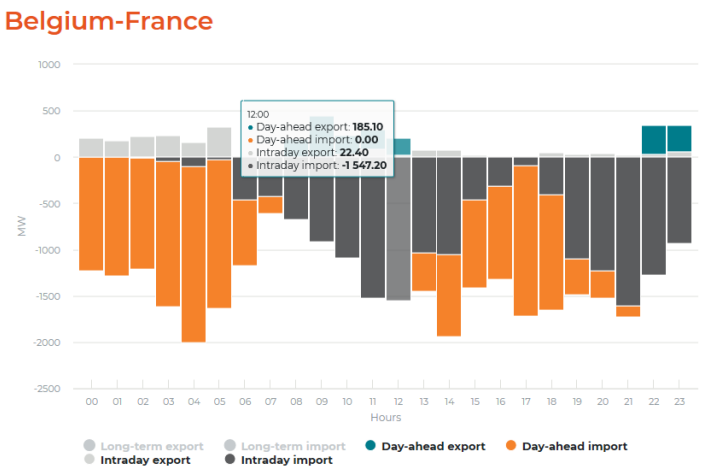
No grid incident in Belgium but S → N flows in ID not forecasted →topology changed needed in afternoon

Belgian Balancing price 61.05 €/MWh

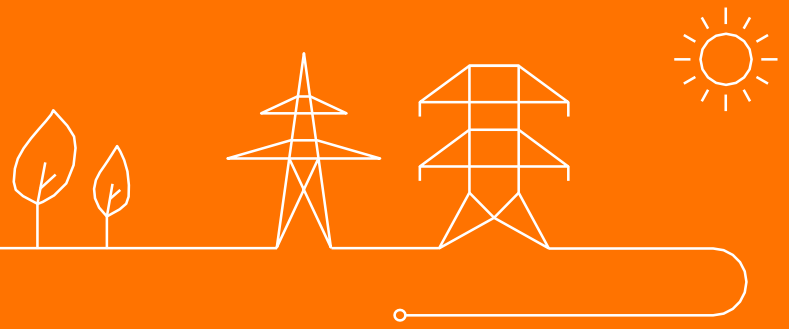
XBID BE price average ~40-45€ at this time …

Reason: probably wrong DA forecast/other reason from some Market Parties (without impact
→ ID capacities existed from FR→BE + liquidities)





Implementation of 15’ and 30’ MTU for ID XB exchanges



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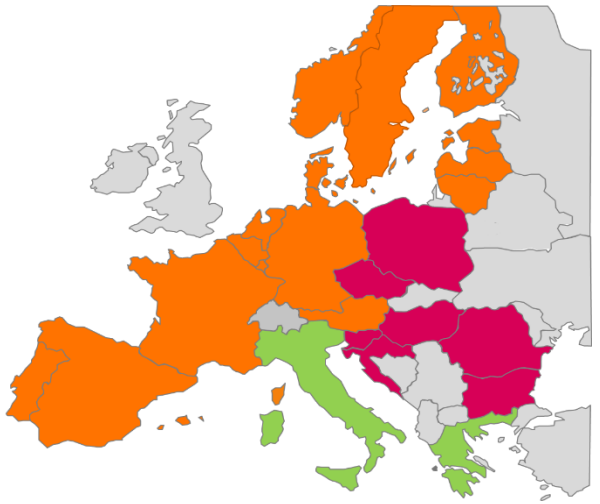
Current status MTU/ISP SIDC

- Imbalance Settlement Time (ISP) in SIDC : 15, 30 or 60'. EBGL → 15' by 2025
  - DE, AT, NL, BE … already ISP 15'
  - Nordics to move to ISP 15' in May 2023
  - France: derogation: ISP 30' until max 2025
  - UK: ISP 30' – May 2020: Ofgem granted 15' ISP exemption
- Market Time Unit (MTU) in SIDC
  - Local ID MTU: Mostly aligned with ISP
  - 60' XB MTU everywhere except DE-AT and AT-SI + 30' DE-FR (explicit)



		1st wave						2nd wave						
		Austria	France	German TSO areas	Iberia	NL & Belgium	Nordics & Baltics	Bulgaria	Croatia	Czech Republic	Hungary	Poland	Romania	Slovenia
Products	15-min	X		X										X
	30-min		X	X										
	Hourly	X	X	X	X	X	X	X	X	X	X	X	X	X
	User Defined Blocks*	X	X	X		X	X	X	X	X	X	X	X	X
Notes		* Hourly blocks (not 15 or 30 min blocks)												

MTU/ISP relation within ID timeframe

IDCZCP methodology, transparency regulation, ACER clarifications …

TSOs: Intraday market time unit (MTU): obligation for TSOs to offer cross-zonal capacities for the SIDC with the maximum of the two imbalance settlement periods on each bidding zone border.

- Art. 8.2 of the CEP (Electricity Regulation (EU) 2019/943) specifies
  - *:"NEMOs shall provide market participants with the opportunity to trade in energy in time intervals which are at least as short as the imbalance settlement period for both day-ahead and intraday markets."*

Consequence for ID MTU, based on ISPs of BE and NL, FR, DE:

- ID BE-NL should be in MTU 15'
- ID BE-FR should be in MTU 30'
- ID BE-DE (ALEGrO) should be in MTU 15'

(NL-DE should also be in MTU 15')

15’ MTU in ID markets

Advantages:

- enhancement of imbalance management for MPs close to RT (ISP=MTU)
- Deterministic Frequency Deviations (DFDs): The time periods in which the current system frequency considerably deviate from 50 Hz have been continuously increasing during load ramping hours; in the morning and in the evening. 15’ MTU aligned with 15’ ISP could reduce these DFDs.
- Belgian MPs to access 15’ ID market liquidity of Germany-Austria (via 2 routes: BE-NL-DE and ALEGrO)
- new 30’ ID market liquidity with France
- 15’ products of Belgium also in Shared Order Book

Challenges:

- 15’ products / liquidity cannot transit through BE-FR border
- Isolated markets: XBID cannot currently match 2 x 15’ products into 1x 30’ or 4 x 15’ with 1x 60’ products
  NEMOs: 3 segments in local trading system for 15, 30 and 60’ products
  But
  → Cross-product matching in analysis/priority in SIDC (> 2021)
  → Current situation in DE / AT / SI

Implementation within SIDC

- SIDC Continuous trading (XBID platform): Compatible with 15', 30' and 60' products by design
- Local 15' products in XBID are already available in BE. But 60' only in XB (and Shared Order Book)

- Intraday Auctions (IDA): 2023: 15' and 60' products

- BE-NL, NL-DE change to XB 15' and BE-FR change to XB 30' → already validated and tested in SIDC Opscom

- 15 and 30' products: 2 changes needed (in this sequence)
  1/ **TSOs**: Modification of MTU of the border (= "contract") in XBID CMM configuration
    - change of resolution from 60' to 15' (30') for inbound files (capacities) and outbound files (nominations)
    - This change allows transit of 15' (30') products on the border
  2/ **NEMOs**: Modification of authorized XB products resolution of the market area in XBID SOB configuration
    - Product resolution should be multiple of Contract/MTU
    - Up to each NEMO to offer 15' and 30' market segment in their Local Trading System

→ implementation plan in next slide only for 1/

→ Up to the NEMOs to implement 15'/30' asap after MTU change (could be immediate once 1 border is converted)

Timeline for Belgian Borders

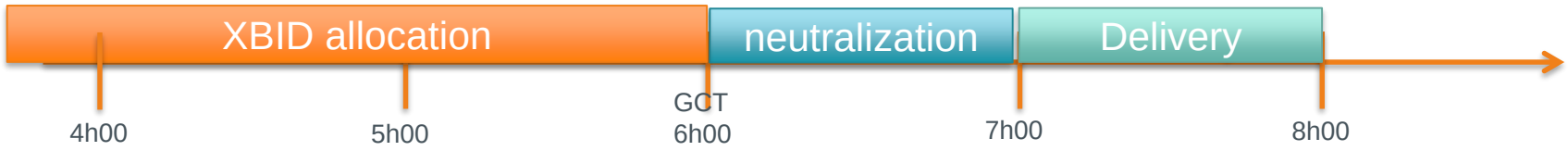
Planning: first estimations (ongoing discussions with TenneT NL, Amprion, RTE)

2 steps approach

- BE-NL
  - Phase 1: 15’ MTU – 24 gates in Q4 2020 (estimation 20/10/2020 – 1/12/2020)
  - Phase 2: 15’ MTU – 96 gates in 2021
- BE-DE (New border)
  - Phase 1: 15’ MTU – 24 gates from ID Go Live on ALEGrO (December 2020)
  - Phase 2: 15’ MTU – 96 gates in 2021
- BE-FR
  - Phase 1: 30’ MTU – 24 gates in Q4 2020 (estimation 20/10/2020 – 1/12/2020)
  - Phase 2: 30’ MTU – 48 gates in 2021
  - < 2025: MTU 15’ – 96 gates (after ISP change in France)

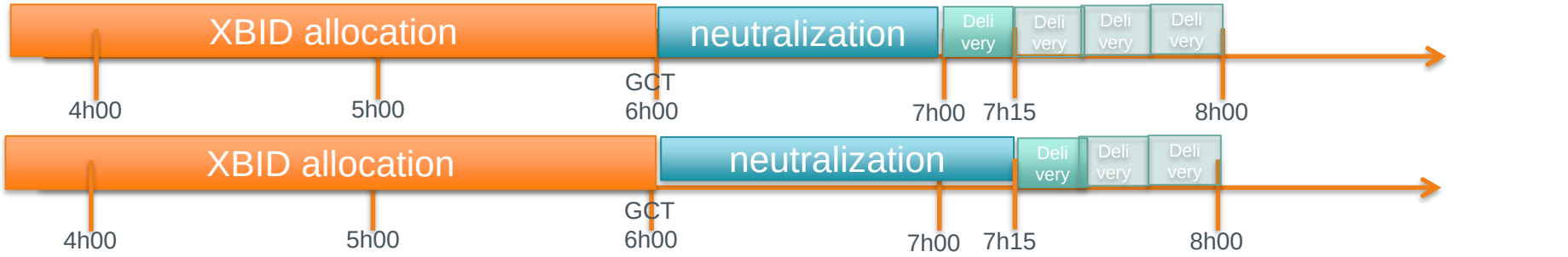
15’ and number of Gates

MTU 60’ *→ Gate closure every hour:* ***24 Gates*** *per day*



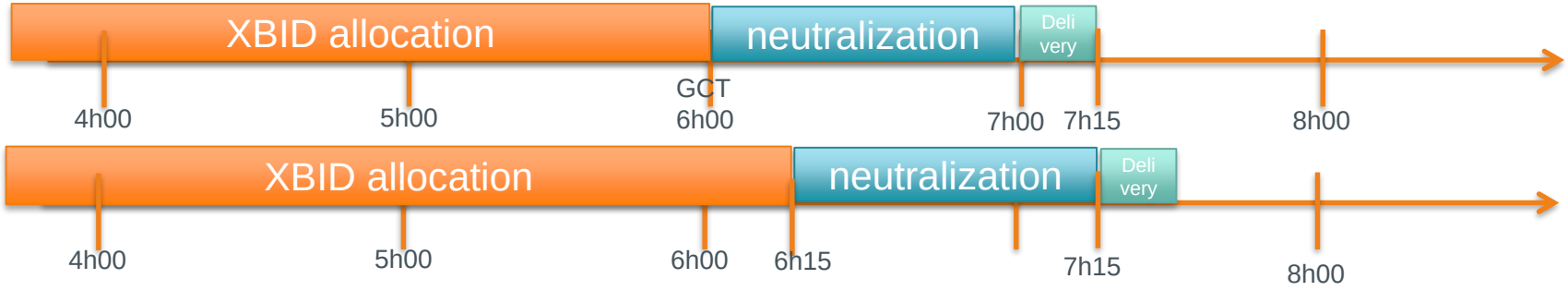
Phase 1
Q4 ‘20

MTU 15’ *→ Gate closure every 60’:* ***24 Gates*** *per day (4 values of 15’) → “neutralization”: 60, 75, 90 or 105’ before delivery*



Phase 2
2021

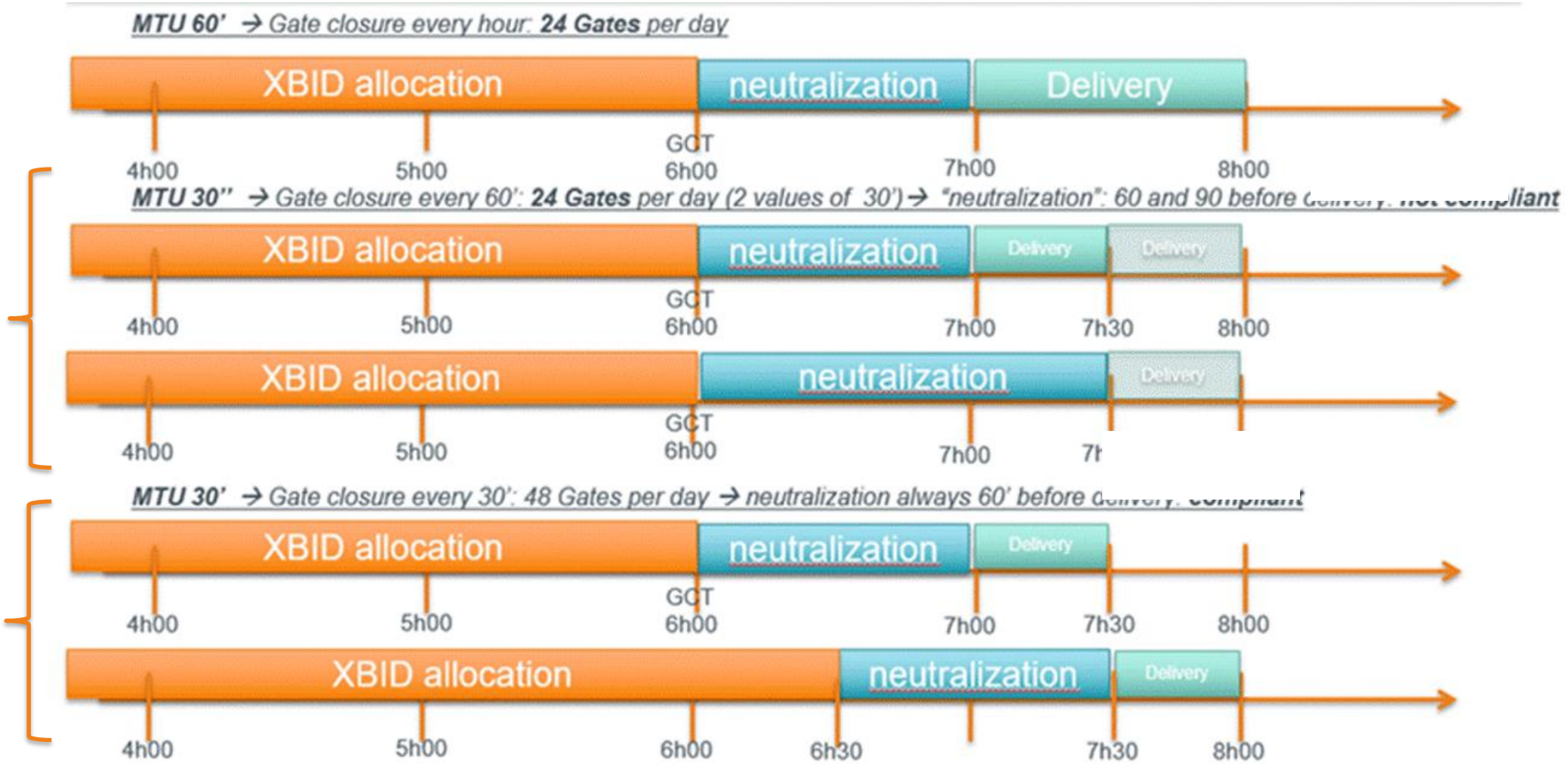
MTU 15’ *→ Gate closure every 15’:* ***96 Gates*** *per day → neutralization always 60’ before delivery*



30’ and number of Gates

Phase 1
Q4 ‘20

Phase 2
2021



EFET’s vision on Intraday market design

22 June 2020
Elia EMD & SO Working Group

EFET position paper for an improved market design in intraday

EFET
European Federation of Energy Traders
SO YOU CAN RELY ON THE MARKET

ID market design – why a new EFET paper now?

- The intraday (ID) market has grown in parallel with the rise of intermittent RES, and is an important place to value short-term flexible capacities. We believe it is time to move away from looking at it as an “adjustment” market.

- CACM GL regulates many detailed elements of intraday market design.

- Yet the target model for the ID timeframe is not fully clear:
  - Continuous trading vs. auctions
  - Calculation and recalculation(s) of XB ID capacities
  - Sharing of order books
  - National limitations and barriers to ID liquidity growth

EFET

Continuous intraday trading: benefits and criticisms addressed

- Why should continuous trading be safeguarded?
  - More and faster trading opportunities, closer to real time
  - Better suited for the needs of RES generation, demand response and storage
  - Minimising the volume and cost of TSOs' balancing activities

- Addressing criticisms of continuous trading:
  - **Price discovery**: Fundamentally, pricing scarce intraday cross-zonal capacity is about redistribution of benefits from market participants to TSOs, rather than about increasing social welfare. Prices of energy in ID trade is the main component of the price signal.
  - **Participation of new and smaller market participants**: Even with 3 auctions, the effort required of new and smaller market participants would not be much different from continuous trading.
  - **Lack of a reference price**: With the removal of constraints on the growth of ID market liquidity, there is no reason why continuous intraday markets cannot produce reliable reference prices.

EFET

Minimising the impact of ID auctions on continuous trading

- ID auctions shall only “complement continuous trading”, in order to price XB capacity
  - IDAs only make sense if there is new capacity to price; leftover capacity from DA was already priced
  - IDAs should not have a detrimental effect on liquidity or competition of continuous trading
  - Interruption time of continuous trading for IDAs should be minimised
  - Non-discriminatory principles of continuous trading should be upheld

- EFET recommendations:
  - **Liquidity and competition**: A parallel process to XBID will of course negatively affect liquidity, likely also competition on XBID. To limit this effect, the number of IDAs should be kept to a minimum.
  - **Interruption time**: Interruption time suggested for the pan-European IDAs should go down to the same maximum 10 minutes proposed for complementary regional auctions.
  - **Non-discrimination**: Access to complementary regional auctions should be open to all market participants, without restriction.

Sharing order books for as long as beneficial to the market

- What the Electricity Regulation and the ACER decision say
  - Regulation: opening of order books from the XB ID GOT to GCT
  - ACER decision: XB ID GOT at 15:00 D-1, GCT 1h before delivery

- In reality, order books are sometimes only shared as of the allocation of XB capacity

- EFET recommendations:
  - **Sharing of order books from 15:00 onwards**: NEMOs should applying the basic requirements of CACM and share order books from XB ID GOT, without regard whether XB capacity is available.
  - **Going beyond CACM and sharing order books locally until local ID GCT**: Sharing order books locally until local ID GCT would avoid splitting liquidity in the last hour of ID trading, the most important for market participants.

EFET

(Re-)calculating XB capacities from early in the ID timeframe to close to real time

- Why calculation and recalculations of XB capacity in ID is needed
  - ID market growth linked to more intermittent generation, DSR, storage
  - DA calculation reflects state of the market and system early in D-2; constraints may be relaxed in ID
  - Only capacity (re-)calculated in ID should be priced: leftover capacity from DA was already priced

- EFET recommendations:
  - **Timely and inclusive implementation**: TSOs should implement ID CCMs as soon as possible. Where the target solution is not clear yet, include market participants in the debate.
  - **Timings of the (re-)calculations**: (Re-)calculations should be as frequent as possible. As a start, (re-)calculations should be conducted to match the timing of IDAs.
  - **Making leftover DA capacity available to the market in the meantime**: Leftover DA capacities (+increase/decrease) should be made available to the market from the official XB ID GCT at 15:00

EFET recommendations

- Removing EU and national barriers to ID liquidity growth.
- Developing cross-border products with a 15-minute granularity and harmonising the imbalance settlement period to 15 minutes across Europe.
- Ensuring the effective harmonisation of cross-zonal intraday gate opening time (ID CZ GOT) and opening of shared order books at 15:00 (CET).
- Setting cross-zonal intraday gate closure time (ID CZ GCT) to 15 min before the start of the relevant market time unit and ideally, even closer to delivery.
- Implementing clear, transparent and harmonised capacity calculation and recalculation methodologies and frequency.
- Ensuring that the technical price limit in ID includes an adjustment mechanism to reflect VoLL.
- Ensuring minimum interruption time of the three pan-European auctions required by ACER decision by postponing their implementation until 15 min products are available.

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5. Update on Core LTCCM

LT CCM CORE

Reminder

- In Core IG 15/04, ACER presented its way forward for LTCC and Core NRAs asked TSOs on their position

TSO Proposal

- Core TSOs generally agree on the approach however with **some adaptations**.
- Core TSOs provide EC/ACER/NRAs with an **updated proposal** with regards to ACER presented way forward
- In addition TSOs present the LTCC roadmap indicating the **main milestones**.

LT CCM CORE – TSOs proposed way forward (1/3)

Amended ACER proposal:

Main steps (in terms of process):

1. ~~Within X months~~ Until end November 2020, TSO submit a methodology based on FB approach and with CNTC as transitional solution
   - The FB approach shall aim to reach a FB domain that is comparable in size to existing LT NTC (reference) domain and be based on scenario-based approach and contain minRAM
   - MinRAM values should at least be the RAMs reflecting existing LT NTC (reference) domain capped to 20% (after implementation of LTCC, statistical DA FB RAMs could be used – this would require amendment of LTCC methodology)
   - An output patch (min-max bounds) will be applied for the transitional CNTC to ensure that results are in line with expectations, gradually gaining experience from the current non-coordinated approach. Close monitoring of the effects of the patch + target to make its effect void.
2. ~~In parallel~~ If TSOs do not implement transitional CNTC all TSOs should start amending all methodologies needed to support the FB approach in LT timeframe
3. The methodology will give TSOs ~~X~~ 18 months to implement transitional CNTC:
   - This includes a deadline to present to NRAs and stakeholders the results of FB domain comparison and NTC extraction results and the agreement on the min-max bounds
   - NRAs provide an (informal) feedback to TSOs, and TSOs decide whether to proceed with transitional CNTC
   - If TSOs implement transitional CNTC within the given deadline, the deadline for implementation of FB approach becomes ~~longer (or~~ undefined~~)~~
4. If TSOs do not implement transitional CNTC within the given deadline, they will receive ~~Y~~ 24 additional months to implement FB approach.

The process should be automatic, because methodology amendments means additional delays

LT CCM CORE – TSOs proposed way forward (2/3)

Timing

- Methodology can be submitted by **end of November** (end of Autumn), considering the time needed for developing the methodology and consult on it

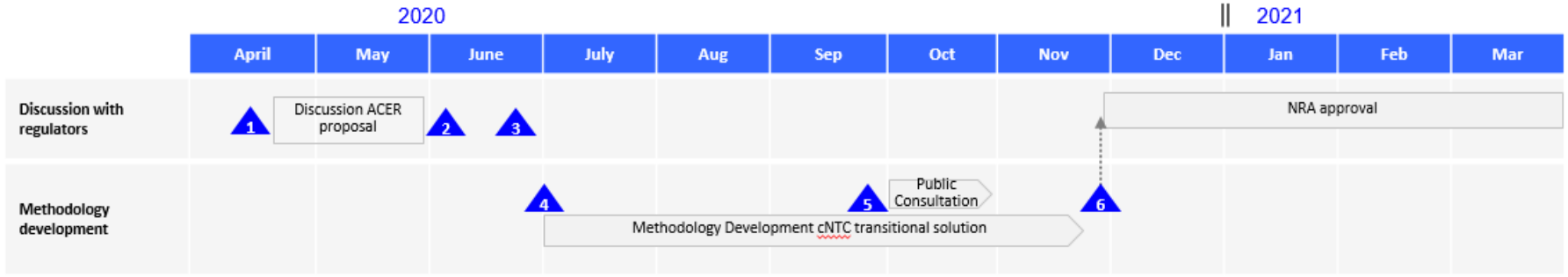
- Implementation of transitional CNTC would be **18 months** after approval, as proposed in the draft methodology

Reference value

- minRAM should remain at reasonable value (**20%** for Core exchanges) and cannot be used as the only tool to meet historical value as it would make the whole scenario-based approach meaningless with minRAM value that could go up to 137%
  - Instead a learning-by-doing approach would apply, giving the possibility e.g. to improve grid model
  - The results would be guaranteed by an **output patch** with **min-max bounds**
  - The bounds would be defined by **agreement** amongst TSOs, and are part of the success factor for implementing the transitional CNTC approach (high incentive)
  - The effect of the output patch would be **monitored**, with the target to make its **effect void after 5 years**, preparing a **possible transition** to flow-based allocation in which such patch cannot be applied anymore
  - NTC approach allows for an output patch – such patch is not straightforward in a flow-based allocation approach

LT CCM CORE – TSOs proposed way forward (3/3)

Roadmap:



Milestone	Description	Date
1	ACER proposal received for further LTCC methodology development	14/04/2020
2	TSO discussion of ACER proposal	02/06/2020
3	Core IG meeting – TSO presentation of adaptation to ACER proposal	19/06/2020
4	Start of methodology development for cNTC transitional solution	July 2020
5	Public Consultation	October – November 2020
6	Submission of transitional cNTC scenario-based methodology to regulators	End of November 2020