

# ELLEXION

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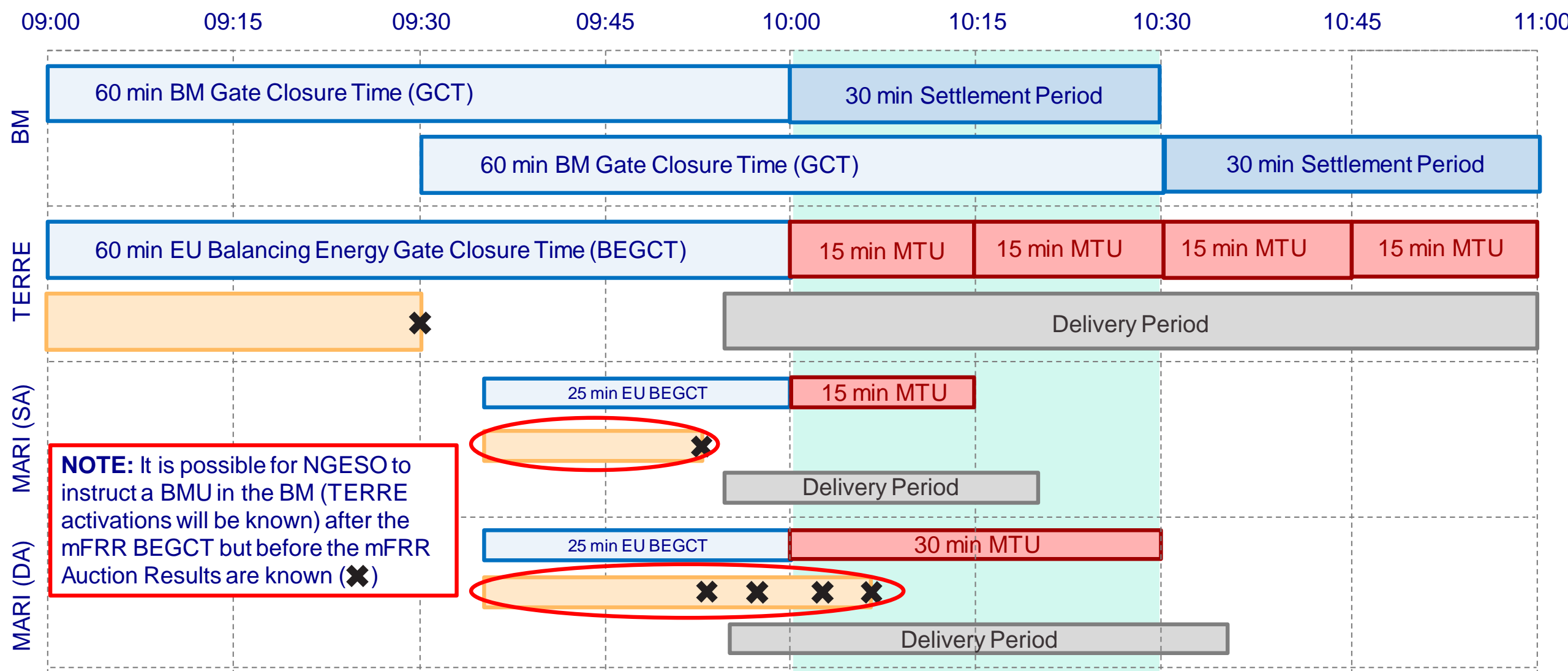
## NGESO mFRR Scenarios

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Settlement Implications

?? November 2020

# BM / RR / mFRR Product Interaction



## Generating mFRR Instructions and Interaction with other products – Potential Scenarios

	Scenario	Activation Type	Action
1	No BM BOA (post gate closure) or RRI has not been issued to the BMU	SA	mFRR instruction sent
2	A BM BOA (post gate closure) or RRI has already been issued to the BMU in the same direction and auction period as the requested mFRR, and the target MW is greater than the existing BOA/RRI	SA	mFRR instruction sent and the products will stack (see scenario 2 figure)
3	A BM BOA (post gate closure) or RRI has already been issued to the BMU in the same direction and auction period as the requested mFRR, and the target MW is less than or equal to the existing BOA/RRI	SA	mFRR instruction will not be sent
4	A BM BOA (post gate closure) or RRI has already been issued to the BMU, the BOA/RRI is in the opposite direction to the mFRR requested volume, but the mFRR activation is required	SA	If an ‘opposite action’ is required to amend the position, then the mFRR instruction will be sent to adjust the output of the BMU <i>NB – although this is the ideal solution, this is subject to change. NGESO needs to further analyse what is feasible within the mFRR timescales (NGESO has 30 seconds for the communication from TSOs to BSPs)</i>

# Generating mFRR Instructions and Interaction with other products

	Scenario	Activation Type	Action
5	A BM BOA (post gate closure) or RRI has already been issued to the BMU in the mFRR auction period, the BOA/RRI is in the opposite direction to the mFRR requested volume, but the mFRR activation is not required	SA	<p>mFRR instruction is not sent</p> <p><i>NB – although this is the ideal solution, this is subject to change. NGESO needs to further analyse what is feasible within the mFRR timescales (NGESO has 30 seconds for the communication from TSOs to BSPs)</i></p>
6	No BM BOA (post gate closure) or RRI has been issued to the BMU	DA	Send mFRR instruction.
7	A DA for QH-1 has been requested along with RR volume for QH0 (either in the same or opposite direction)	DA	<p>Send mFRR instruction.</p> <p>There is an overlap that could occur. The TERRE activation should be signaled to the BSP at T-30 but this is after the MARI gate closure time for QH-1 which occurs at T-40. In such circumstances, NGESO would instruct the mFRR direct activation and not instruct the RRI. (see scenario 7 figure for overlap).</p>

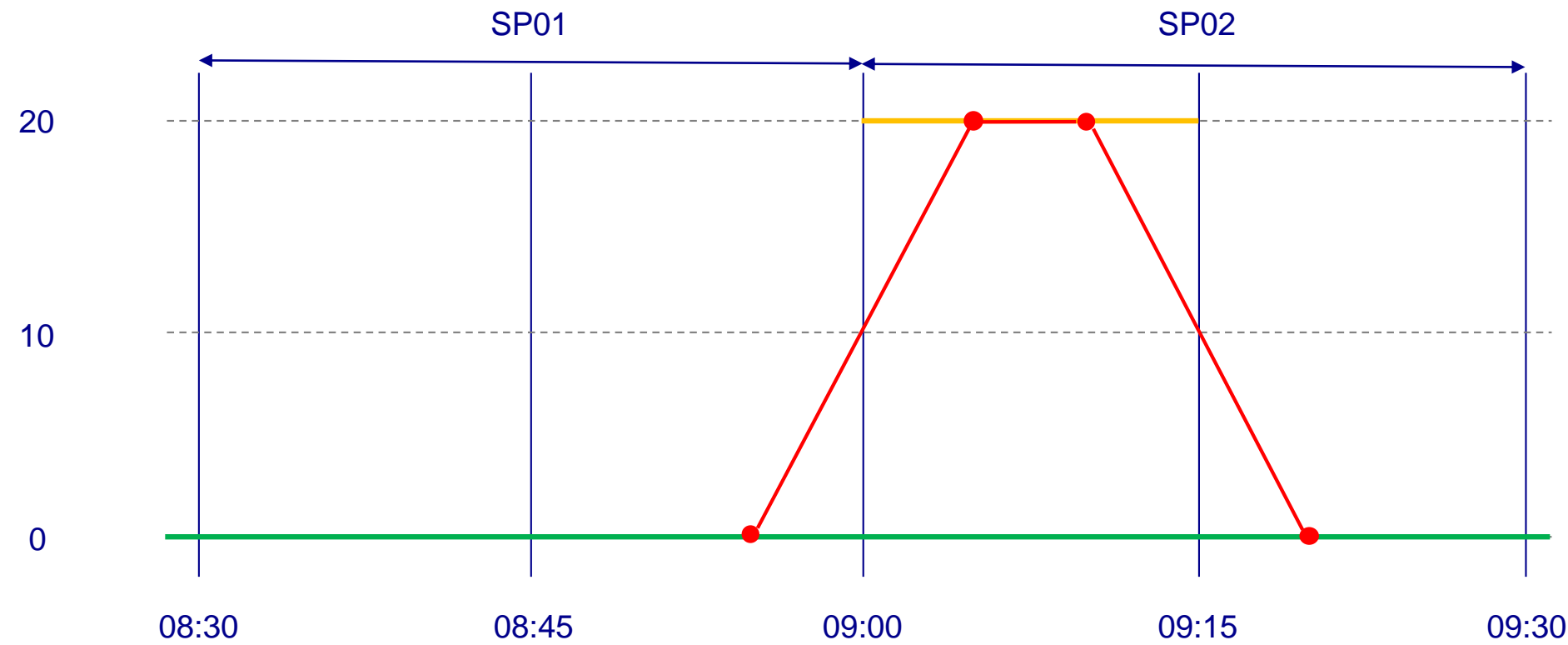
# Scenario 01 (& 06): No BM (post GCT)

Activation Price = £ 50

The **mFRR SA**  
**Instruction** from  
NGESO

The **mFRR SA**  
Activated Quantity in  
SP02

The **FPN** represents  
a baseline from  
which a BSP is asked  
to deviate.



# Scenario 01 (& 06): No BM (post GCT)

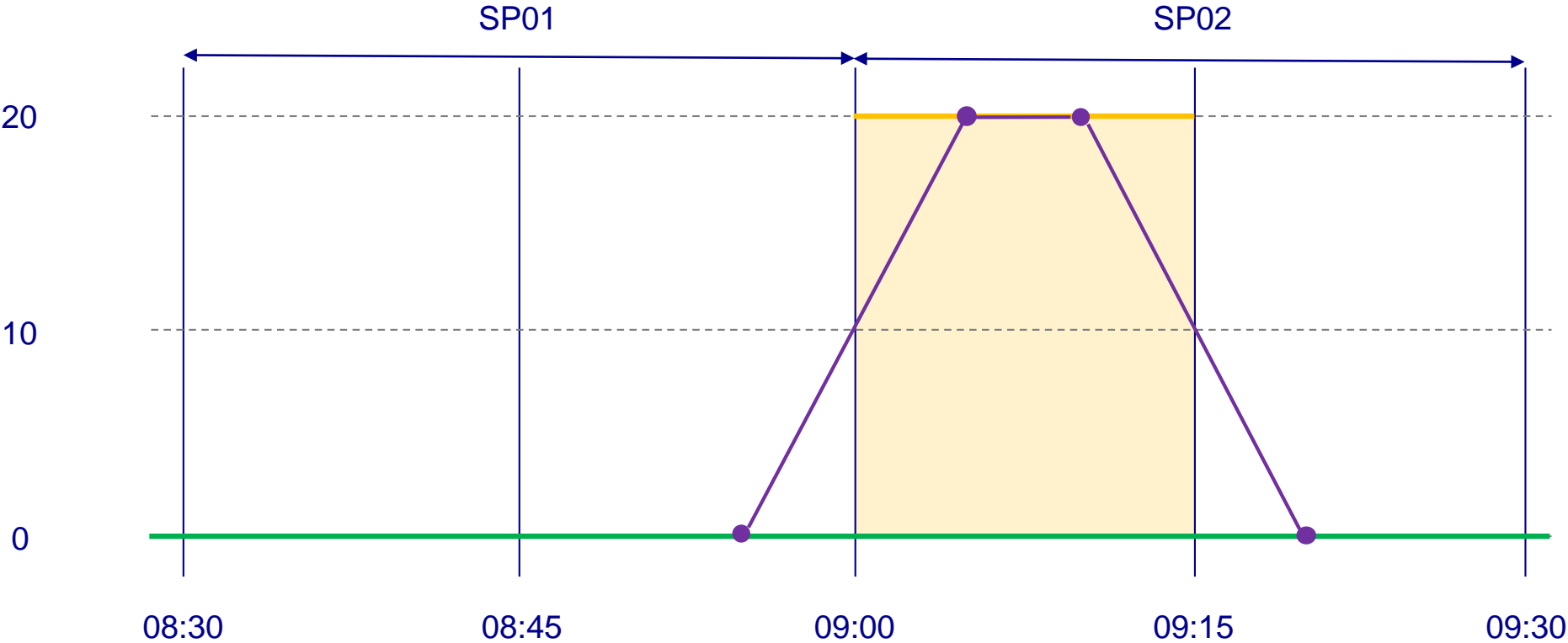
BSP will be paid **mFRR SA** using the **orange** volume

Activation Price = £ 50

BSP is expected to deliver the **mFRR SA Schedule** which shall be used for Non-Delivery calculations

Note the **mFRR SA Instruction** and the **mFRR SA Schedule** are the same

- The **mFRR SA Instruction** from NGESO
- The **mFRR Schedule** derived by Settlement
- The **mFRR SA** Activated Quantity in SP02
- The **FPN** represents a baseline from which a BSP is asked to deviate.



# Scenario 02: BM (post GCT) < mFRR SA

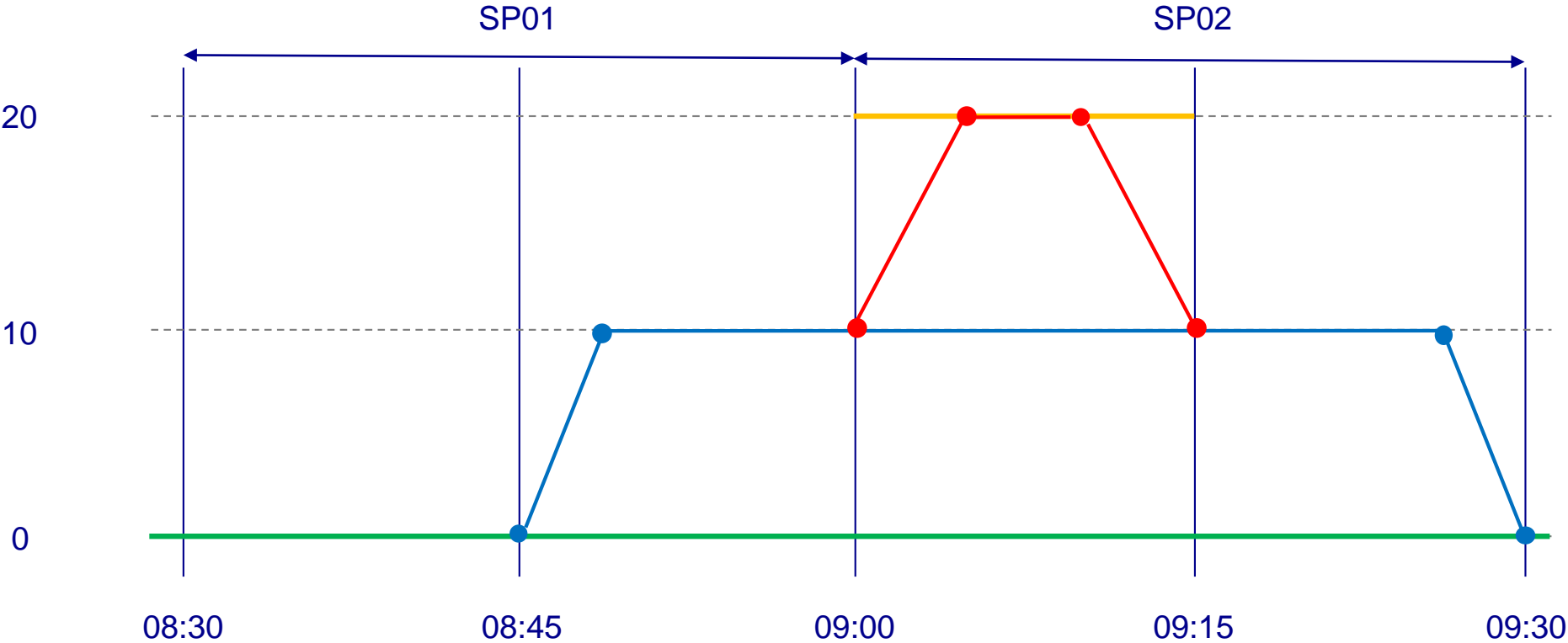
Activation Price = £ 50

The **mFRR SA**  
**Instruction** from  
NGESO

The **mFRR SA**  
Activated Quantity in  
SP02

The **BOA Instruction**  
from NGESO

The **FPN** represents  
a baseline from  
which a BSP is asked  
to deviate.



# Scenario 02: BM (post GCT) < mFRR SA

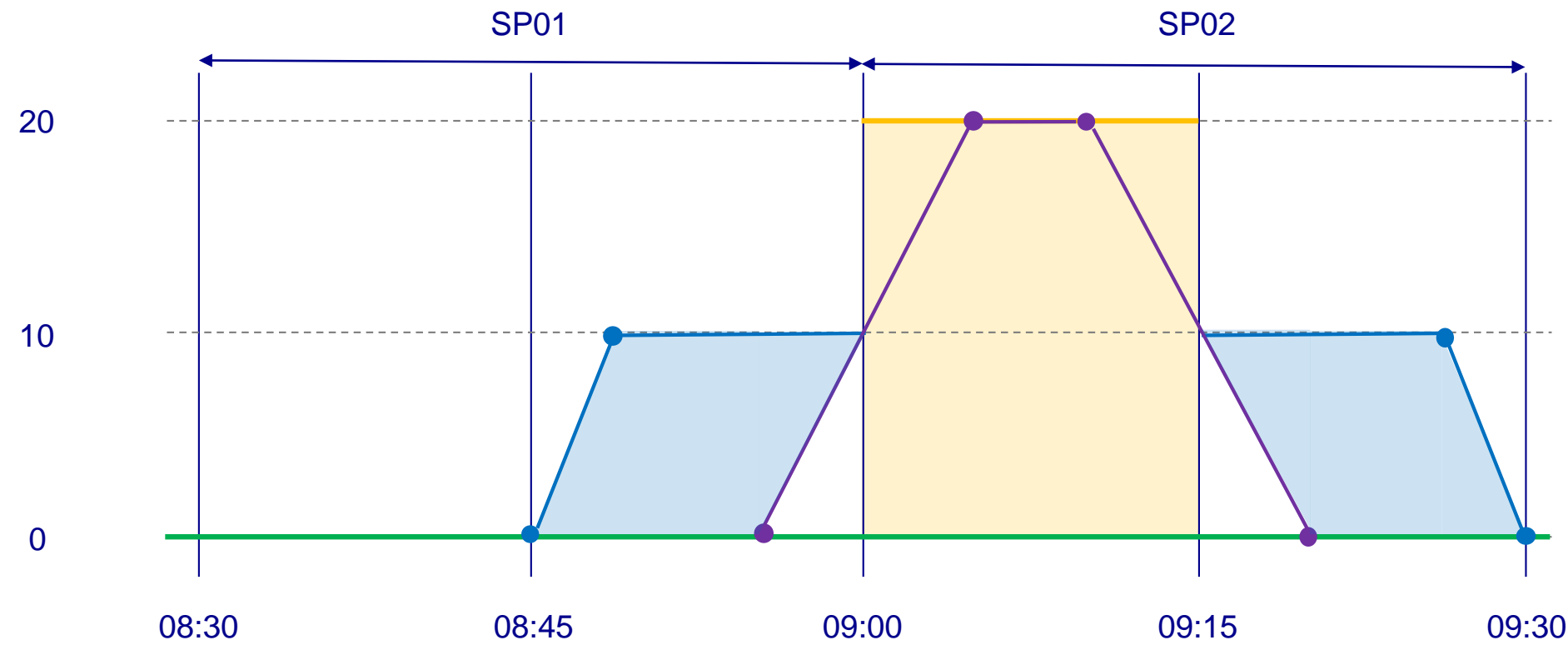
BSP will be paid **mFRR SA** using the **orange** volume

BSP will be paid **BOA** using the **blue** volume as the **mFRR SA Schedule** will settle as issued at GCT

Note the **mFRR SA Instruction** and the **mFRR SA Schedule** are different in this case

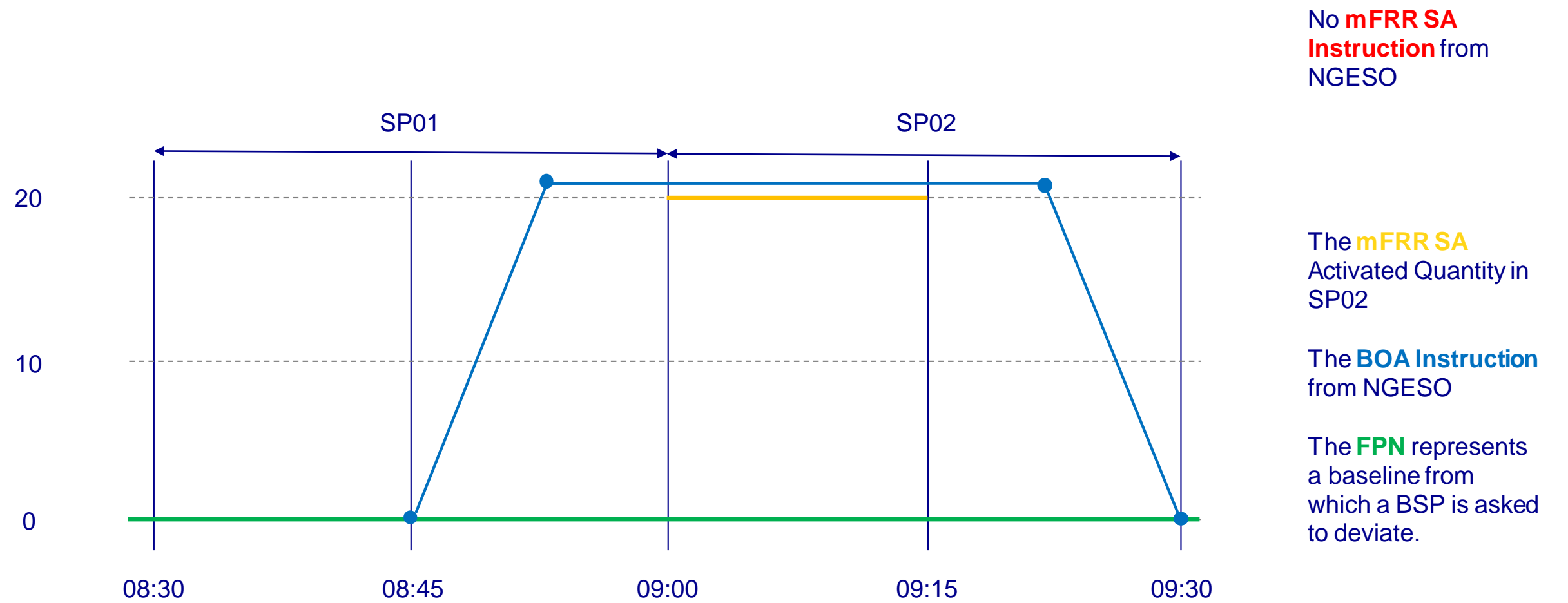
BSP is expected to deliver the **BOA** and **mFRR SA Schedule** which shall be used for Non-Delivery calculations

- The **mFRR SA Instruction** from NGESO
- The **mFRR Schedule** derived by Settlement
- The **mFRR SA Activated Quantity** in SP02
- The **BOA Instruction** from NGESO
- The **FPN** represents a baseline from which a BSP is asked to deviate.



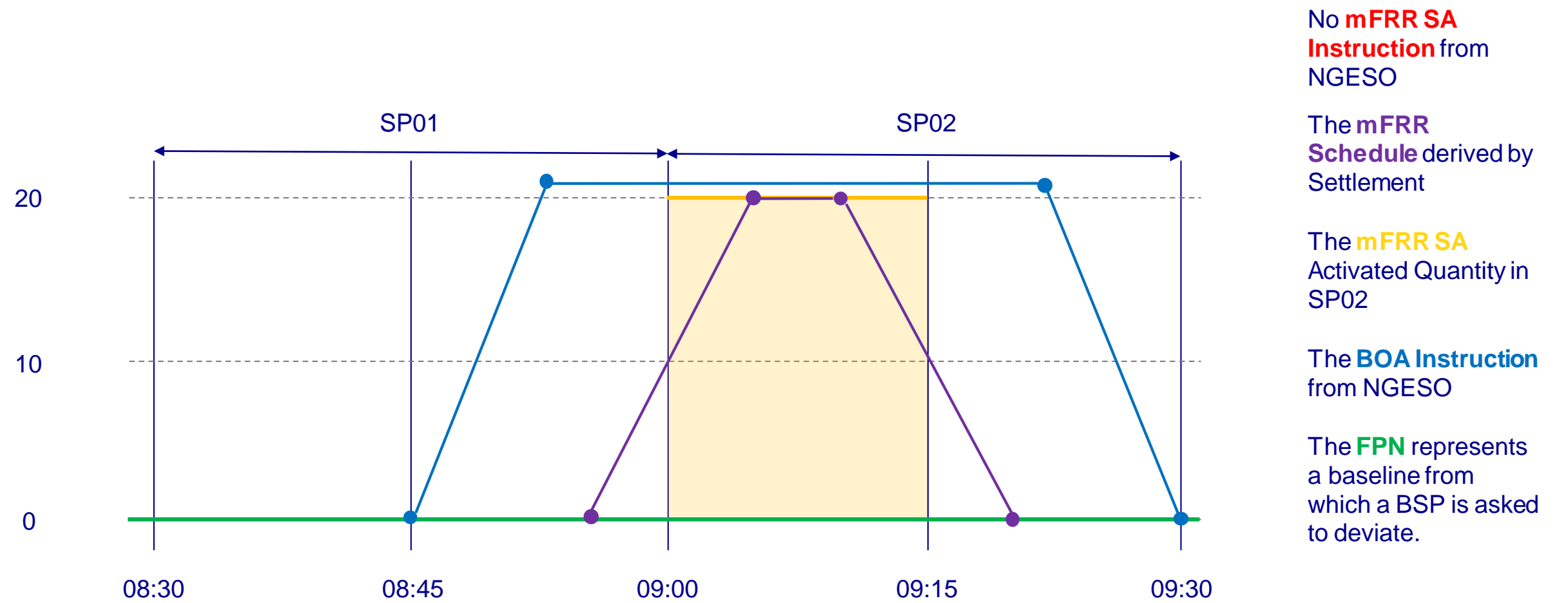


# Scenario 03: BM (post GCT) > mFRR SA



# Scenario 03: BM (post GCT) > mFRR SA

BSP will be paid **mFRR SA** using the **orange** volume



No **mFRR SA**  
**Instruction** from  
NGESO

The **mFRR**  
**Schedule** derived by  
Settlement

The **mFRR SA**  
Activated Quantity in  
SP02

The **BOA Instruction**  
from NGESO

The **FPN** represents  
a baseline from  
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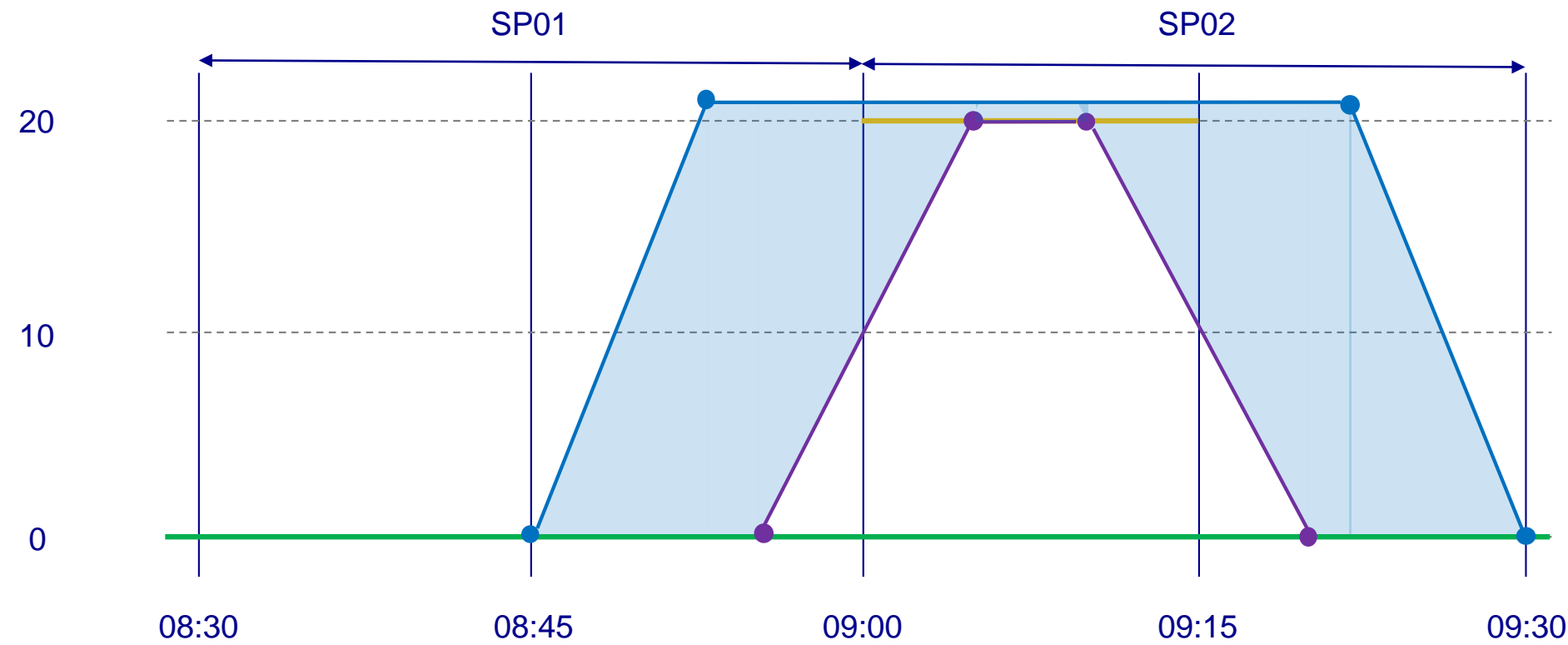
# Scenario 03: BM (post GCT) > mFRR SA

BSP will be paid **mFRR SA** using the **orange** volume

BSP will be paid **BOA** using the **blue** volume as the **mFRR SA Schedule** will settle as issued at GCT

BSP is expected to deliver the **BOA** (which contains the **mFRR SA Schedule**) which shall be used for Non-Delivery calculations

- No **mFRR SA Instruction** from NGESO
- The **mFRR Schedule** derived by Settlement
- The **mFRR SA** Activated Quantity in SP02
- The **BOA Instruction** from NGESO
- The **FPN** represents a baseline from which a BSP is asked to deviate.



# Scenario 04 (& 05): Opposite BM (post GCT) and mFRR SA

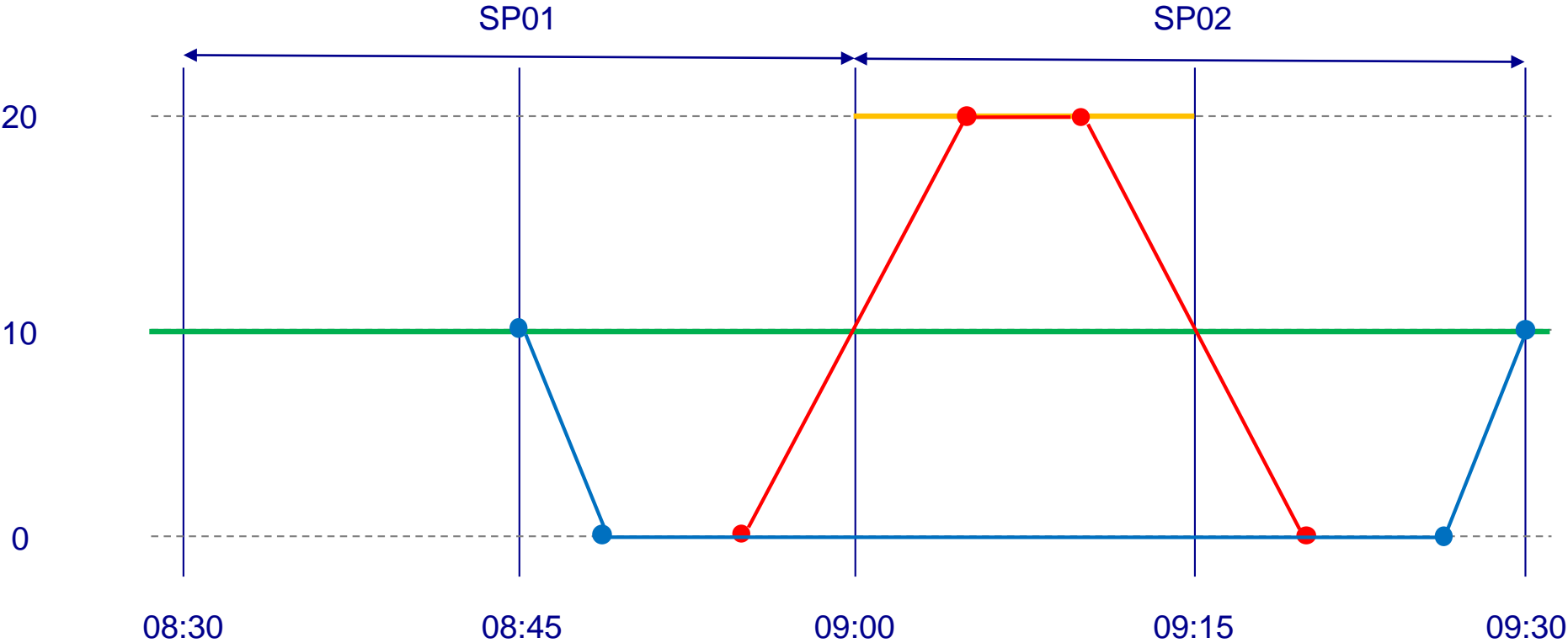
Activation Price = £ 50

The **mFRR SA Instruction** from NGESO

The **mFRR SA Activated Quantity** in SP02

The **BOA Instruction** from NGESO

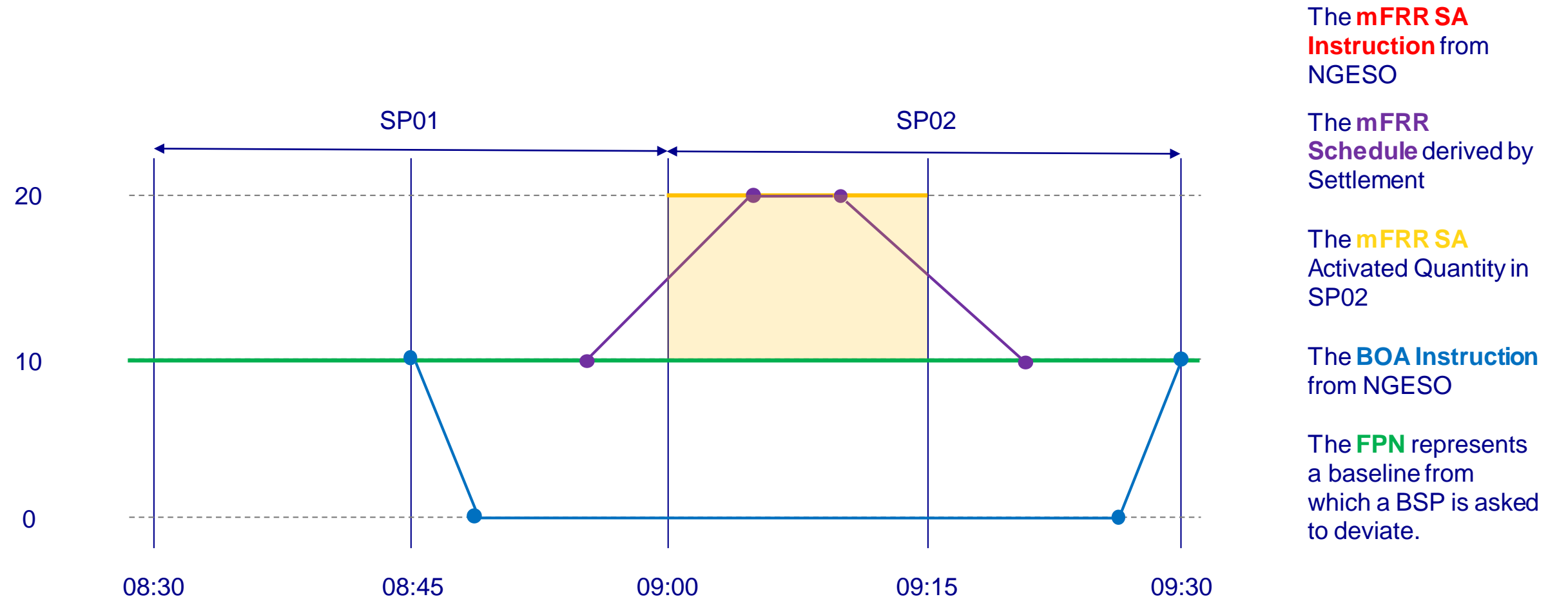
The **FPN** represents a baseline from which a BSP is asked to deviate.



# Scenario 04 (& 05): Opposite BM (post GCT) and mFRR SA

BSP will be paid **mFRR SA** using the **orange** volume

Activation Price = £ 50



The **mFRR SA Instruction** from NGESO

The **mFRR Schedule** derived by Settlement

The **mFRR SA Activated Quantity** in SP02

The **BOA Instruction** from NGESO

The **FPN** represents a baseline from which a BSP is asked to deviate.

# Scenario 04 (& 05): Opposite BM (post GCT) and mFRR SA

BSP will be paid **mFRR SA** using the **orange** volume

Activation Price = £ 50

BSP will be paid **BOA** using the **blue** volume as the **mFRR SA Schedule** will settle as issued at GCT

BSP is expected to deliver the **BOA** (as the last instruction) which shall be used for Non-Delivery calculations

- The **mFRR SA Instruction** from NGESO
- The **mFRR Schedule** derived by Settlement
- The **mFRR SA Activated Quantity** in SP02
- The **BOA Instruction** from NGESO
- The **FPN** represents a baseline from which a BSP is asked to deviate.

