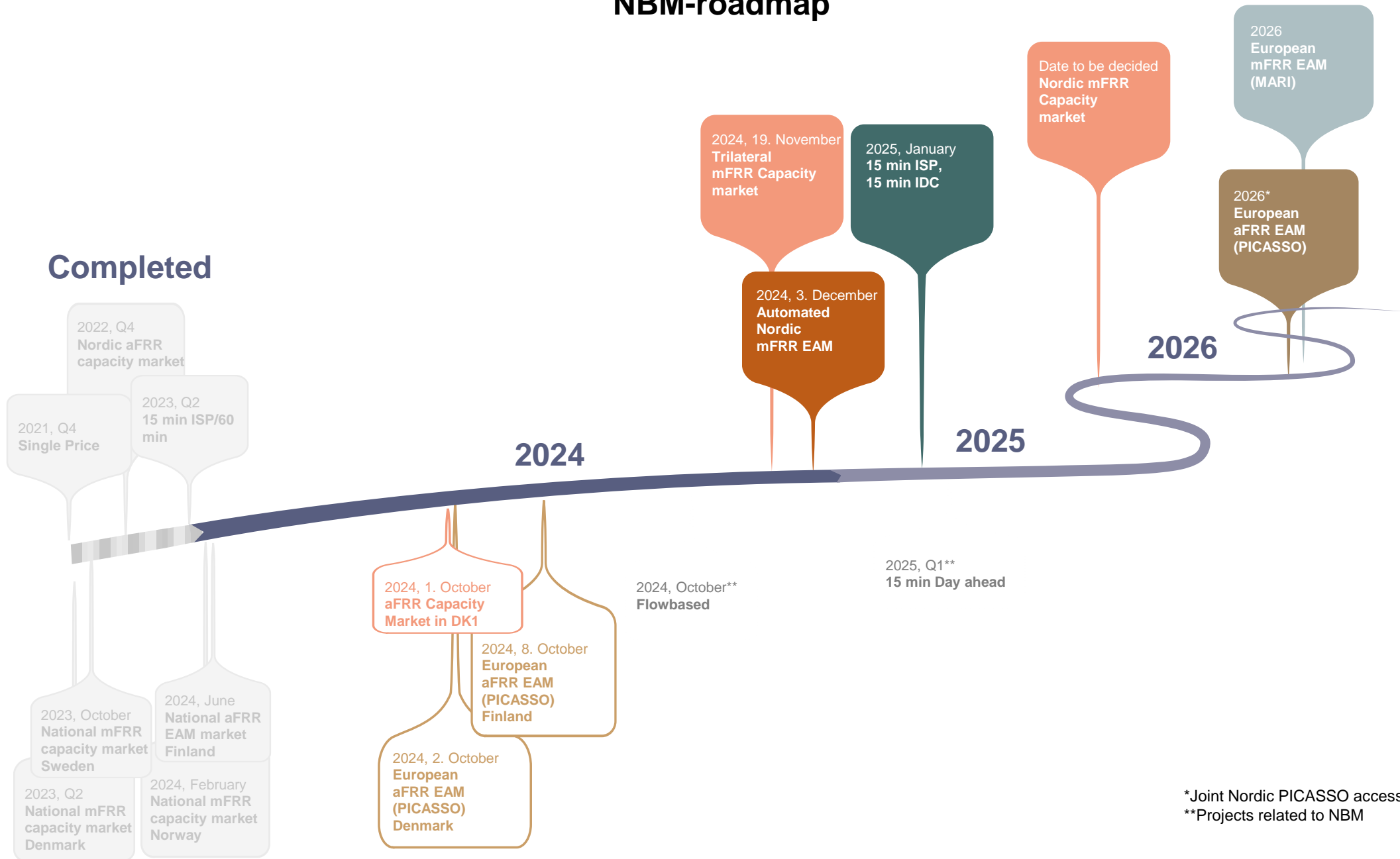


NORDIC BALANCING MODEL

NORDIC MFRR ENERGY ACTIVATION GO-LIVE

Thursday August 22nd 2024 at 12:30-2:00 PM

NBM-roadmap



*Joint Nordic PICASSO accession.
**Projects related to NBM

AGENDA

Welcome

Local direct activation – recap

Go-live plan

Test

Complex bid attributes

New product memo

Support meetings

Questions?

PARTICIPANTS

The following actors/companies are represented at the meeting;

- *Anderup Ntech*
- *Bd Energy*
- *BeGreen*
- *Blue Power Partners*
- *Centrica Energy*
- *Dansk Commodities*
- *Energi Danmark*
- *European Energy*
- *Ewii Energi*
- *Green Power Denmark*
- *H2EE*
- *Hofor*
- *Houmøller Consulting ApS*
- *Hybrid Greentech*
- *IBM*
- *MFT Energy*
- *Møllen Elproduktion*
- *Nordic RCC*
- *Norlys Energy Trading*
- *S. C. Nordic*
- *SCADA International*
- *Siemens Gamesa Renewable Energy*
- *Sun to Cable ApS*
- *Vimab BESS*
- *Volue Energy Market Services*
- *Ørsted*
- *Aalborg Universitet*

HIGHLIGHTS FROM THE LOCAL DIRECT ACTIVATION WORKSHOP BEFORE SUMMER

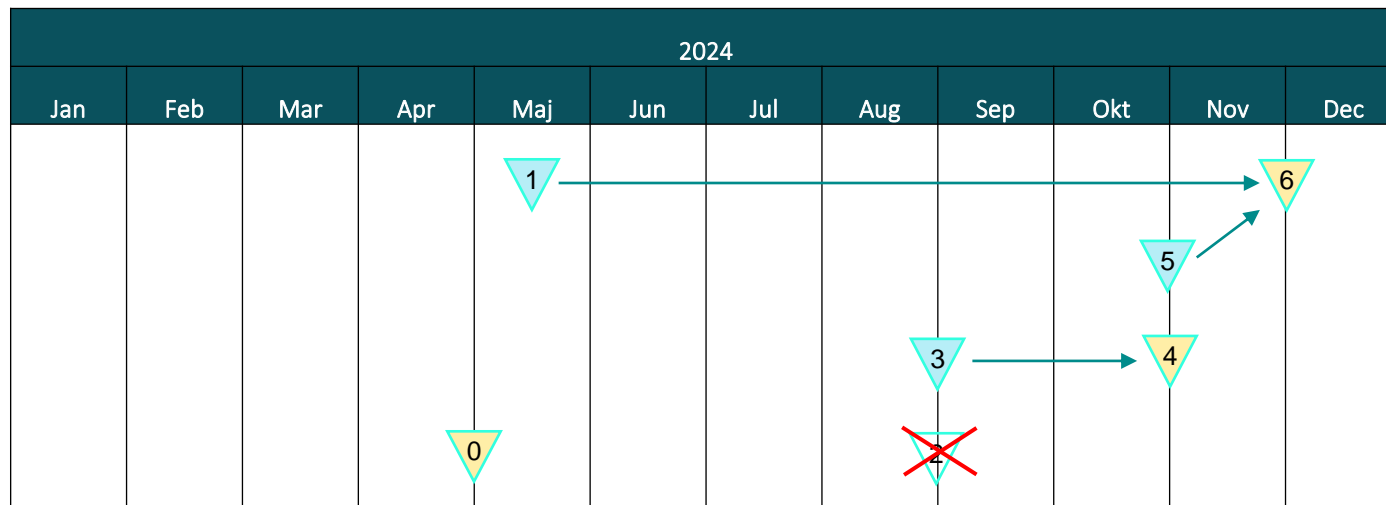
OPSUMMERING

- Local direct activation (formerly immediate activation) will be introduced from mFRR EAM go-live on 3 of December 2024.
- It is done by marking bids as available for direct activation and creating a technical link to a bid in the following quarter in the bid submission.
- Direct activations can set the local marginal price (but not the Nordic).
- The product is the same as the std. product just shifted in time.
- Direct activations receive payment corresponding to the expected delivery and the marginal price for the relevant MTU.
- All capacity bids must be available for direct activation.

Find slides on the subject and more info on Energinet's website [here](#)

GO-LIVE PLAN

BRP PLAN FOR AUTOMATIC BALANCING (mFRR EAM)



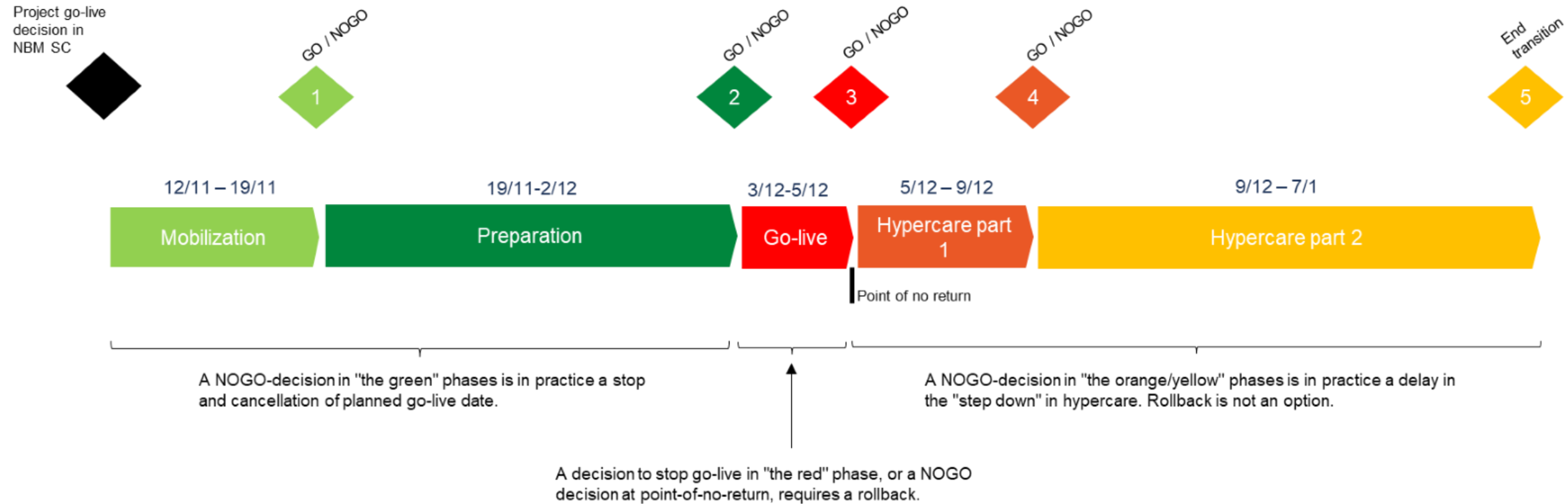
▼ Go-live
 ▼ Test start
 → Test period
 ✗ Removed from scope

Milestone	Milestone description	Date	Status
0	Redundant mechanism for bid submission in webportal	01.05.2024	✓
1	BRPs can start testing bids in 15 minutes resolution and complex bid attributes.	Medio maj 2024	✓
2	Full parallel operation established with all BRPs submitting bids in 15 minutes resolution.	01.09.2024	Milestone removed
3	Start testing of Bid Availability Report (for both mFRR and aFRR)	01.09.2024	
4	Go-live of Bid Availability Report (for mFRR)	01.11.2024	Milestone moved from 2nd Oct.
5	Start testing of Activation Result message (ReserveAllocationResult).	01.11.2024	Milestone moved from 2nd Oct.
6	Go-live of automatic balancing	03.12.2024	

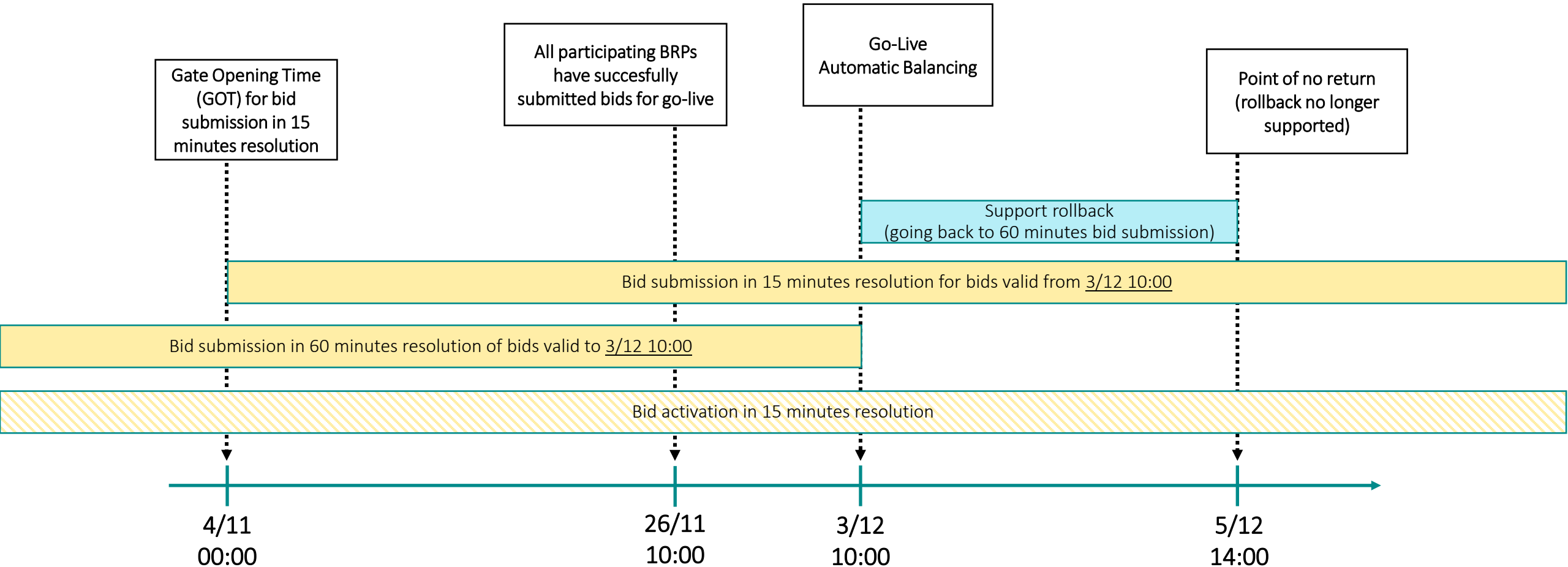
BRP REQUIREMENTS FOR GO-LIVE

- *MUST* submit bids in 15 minutes resolution.
- *MUST* be able to rollback to bid submission in 60 minutes resolution if necessary (in go-live phase from 3/12 10:00 to 5/12 14:00).
- *CAN* utilize complex bid attributes to improve competitiveness.
- *CAN* react to Bid Availability Report message to get information on bid filtering of own bids.
- *CAN* react to Activation Result message to get information on activation of own bids (this message will replace – “BT-106: Fremsendelse af regulerkraftopgørelse” and the related PDF document)

COMMON NORDIC GO-LIVE PLAN



GO-LIVE PLANNING



ROLLBACK

...in the unlikely event

- Rollback is a common nordic TSO decision.
- Rollback should be possible within 3 hours from the decision is made.
- Rollback is possible in the go-live phase from 3/12 10:00 to 5/12 14:00.
- BRP will receive information from Energinet stating explicitly in which MTU the rollback will occur.
- From a BRP perspective rollback means:
 1. BRP must go back to submitting bids in 60 minutes resolution.
 2. BRP will receive the old settlement documents (BT-106 and PDF) and will no longer receive the new Activation Result message.
 3. BRP must be ready to resubmit bids in 60 minutes resolution within 2 hours from receiving the rollback decision (due to GCT T-45).

ROLLBACK VS. FALLBACK

Der skelnes skarpt mellem *rollback* og *fallback*.

Ved **fallback** er den nordiske AOF midlertidig utilgængelig, og de nordiske TSO'er balancerer eget kontrol område med lokale mFRR EAM bud alene, indtil AOF'en er tilgængelig igen. Behovet for at gå i fallback vil opstå med mellemrum – og særligt umiddelbart efter go-live, er det forventeligt, at ske mere hyppigt end ellers.

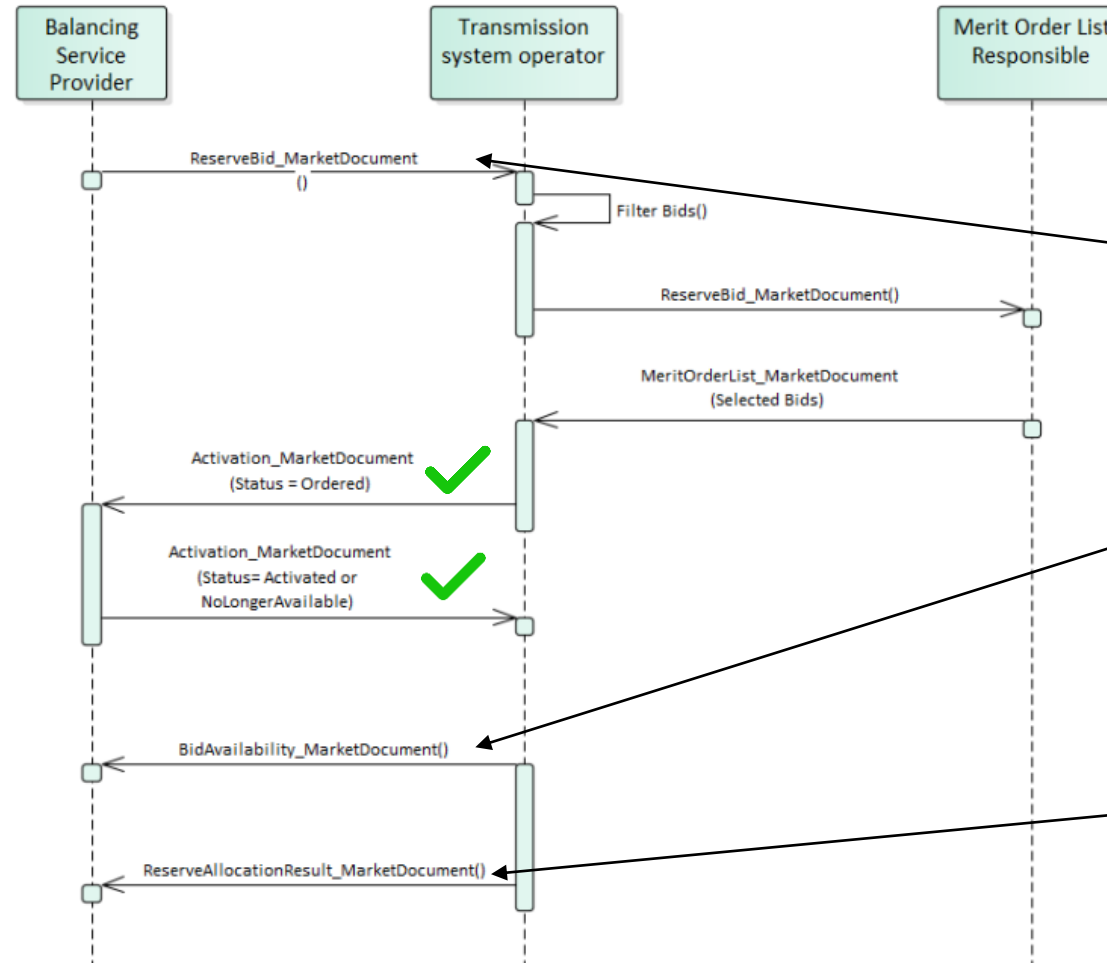
Ved **rollback** føres IT-understøttelsen tilbage til før go-live. Dvs. tilbage til 60 minutters budindmelding og aktivering uden nordisk AOF. Det er en permanent tilbage rulning, og det vil kræve en ny go-live, at komme tilbage til aktivering via nordisk AOF. Rollback vil kun være en mulighed i få dage efter go-live, og det er et håndtag de nordiske TSO'er er nødt til at have, men ikke forventer at gøre brug af.

TEST

MESSAGE FLOW FOR AUTOMATIC BALANCING

sd mFRR energy activation market (EAM)

Name: mFRR energy activation market (EAM)
 Package: mFRR EAM BSP
 Version: 1.1
 Author: Bent Atle Bjertomt



Same document as used today with 15 minute resolution and addition of complex bid attributes.
Test is ongoing – book time slot!

New document with information on bid filtering.
Test possible from 1st of September

New document with information on activations. Replaces "BT-106: Regulerkraftoppgørelse" (and PDF).
Test possible from 1st of November.

An Acknowledgement_MarketDocument is always required.

COMPLEX BID ATTRIBUTES

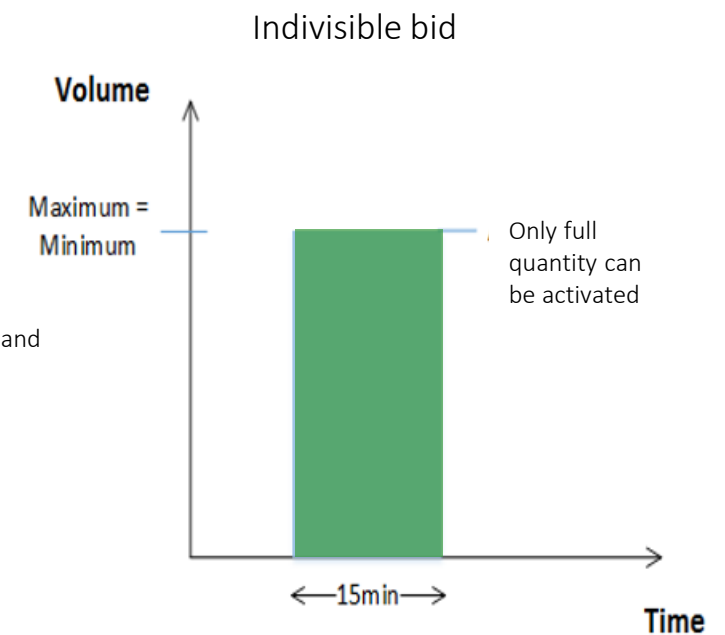
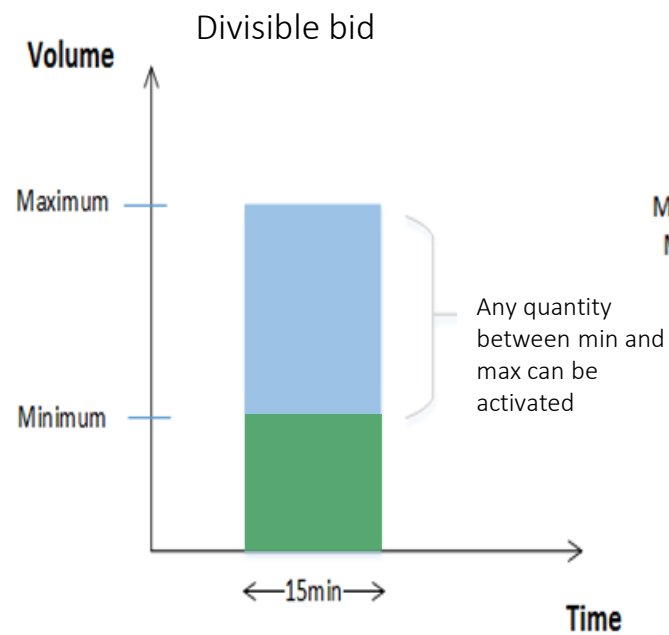
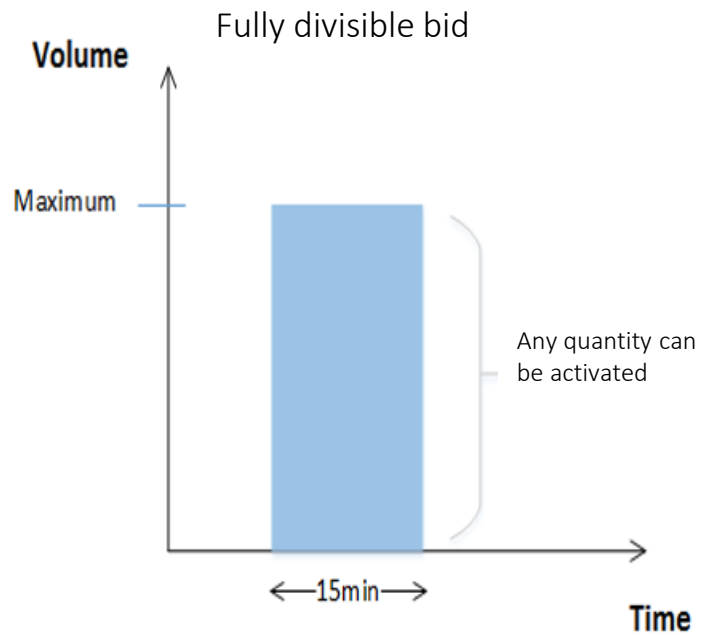
OVERVIEW OF NEW BID ATTRIBUTES

At go-live 3 of December the new bid attributes are introduced

Bud type	Bud attribut
Simple bids	Fully divisible bids
	Divisible bids
	Indivisible bids
Complex bids	Multipart bids
	Exclusive bids
Bids linked in time	Conditionally linked bids
	Technically linked bids
Activation type	Direct

SIMPLE BIDS

Simple bids is valid for one quarterhour/MTU and has a volume and a price.



OVERVIEW OF NEW BID ATTRIBUTES

At go-live 3 of December the new bid attributes are introduced

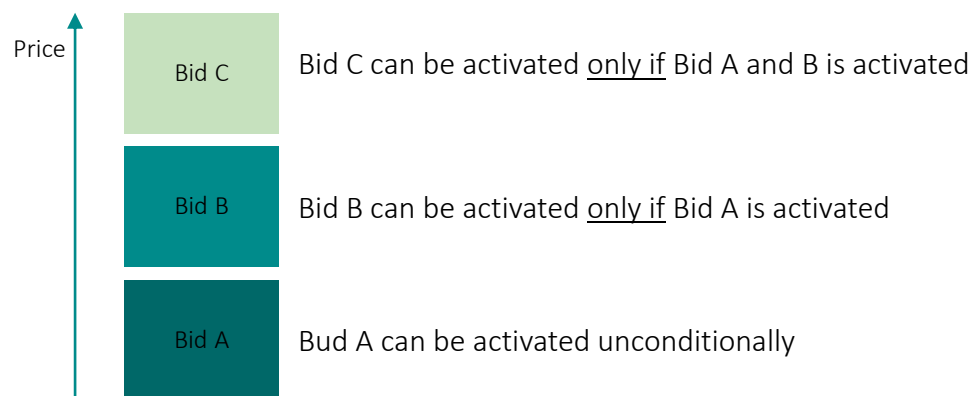
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Simple bids	Fully divisible bids
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	Exclusive bids
Bids linked in time	Conditionally linked bids
	Technically linked bids
Activation type	Direct

COMPLEX BIDS

Complex bids consist of a combination of simple bids. The two types of complex bids cannot be combined.

Multipart bids

- Consists of at least 2 simple bids from the same MTU
- All bids in the group must have a different price
- All bids in the group must have the same direction and activation type
- If a bid in the group is activated, all cheaper bids in the group must be activated (activation in price order)



Exclusiv group of bids

- Consists of at least 2 simple bids from the same MTU
- All bids in the group must have the same activation type
- A maximum of one bid can be activated in the group



Bid B is activated and thus bid A, C and D is not eligible for activation by the AOF

OVERVIEW OF NEW BID ATTRIBUTES

At go-live 3 of December the new bid attributes are introduced

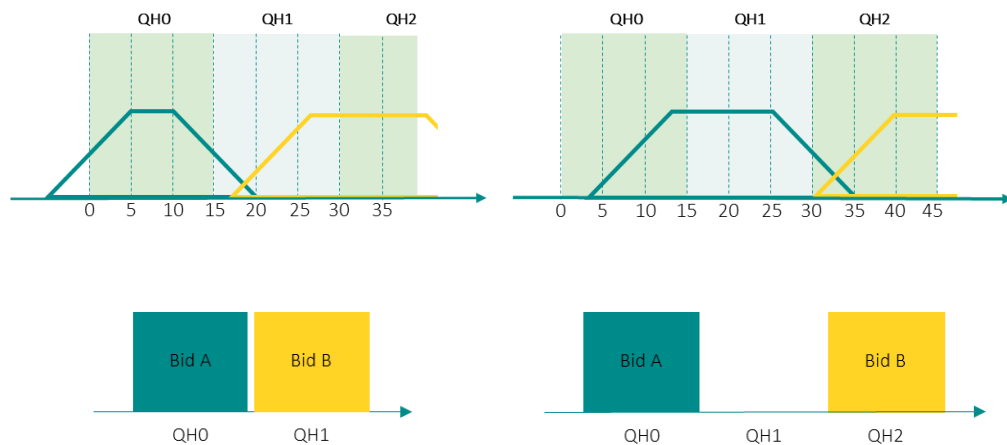
Bud type	Bud attribut
Simple bids	Fully divisible bids
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	Indivisible bids
Complex bids	Multipart bids
	Exclusive bids
Bids linked in time	Conditionally linked bids
	Technically linked bids
Activation type	Direct

BIDS LINKED IN TIME

Bids linked in time consist of a combination of bids from different quarterhours/MTUs. The two types of bids linked over time cannot be combined.

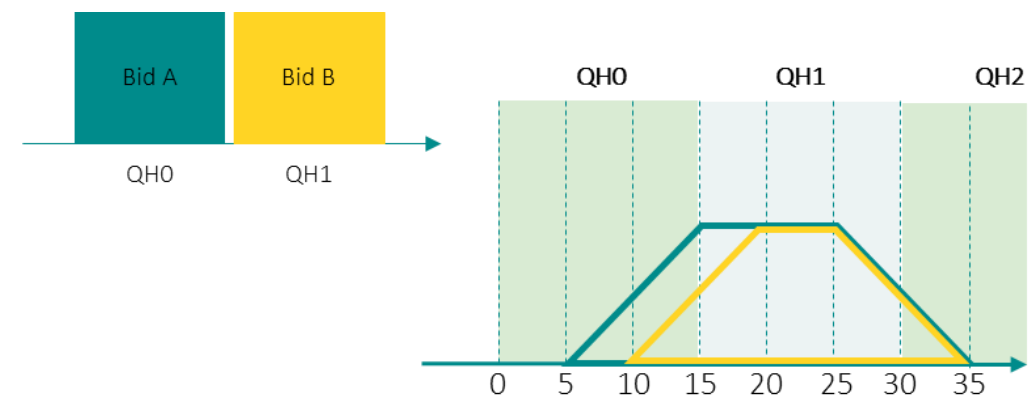
Conditionally linked bids

- Consists of simple bids in two or three consecutive quarters
- Indicates the availability of a bid in QH0 based on the activation of linked bids in QH-1 and/or QH-2



Technically linked bids

- Consists of simple or complex bids in two or more consecutive quarterhours
- Indicates bid B as unavailable in QH1 if bid A in QH0 is direct activated.



NEW PRODUCT MEMO

PRODUCT MEMO

An updated product memo describing the activation process for the mFRR energy activation market is now available.

The updated memo provides an overview of the development of the mFRR standard product until the connection to the European platform for mFRR energy activation, MARI (Manually Activated Reserves Initiative), and describes the mFRR energy activation process for the standard product.

The memo has been revised and contains updated information on valid bid attributes, products and BSPs activation response. NB. The memo may be further updated in the future if necessary.

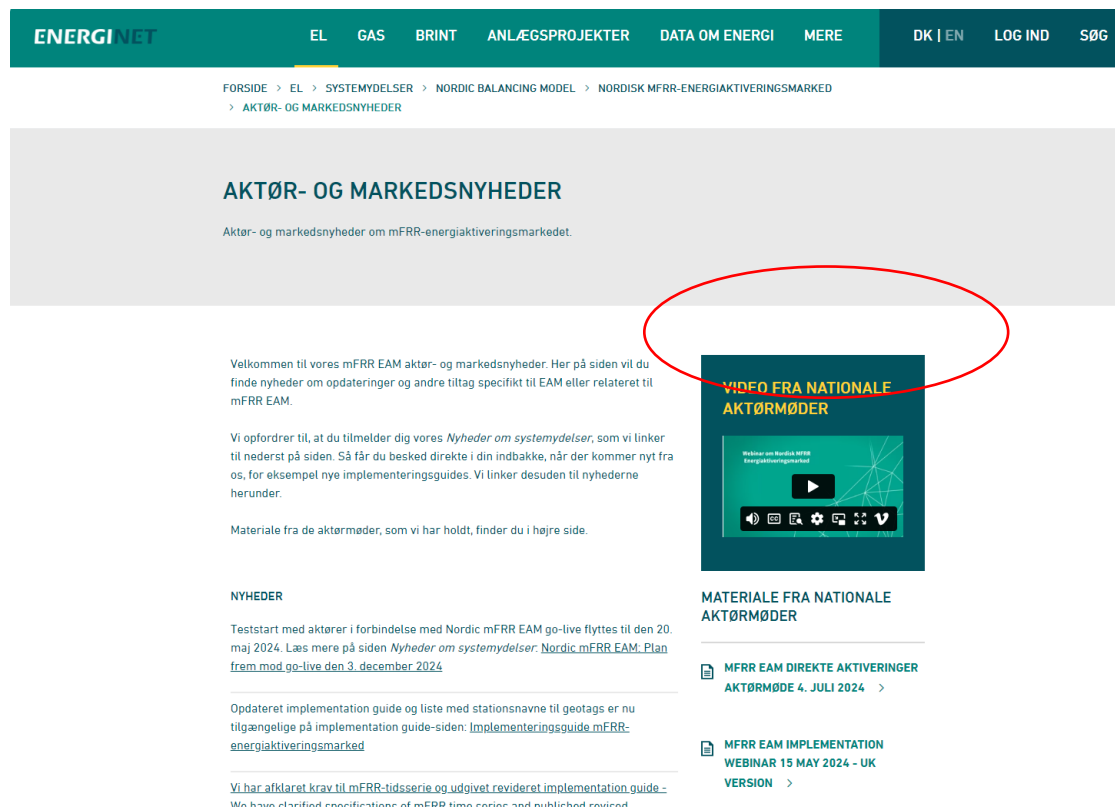
You can find the updated memo on NBM's website [here](#).

SUPPORT MEETINGS

SUPPORT MEETINGS

Link to support meetings will be placed at Energinet mFRR EAM homepage. It will be displayed at the top on the right side.

[Aktør- og markedsnyheder \(energinet.dk\)](https://energinet.dk)



ENERGINET EL GAS BRINT ANLÆGSPROJEKTER DATA OM ENERGI MERE DK | EN LOG IND SØG

FORSIDE > EL > SYSTEMYDELSER > NORDIC BALANCING MODEL > NORDISK MFRR-ENERGI AKTIVERINGSMARKED > AKTØR- OG MARKEDS NYHEDER

AKTØR- OG MARKEDS NYHEDER

Aktør- og markedsnyheder om mFRR-energiaktiveringsmarkedet.

Velkommen til vores mFRR EAM aktør- og markedsnyheder. Her på siden vil du finde nyheder om opdateringer og andre tiltag specifikt til EAM eller relateret til mFRR EAM.

Vi opfordrer til, at du tilmelder dig vores *Nyheder om systemydelse*, som vi linker til nederst på siden. Så får du besked direkte i din indbakke, når der kommer nyt fra os, for eksempel nye implementeringsguides. Vi linker desuden til nyhederne herunder.

Materiale fra de aktørmøder, som vi har holdt, finder du i højre side.

NYHEDER

Teststart med aktører i forbindelse med Nordic mFRR EAM go-live flyttes til den 20. maj 2024. Læs mere på siden *Nyheder om systemydelse: Nordic mFRR EAM. Plan frem mod go-live den 3. december 2024*

Opdateret implementation guide og liste med stationsnavne til geotags er nu tilgængelige på implementation guide-siden: [Implementeringsguide mFRR-energiaktiveringsmarked](#)

[Vi har afklaret krav til mFRR-tidsserie og udgivet revideret implementation guide - We have clarified specifications of mFRR time series and published revised](#)

VIDEO FRA NATIONALE AKTØRMØDER

MATERIALE FRA NATIONALE AKTØRMØDER

- MFRR EAM DIREKTE AKTIVERINGER AKTØRMØDE 4. JULI 2024 >
- MFRR EAM IMPLEMENTATION WEBINAR 15 MAY 2024 - UK VERSION >

QUESTIONS?