

Results for Multiple Round Ascending Clock Auctions

Results for Multiple Round Ascending Clock Auctions at IP A-B for Year 1 & 2 (Bids and Allocations – No Pro Rata)

Bundled capacity A-B

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	4.74 €	0	0	0	0	0	0
P ₁₃	4.63 €	0	0	0	0	0	0
P ₁₂	4.52 €	0	0	0	0	0	0
P ₁₁	4.41 €	0	0	0	0	0	0
P ₁₀	4.30 €	0	0	0	0	0	0
P ₉	4.19 €	0	0	0	0	0	0
P ₈	4.08 €	0	0	0	0	0	0
P ₇	3.97 €	0	0	0	0	0	0
P ₆	3.86 €	0	0	0	0	0	0
P ₅	3.75 €	0	0	0	0	0	0
P ₄	3.64 €	0	0	0	0	0	0
P ₃	3.53 €	0	0	0	0	0	0
P ₂	3.42 €	50,000	0	95,865	143,000	117,416	406,281
P ₁	3.31 €	50,000	0	99,804	150,000	117,416	417,220
P ₀	3.20 €	50,000	0	100,000	150,000	122,448	422,448
Total available capacity							600,000

Bundled capacity A-B

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	50,000	0	100,000	150,000	122,448	0	422,448
Total available capacity							600,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	5.18 €	0	0	0	0	0	0
P ₁₃	5.06 €	0	0	0	0	0	0
P ₁₂	4.94 €	0	0	0	0	0	0
P ₁₁	4.82 €	0	0	0	0	0	0
P ₁₀	4.70 €	0	0	0	0	0	0
P ₉	4.58 €	0	0	0	0	0	0
P ₈	4.46 €	0	0	0	0	0	0
P ₇	4.34 €	0	0	0	0	0	0
P ₆	4.22 €	0	0	0	0	0	0
P ₅	4.10 €	0	0	0	0	0	0
P ₄	3.98 €	0	0	0	0	0	0
P ₃	3.86 €	0	0	0	0	0	0
P ₂	3.74 €	50,000	0	96,477	140,909	230,704	518,090
P ₁	3.62 €	50,000	0	100,000	150,000	239,965	539,965
P ₀	3.50 €	50,000	0	100,000	150,000	250,000	550,000
Total available capacity							800,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	50,000	0	100,000	150,000	250,000	0	550,000
Total available capacity							800,000

Results for Multiple Round Ascending Clock Auctions at IP A-B for year 1 & 2 (Bids and Allocations – With Pro Rata)

Bundled capacity A-B

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	4.74 €	0	0	0	0	0	0
P ₁₃	4.63 €	0	0	0	0	0	0
P ₁₂	4.52 €	0	0	0	0	0	0
P ₁₁	4.41 €	0	0	0	0	0	0
P ₁₀	4.30 €	0	0	0	0	0	0
P ₉	4.19 €	0	0	0	0	0	0
P ₈	4.08 €	0	0	0	0	0	0
P ₇	3.97 €	0	0	0	0	0	0
P ₆	3.86 €	0	0	0	0	0	0
P ₅	3.75 €	0	0	0	0	0	0
P ₄	3.64 €	0	0	0	0	0	0
P ₃	3.53 €	0	0	0	0	0	0
P ₂	3.42 €	50,000	0	95,865	143,000	117,416	406281
P ₁	3.31 €	50,000	0	99,804	150,000	117,416	417220
P ₀	3.20 €	50,000	0	100,000	150,000	122,448	422448
Total available capacity							600,000

Bundled capacity A-B

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							600,000

No Allocation with
Pro Rata for IP A-B
for Year 1 & 2

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	5.18 €	0	0	0	0	0	0
P ₁₃	5.06 €	0	0	0	0	0	0
P ₁₂	4.94 €	0	0	0	0	0	0
P ₁₁	4.82 €	0	0	0	0	0	0
P ₁₀	4.70 €	0	0	0	0	0	0
P ₉	4.58 €	0	0	0	0	0	0
P ₈	4.46 €	0	0	0	0	0	0
P ₇	4.34 €	0	0	0	0	0	0
P ₆	4.22 €	0	0	0	0	0	0
P ₅	4.10 €	0	0	0	0	0	0
P ₄	3.98 €	0	0	0	0	0	0
P ₃	3.86 €	0	0	0	0	0	0
P ₂	3.74 €	50,000	0	96,477	140,909	230,704	518090
P ₁	3.62 €	50,000	0	100,000	150,000	239,965	539965
P ₀	3.50 €	50,000	0	100,000	150,000	250,000	550000
Total available capacity							800,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							800,000

Results for Multiple Round Ascending Clock Auctions at IP B-C for Year 1 & 2 (Bids and Allocations – No Pro Rata)

Bundled capacity B-C

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	0	0	0	0	0	0
P ₁₃	3.00 €	0	0	0	0	0	0
P ₁₂	2.90 €	0	0	0	0	0	0
P ₁₁	2.80 €	0	0	0	0	0	0
P ₁₀	2.70 €	0	0	0	0	0	0
P ₉	2.60 €	0	0	0	0	0	0
P ₈	2.50 €	0	0	0	0	0	0
P ₇	2.40 €	0	0	0	0	0	0
P ₆	2.30 €	0	0	0	0	0	0
P ₅	2.20 €	0	0	0	0	0	0
P ₄	2.10 €	0	0	0	0	0	0
P ₃	2.00 €	0	0	0	0	0	0
P ₂	1.90 €	47,000	80,000	95,865	150,000	0	372,865
P ₁	1.80 €	50,000	80,000	99,804	150,000	117,416	497,220
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	502,448
Total available capacity							450,000

Bundled capacity B-C

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	47,000	80,000	95,865	150,000	0	0	372,865
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	0	0	0	0	0	0
P ₁₃	3.43 €	0	0	0	0	0	0
P ₁₂	3.32 €	0	0	0	0	0	0
P ₁₁	3.21 €	0	0	0	0	0	0
P ₁₀	3.10 €	0	0	0	0	0	0
P ₉	2.99 €	0	0	0	0	0	0
P ₈	2.88 €	0	0	0	0	0	0
P ₇	2.77 €	0	0	0	0	0	0
P ₆	2.66 €	0	0	0	0	0	0
P ₅	2.55 €	42,000	70,588	88,235	131,373	0	332,196
P ₄	2.44 €	42,000	73,770	92,213	137,295	204,918	550,196
P ₃	2.33 €	42,000	77,253	96,477	143,777	214,592	574,099
P ₂	2.22 €	42,000	80,000	96,477	150,000	230,704	599,181
P ₁	2.11 €	47,000	80,000	100,000	150,000	239,965	616,965
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	630,000
Total available capacity							550,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	42,000	70,588	88,235	131,373	0	0	332,196
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							550,000

Results for Multiple Round Ascending Clock Auctions at IP B-C for year 1 & 2 (Bids and Allocations – With Pro Rata)

Bundled capacity B-C

Bids

Year 1		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	0	0	0	0	0	0	0
P ₁₃	3.00 €	0	0	0	0	0	0	0
P ₁₂	2.90 €	0	0	0	0	0	0	0
P ₁₁	2.80 €	0	0	0	0	0	0	0
P ₁₀	2.70 €	0	0	0	0	0	0	0
P ₉	2.60 €	0	0	0	0	0	0	0
P ₈	2.50 €	0	0	0	0	0	0	0
P ₇	2.40 €	0	0	0	0	0	0	0
P ₆	2.30 €	0	0	0	0	0	0	0
P ₅	2.20 €	0	0	0	0	0	0	0
P ₄	2.10 €	0	0	0	0	0	0	0
P ₃	2.00 €	0	0	0	0	0	0	0
P ₂	1.90 €	47,000	80,000	95,865	150,000	0	0	372865
P ₁	1.80 €	50,000	80,000	99,804	150,000	0	0	497220
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	0	502448
Total available capacity								450,000

Bundled capacity B-C

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	48,861	80,000	98,308	150,000	72,831	0	450,000
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	0	0	0	0	0	0	0
P ₁₃	3.43 €	0	0	0	0	0	0	0
P ₁₂	3.32 €	0	0	0	0	0	0	0
P ₁₁	3.21 €	0	0	0	0	0	0	0
P ₁₀	3.10 €	0	0	0	0	0	0	0
P ₉	2.99 €	0	0	0	0	0	0	0
P ₈	2.88 €	0	0	0	0	0	0	0
P ₇	2.77 €	0	0	0	0	0	0	0
P ₆	2.66 €	0	0	0	0	0	0	0
P ₅	2.55 €	42,000	70,588	88,235	131,377	0	0	332196
P ₄	2.44 €	42,000	73,770	92,213	137,295	0	0	550196
P ₃	2.33 €	42,000	77,253	96,477	143,777	214,592	0	574099
P ₂	2.22 €	42,000	80,000	96,477	150,000	230,704	0	599181
P ₁	2.11 €	47,000	80,000	100,000	150,000	239,965	0	616965
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630000
Total available capacity								550,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	42,000	73,767	92,209	137,290	204,734	0	550,000
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							550,000

Summary of results from the multiple round ascending clock auctions:

Interconnection Point A – B

The auction at IP A-B closed at P0 for year 1 and 2 as can be seen on page two; this is due to the fact that IP A-B is an uncongested point.

There were no pro rata allocations for IP A-B for year 1 and 2 as can be seen on page three because the auction closed at P0. Any unsold capacity at an uncongested point just rolls forward.

Interconnection Point B – C

The auction at IP B-C closed at the third price step, P2, for year 1 and at the sixth price step, P5, in year 2 as can be seen on page four. In both years there was unsold capacity when the auction closed. If there was a pro rata allocation mechanism in place then all shippers would have received additional capacity at P1 in year 1 and at P4 in year 2 as can be seen on page five. Please note that even though Shipper 5 did not place a bid at P5 in year 1 and year 2 they were still allocated some capacity at P4. This suggests that there some scope for strategic bidding if this pro rata allocation mechanism was introduced for unsold capacity.

Other comments from participants:

- When Shippers got their capacity at A-B for P0 then they couldn't raise the amount of capacity at B-C even though they may have had money in their budget for more capacity.
- If the algorithm envisages a number of price steps in each round - like in our example (3 per round) - and if such price steps are not properly designed, this could distort the bidding result/strategy. In our specific case the "small" price steps in each round were too big. In order to bid at all the three prices (with a view to be able to participate also in the following round), due to budget constraints,

we had to reduce the quantities at P2 and P3. Then the auction cleared at P0 at A-B and notwithstanding we had budget available for buying more capacity at B-D we got allocated a lower amount than possible as we had to reduce the quantities when we submitted the bids in order to meet the initial budget at all the three prices. This would have not happened if we had the algorithm with one price step for each round or the price differentials would have been lower within each round and higher between two rounds.

- Having said that we have noticed that differently from other groups (for the reasoning above) we changed our bidding curve with the two different algorithms. If we had only one price at each round we would have come with the same demand curve with both algorithms. This is due to the fact that we would have discovered that A-B was not congested as it would have cleared immediately at P0 knowing the we could have additional budget for bidding the quantity we wanted (100.000) also at P1 and P2 in B-C.

Results for Single Round Volume Based Auctions with Stability Measures

Results for Day 1 of a Single Round Volume Based Auctions at IP A-B for Year 1 & 2 (Bids and Allocations – No Pro Rata)

Bundled capacity A-B

Bundled capacity A-B

Bids								Allocations							
Year 1	S1	S2	S3	S4	S5	S6	Total	Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	4.74 €	0	0	0	0	0	0	P ₁₄	0	0	0	0	0	0	0
P ₁₃	4.63 €	0	0	0	0	0	0	P ₁₃	0	0	0	0	0	0	0
P ₁₂	4.52 €	0	0	0	0	0	0	P ₁₂	0	0	0	0	0	0	0
P ₁₁	4.41 €	0	0	0	0	0	0	P ₁₁	0	0	0	0	0	0	0
P ₁₀	4.30 €	0	0	0	0	0	0	P ₁₀	0	0	0	0	0	0	0
P ₉	4.19 €	0	0	0	0	0	0	P ₉	0	0	0	0	0	0	0
P ₈	4.08 €	0	0	0	0	0	0	P ₈	0	0	0	0	0	0	0
P ₇	3.97 €	0	0	0	0	0	0	P ₇	0	0	0	0	0	0	0
P ₆	3.86 €	0	0	0	0	0	0	P ₆	0	0	0	0	0	0	0
P ₅	3.75 €	0	0	0	0	0	0	P ₅	0	0	0	0	0	0	0
P ₄	3.64 €	0	0	0	0	0	0	P ₄	0	0	0	0	0	0	0
P ₃	3.53 €	0	0	0	0	0	0	P ₃	0	0	0	0	0	0	0
P ₂	3.42 €	0	0	0	0	0	0	P ₂	0	0	0	0	0	0	0
P ₁	3.31 €	0	0	0	0	0	0	P ₁	0	0	0	0	0	0	0
P ₀	3.20 €	50,000	0	100,000	150,000	122,448	422,448	P ₀	50,000	0	100,000	150,000	122,448	0	422,448
Total available capacity							600,000	Total available capacity							600,000

Bids								Allocations							
Year 2	S1	S2	S3	S4	S5	S6	Total	Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	5.18 €	0	0	0	0	0	0	P ₁₄	0	0	0	0	0	0	0
P ₁₃	5.06 €	0	0	0	0	0	0	P ₁₃	0	0	0	0	0	0	0
P ₁₂	4.94 €	0	0	0	0	0	0	P ₁₂	0	0	0	0	0	0	0
P ₁₁	4.82 €	0	0	0	0	0	0	P ₁₁	0	0	0	0	0	0	0
P ₁₀	4.70 €	0	0	0	0	0	0	P ₁₀	0	0	0	0	0	0	0
P ₉	4.58 €	0	0	0	0	0	0	P ₉	0	0	0	0	0	0	0
P ₈	4.46 €	0	0	0	0	0	0	P ₈	0	0	0	0	0	0	0
P ₇	4.34 €	0	0	0	0	0	0	P ₇	0	0	0	0	0	0	0
P ₆	4.22 €	0	0	0	0	0	0	P ₆	0	0	0	0	0	0	0
P ₅	4.10 €	0	0	0	0	0	0	P ₅	0	0	0	0	0	0	0
P ₄	3.98 €	0	0	0	0	0	0	P ₄	0	0	0	0	0	0	0
P ₃	3.86 €	0	0	0	0	0	0	P ₃	0	0	0	0	0	0	0
P ₂	3.74 €	0	0	0	0	0	0	P ₂	0	0	0	0	0	0	0
P ₁	3.62 €	0	0	0	0	0	0	P ₁	0	0	0	0	0	0	0
P ₀	3.50 €	50,000	0	100,000	150,000	250,000	550,000	P ₀	50,000	0	100,000	150,000	250,000	0	550,000
Total available capacity							800,000	Total available capacity							800,000

Results for Day 1 of a Single Round Volume Based Auctions at IP A-B for Year 1 & 2 (Bids & Allocations – With Pro Rata)

Bundled capacity A-B

Bundled capacity A-B

Bids								Allocations							
Year 1	S1	S2	S3	S4	S5	S6	Total	Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	4.74 €	0	0	0	0	0	0	P ₁₄	0	0	0	0	0	0	0
P ₁₃	4.63 €	0	0	0	0	0	0	P ₁₃	0	0	0	0	0	0	0
P ₁₂	4.52 €	0	0	0	0	0	0	P ₁₂	0	0	0	0	0	0	0
P ₁₁	4.41 €	0	0	0	0	0	0	P ₁₁	0	0	0	0	0	0	0
P ₁₀	4.30 €	0	0	0	0	0	0	P ₁₀	0	0	0	0	0	0	0
P ₉	4.19 €	0	0	0	0	0	0	P ₉	0	0	0	0	0	0	0
P ₈	4.08 €	0	0	0	0	0	0	P ₈	0	0	0	0	0	0	0
P ₇	3.97 €	0	0	0	0	0	0	P ₇	0	0	0	0	0	0	0
P ₆	3.86 €	0	0	0	0	0	0	P ₆	0	0	0	0	0	0	0
P ₅	3.75 €	0	0	0	0	0	0	P ₅	0	0	0	0	0	0	0
P ₄	3.64 €	0	0	0	0	0	0	P ₄	0	0	0	0	0	0	0
P ₃	3.53 €	0	0	0	0	0	0	P ₃	0	0	0	0	0	0	0
P ₂	3.42 €	0	0	0	0	0	0	P ₂	0	0	0	0	0	0	0
P ₁	3.31 €	0	0	0	0	0	0	P ₁	0	0	0	0	0	0	0
P ₀	3.20 €	50,000	0	100,000	150,000	122,448	0	422448	P ₀	0	0	0	0	0	0
Total available capacity							600,000								600,000
Year 2	S1	S2	S3	S4	S5	S6	Total	Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	5.18 €	0	0	0	0	0	0	P ₁₄	0	0	0	0	0	0	0
P ₁₃	5.06 €	0	0	0	0	0	0	P ₁₃	0	0	0	0	0	0	0
P ₁₂	4.94 €	0	0	0	0	0	0	P ₁₂	0	0	0	0	0	0	0
P ₁₁	4.82 €	0	0	0	0	0	0	P ₁₁	0	0	0	0	0	0	0
P ₁₀	4.70 €	0	0	0	0	0	0	P ₁₀	0	0	0	0	0	0	0
P ₉	4.58 €	0	0	0	0	0	0	P ₉	0	0	0	0	0	0	0
P ₈	4.46 €	0	0	0	0	0	0	P ₈	0	0	0	0	0	0	0
P ₇	4.34 €	0	0	0	0	0	0	P ₇	0	0	0	0	0	0	0
P ₆	4.22 €	0	0	0	0	0	0	P ₆	0	0	0	0	0	0	0
P ₅	4.10 €	0	0	0	0	0	0	P ₅	0	0	0	0	0	0	0
P ₄	3.98 €	0	0	0	0	0	0	P ₄	0	0	0	0	0	0	0
P ₃	3.86 €	0	0	0	0	0	0	P ₃	0	0	0	0	0	0	0
P ₂	3.74 €	0	0	0	0	0	0	P ₂	0	0	0	0	0	0	0
P ₁	3.62 €	0	0	0	0	0	0	P ₁	0	0	0	0	0	0	0
P ₀	3.50 €	50,000	0	100,000	150,000	250,000	0	550000	P ₀	0	0	0	0	0	0
Total available capacity							800,000								800,000

No Allocation with
Pro Rata for IP A-B
for Year 1 & 2

Results for Day 1 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids and Allocations – No Pro Rata)

Bundled capacity B-C

Bids

Year 1		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	0	51,613	0	0	0	0	51,613
P ₁₃	3.00 €	0	53,333	0	0	0	0	53,333
P ₁₂	2.90 €	0	55,172	0	0	0	0	55,172
P ₁₁	2.80 €	0	57,143	0	0	0	0	57,143
P ₁₀	2.70 €	0	59,259	0	0	0	0	59,259
P ₉	2.60 €	0	61,538	0	0	0	0	61,538
P ₈	2.50 €	0	54,000	0	0	0	0	54,000
P ₇	2.40 €	0	66,667	0	0	0	0	66,667
P ₆	2.30 €	0	69,565	0	0	0	0	69,565
P ₅	2.20 €	0	72,727	0	0	0	0	72,727
P ₄	2.10 €	0	76,190	0	0	0	0	76,190
P ₃	2.00 €	0	80,000	0	0	0	0	80,000
P ₂	1.90 €	0	80,000	0	0	0	0	80,000
P ₁	1.80 €	0	80,000	0	0	0	0	80,000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	0	502,448
Total available capacity								450,000

Bundled capacity B-C

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	80,000	0	0	0	0	80,000
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	0	50,847	0	0	0	0	50,847
P ₁₃	3.43 €	0	52,478	0	0	0	0	52,478
P ₁₂	3.32 €	0	54,217	0	0	0	0	54,217
P ₁₁	3.21 €	0	56,075	0	0	0	0	56,075
P ₁₀	3.10 €	0	58,065	0	0	0	0	58,065
P ₉	2.99 €	0	60,201	0	0	0	0	60,201
P ₈	2.88 €	0	62,500	0	0	0	0	62,500
P ₇	2.77 €	0	64,982	0	0	0	0	64,982
P ₆	2.66 €	0	67,669	0	0	0	0	67,669
P ₅	2.55 €	0	70,588	0	0	0	0	70,588
P ₄	2.44 €	0	73,770	0	0	0	0	73,770
P ₃	2.33 €	0	77,253	0	0	0	0	77,253
P ₂	2.22 €	0	80,000	0	0	0	0	80,000
P ₁	2.11 €	0	80,000	0	0	0	0	80,000
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630,000
Total available capacity								550,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	80,000	0	0	0	0	80,000
P ₀	0	0	0	0	0	0	0
Total available capacity							550,000

Results for Day 2 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Bids

Year 1		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	30,000	51,613	61,290	0	0	0	142,903
P ₁₃	3.00 €	33,000	53,333	63,333	0	0	0	149,666
P ₁₂	2.90 €	35,000	55,172	65,517	0	0	0	155,689
P ₁₁	2.80 €	36,000	57,143	67,857	0	0	0	161,000
P ₁₀	2.70 €	37,000	59,259	70,370	0	0	0	166,629
P ₉	2.60 €	38,000	61,538	73,077	0	0	0	172,615
P ₈	2.50 €	40,000	54,000	76,000	0	0	0	170,000
P ₇	2.40 €	42,000	66,667	79,167	0	0	0	187,834
P ₆	2.30 €	44,000	69,565	82,609	0	0	0	196,174
P ₅	2.20 €	46,000	72,727	86,364	0	0	0	205,091
P ₄	2.10 €	48,000	76,190	90,476	0	0	0	214,666
P ₃	2.00 €	50,000	80,000	95,000	0	0	0	225,000
P ₂	1.90 €	50,000	80,000	100,000	0	0	0	230,000
P ₁	1.80 €	50,000	80,000	100,000	150,000	120,000	0	500,000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	0	502,448
Total available capacity								450,000

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	50,000	80,000	100,000	0	0	0	230,000
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	0	144,406
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	0	148,076
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	0	152,988
P ₁₁	3.21 €	32,000	56,075	70,093	0	0	0	158,168
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	0	163,646
P ₉	2.99 €	34,000	60,201	75,251	0	0	0	169,452
P ₈	2.88 €	36,000	62,500	78,125	0	0	0	176,625
P ₇	2.77 €	37,000	64,982	81,227	0	0	0	183,209
P ₆	2.66 €	40,000	67,669	84,586	0	0	0	192,255
P ₅	2.55 €	42,000	70,588	88,235	0	0	0	200,823
P ₄	2.44 €	42,000	73,770	92,213	0	0	0	207,983
P ₃	2.33 €	46,000	77,253	96,567	0	0	0	219,820
P ₂	2.22 €	48,000	80,000	100,000	0	0	0	228,000
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	0	625,098
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630,000
Total available capacity								550,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	0	0	0	0	0	0	0
P ₂	48,000	80,000	100,000	0	0	0	228,000
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							550,000

Results for Day 3 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	30,000	51,613	61,290	0	0	142,903
P ₁₃	3.00 €	33,000	53,333	63,333	0	0	149,666
P ₁₂	2.90 €	35,000	55,172	65,517	0	0	155,689
P ₁₁	2.80 €	36,000	57,143	67,857	0	0	161,000
P ₁₀	2.70 €	37,000	59,259	70,370	0	0	166,629
P ₉	2.60 €	38,000	61,538	73,077	0	0	172,615
P ₈	2.50 €	40,000	54,000	76,000	0	0	170,000
P ₇	2.40 €	42,000	66,667	79,176	0	0	187,843
P ₆	2.30 €	44,000	69,565	82,609	0	0	196,174
P ₅	2.20 €	46,000	72,727	86,364	0	0	205,091
P ₄	2.10 €	48,000	76,190	90,476	0	0	214,666
P ₃	2.00 €	50,000	80,000	95,000	0	0	225,000
P ₂	1.90 €	50,000	80,000	100,000	150,000	117,647	497,647
P ₁	1.80 €	50,000	80,000	100,000	150,000	120,000	500,000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	502,448
Total available capacity							450,000

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	50,000	80,000	95,000	0	0	0	225,000
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	144,406
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	148,076
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	152,988
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	158,078
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	163,646
P ₉	2.99 €	34,000	60,201	75,251	0	0	169,452
P ₈	2.88 €	36,000	62,500	78,125	0	0	176,625
P ₇	2.77 €	37,000	64,982	81,227	0	0	183,209
P ₆	2.66 €	40,000	67,669	84,586	0	0	192,255
P ₅	2.55 €	42,000	70,588	88,235	0	0	200,823
P ₄	2.44 €	42,000	73,770	92,213	0	0	207,983
P ₃	2.33 €	46,000	77,253	96,567	0	0	219,820
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	618,385
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	625,098
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	630,000
Total available capacity							550,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	46,000	77,253	96,567	0	0	0	219,820
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							550,000

Results for Day 4 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	30,000	51,613	61,290	0	0	142,903
P ₁₃	3.00 €	33,000	53,333	63,333	0	0	149,666
P ₁₂	2.90 €	35,000	55,172	65,517	0	0	155,689
P ₁₁	2.80 €	36,000	57,143	67,857	0	0	161,000
P ₁₀	2.70 €	37,000	59,259	70,370	0	0	166,629
P ₉	2.60 €	38,000	61,538	73,077	0	0	172,615
P ₈	2.50 €	40,000	54,000	76,000	0	0	170,000
P ₇	2.40 €	42,000	66,667	79,176	0	0	187,843
P ₆	2.30 €	44,000	69,565	82,609	0	0	196,174
P ₅	2.20 €	46,000	72,727	86,364	0	0	205,091
P ₄	2.10 €	48,000	76,190	90,476	0	0	214,666
P ₃	2.00 €	50,000	80,000	95,000	147,500	115,384	487,884
P ₂	1.90 €	50,000	80,000	100,000	150,000	117,647	497,647
P ₁	1.80 €	50,000	80,000	100,000	150,000	120,000	500,000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	502,448
Total available capacity							450,000

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	48,000	76,190	90,476	0	0	0	214,666
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	144,406
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	148,076
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	152,988
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	158,078
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	163,646
P ₉	2.99 €	34,000	60,201	75,251	0	0	169,452
P ₈	2.88 €	36,000	62,500	78,125	0	0	176,625
P ₇	2.77 €	37,000	64,982	81,227	0	0	183,209
P ₆	2.66 €	40,000	67,669	84,586	0	0	192,255
P ₅	2.55 €	42,000	70,588	88,235	0	0	200,823
P ₄	2.44 €	42,000	73,770	92,213	0	0	207,983
P ₃	2.33 €	46,000	77,253	96,567	143,777	214,592	578,189
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	618,385
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	625,098
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	630,000

Year 2	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	42,000	73,770	92,213	0	0	0	207,983
P ₃	0	0	0	0	0	0	0
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0

Results for Day 5 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Bids

Year 1		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	30,000	51,613	61,290	0	0	0	142,903
P ₁₃	3.00 €	33,000	53,333	63,333	0	0	0	149,666
P ₁₂	2.90 €	35,000	55,172	65,517	0	0	0	155,689
P ₁₁	2.80 €	36,000	57,143	67,857	0	0	0	161,000
P ₁₀	2.70 €	37,000	59,259	70,370	0	0	0	166,629
P ₉	2.60 €	38,000	61,538	73,077	0	0	0	172,615
P ₈	2.50 €	40,000	54,000	76,000	0	0	0	170,000
P ₇	2.40 €	42,000	66,667	79,176	0	0	0	187,843
P ₆	2.30 €	44,000	69,565	82,609	0	0	0	196,174
P ₅	2.20 €	46,000	72,727	86,364	0	0	0	205,091
P ₄	2.10 €	48,000	76,190	90,476	140,476	0	0	355,142
P ₃	2.00 €	50,000	80,000	95,000	147,500	115,384	0	487,884
P ₂	1.90 €	50,000	80,000	100,000	150,000	117,647	0	497,647
P ₁	1.80 €	50,000	80,000	100,000	150,000	120,000	0	500,000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	0	502,448
Total available capacity								450,000

Allocations

Year 1		S1	S2	S3	S4	S5	S6	Total
P ₁₄		0	0	0	0	0	0	0
P ₁₃		0	0	0	0	0	0	0
P ₁₂		0	0	0	0	0	0	0
P ₁₁		0	0	0	0	0	0	0
P ₁₀		0	0	0	0	0	0	0
P ₉		0	0	0	0	0	0	0
P ₈		0	0	0	0	0	0	0
P ₇		0	0	0	0	0	0	0
P ₆		0	0	0	0	0	0	0
P ₅		0	0	0	0	0	0	0
P ₄	1	48,000	76,190	90,476	140,476	0	0	355,142
P ₃		0	0	0	0	0	0	0
P ₂		0	0	0	0	0	0	0
P ₁		0	0	0	0	0	0	0
P ₀		0	0	0	0	0	0	0
Total available capacity								450,000

Year 2		S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	0	144,406
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	0	148,076
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	0	152,988
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	0	158,078
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	0	163,646
P ₉	2.99 €	34,000	60,201	75,251	0	0	0	169,452
P ₈	2.88 €	36,000	62,500	78,125	0	0	0	176,625
P ₇	2.77 €	37,000	64,982	81,227	0	0	0	183,209
P ₆	2.66 €	40,000	67,669	84,586	0	0	0	192,255
P ₅	2.55 €	42,000	70,588	88,235	0	0	0	200,823
P ₄	2.44 €	42,000	73,770	92,213	137,295	250,000	0	595,278
P ₃	2.33 €	46,000	77,253	96,567	143,777	214,592	0	578,189
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	0	618,385
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	0	625,098
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630,000
Total available capacity								550,000

Year 2		S1	S2	S3	S4	S5	S6	Total
P ₁₄		0	0	0	0	0	0	0
P ₁₃		0	0	0	0	0	0	0
P ₁₂		0	0	0	0	0	0	0
P ₁₁		0	0	0	0	0	0	0
P ₁₀		0	0	0	0	0	0	0
P ₉		0	0	0	0	0	0	0
P ₈		0	0	0	0	0	0	0
P ₇		0	0	0	0	0	0	0
P ₆		0	0	0	0	0	0	0
P ₅	1	42,000	70,588	88,235	0	0	0	200,823
P ₄		0	0	0	0	0	0	0
P ₃		0	0	0	0	0	0	0
P ₂		0	0	0	0	0	0	0
P ₁		0	0	0	0	0	0	0
P ₀		0	0	0	0	0	0	0
Total available capacity								550,000

Results for Day 5 of a Single Round Volume Based Auctions at IP B-C for Year 1 & 2 (Bids & Allocations – With Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Bids

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	3.10 €	30,000	51,613	61,290	0	0	142903
P ₁₃	3.00 €	33,000	53,333	63,333	0	0	149666
P ₁₂	2.90 €	35,000	55,172	65,517	0	0	155689
P ₁₁	2.80 €	36,000	57,143	67,857	0	0	161000
P ₁₀	2.70 €	37,000	59,259	70,370	0	0	166629
P ₉	2.60 €	38,000	61,538	73,077	0	0	172615
P ₈	2.50 €	40,000	54,000	76,000	0	0	170000
P ₇	2.40 €	42,000	66,667	79,176	0	0	187843
P ₆	2.30 €	44,000	69,565	82,609	0	0	196174
P ₅	2.20 €	46,000	72,727	86,364	0	0	205091
P ₄	2.10 €	48,000	76,190	90,476	0	0	355142
P ₃	2.00 €	50,000	80,000	95,000	147,500	115,384	487884
P ₂	1.90 €	50,000	80,000	100,000	150,000	117,647	497647
P ₁	1.80 €	50,000	80,000	100,000	150,000	120,000	500000
P ₀	1.70 €	50,000	80,000	100,000	150,000	122,448	502448
Total available capacity							450,000

Allocations

Year 1	S1	S2	S3	S4	S5	S6	Total
P ₁₄	0	0	0	0	0	0	0
P ₁₃	0	0	0	0	0	0	0
P ₁₂	0	0	0	0	0	0	0
P ₁₁	0	0	0	0	0	0	0
P ₁₀	0	0	0	0	0	0	0
P ₉	0	0	0	0	0	0	0
P ₈	0	0	0	0	0	0	0
P ₇	0	0	0	0	0	0	0
P ₆	0	0	0	0	0	0	0
P ₅	0	0	0	0	0	0	0
P ₄	0	0	0	0	0	0	0
P ₃	49,429	78,913	93,709	145,490	82,454	0	450,000
P ₂	0	0	0	0	0	0	0
P ₁	0	0	0	0	0	0	0
P ₀	0	0	0	0	0	0	0
Total available capacity							450,000



Results for Day 6 of a Single Round Volume Based Auctions at IP B-C for Year 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Year 2	S1	S2	S3	S4	S5	S6	Total		Year 2	S1	S2	S3	S4	S5	S6	Total	
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	0	144,406	P ₁₄	0	0	0	0	0	0	0	
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	0	148,076	P ₁₃	0	0	0	0	0	0	0	
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	0	152,988	P ₁₂	0	0	0	0	0	0	0	
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	0	158,078	P ₁₁	0	0	0	0	0	0	0	
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	0	163,646	P ₁₀	0	0	0	0	0	0	0	
P ₉	2.99 €	34,000	60,201	75,251	0	0	0	169,452	P ₉	0	0	0	0	0	0	0	
P ₈	2.88 €	36,000	62,500	78,125	0	0	0	176,625	P ₈	0	0	0	0	0	0	0	
P ₇	2.77 €	37,000	64,982	81,227	0	0	0	183,209	P ₇	0	0	0	0	0	0	0	
P ₆	2.66 €	40,000	67,669	84,586	0	0	0	192,255	1 P ₆	40,000	67,669	84,586	0	0	0	192,255	
P ₅	2.55 €	42,000	70,588	88,235	131,373	250,000	0	582,196	P ₅	0	0	0	0	0	0	0	
P ₄	2.44 €	42,000	73,770	92,213	137,295	250,000	0	595,278	P ₄	0	0	0	0	0	0	0	
P ₃	2.33 €	46,000	77,253	96,567	143,777	214,592	0	578,189	P ₃	0	0	0	0	0	0	0	
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	0	618,385	P ₂	0	0	0	0	0	0	0	
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	0	625,098	P ₁	0	0	0	0	0	0	0	
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630,000	P ₀	0	0	0	0	0	0	0	
							Total available capacity	550,000								Total available capacity	550,000

Results for Day 7 of a Single Round Volume Based Auctions at IP B-C for Year 2 (Bids & Allocations – No Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Year 2	S1	S2	S3	S4	S5	S6	Total		Year 2	S1	S2	S3	S4	S5	S6	Total		
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	0	144,406		P ₁₄	0	0	0	0	0	0	0	
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	0	148,076		P ₁₃	0	0	0	0	0	0	0	
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	0	152,988		P ₁₂	0	0	0	0	0	0	0	
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	0	158,078		P ₁₁	0	0	0	0	0	0	0	
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	0	163,646		P ₁₀	0	0	0	0	0	0	0	
P ₉	2.99 €	34,000	60,201	75,251	0	0	0	169,452		P ₉	0	0	0	0	0	0	0	
P ₈	2.88 €	36,000	62,500	78,125	0	0	0	176,625		P ₈	0	0	0	0	0	0	0	
P ₇	2.77 €	37,000	64,982	81,227	0	0	0	183,209		P ₇	0	0	0	0	0	0	0	
P ₆	2.66 €	40,000	67,669	84,586	125,940	0	0	318,195	1	P ₆	40,000	67,669	84,586	125,940	0	0	318,195	
P ₅	2.55 €	42,000	70,588	88,235	131,373	250,000	0	582,196		P ₅	0	0	0	0	0	0	0	
P ₄	2.44 €	42,000	73,770	92,213	137,295	250,000	0	595,278		P ₄	0	0	0	0	0	0	0	
P ₃	2.33 €	46,000	77,253	96,567	143,777	214,592	0	578,189		P ₃	0	0	0	0	0	0	0	
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	0	618,385		P ₂	0	0	0	0	0	0	0	
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	0	625,098		P ₁	0	0	0	0	0	0	0	
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630,000		P ₀	0	0	0	0	0	0	0	
							Total available capacity	550,000									Total available capacity	550,000



Results for Day 7 of a Single Round Volume Based Auctions at IP B-C for Year 2 (Bids & Allocations – With Pro Rata)

Bundled capacity B-C

Bundled capacity B-C

Year 2		S1	S2	S3	S4	S5	S6	Total		Year 2	S1	S2	S3	S4	S5	S6	Total		
P ₁₄	3.54 €	30,000	50,847	63,559	0	0	0	144406		P ₁₄	0	0	0	0	0	0	0		
P ₁₃	3.43 €	30,000	52,478	65,598	0	0	0	148076		P ₁₃	0	0	0	0	0	0	0		
P ₁₂	3.32 €	31,000	54,217	67,771	0	0	0	152988		P ₁₂	0	0	0	0	0	0	0		
P ₁₁	3.21 €	32,000	56,075	70,003	0	0	0	158078		P ₁₁	0	0	0	0	0	0	0		
P ₁₀	3.10 €	33,000	58,065	72,581	0	0	0	163646		P ₁₀	0	0	0	0	0	0	0		
P ₉	2.99 €	34,000	60,201	75,251	0	0	0	169452		P ₉	0	0	0	0	0	0	0		
P ₈	2.88 €	36,000	62,500	78,125	0	0	0	176625		P ₈	0	0	0	0	0	0	0		
P ₇	2.77 €	37,000	64,982	81,227	0	0	0	183209		P ₇	0	0	0	0	0	0	0		
P ₆	2.66 €	40,000	67,669	84,586	125,940	0	0	318195	1	P ₆	0	0	0	0	0	0	0		
P ₅	2.55 €	42,000	70,588	88,235	131,373	250,000	0	582196		P ₅	41,756	70,232	87,790	130,710	219,511	0	550,000		
P ₄	2.44 €	42,000	73,770	92,213	137,295	250,000	0	595278		P ₄	0	0	0	0	0	0	0		
P ₃	2.33 €	46,000	77,253	96,567	143,777	214,592	0	578189		P ₃	0	0	0	0	0	0	0		
P ₂	2.22 €	48,000	80,000	100,000	150,000	240,385	0	618385		P ₂	0	0	0	0	0	0	0		
P ₁	2.11 €	50,000	80,000	100,000	150,000	245,098	0	625098		P ₁	0	0	0	0	0	0	0		
P ₀	2.00 €	50,000	80,000	100,000	150,000	250,000	0	630000		P ₀	0	0	0	0	0	0	0		
								Total available capacity	550,000									Total available capacity	550,000



Summary of results from the single round volume based auctions:

Interconnection Point A – B

The auction at IP A-B closed at P0 for year 1 and 2 as can be seen on page nine; this is due to the fact that IP A-B is an uncongested point.

There were no pro rata allocations for IP A-B for year 1 and 2 as can be seen on page ten because the auction closed at P0. Any unsold capacity at an uncongested point just rolls forward.

Interconnection Point B – C

The auction at IP B-C for year 1 closed on day 5 at P4, due to the second stability measure, the early closure of bidding. The rule states that an auction closes after any day if the clearing price has not changed due to bid revision since the end of the previous day as can be seen by looking at pages fourteen and fifteen. The auction at IP B-C for year 2 closed on day 7 at P6, due to the fact that the clearing price on day 7 was the same as the clearing price on day 6. This can be seen by looking at the tables on pages seventeen and eighteen.

In both years there was unsold capacity when the auction closed. If there was a pro rata allocation mechanism in place then all shippers would have received additional capacity at P3 in year 1 and at P5 in year 2. Please note that even though Shipper 5 did not place a bid at P4 in year 1 and P6 in year 2 they were still allocated some capacity at P3 in year 1 and P5 in year 2. This suggests that there is scope for potential gaming if this pro rata allocation mechanism was introduced for unsold capacity.

Please note that Shipper 5's bid of 250,000 units of capacity at IP B-C in year two (as can be seen on page fifteen) was outside the rule that states that a bid at one price step must be lower than or equal to the bid at the next lowest price step on a particular day.

Other comments from participants:

- We had to recall several times during the game what the constraints to the bids were. Some participants felt that the measures were not easily understood by everyone and it was difficult to keep the rules in mind (especially the limits to the bid revision).
- Of the stability measures proposed, only the immediate/early closure was deemed somehow useful. This incentivises, as we know, “honest” bidding from the first day.
- Concerning the limits to the bidding revision only upwards and the binding bid at P0, they didn’t give an opportunity to optimise the result. It was said by some that it would be better not to be include this as it limits the Shipper flexibility too much.