BSP/SA Facilitations & communication channels for OPA/SA/BSP

07/07/2023 | Aline Mathy and Martin Funck

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3. Options as Communication Channels

Communication Requirements

4. Outage Planning Agent
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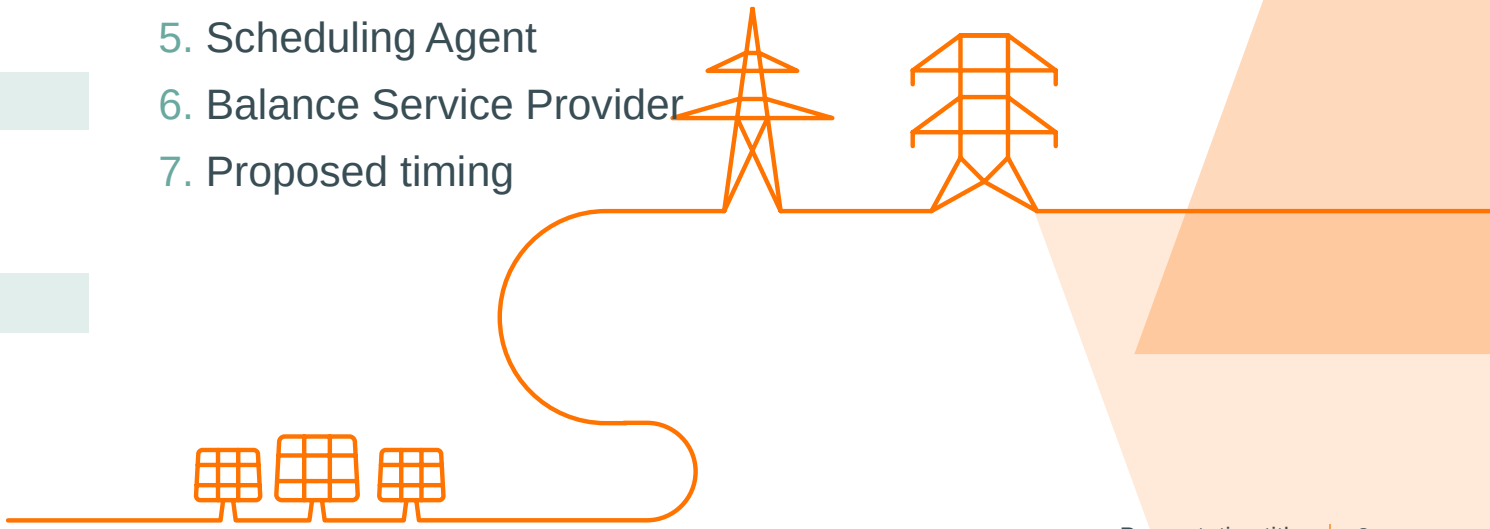


Facilitate Bidding

BSP facilitation

Initial discussions on BSP facilitation contained three components:

Merged Bid

As the non-contracted mFRR energy bids have an equivalent in RD energy bids, the merged bid file is the possibility to submit one file to represent the two types of bids.

mFRR
RD

Maximum activation time

The MAT is the maximum number of quarter hours in a row for which a bid group can be activated.

mFRR
RD

Neutralization time

The minimum number of quarter hours that need to be respected between two activations of the same bid group.

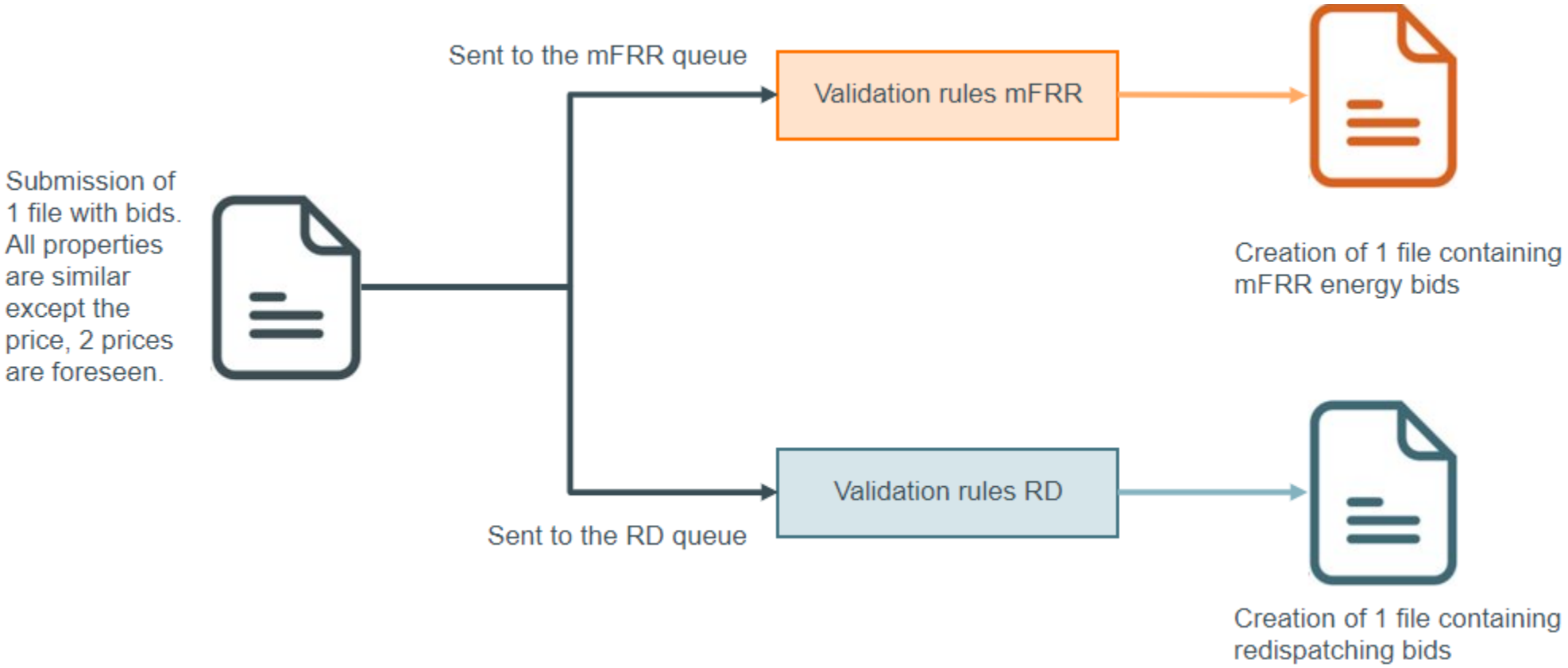
mFRR

Merged bids

mFRR

RD

Process



mFRR

RD

Bidding example

Bid Group	Status
Bid Group Id	Test1
TimeSeries Id	Test1-DOWN-NC
Direction	DOWN
Contracted/Non Contracted	NC
Parent Child Id	
Exclusive Group Ids	
Linked Bid Group Id	
Linked Bid Status	
Linked Bid Level	
Full Activation Time	
Maximum Activation Time	120
Minimum Activation Time	
Neutralization Time	
Delivery Points	

	00:00	00:15	00:30
Volume	10	10	10
Price	20	20	20
Secondary Price	5	5	5
Minimum Volume			
Activation Type	DA+SA	DA+SA	DA+SA
Reason			
	TRUE	TRUE	TRUE

Price used for mFRR

Price used for RD

Bid Group	Status
Bid Group Id	Test2
TimeSeries Id	Test2-UP-NC
Direction	UP
Contracted/Non Contracted	NC
Parent Child Id	
Exclusive Group Ids	
Linked Bid Group Id	
Linked Bid Status	
Linked Bid Level	
Full Activation Time	
Maximum Activation Time	60
Minimum Activation Time	
Neutralization Time	
Delivery Points	

Active

	00:00	00:15	00:30
Volume	5	5	5
Price	10	10	10
Secondary Price	8	8	8
Minimum Volume	1	1	1
Activation Type	DA+SA	DA+SA	DA+SA
Reason			
	TRUE	TRUE	TRUE

Bid Group	Status
Bid Group Id	Test3
TimeSeries Id	Test3-UP-C
Direction	UP
Contracted/Non Contracted	C
Parent Child Id	
Exclusive Group Ids	
Linked Bid Group Id	
Linked Bid Status	
Linked Bid Level	
Full Activation Time	
Maximum Activation Time	
Minimum	
Neutrali	
Deliver	

Active

	00:00	00:15	00:30
Volume	5	5	5
Price	10	10	10
Secondary Price			
Minimum Volume	1	1	1

Characteristics that only exist for one product will be:
- used to populate the bids of that product
- disregarded for the other product.

File Name	Sheet Name	Message Type	Product	Merged Bid	Market Document mRID	Execution Date	Upload Status	Validation Status
EnergyBidTemplate - Minimum activation timeTestMerged.xlsx	Energy Bid Template	Energy Bid	mFRR	✓		21/04/2023	✓	Accepted
EnergyBidTemplate - Minimum activation timeTestMerged.xlsx	Energy Bid Template	Energy Bid	Redispatching	✓		21/04/2023	✓	Accepted

Both files can have different validation status

Message Logs

mRID	Product	Type	Version	Execution Date	Processed Date and Ti...	Validation Status	Reason	Market Party	Submitted via	Merged Bid
	Redispatching	Energy Bid	1	21/04/2023	20/04/2023 08:58	Accepted	A01		B2C	✓

Timeseries mRID	Bid Group Id	Validation Status	Reaso
Test1-DOWN-NC	Test1	Accepted	B06
Test2-UP-NC	Test2	Accepted	B06

mRID	Product	Type	Version	Execution Date	Processed Date and Ti...	Validation Status	Reason	Market Party	Submitted via	Merged Bid
	mFRR	Energy Bid	1	21/04/2023	20/04/2023 08:58	Accepted	A01		B2C	✓

Timeseries mRID	Bid Group Id	Validation Status	Reaso
Test1-DOWN-NC	Test1	Accepted	B06
Test2-UP-NC	Test2	Accepted	B06
Test3-UP-C	Test3	Accepted	B06

Contracted bid created only in mFRR

mFRR | Energy Bid | Version: 1 | 20/04/2023 08:58

Bid Group		00:00	00:15	00:30	00:45	01:00	01:15	01:30
Test1	Down	20.00 € 10 MW	20.00 € 10 MW	20.00 € 10 MW	20.00 € 10 MW	20.00 € 10 MW	20.00 € 10 MW	20.00 € 10 MW
Test2	Up	10.00 € 5 MW	10.00 € 5 MW	10.00 € 5 MW	10.00 € 5 MW	10.00 € 5 MW	10.00 € 5 MW	10.00 € 5 MW
Test3	Up	C 10.00 € 5 MW	C 10.00 € 5 MW	C 10.00 € 5 MW	C 10.00 € 5 MW	C 10.00 € 5 MW	C 10.00 € 5 MW	C 10.00 € 5 MW

Redispatching | Energy Bid | Version: 1 | 20/04/2023 08:58

Bid Group		00:00	00:15	00:30	00:45	01:00	01:15	01:30
Test1	Down	5.00 € 10 MW	5.00 € 10 MW	5.00 € 10 MW	5.00 € 10 MW	5.00 € 10 MW	5.00 € 10 MW	5.00 € 10 MW
Test2	Up	8.00 € 5 MW	8.00 € 5 MW	8.00 € 5 MW	8.00 € 5 MW	8.00 € 5 MW	8.00 € 5 MW	8.00 € 5 MW

MAT

mFRR

RD

Different needs need to be covered

- Cover the need of the batteries and other reservoirs and so prevent activations that are too long and so physically impossible.

For mFRR: Mainly for the uncertainty before GCT and the QH

For RD: Mainly to avoid activations that would last too long

- Cover the need of facilitation for smaller actors that would have technical constraints imposing the use of a maximum time of activation (that does not behave like a reservoir) without having the resources to make updates 24/7.

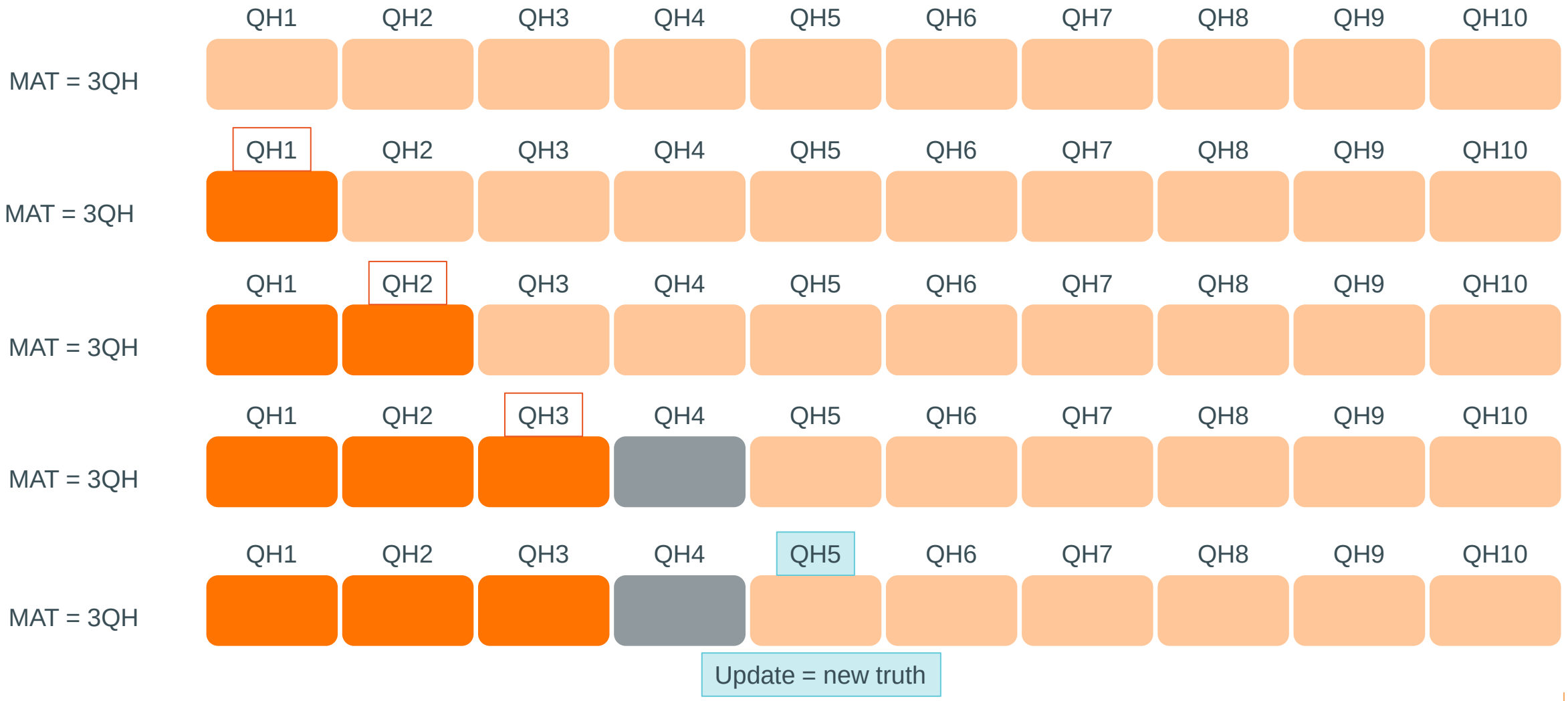
Should be covered similarly for mFRR and RD

One unique solution could not cover the 2 needs so we defined 2 different properties, the MAT (maximum activation time) and the MEL (maximum energy level)

mFRR

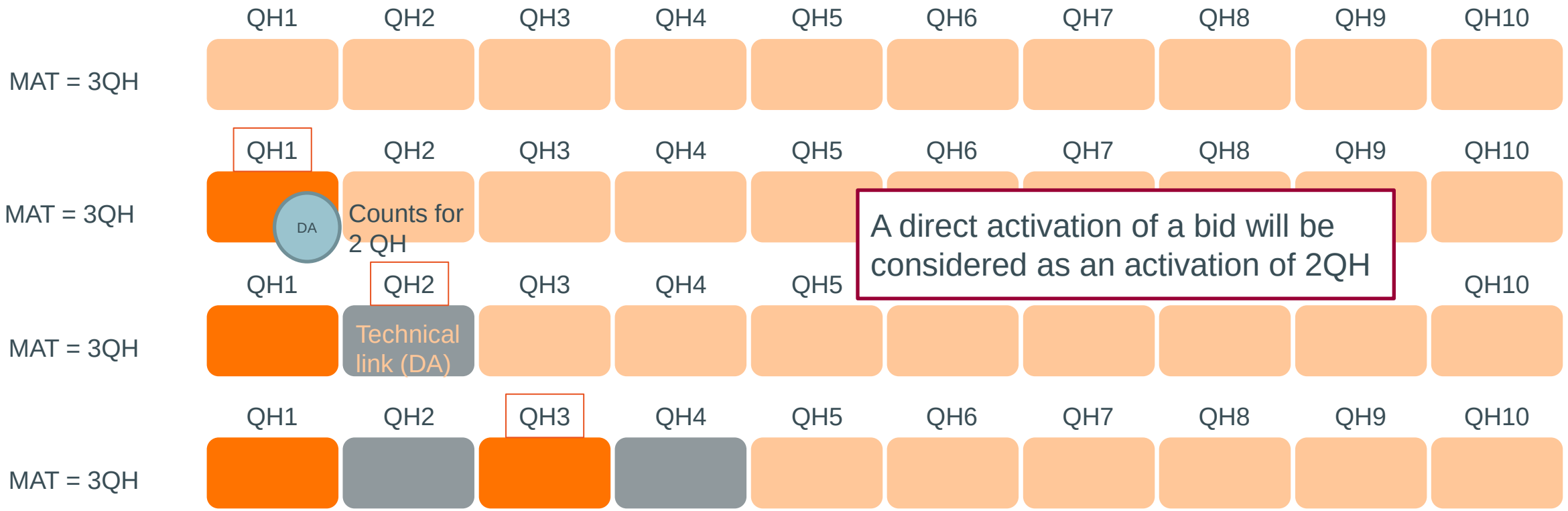
RD

Example MAT (1/6): Update = new truth



Available
Activated
Set to unavailable
QH of update
Ongoing QH

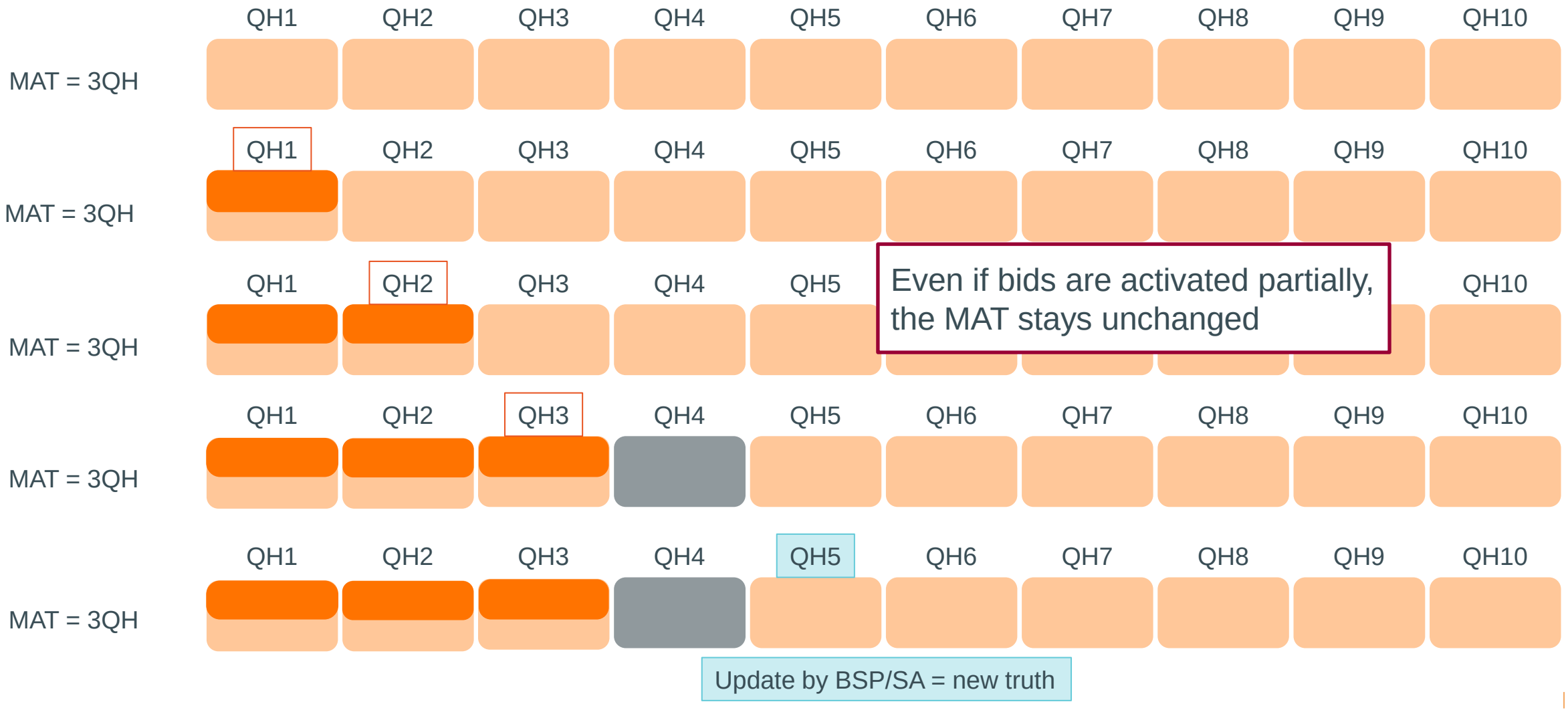
Example MAT (2/6): Direct activation counts for 2QH



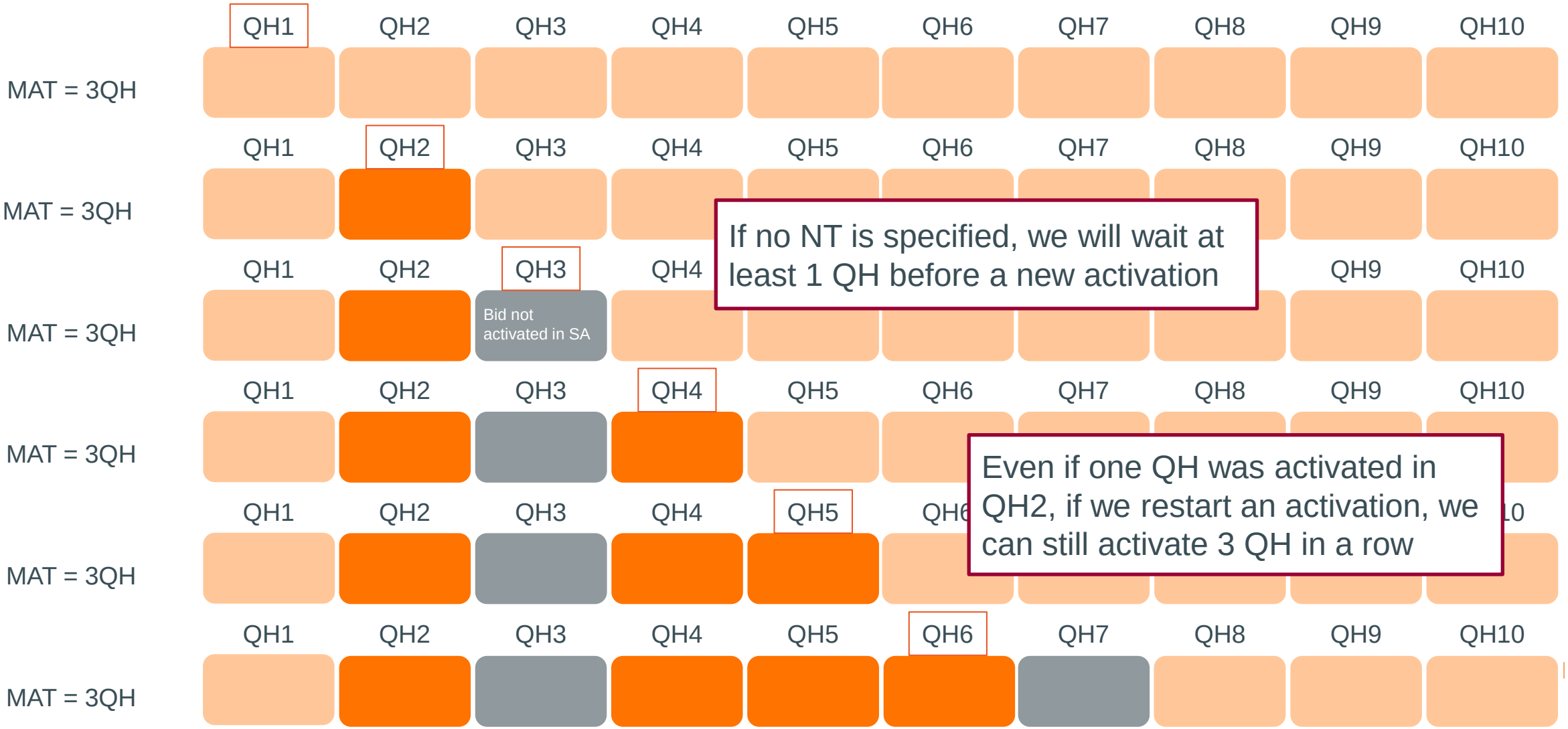
mFRR

RD

Example MAT (3/6): Partial activations do not change the MAT

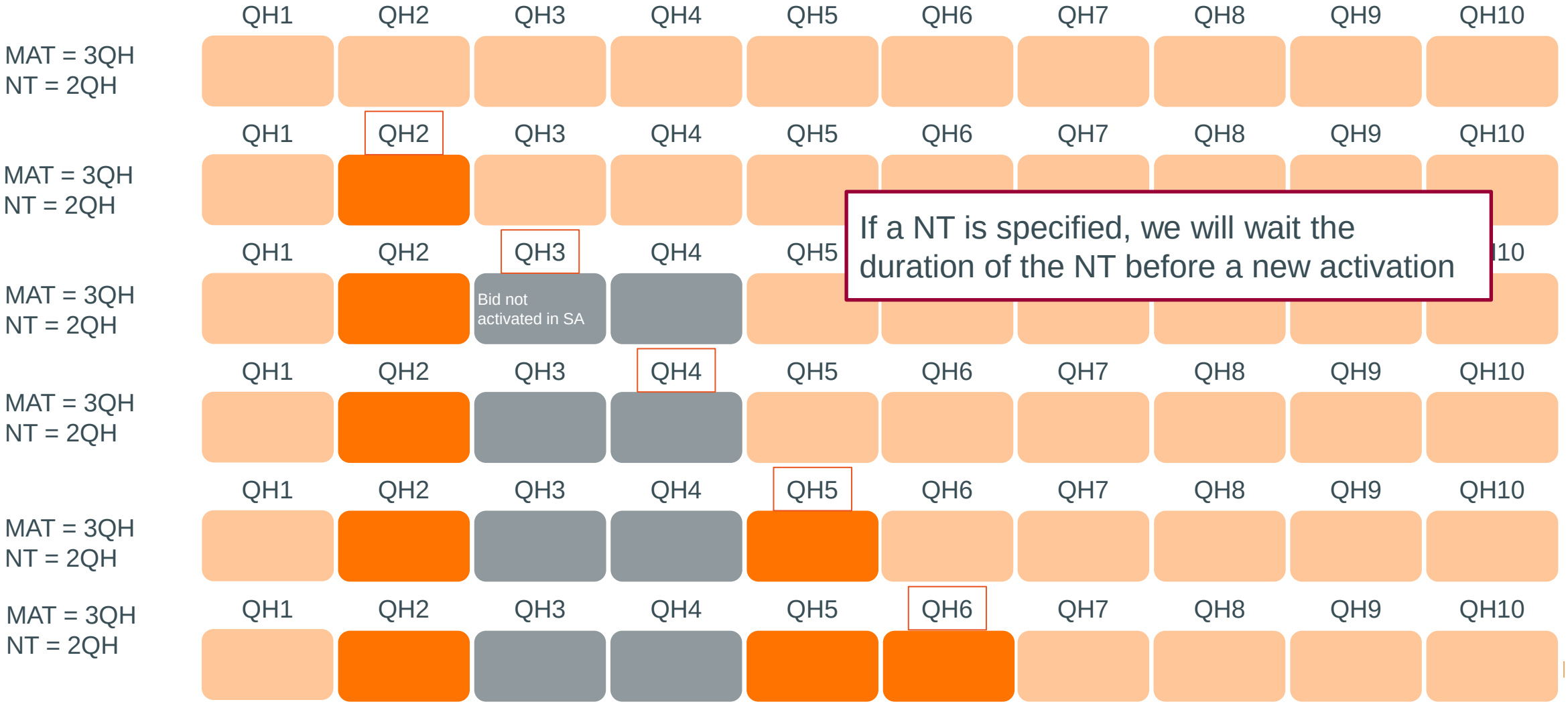


Example MAT (5/6): MAT without a NT, we wait 1QH before a new activation



Available
Activated
Set to unavailable
QH of update
Ongoing QH

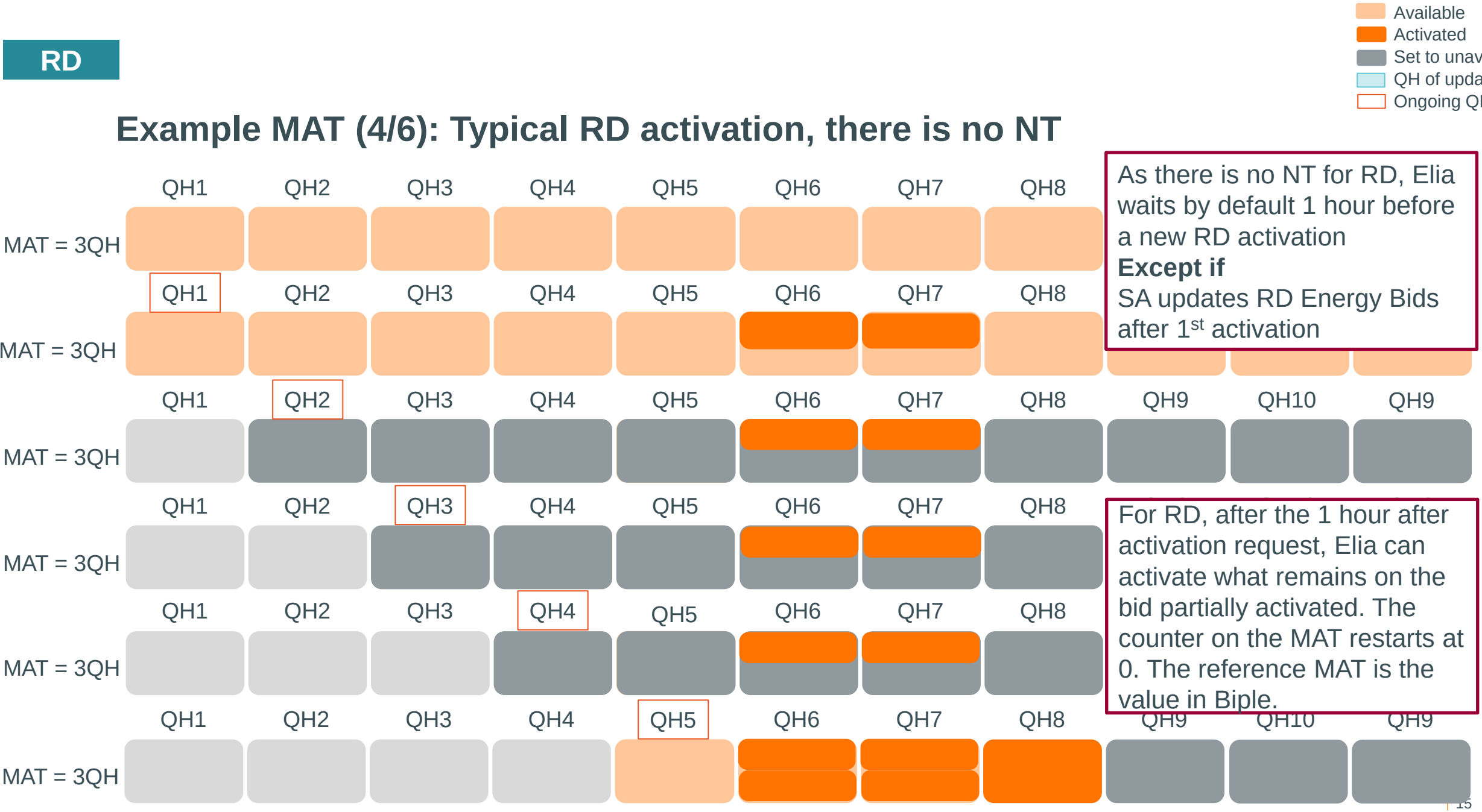
Example MAT (6/6): MAT with NT, we wait the duration of the NT before a new activation



If a NT is specified, we will wait the duration of the NT before a new activation

RD

Example MAT (4/6): Typical RD activation, there is no NT



As there is no NT for RD, Elia waits by default 1 hour before a new RD activation

Except if

SA updates RD Energy Bids after 1st activation

For RD, after the 1 hour after activation request, Elia can activate what remains on the bid partially activated. The counter on the MAT restarts at 0. The reference MAT is the value in Biple.

MAT and exclusive groups cannot be combined

With the MAT, when one bid of the exclusive group has been activated, only this bid can continue to be activated

	EX1		QH1	QH2	QH3	QH4	QH5	QH6	QH7	QH8	QH9	QH1
Providing Group A	BG1	MAT = 1QH	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50M
	BG2	MAT = 2QH	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10M
	BG3	MAT = 3QH	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5M

	EX1		QH1	QH2	QH3	QH4	QH5	QH6	QH7	QH8	QH9	QH1
Providing Group A	BG1	MAT = 1QH	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50MW	50M
	BG2	MAT = 2QH	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10MW	10M
	BG3	MAT = 3QH	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5MW	5M

Because they represent the same volume so activating 3 QH of 5MW and one one at 50MW is absolutely not ok.

BUT, bids from the same exclusive group need to have the same availability status. So we cannot put the bids from the other bid groups to unavailable as soon as the bid of one big group is activated.

⇒ One solution would be to remove the exclusive group identification and then change the availability status.

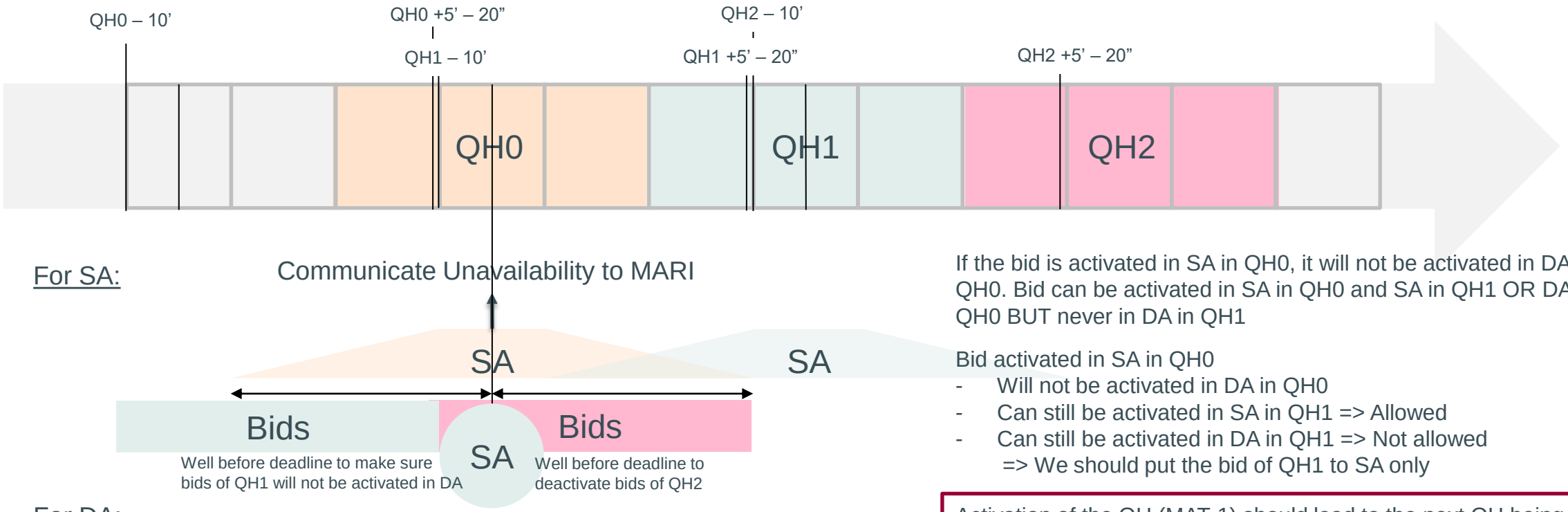
Nevertheless, changing a complex bid to a simple bid is allowed until T-12 and not after (while the last DA can be performed until T-10).

⇒ The last option is to not allow the use of exclusive group and MAT for mFRR (no issue for RD).

mFRR

QH1 is the last QH that can be activated

MAT – additional constraints linked to the MARI timings



If the bid is activated in SA in QH0, it will not be activated in DA in QH0. Bid can be activated in SA in QH0 and SA in QH1 OR DA in QH0 BUT never in DA in QH1

Bid activated in SA in QH0
- Will not be activated in DA in QH0
- Can still be activated in SA in QH1 => Allowed
- Can still be activated in DA in QH1 => Not allowed
  => We should put the bid of QH1 to SA only

Activation of the QH (MAT-1) should lead to the next QH being set to SA only. MAT should at least last 2QH for bids in SA+DA.

If the bid is activated in DA in QH0, there might be a drop of production (if we follow the profiles literally) or even a gap between activations. Such a behavior is probably not acceptable for MP using a MAT (they cannot stop and restart). So we should not accept prolongation of activations with DA.

⇒ As soon as a bid with a MAT is activated, the following one should receive a status SA only (covers the previous rule as well)

mFRR

RD

Maximum activation time: validation rules

A time in minutes, that indicates the maximum duration of an activation. The activation duration can be shorter than the MAT but never longer.

- Must be a multiple of 15 minutes
- Must be at least 30 minutes for bids with activation type SA+DA
- Defined at bid group level
- Can be combined with conditional link
- Can be combined with NT (for mFRR only)
- Cannot be combined with exclusive group (for mFRR only)
- Cannot be combined with MEL

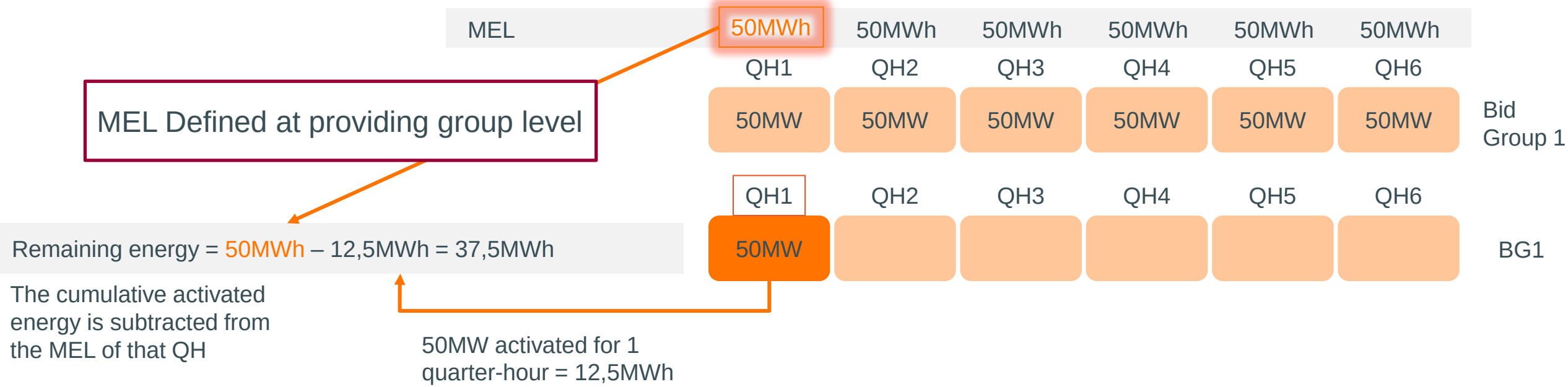
MEL

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (1/8): MEL defined at providing group level



Remaining energy for a QH = MEL of that QH – COUNTER of activated energy since last update

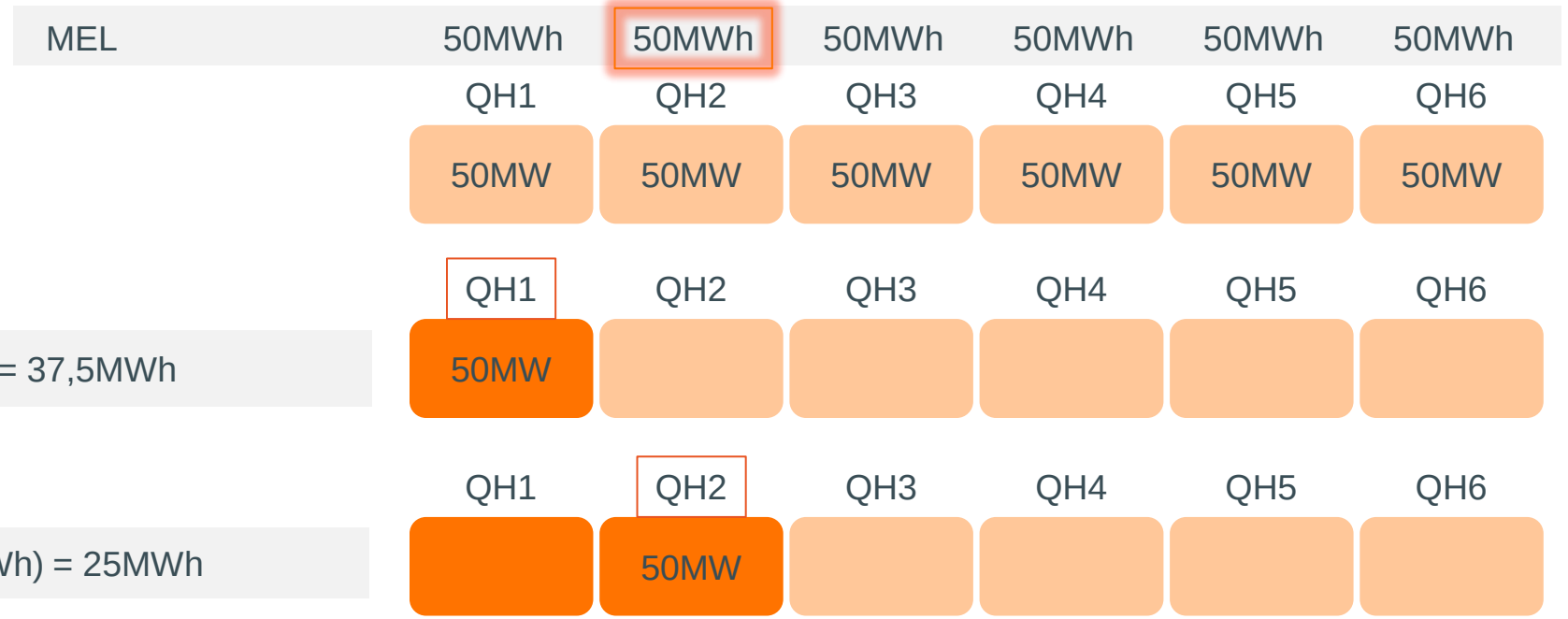
Counter = 50 / 4 = 12,5MWh

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (1/8): MEL defined at providing group level



Remaining energy = 50MWh – 12,5MWh = 37,5MWh

Remaining energy = 50MWh – (2*12,5MWh) = 25MWh

The cumulative activated energy is subtracted from the MEL of that QH

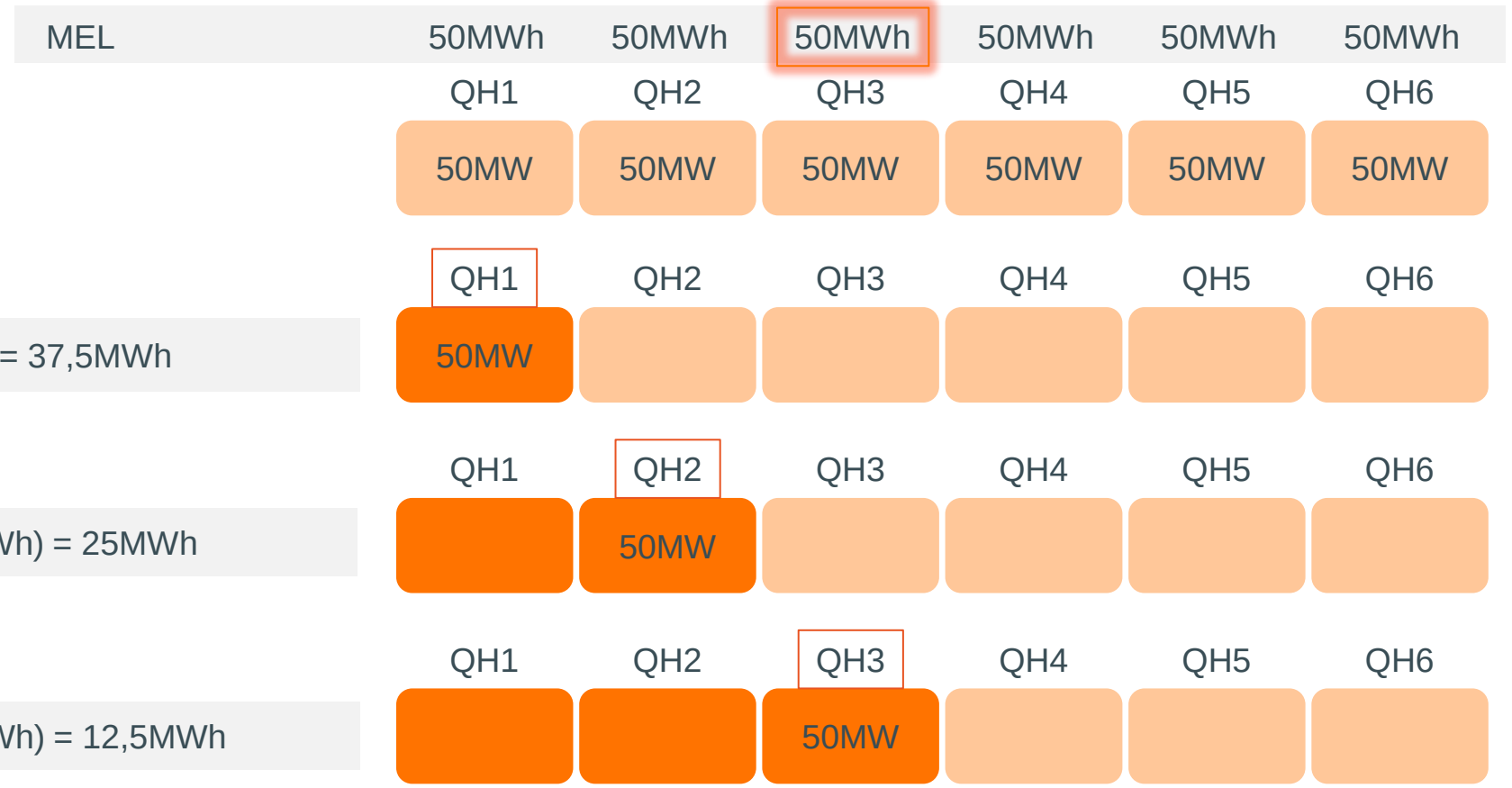
Counter = 2 * 50 / 4 = 25MWh

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (1/8): MEL defined at providing group level



The cumulative activated energy is subtracted from the MEL of that QH

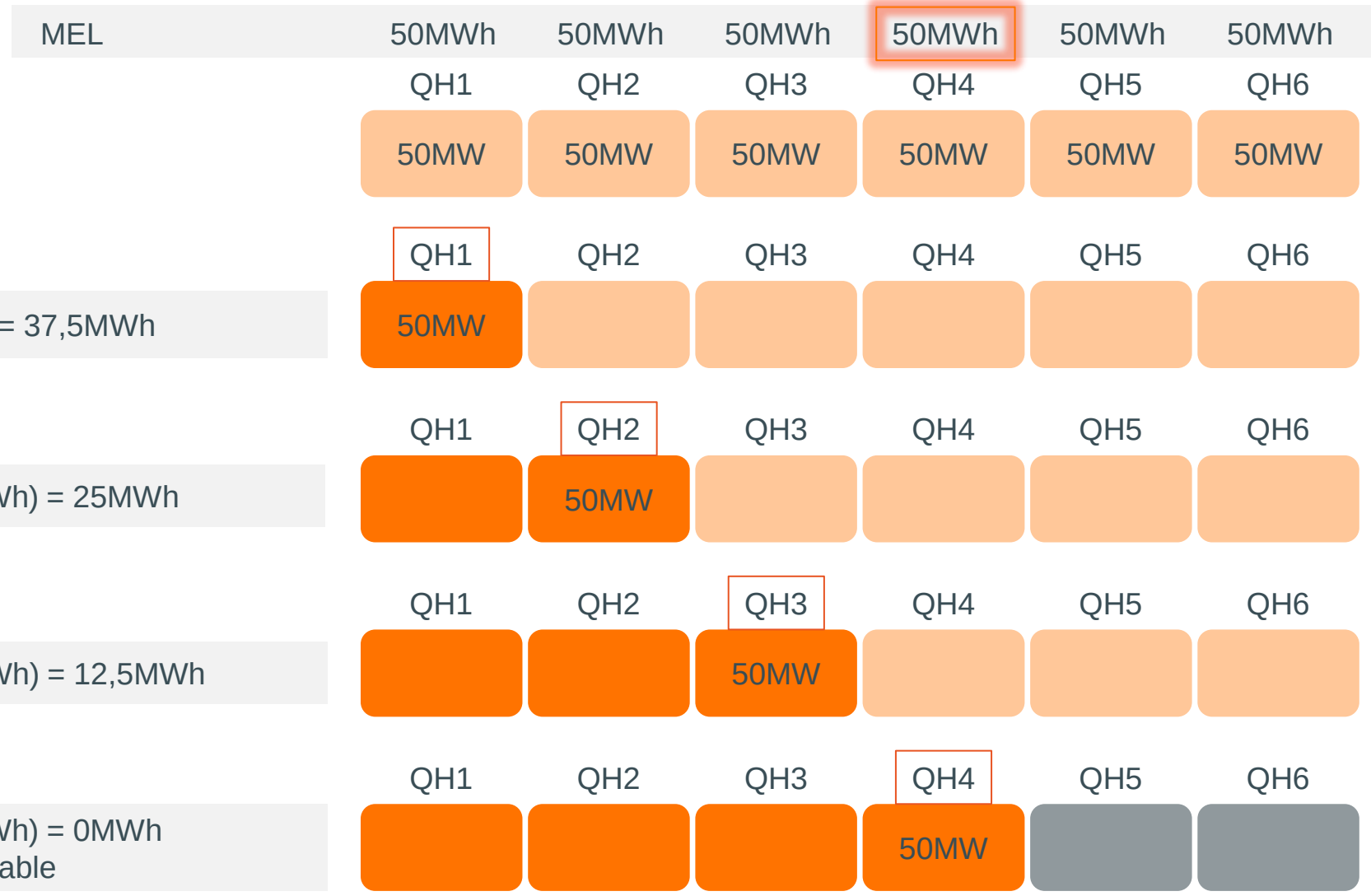
Counter = 3 * 50 / 4 = 37,5 MWh

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (1/8): MEL defined at providing group level



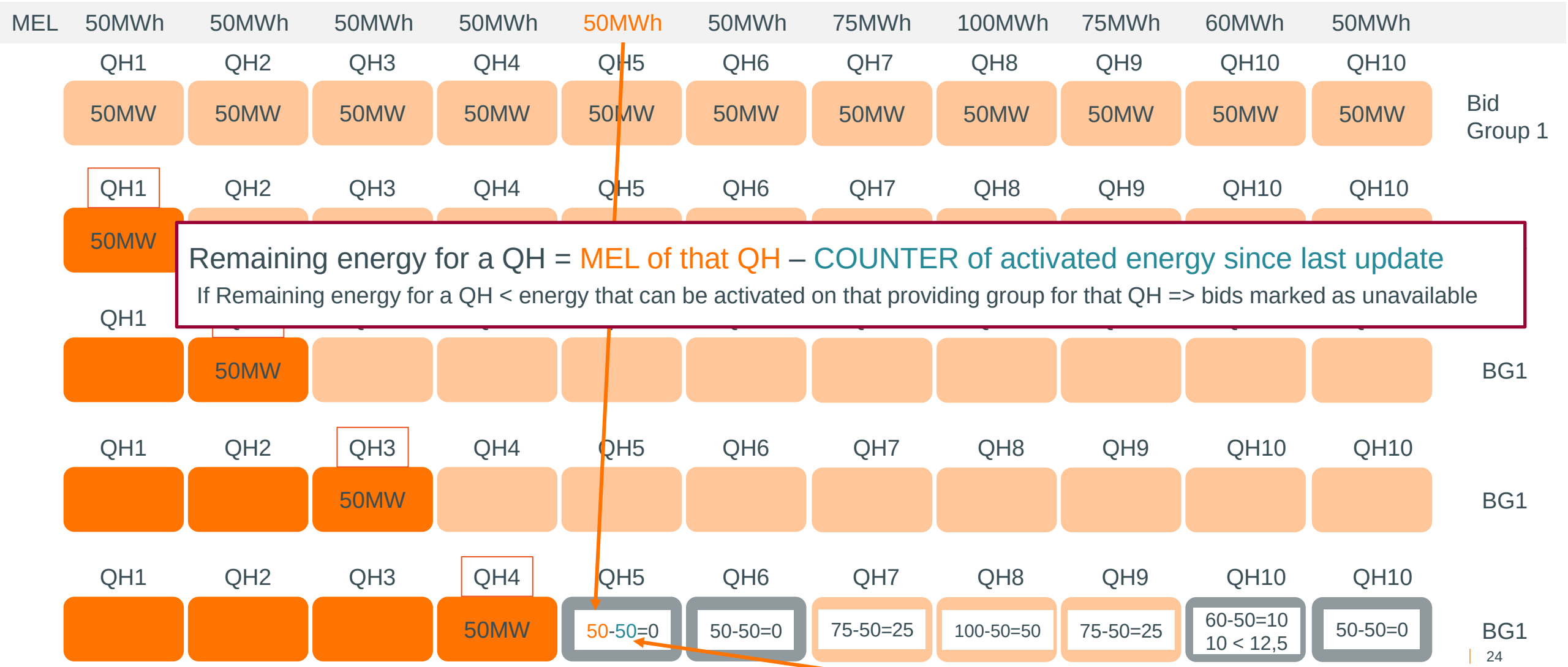
Counter = 4 * 50 / 4 = 50 MWh

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

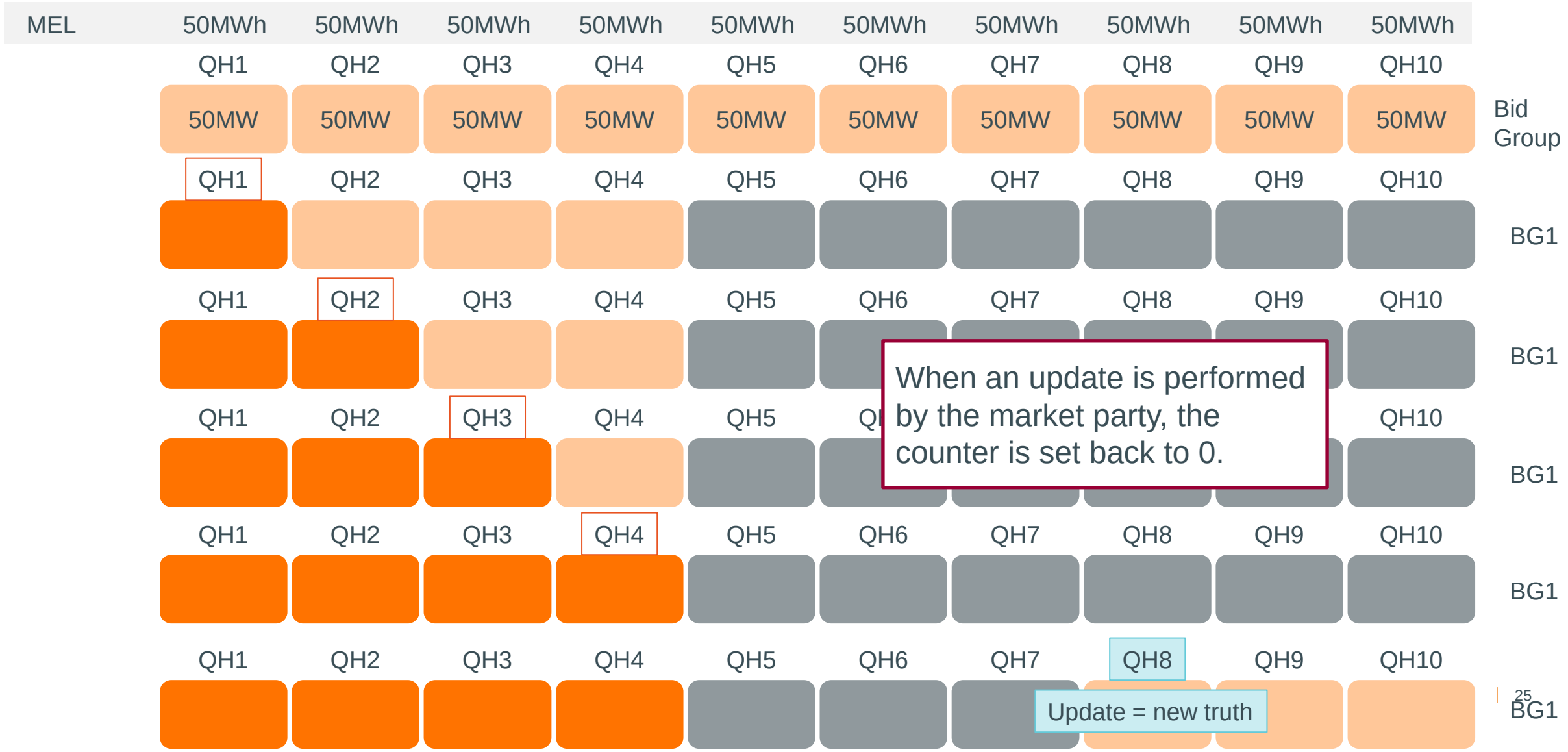
Example MEL (2/8): MEL defined at providing group level



Counter = 4 * 50 / 4 = 50 MWh

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (3/8): Reservoir empty = bid unavailable until new update

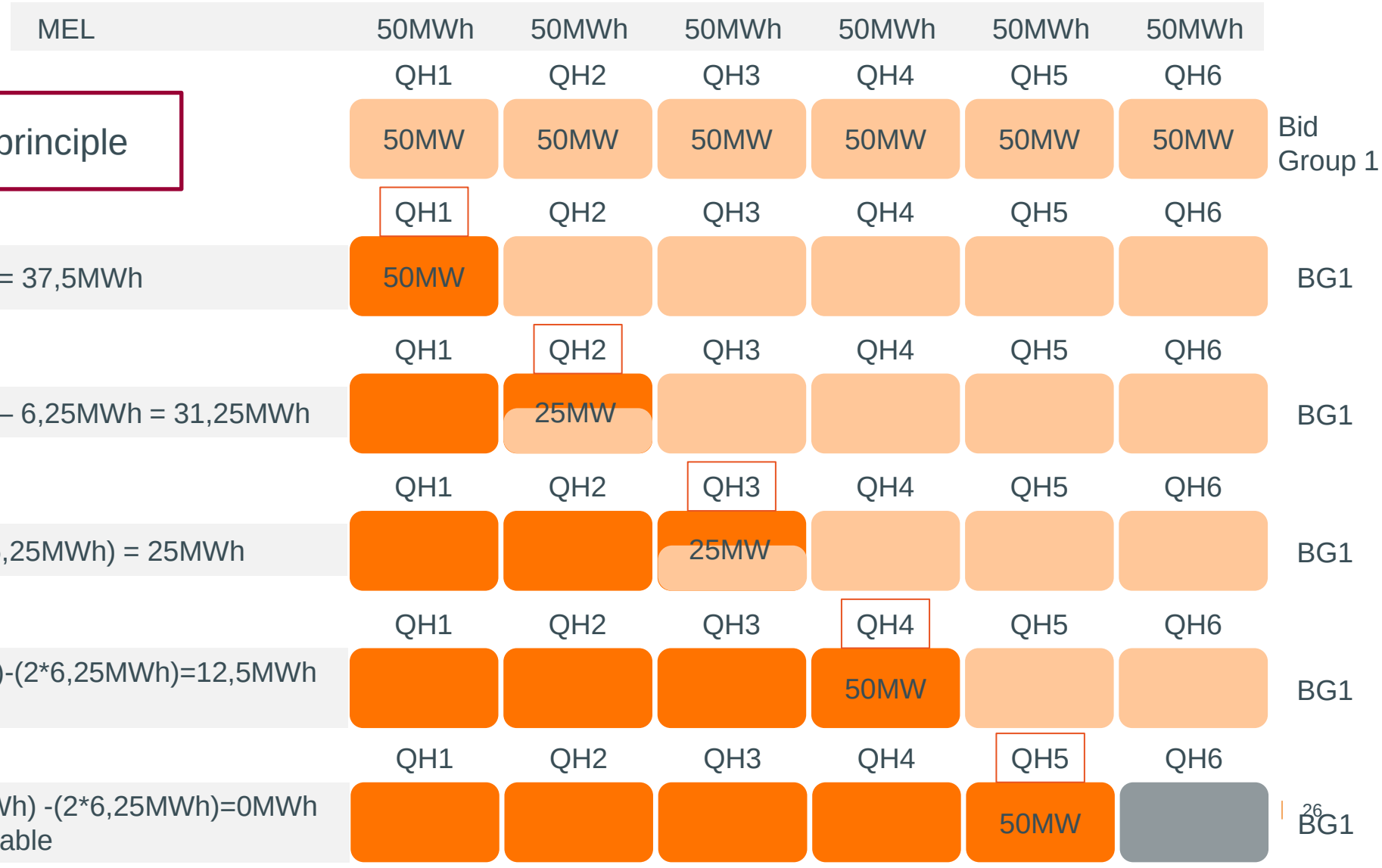


mFRR
RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (4/8): MEL reflects the reservoir principle

MEL reflects the reservoir principle

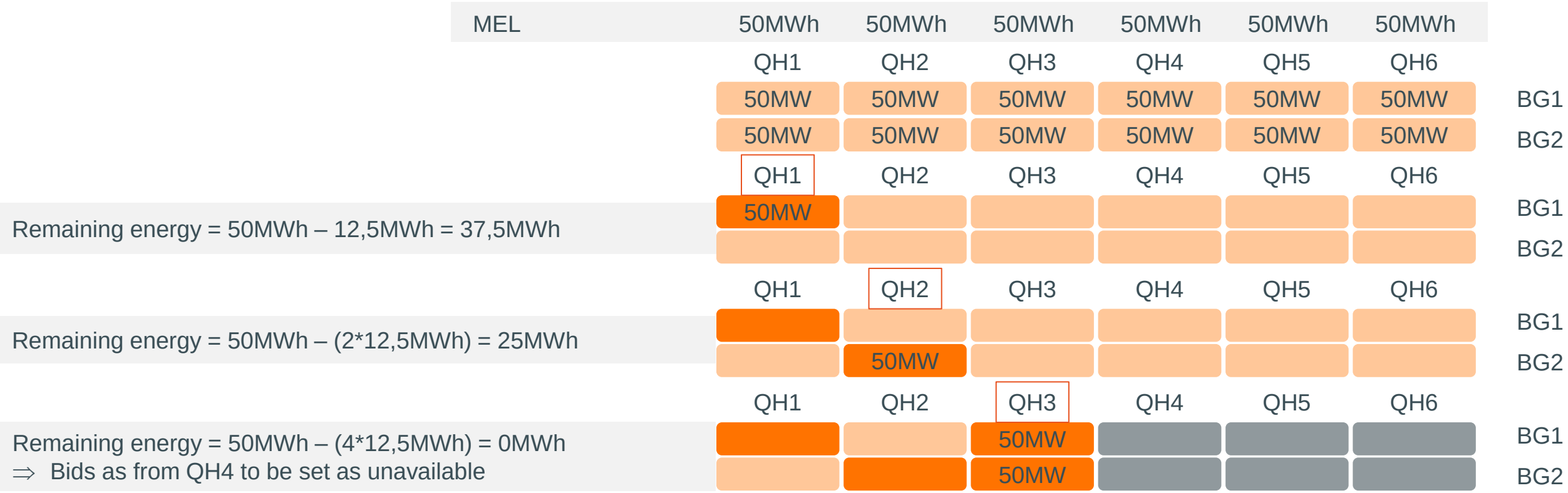


mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (5/8): All bids of the PG impact the energy level



The remaining energy will be affected by any activation within the Providing group

mFRR

RD

Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (6/8): Activations in the one direction impact the MEL in the other direction as well

MEL UP	50MWh	50MWh	50MWh	50MWh	50MWh
MEL DOWN	0MWh	0MWh	0MWh	0MWh	0MWh

Activations in the one direction impact the MEL in the other direction as well LINEARLY

	QH1	QH2	QH3	QH4	QH5	
	50MW	50MW	50MW	50MW	50MW	BG UP
	50MW	50MW	50MW	50MW	50MW	BG DOWN

Remaining energy UP = 50MWh – 12,5MWh = 37,5MWh

Remaining energy DOWN = 0MWh + 12,5MWh = 12,5MWh

	QH1	QH2	QH3	QH4	QH5	
	50MW					BG UP
						BG DOWN

Remaining energy UP = 50MWh – 12,5MWh + 12,5MWh = 50MWh

Remaining energy DOWN = 0MWh + 12,5MWh – 12,5MWh = 0MWh

	QH1	QH2	QH3	QH4	QH5	
						BG UP
		50MW				BG DOWN

Remaining energy UP = 50MWh – 2 * 12,5MWh + 12,5MWh = 37,5MWh

Remaining energy DOWN = 0MWh + 2 * 12,5MWh – 12,5MWh = 12,5MWh

	QH1	QH2	QH3	QH4	QH5	
			50MW			BG UP
						BG DOWN

Counter UP	50/4=12,5	12,5	12,5+50/4=25	25	25
Counter DOWN	0	50/4=12,5	12,5	12,5	12,5

Remaining energy for a QH UP = MEL of that QH UP

– COUNTER of activated energy since last update UP

+ COUNTER of activated energy since last update DOWN

Remaining energy for a QH DOWN = MEL of that QH DOWN

– COUNTER of activated energy since last update DOWN

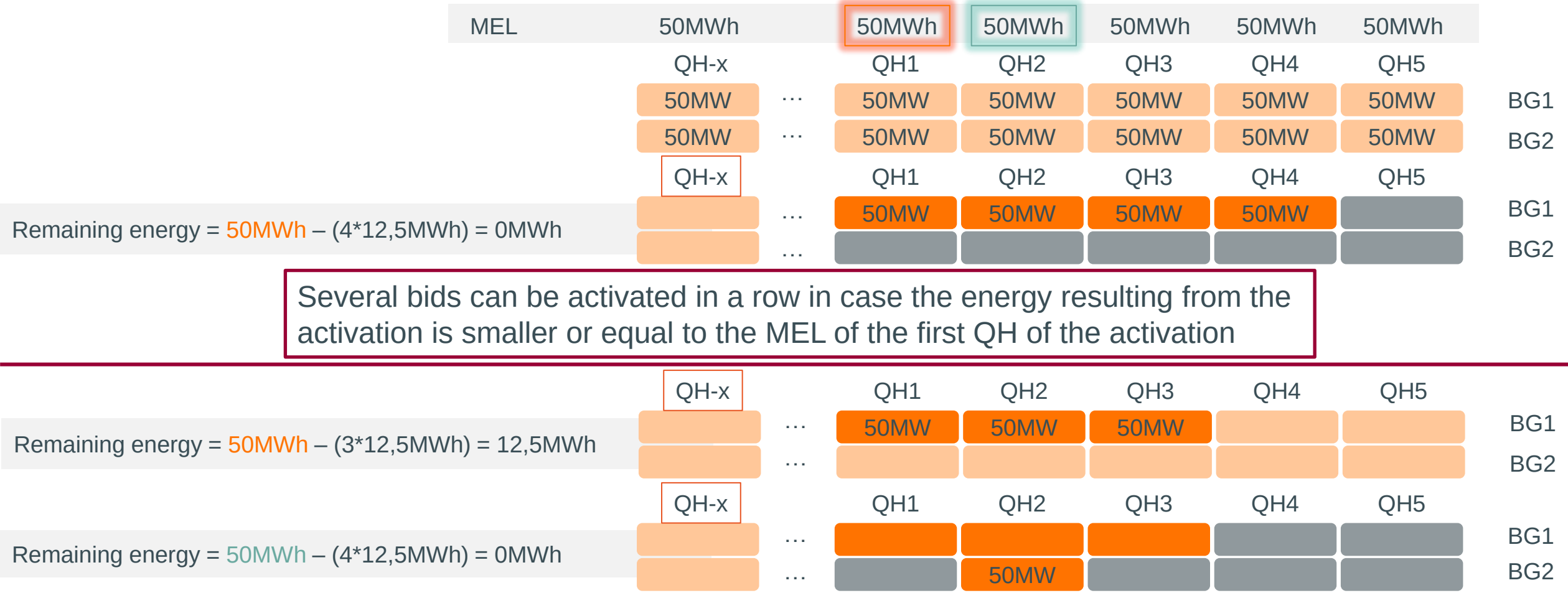
+ COUNTER of activated energy since last update UP

If Remaining energy for a QH < energy that can be activated on a bid for that QH => bid marked as unavailable

Note: We can always activate a –divisible- bid partially but we will not activate a bid partially BECAUSE of the remaining energy. If there is not enough energy at the beginning of the QH to activate the bid, it will be set as unavailable directly, we will not reduce the volume of the bid.

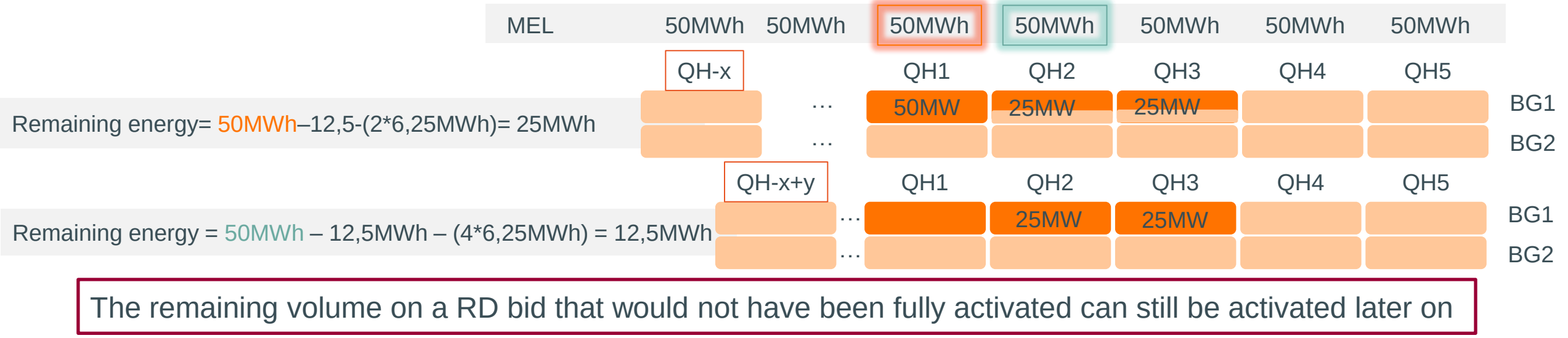
Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example MEL (7/8): activations of several QH in a row depend on the MEL of the 1st QH



Available
Activated
Set to unavailable
QH of update
Ongoing QH

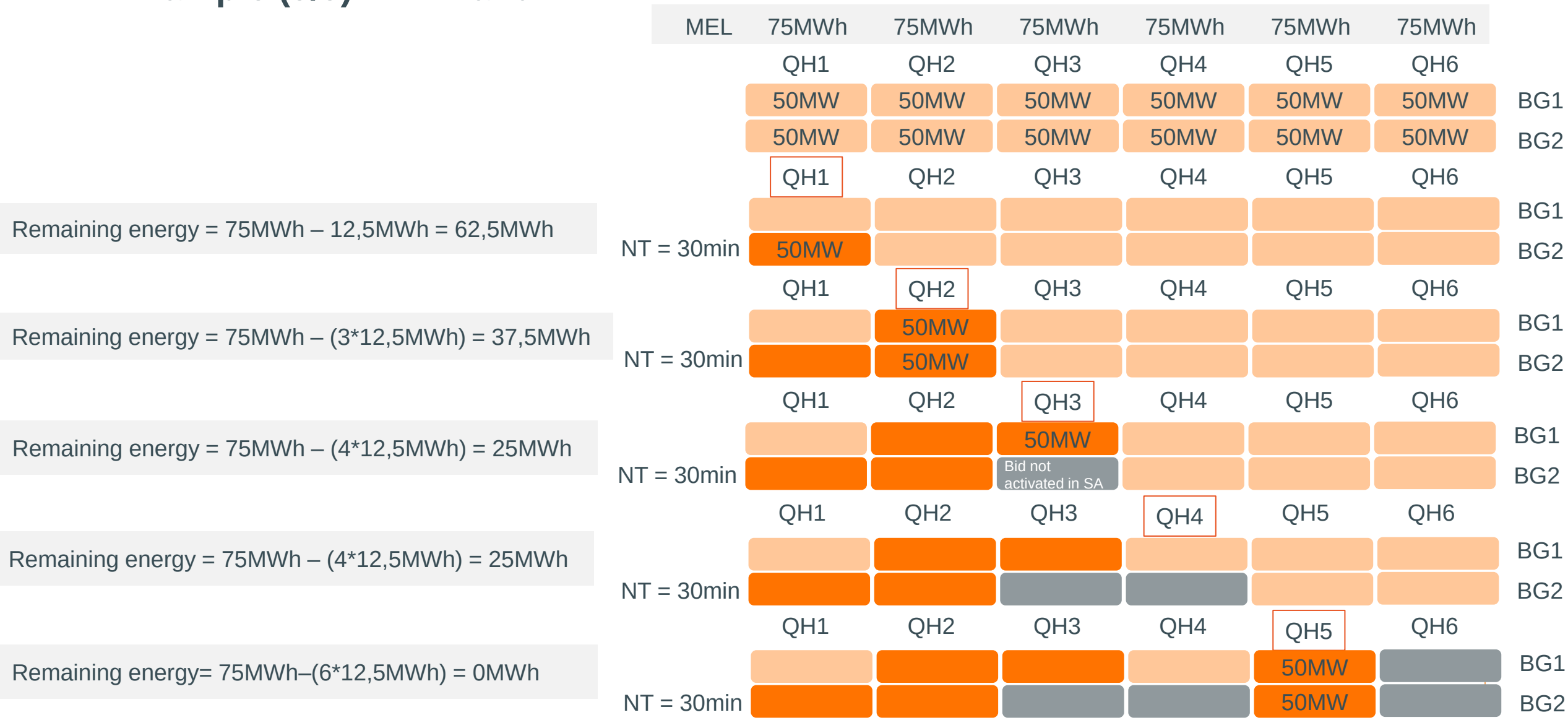
Example MEL (8/8): activations of several QH in a row depend on the MEL of the 1st QH



The remaining volume on a RD bid that would not have been fully activated can still be activated later on

To perform an activation, we will consider the remaining volume on the bid and the remaining energy

Example (9/9) - MEL and NT



MEL imposes us to put all the bids of a Providing Group to unavailable as soon as the Remaining Energy is not sufficient for the activation of all the bids

Providing Group A

MEL	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22M
BG1	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80M
BG2	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20M
BG3	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8M

BG2 Available if BG3 activated

=22MWh ⇒ All remaining QHs will be deactivated (22-22=0

Providing Group A

MEL	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27M
BG1	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80M
BG2	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20M
BG3	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8M

BG2 Available if BG3 activated

Remove all bids for next QH in case the remaining energy is not sufficient to activate them all.

=22MWh ⇒ Only 5MWh remaining ! With 5MWh, we will deactivate BG1 but yet, we cannot activate BG2 (now available) AND BG3 (2+5=7MWh).

Remaining energy for a QH UP = MEL of that QH UP

– COUNTER of activated energy since last update UP

+ COUNTER of activated energy since last update DOWN

Remaining energy for a QH DOWN = MEL of that QH DOWN

– COUNTER of activated energy since last update DOWN

+ COUNTER of activated energy since last update UP

If Remaining energy for a QH < energy that can be activated on a bid for that QH

⇒ bid marked as unavailable

If Remaining energy for a QH < energy that can still be activated on that providing group for that QH (only bids that are available)

⇒ all bids of the providing group marked as unavailable

MEL imposes us to change the activation type of the BID to SA only when Remaining Energy is sufficient for a SA but not for a DA.

		QH1	QH2	QH3	QH4	QH5	QH6	QH7	QH8	QH9	QH10
Providing Group A	MEL	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22MWh	22M
	BG1	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80M
BG2 Available if BG3 activated	BG2	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20M
	BG3	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8M

=22MWh ⇒ All remaining QHs will be deactivated (22-22=0

		QH1	QH2	QH3	QH4	QH5	QH6	QH7	QH8	QH9	QH10
Providing Group A	MEL	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27MWh	27M
	BG1	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80MW	80M
BG2 Available if BG3 activated	BG2	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20MW	20M
	BG3	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8MW	8M

=22MWh ⇒ Only 5MWh remaining ! With 5MWh, we need to deactivate BG1 but yet, we cannot activate BG2 (now available) AND BG3 (2+5=7MWh).

We should check if they can be activated for 1 or 2 QH and accordingly, either leave them on SA + DA or change to SA only.

Remaining energy for a QH UP = MEL of that QH UP

– COUNTER of activated energy since last update UP

+ COUNTER of activated energy since last update DOWN

Remaining energy for a QH DOWN = MEL of that QH DOWN

– COUNTER of activated energy since last update DOWN

+ COUNTER of activated energy since last update UP

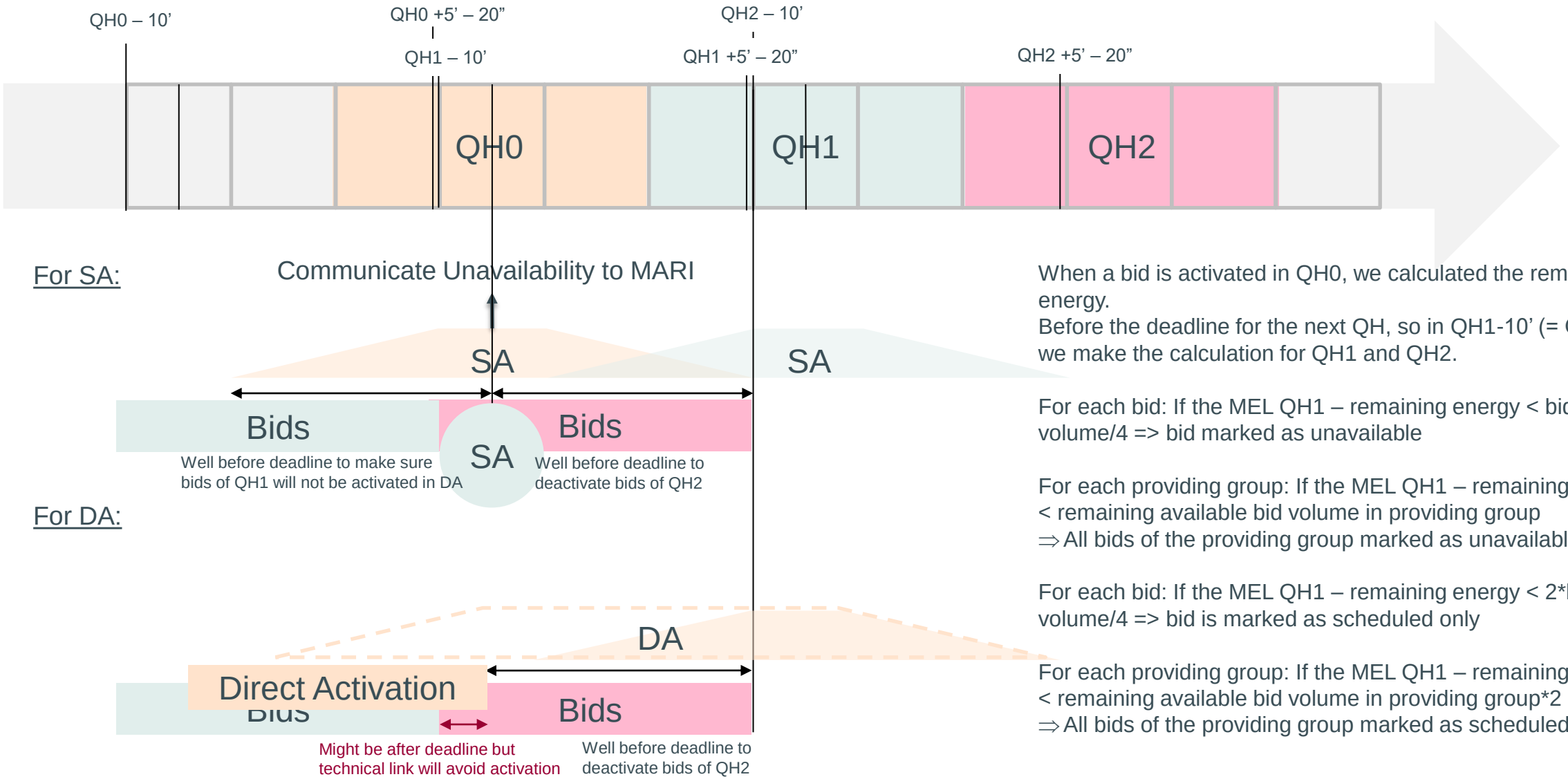
If Remaining energy for a QH < energy that can be activated on a bid for that QH

⇒ bid marked as unavailable (marked as SA only if condition not fulfilled for 2 QH of activation)

If Remaining energy for a QH < energy that can still be activated on that providing group for that QH (only bids that are available)

⇒ all bids of the providing group marked as unavailable (marked as SA only if condition not fulfilled for 2 QH of activation)

Timings of communication with MARI – End of MEL



When a bid is activated in QH0, we calculated the remaining energy.
Before the deadline for the next QH, so in QH1-10’ (= QH0+5’) we make the calculation for QH1 and QH2.

For each bid: If the MEL QH1 – remaining energy < bid volume/4 => bid marked as unavailable

For each providing group: If the MEL QH1 – remaining energy < remaining available bid volume in providing group
⇒ All bids of the providing group marked as unavailable

For each bid: If the MEL QH1 – remaining energy < 2*bid volume/4 => bid is marked as scheduled only

For each providing group: If the MEL QH1 – remaining energy < remaining available bid volume in providing group*2
⇒ All bids of the providing group marked as scheduled only

Maximum energy level: validation rules

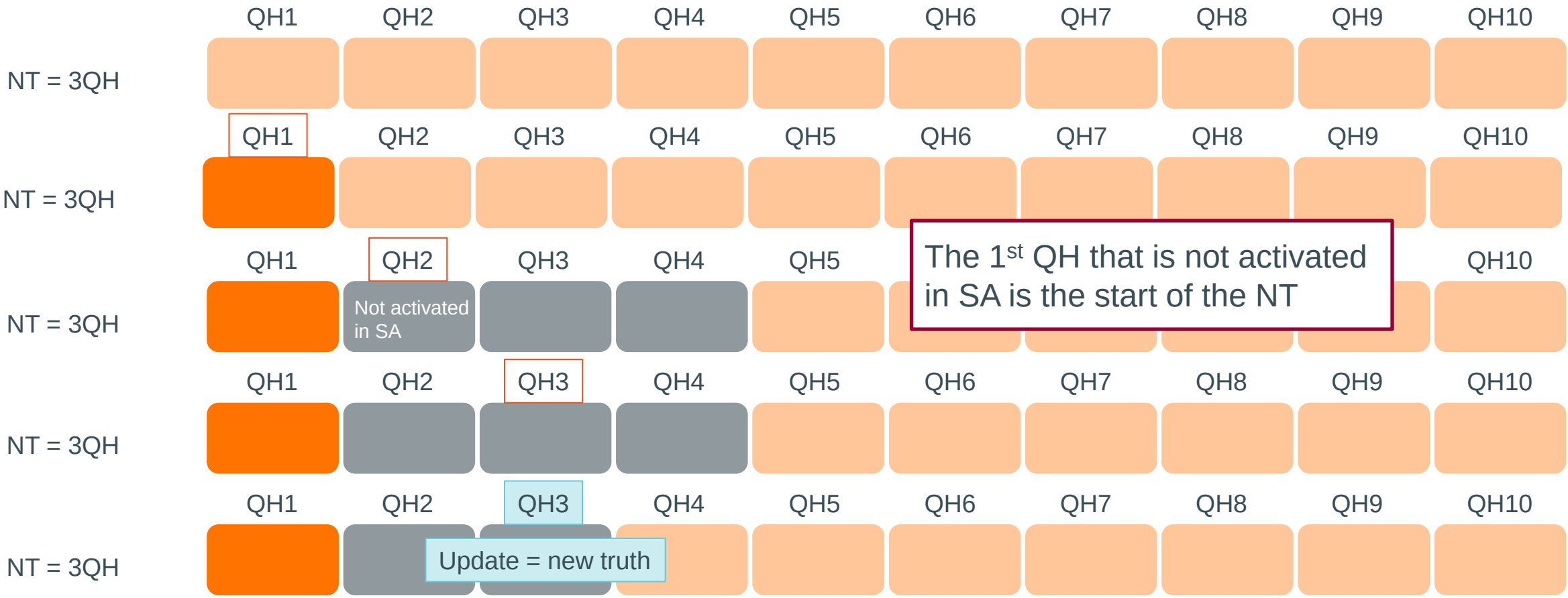
An Energy, in MWh, that indicates the energy level of the reservoir. The activation last until there is no energy in the reservoir anymore.

- Defined at providing group level.
- One MEL per direction per QH.
- When a bid of the providing group is activated, it impacts the energy level of the whole providing group.
- Can be combined with conditional link.
- Can be combined with exclusive group
- Cannot be combined with MAT. It’s the one or the other.
- Can be combined with NT.

Neutralization time

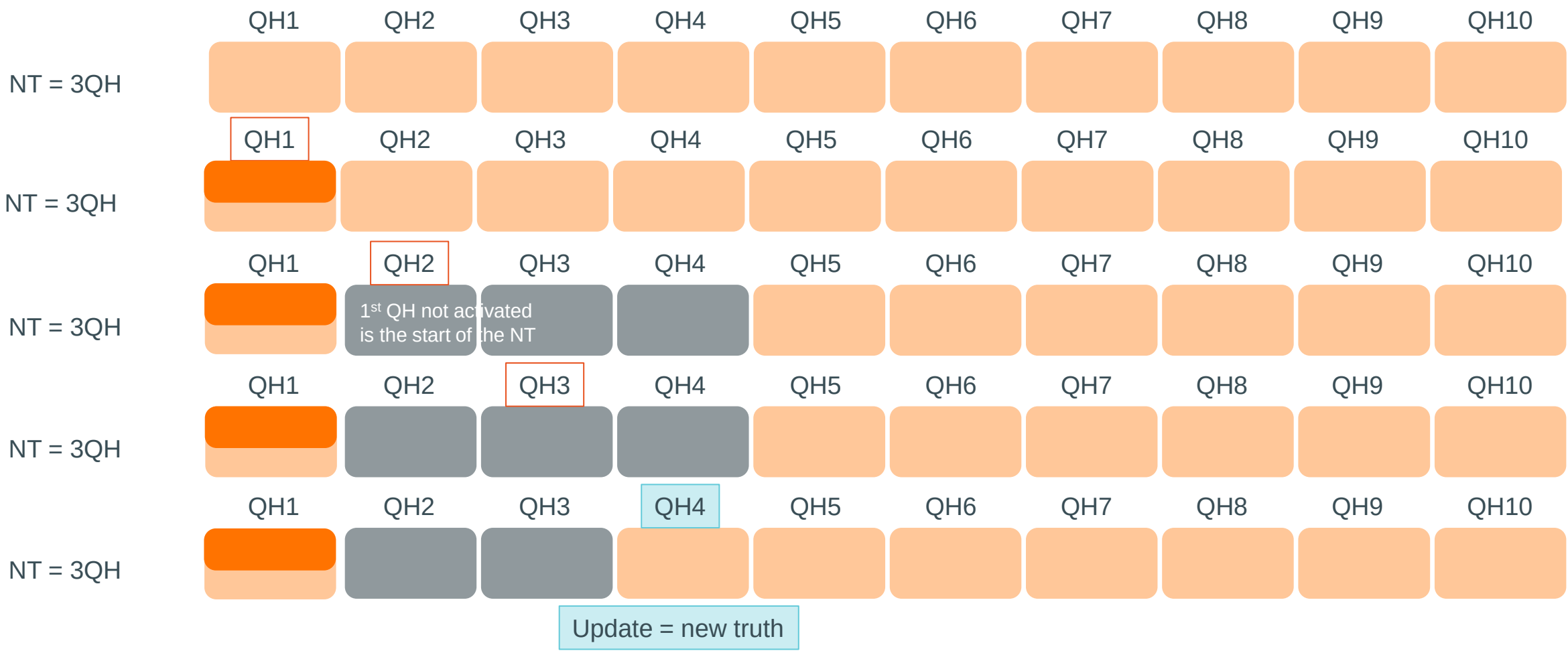
Available
Activated
Set to unavailable
QH of update
Ongoing QH

Example NT (1/2): 1st QH that is not activated in SA is the start of the NT



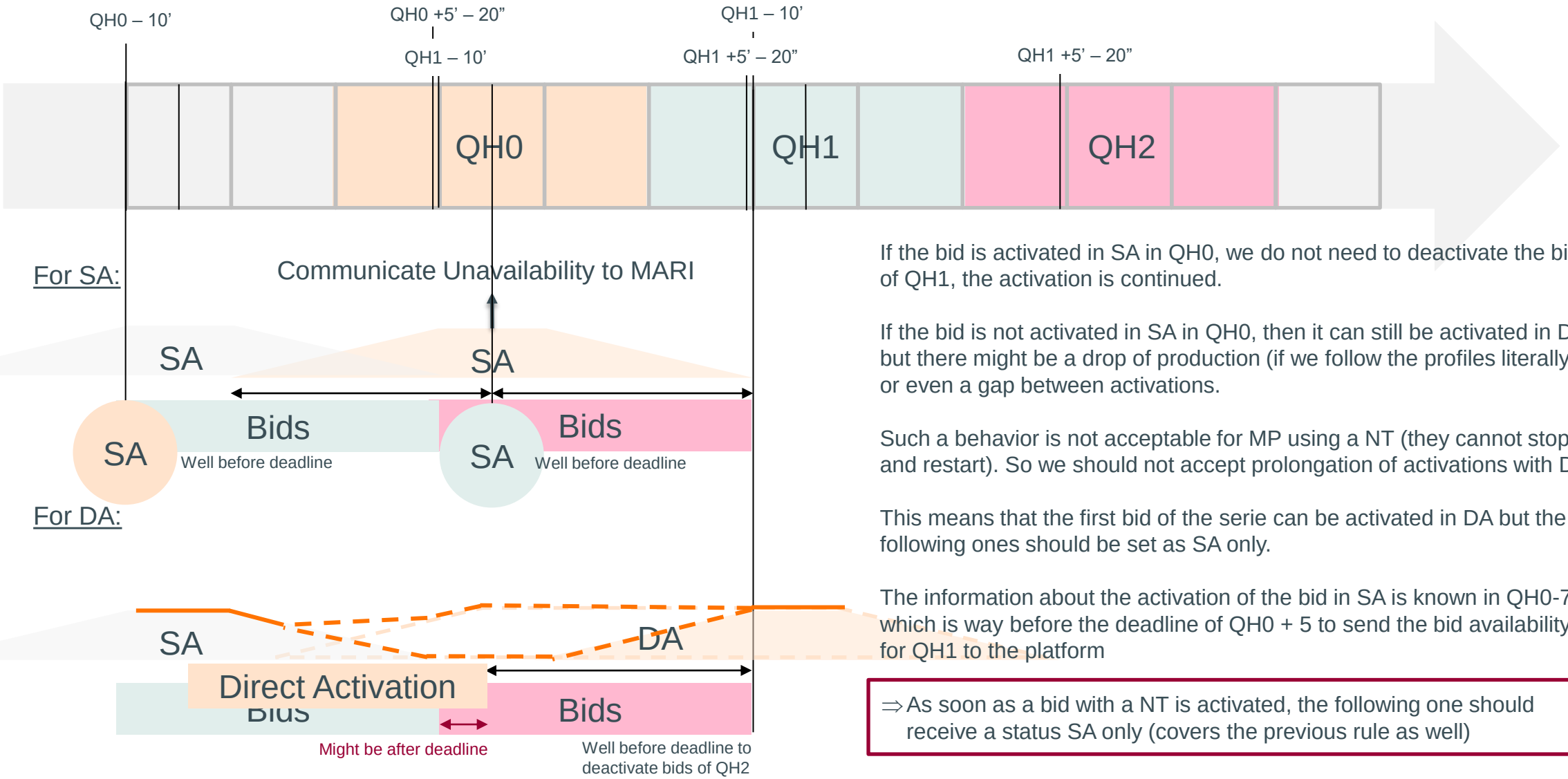
! This does not prevent the BSP from offering bids in SA+DA as requested. The first bid of the activation can always be activated in DA. Only prolongations in DA will not be performed.

Example NT (2/2): Partial activation do not impact the NT



NT starts as soon as activation is not continued in SA

Timings of communication with MARI – start of NT



If the bid is activated in SA in QH0, we do not need to deactivate the bid of QH1, the activation is continued.

If the bid is not activated in SA in QH0, then it can still be activated in DA but there might be a drop of production (if we follow the profiles literally) or even a gap between activations.

Such a behavior is not acceptable for MP using a NT (they cannot stop and restart). So we should not accept prolongation of activations with DA.

This means that the first bid of the serie can be activated in DA but the following ones should be set as SA only.

The information about the activation of the bid in SA is known in QH0-7,5 which is way before the deadline of QH0 + 5 to send the bid availability for QH1 to the platform

⇒ As soon as a bid with a NT is activated, the following one should receive a status SA only (covers the previous rule as well)

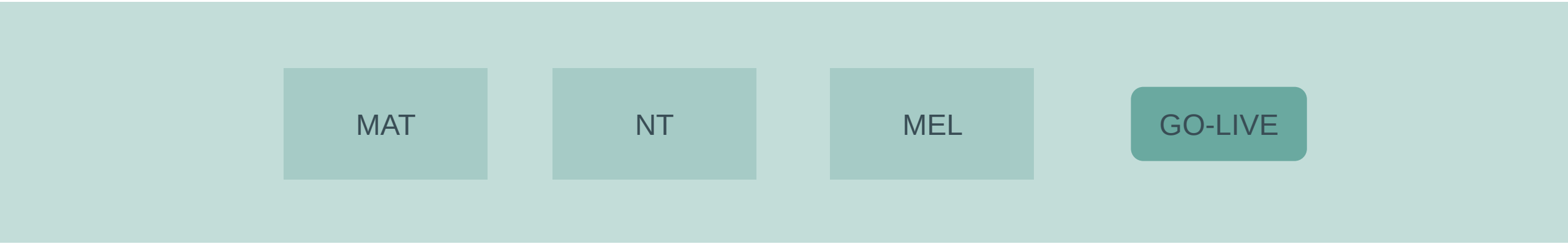
Neutralization time: validation rules

When the deactivation of a bid in a bid group has started, the NT is the time that will be waited before a bid in the same bid group can be activated again.

- Must be a multiple of 15 minutes
- Defined at bid group level
- Can be combined with conditional link
- Can be combined with MAT or MEL
- If NT is submitted in merged bid, it will be disregarded for the RD bid

Planning and next steps

Planning



Market Party who intend to use the MAT/MEL/NT/Merged Bids are invited to manifest themselves and to make sure to test those facilitations before the go-live.

Those facilitations will probably not be tested in the framework of the current test protocol. Some flexibility will be expected on both Market Parties and Elia's side to organize this testing.

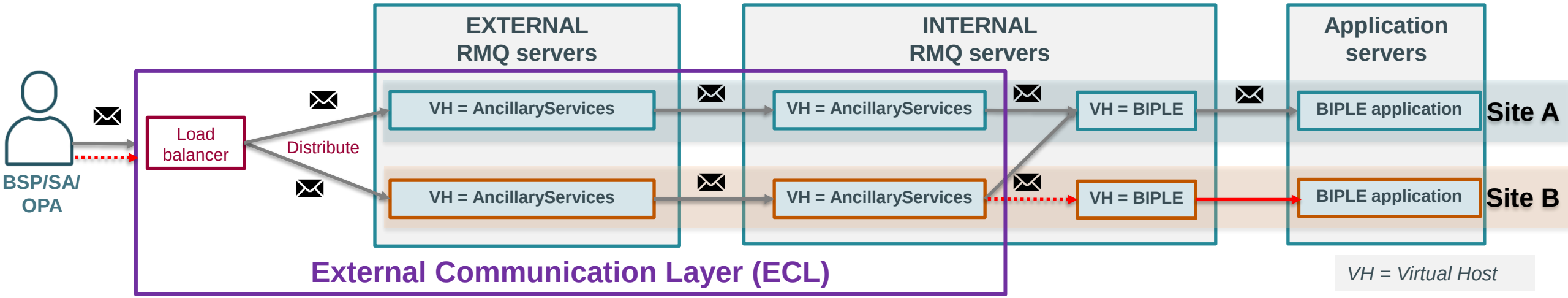
The main elements regarding the facilitations are mentioned in the technical guides. All functionalities are not available on DEMO yet (will be mentioned in the Technical guide).

Communication requirements for BSP-OPA-SA

Goal of this presentation

Present the communication channels used by Elia to communicate and receive information to & from the different market parties in the context of iCAROS phase 1 and MARI project.

Elia's redundancy solution for ECL and internal applications



Redundancy *is a system design in which a component (e.g. server,..) is duplicated so if it fails there will be a backup*

Elia creates a redundant system for all data exchanges. The link between Market Parties and ECL is currently the missing chain.

Options as Communication Channels

Main Communication

"Main communication channel(s)" that have to be used by market parties.

If several channels are available, the BSP/SA/OPA can chose to use only one or all of them.

Back Up Communication

"Back-up communication channel(s)" that have to be used by market parties.

If several channels are available, the BSP/SA/OPA can chose to use only one or all of them.

The BSP/SA/OPA **must have** a back-up communication channel.

Working in back-up mode do not imply working in a degraded mode and should ensure **the same quality level of service** from Elia and the Market Party.

Outage Planning Agent - Communication Requirements

OPA

Unavailability Events

Main: ECL or OPTIFLEX

Back Up: ECL or OPTIFLEX

Each of the main communication channel is back-up for the other

Market Party Notifications

Main: ECL or Email

Back-up: /

Scheduling Agent - Communication Requirements

SA

Submission of Schedules | **Submission of Redispatching Bids**

Each of the main communication channel is back-up for the other

Main: ECL or OPTIFLEX
Back Up: OPTIFLEX or ECL

Main: ECL or BIPLE
Back Up: BIPLE or ECL

Each of the main communication channel is back-up for the other

Return to Schedule Request

Main: ECL
Back Up: Email

Redispatching Activation Request

Main: ECL
Back Up: Email

Market Party Notifications

Main: ECL or Email
Back-up: /

Balance Service Provider - Communication Requirements

B S P

Submission of mFRR Energy Bids | **Submission of mFRR supporting providing group** | **Submission of aFRR Energy Bids** | **Submission of aFRR supporting providing group** | **Submission of prequalification bids**

Main: ECL or BIPLE
Back Up: BIPLE or ECL

Each of the main communication channel is back-up for the other

mFRR Activation Request

Main: ECL
Back Up: Email

CRI Levels

Main: ECL or Email (BIPLE + Elia.be)
Back Up: Elia.be

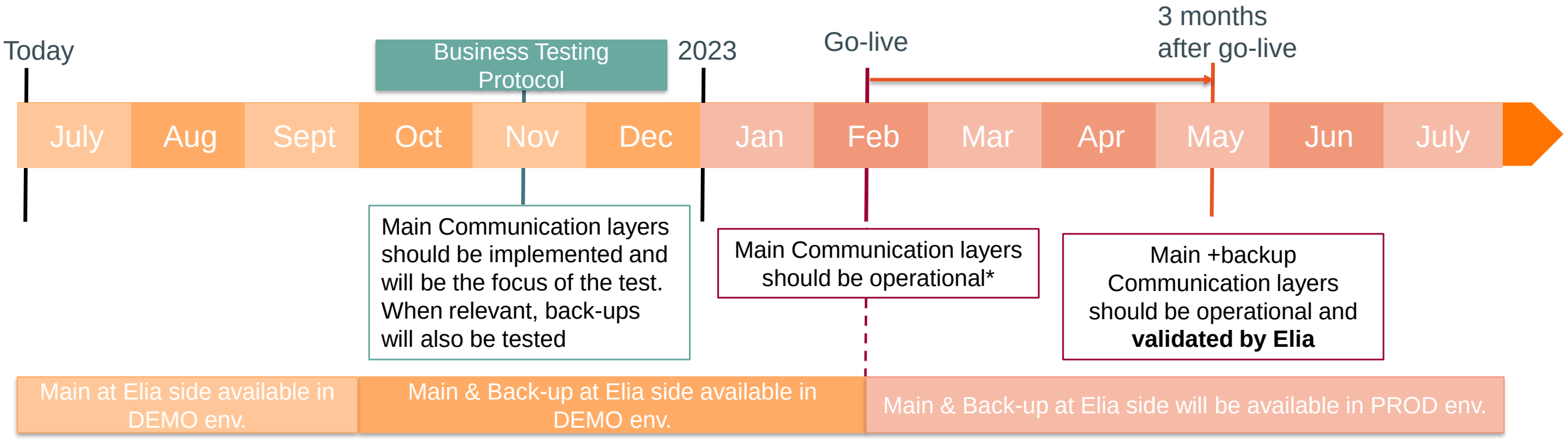
Filtered bid

Main: ECL, BIPLE or email
Back Up: /

Market Party Notifications

Main: ECL or Email
Back Up: /

Planning & next steps



*at Market Parties own risks

Documentation

- All data exchanges (Main & Back-ups Channels) are included in technical guide
- Testing sessions can be organized to test all data exchanges
- More info will be available during preparation of Business Testing Protocol regarding the requirements of backup testing

Thank you.

Feedback is welcome and can be provided via your KAM directly:

Amandine Leroux:
Amandine.Leroux@elia.be

Arno Motté:
Arno.Motte@elia.be