

Smart block changes

1. Introduction

This document aims to present the changes in block product types on HUPX DAM and gives a brief summary and presentation of these block order types. Parameters of all types of the available block products will be increased, will have more flexibility and will provide a wider scale of variety in which members can submit block orders on HUPX DAM.

2. Classic block type (C01)

From trading day 31/05/2023 the Classic block type (C01) will receive an enlargement in quantity from 200 to 400 MWh. This will allow members with higher installed generation capacity to submit higher block orders like on other markets with similar size.

The other change for the Classic block type is that Members can submit 40 orders per portfolio up from 10. The changes to C01 allow Members more flexibility and even more option regarding the standard block order.

Changes from trading day 31/05/2023:

Block type	Parameter	Current	Target
Classic	Maximum quantity	200	400
Classic	Maximum number (per portfolio)	10	40

3. Linked block orders (C02)

A linked Block Order Family is a set of Block Order, which have a linked execution constraint. A linked Block Order can consist of a parent Block Order and a child Block Order.

The child Block order has the constraint of a simple Block Order, but it can only be executed if the parent Block Order is executed fully. The Block Order is a parent Block Order if the execution of a child Block Order directly depends on the execution of this Block Order.

The parent Block Order can be accepted even though it is out of the money if globally the linked Block Order family is in the money. A child Block Order with no linked child Block Order cannot be accepted if it is out of the money.

A Block Order is a root of a linked Block Order Family if its execution is not linked to the execution of a parent Block Order and if it is the parent of at least one child Block Order. A root Block Order can only be a simple Block Order.

The number of generations within a linked Block Orders family is determined by the longest sequence of child-parent links to reach a root Block Order within the linked Block Order family. (e.g.

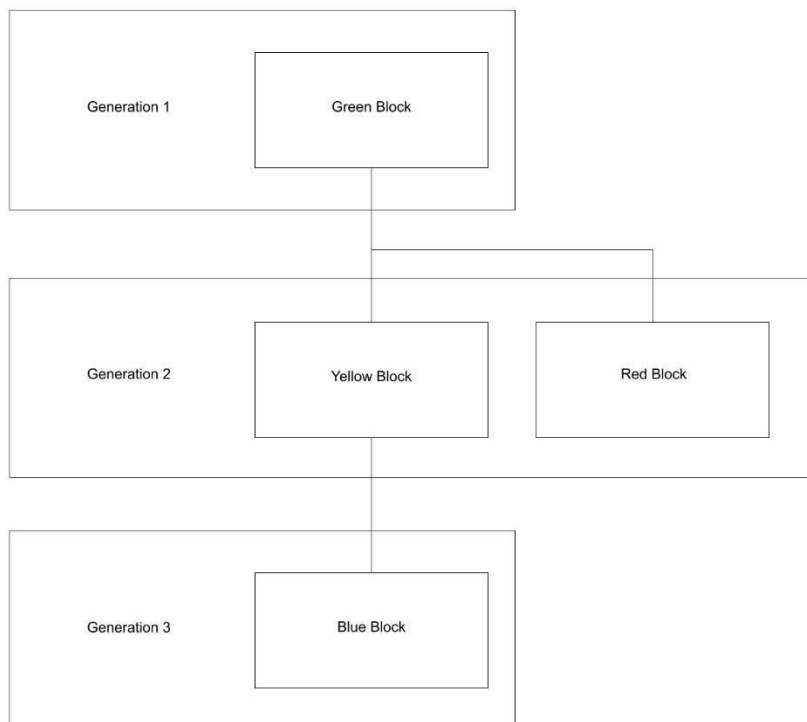
The size of a linked Block Orders family corresponds to the number of Block Orders which are grouped in the linked Block Orders family.

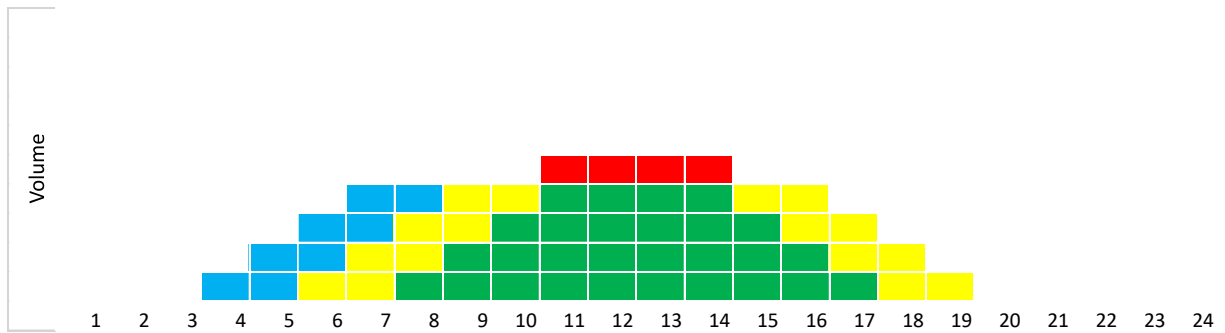
From trading day 31/05/2023 the increased link block product parameters allow members to submit complex linked block orders with more generation level that can be used as a tool to optimize and lower marginal costs.

Example 1:

Here we can see a linked Block Order with 3 generations:

- Generation 1 (Green Blocks) o in this Generation, the block type is C01 which means that this is the root Order o until the Green Block is executed none of the child Order can be executed
- Generation 2 (Yellow + Red Blocks) o Red Block is a C02 type Block (linked Block Order) and it is also only a child Block Order since there are no more linked Orders to it
 - o Yellow Block is a C02 type Block as well but it is both a child Block Order and a parent Block Order-> Blue Block cannot be executed until Yellow Block is executed
- Generation 3 (Blue Blocks) o Blue Block is a C02 type Block and it is only a child Block Order
- Parameters of the Order o the linked Block Family is made of 3 generations o the linked Block Family has a size of 5 Block Orders o Yellow Block has 1 child: Blue Block

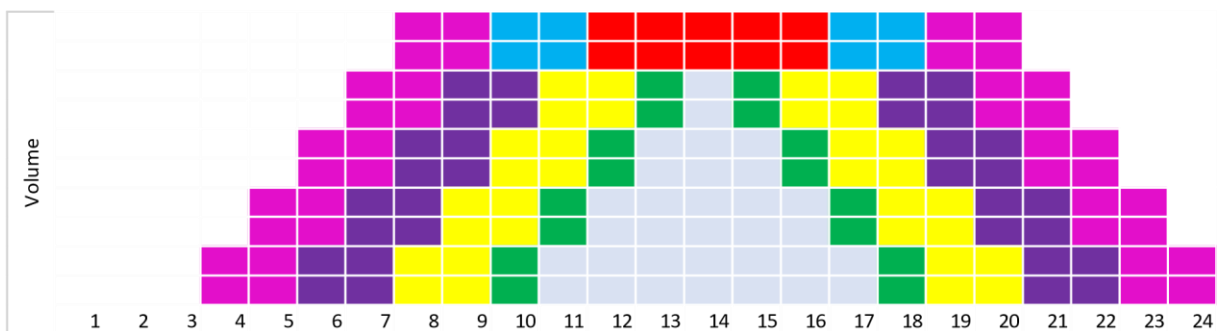
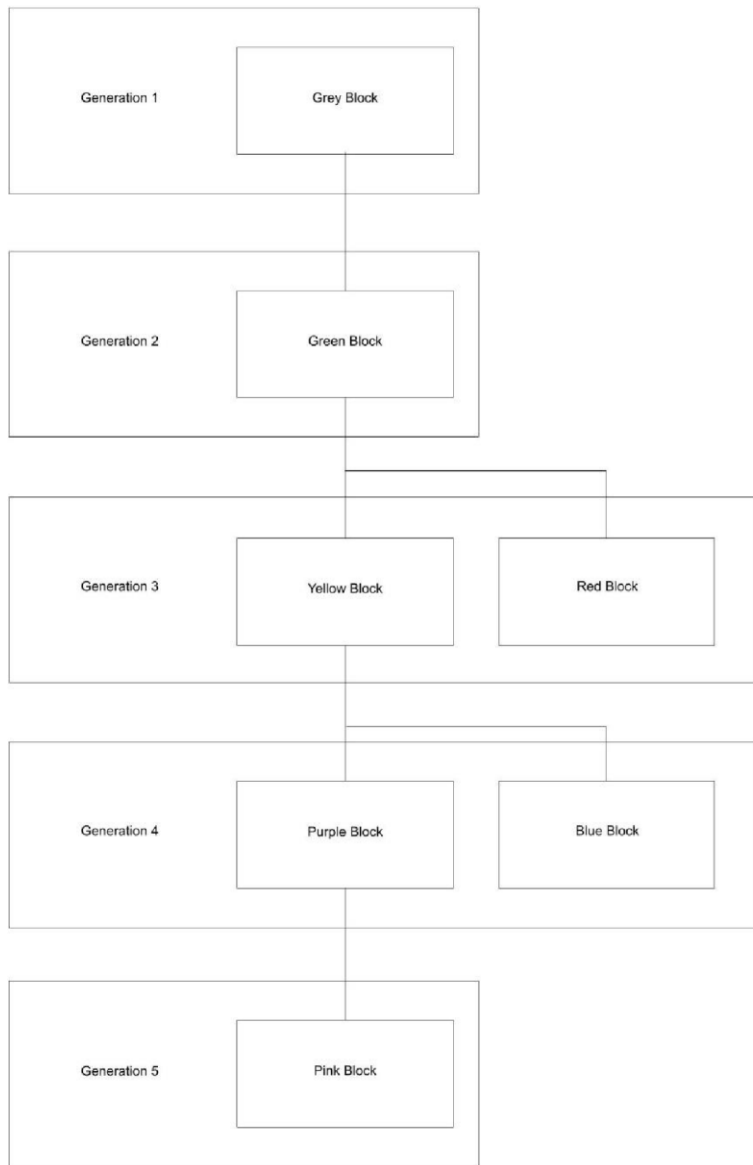




Example 2:

Here we can see a linked Block Order with 5 generations:

- Generation 1 (Grey Blocks) o in this Generation, the block type is C01 which means that this is the root Order o until the Grey Block is executed none of the child Order can be executed
- Generation 2 (Green Blocks) o Green Block is a C02 type Block but it is both a child Block Order and a parent Block Order-> Yellow + Red Blocks cannot be executed until Green Block is executed
- Generation 3 (Yellow + Red Blocks) o Red Block is a C02 type Block (linked Block Order) and it is also only a child Block Order since there are no more linked Orders to it
 - o Yellow Block is a C02 type Block as well but it is both a child Block Order and a parent Block Order-> Purple + Blue Blocks cannot be executed until Yellow Block is executed
- Generation 4 (Purple + Blue Blocks) o Blue Block is a C02 type Block (linked Block Order) and it is also only a child Block Order since there are no more linked Orders to it
 - o Purple Block is a C02 type Block as well but it is both a child Block Order and a parent Block Order-> Pink Block cannot be executed until Purple Block is executed
- Generation 5 (Pink Blocks) o Pink Block is a C02 type Block (linked Block Order) and it is also only a child Block Order since there are no more linked Orders to it
- Parameters of the Order o the linked Block Family is made of 5 generations o the linked Block Family has a size of 7 Block Orders
 - o Green Block has 2 children, Yellow and Red, Yellow has 2 children, Purple and Blue and Purple has one child, Pink



Changes from trading day 31/05/2023:

Block type	Parameter	Current Target	
Linked	Number of generations	3	7

Linked	Number of children for parent block	1	6
Linked	Number of parents for a child block	1	1
Linked	Maximum size of linked block orders	3	7
Linked	Maximum number of linked block orders per portfolio	1	5

4. HUPX LOOP BLOCKS (C88)

Loop block families are available in SDAC auction (Day-Ahead) as well as in the Pan-European Intraday Auctions (IDAs).

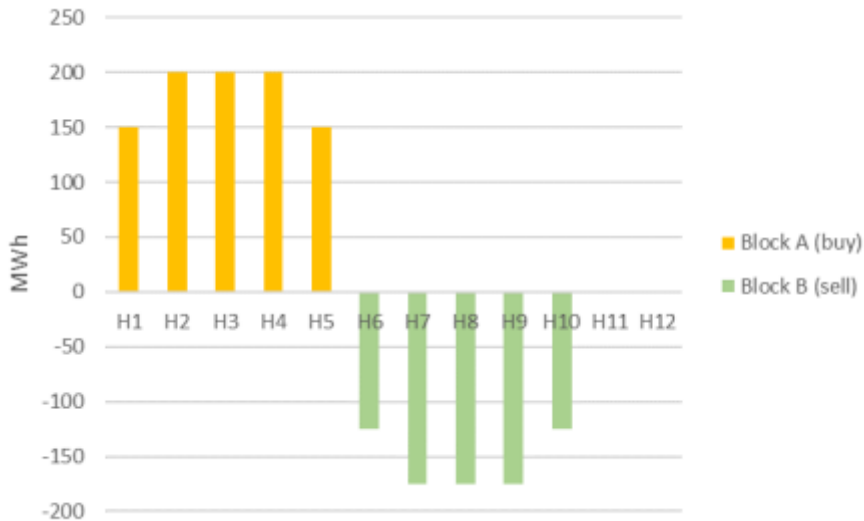
- **3 families of 2 loop blocks per portfolio and market area**
- The 2 blocks of a loop family can encompass the same hours
- Loop block orders are submitted with block code C88

Block Id	Block Code	BlockCodePSM	MAR	Comment	Area	Price	Total	1	2	3	4	5	6	7	8	9	10
1	10000000006280	C01	1.00	Standard Bid	AS1-MA1-A1	12.00	288.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2	10000000006281	C01	1.00	Parent	AS1-MA1-A1	12.00	288.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
3	10000000006282	C02	1.00	1st Gen Child	AS1-MA1-A1	11.00	264.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
4	10000000006283	C02	1.00	2nd Gen Child	AS1-MA1-A1	10.00	240.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
5	10000000006284	C04	1.00	1st Exclusive	AS1-MA1-A1	12.00	288.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
6	10000000006285	C04	1.00	2nd Exclusive	AS1-MA1-A1	10.00	240.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
7	10000000006286	C88	1.00	1st Loop	AS1-MA1-A1	12.00	288.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
8	10000000006287	C88	1.00	2nd Loop	AS1-MA1-A1	13.00	312.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
9	10000000006288	C88	1.00	3rd Loop	AS1-MA1-A1	15.00	360.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00

Characteristics:

Loop blocks are defined as a set of **2 classic profile blocks** (1 sell and 1 buy block) that are **either both accepted, or both rejected**.

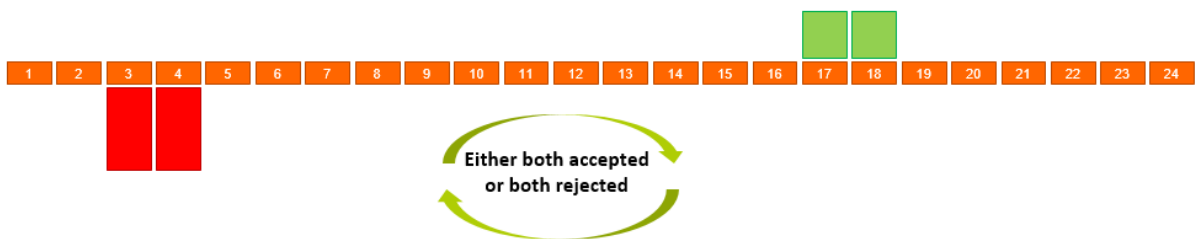
The market participant defines for each block of the loop family the side, the price, the duration, the quantities.



1. Figure: Loop block family consist of a linked buy (A) and sell block (B)

For being executed, the loop family must be globally in the money, it means each block of the loop family does not necessarily need to be in the money.

Like any other block order type, a loop family can be paradoxically rejected. All the block orders of the loop family are rejected.



2. Figure A set of loop blocks can be both accepted or both rejected

Producer inputs in ETS in order to reflect the parameters:

- Buy block parameters: Volume buy and Price buy
- Sell block parameters: Volume sell and Price sell

5. Exclusive group Block orders (C04)

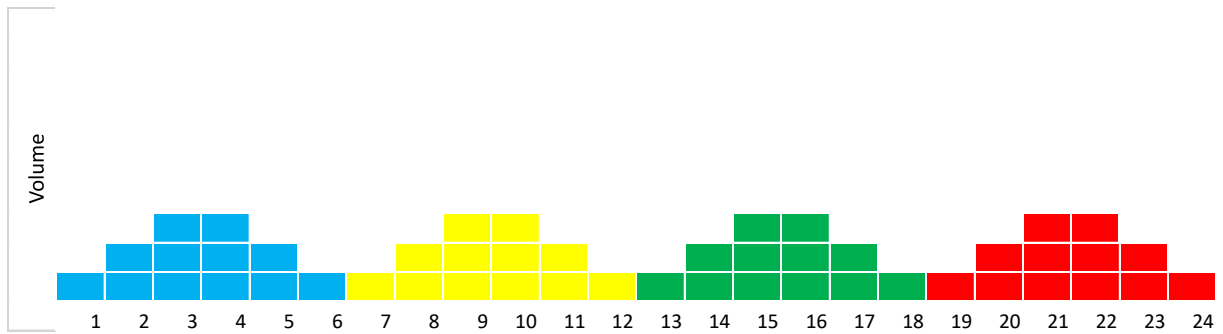
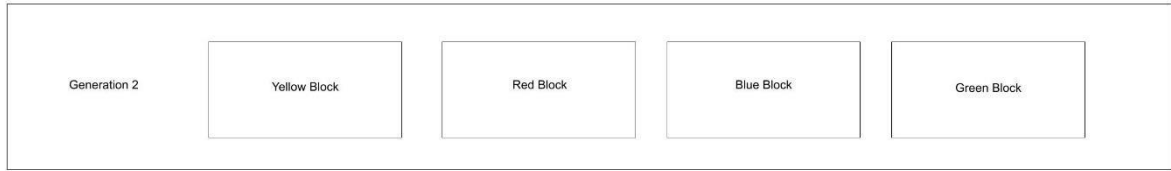
An exclusive group of Block Orders is a set of Block Orders, in which a maximum of 1 Block Order can be executed. An exclusive Block Order (C04) is a standard Block Order, which is part of an exclusive group Block Order.

The size is determined based on the number of Block Orders gathered in the exclusive group.

Example:

Here we can see an exclusive group Block Order with 3 exclusive Block Orders:

If one of these Block Orders is executed the other 3 will not be executed.



Changes from trading day 31/05/2023:

Block type	Parameter	Current Target	
Exclusive	Maximum number of Block Orders in an exclusive group	8	24
Exclusive	Maximum number of exclusive Block Order families for a portfolio	3	10