20/09/2019 Budapest - Workshop XBID go-live preparation / Single Intraday Coupling

Gabriella Juhász Senior Market Development Expert







- 1. Sum up the points from last Workshop
 - 1. Background, how we got here
 - 2. Market coupling gain
 - 3. XBID project overview (XBID Common Projects, XBID System, Local Implementation Projects)
- 2. What will change with the go live of XBID
 - 1. Cross zonal capacity allocation
 - 2. Gate opening
 - 3. Gate closure
 - 4. Product changes
 - 5. The screen
- 3. Member testing period
- 4. Go-live
- 5. XBID success





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How we got here?





- Improve the competition
- Guarantee security of supply
- Increase Energy efficiency
- Promote the interests of consumers





Forward capacity

Single day-ahead Single Intraday market



The benefits of integrating European electricity markets

"The European Commission's Target Electricity Model aims to integrate EU electricity markets. This paper estimates the potential benefit to the EU of coupling interconnectors to increase the efficiency of trading day-ahead, intra-day and sharing balancing services efficiently across borders. Further gains are possible by eliminating unscheduled flows and avoiding the curtailment of renewables with better market design. In the short run the gains could be as high as **€3.3 billion/yr**, more than 100% of the current gains from trade."

3,3 billion euros/year - substantial amount

http://www.eprg.group.cam.ac.uk/wp-content/uploads/2015/02/EPRG-WP-1504.pdf

- Establish a common cross border implicit continuous intraday trading solution across Europe, where all the cross border capacities are allocated
- The XBID Project started as a joint initiative by Power Exchanges and TSOs from 11 countries to create an integrated intraday cross-border market

Countries to

- Currently 47 members
- Hungary will join in the 2nd wave

Successful delivery of XBID depends on 3 different pillar





Go-live on Tuesday 12th June 2018



Successful delivery of XBID depends on 3 different pillar



XBID – Common project (High Level Architecture)





The purpose of the XBID initiative is to increase the overall efficiency of intraday trading



Successful delivery of XBID depends on 3 different pillar



XBID – System (SOB, CMM, SM)





SOB

- Matching of orders
- Calculation order execution flows
- Interface to Local Trading Systems
- Calculation of the Local Views of Order Books

CMM

- Implicit capacity submission on border level
- Interface to TSOs

SM

- Provides information from trades to all relevant parties of the post-coupling process.
- Between two different Delivery Areas (DAs)
- In the same DA between two different power exchanges

Order Book Calculation

- > On the screen order from abroad are visible only if sufficient transmission capacity is available
- The same order can be displayed in multiple local views (depending on available transmission capacity)
- Cross-border orders in the local views will be displayed up to the available capacity; hence orders can be shown with partial volume
- An order is removed from all local views after full execution, deactivation or deletion

Rules for Order Book Calculation

- Orders from other markets are selected based on available capacity and price-time-priority
- Traders **cannot see** in which area the orders that they see in their local order book were entered



Successful delivery of XBID depends on 3 different pillar



XBID – LIPs (1st wave and parties involved)



LIP		Participants
1	Nordic	Fingrid, Energinet, SvK, Statnett, Nord Pool, EPEX
2	Kontek	Energinet, 50Hz, Nord Pool, EPEX
3	DK1/DE, DE/NL	Energinet, TenneT NL& DE, Amprion, EPEX, Nord Pool
4	NorNed	Statnett, TenneT NL, EPEX, Nord Pool
5	FR/DE, DE/AT	Amprion, TransnetBW, APG, RTE, EPEX, Nord Pool, Tennet DE
6	NL/BE	Elia, TenneT NL, EPEX, Nord Pool
8	FR/BE	RTE, Elia, EPEX, Nord Pool
9	FR/ES& ES/PT	RTE, EPEX, OMIE, REE, REN, Nord Pool
13	Baltic	Elering, Litgrid, AST, Fingrid (Estlink), Svenska Kraftnät (NordBalt), Nord Pool



XBID – LIPs (2nd wave and parties involved)



LIP		Participants	Foreseen capacity allocation	
15	AT-CZ, AT-SI, AT-HU, BG-RO, CZ-DE, CZ-PL, DE-PL, SI-HR, HR-HU, HU-RO	NEMOs: BSP, Cropex, EPEX, HUPX, IBEX, Nord Pool, OPCOM, OTE TSOs: 50Hertz, APG, CEPS, ELES, ESO, HOPS, MAVIR, PSE, Transelectrica, TTG	 Implicit Implicit & Explicit for SI- HR border 	
16	LT-PL, PL-SE	NEMOs : Nord Pool, TGE TSOs : Litgrid, PSE, Svk	• Implicit	

Planned go-live date: 19.11.2019 –

depends on the successful delivery of the necessary releases and tests.







Are you awake yet? Now the changes in your life so please wake up!





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XBID – LIPs Cross zonal capacity allocation





NO need to submit explicit capacity allocation request on XBID borders



NO more explicit capacity allocation on the coupled borders*

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NO need to waste time with submission of cross border nomination on intraday timeframe and cross border settlement



Traders will save time!



Inter-connector	Cross Border Gate Opening (Technical GOT)	When cross-border capacity is made available after GOT (Effective GOT)
CZ-DE (50Herz /		
Tennet)	15:00	22:00
CZ-AT	15:00	22:00
AT-HU	15:00	22:00
HU-RO	15:00	22:00
HU-HR	15:00	22:00
HR-SI	15:00	22:00
PL-DE	15:00	22:00
PL-CZ	15:00	22:00
AT-SI	15:00	22:00
RO-BG	15:00	16:00

Market	Local Gate Opening
Hungary/HUPX	15:00

Change of Local gate opening from 15:45 to 15:00

Current gate closure time

90 minutes before physical delivery

XBID related change

Commercial Code modification submitted by MAVIR to reduce internal nomination deadline to 15 min.

Planned introduction date: 1st November 2019

60 minutes before physical delivery

- 1. ECC trade processing and nomination 30 min
- 2. 15 min for ECC backup
- 3. TSO procedures 15 min

Buffer to be reconsidered after go-live.



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Gate Closure Time will decrease from 90 min to 60 min

XBID – Product changes







Hourly product will be matched by XBID

Quarter hourly products will be matched locally

OTC registration is available only locally New local OTC hourly product and OTC hourly block product

Hourly product will be matched cross border Decomposition to Quarter Hourly products will cease to exist

No cross product matching between Hourly and Quarter Hourly products



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hungarian power exchange

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hungarian power exchange

XBID – In case of coupling you see...



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XBID – In case of decoupling you see...



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hungarian power exchange

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XBID – Own Overview

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General Profi	ile Layout Co	onnection	Help																					My orders: C	ancel all De	activate all A	
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HUPX	12.09.2019	15:22:12	HIGH	PRV	Order ente	ered: Sell 17	:30-17:45 - 54.0	MW for 45.00 EU	R.																		
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Options for block submission in case of coupling:

- Quarterly_Local: no block
- **XBID_Hour_Power**: via "UDDP" overnight orders are possible
- Hour_Power_Local_OTC_UD: "UDDP" overnight orders are NOT possible

Options for block submission in case of decoupling:

- Quarterly_Local: no block
- Hour_Power_Local: "UDDP" overnight orders are NOT possible
- Hour_Power_Local_OTC_UD: "UDDP" overnight orders are NOT possible

XBID – In case of coupling...



er an	UDDP – 🖻 🗙											
General Profile Layout Connection Help	My orders. Cancel all Deactivate all Activate all											
Market Overview Own Overview Basket UDDP X OTC Capacity data +												
Market Overview Dasket UDDP X OTC Capacity data + Side Product Produt Product Product	Market Overview (User Defined Delivery Period) R Area Ctrct Ctrctt Ctrctt Ctrct Ctrct Ctrct Ctrctt Ctrcttrctt											
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▶ Message												
Market Time Priority Type HUPX 12.09.2019 15:54:23 (4004) PRV OTC Trade entered: Buy 18:00-18:11	• Text •											
HUPX 12.09.2019 15:54:07 (HGH) PRV Order entered: Buy 17:45-18:00 - 52												
HUPX 12.09.2019 15:53:53 HIGH PRV OTC Trade entered: Buy 21:45-22:0												
HUPX 12.09.2019 15:53:50 Low PUB Trade ?/HU: 23-T00_XB - 20.8 MW /												
HUPX 12.09.2019 15:53:34 Low PUB Trade ?/HU: 23-T00_XB - 19.0 MW f												
HUPX 12.09.2019 15:52:06 Low PUB Trade HU/?: 22-23_XB - 4.4 MW for												
HUPX 12.09.2019 15:52:04 LOW PUB Trade ?/HU: 23-T00 XB - 15.0 MW 1												
+ 🔻 🖌 Low 🖌 Medium 🖌 High 🖌 Critical 🖌 Urgent												
+ ▲ ≓ ⊠	Market 🛅 HUPX: 12.09.2019 15:55:40 CEST (TEST1 / TRC001) Trading Limit: 68622.75 EUR 333MB / 1024MB											

...you can submit XBID_Hour_Power

XBID – and...



...you can submit Hour_Power_Local_OTC_UD

Market Overview	Own (Overview	Basket	$_{\rm UDDP}\times$	отс	Capacity data	•
Side		Product					
Buy Sell		[
Front Contract		our_Pow	er_Local				
Front Contract	۲	our_Pow	er_Local	_отс)			
	L	ВІД_НО	Ir_Power				
Quantity			_				
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Area		Exe.Res	tr				
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Text							
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Balancing Group			State				
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XBID – In case of decoupling...



+

...you can submit Hour_Power_Local

Market Overview	Own Overvie	ew Basket	UDDP ×	отс	Capacity data
Side	Produ	ıct			
Buy Sell					
Front Contract	(Hou	r_Power_Lo	cal		
Front Contract	Hou	r_Power_Lo	cal_0		
Quantity			_		
	lity 🛟 💳				
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Text					
Recv BG		Accnt P	-		
			•		
Balancing Group		State			
	Ť	ACTI	•		

XBID – and...



...you can submit Hour_Power_Local_OTC_UD

Market Overview	Own Overview	Basket	$UDDP \times$	отс	Capacity data
Side	Product				
Buy Sell	<u> </u>				
Front Contract	Hour_P	ower_Loo	al		
Front Contract	Hour_P	ower_Loo	al_0 ⁻		
Quantity					
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Text					
Recv BG		Accnt			
		Р	•		
Balancing Group		State			
	-	ACTI	•		



Options for OTC submission in case of coupling:

- Quarterly_Local: via "Market Overview" and "OTC"
- XBID_Hour_Power: no OTC is possible
- Hour_Power_Local_OTC: via "OTC"
- Hour_Power_Local_OTC_UD: via "UDDP"

Options for OTC submission in case of decoupling:

• No difference to coupling as OTC is possible only locally

XBID – OTC submission



Hour_Power_Local_OTC : via "OTC"

	2										(DTC								- 0	×
Note	General Profi	ile Layout Connection	Help														My	orders: Can	el all Deacti	vate all 🧳	Activate
Note: Note: <th< th=""><th>Market Overvie</th><th>w Own Overview Baske</th><th>et UDDP</th><th>OTC × Capacity data</th><th>•</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	Market Overvie	w Own Overview Baske	et UDDP	OTC × Capacity data	•																
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ComTrader 13 09 2019 08 40 56 Low Com Loading of historical HalfTrade data finished. HUPX 13 09 2019 08 40 402 Low MV MV Low MV 13 09 2019 08 40 402 Low MV MV Low MV Low MV 13 09 2019 08 40 402 Low MV MV Low Low MV Low MV Low MV Low Low MV Low Low Low Low<	HUPX	13.09.2019 08:42:25	HIGH	OTC Trade enter	ed: Buy 13-14_	OTC - 5.0 MW f	or 65.00 EUR.														
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Choose contracts with "_OTC" flag

XBID – OTC submission



Market Overview Own Overview Basket UDDP × OTC Capacity data + Product Buy Sell our_Power_Local Front Contract our_Power_Local_OTC Front Contract BID_Hour_Power REG -Val.Restr. Date & Time -GFS Exe.Restr. -Recv BG Ρ -Balancing Group State ACTI •

...and Hour_Power_Local_OTC_UD via UDDP



Product	Hourly Coupling: XBID_Hour_Power Decoupling: Hour_Power_Local	Hourly - OTC only Hour_Power_Local_OTC	Quarter Hourly Quarterly_Local							
Size		Min vol. Increment 0.1 MW								
Price tick		EUR 0.01 per MWh								
Price range	-9 999 €/MWh to 9 999 €/MWh (EU regulation)									
Type of orders	Regular, Basket, Iceberg	OTC	Regular, Basket, Iceberg, OTC							
Execution restriction	NON, IOC, FOK	-	NON, IOC, FOK							
Trade recall	NO	NO	YES							
Overnight trade	-	-	-							
Trade recall

Overnight trade

Product	User Defined Coupling: XBID_Hour_Power Decoupling: Hour_Power_Local	User Defined OTC: Hour_Power_Local_OTC_UD												
Size	Min vol. Incre	ment 0.1 MW												
Price tick	EUR 0.01 per MWh													
Price range	-9 999 €/MWh to 9 999	€/MWh (EU regulation)												
Type of orders	Regular, Basket,	OTC												
Execution restriction	AON, IOC	-												

NO

NO

Only for: XBID_Hour_Power

No decomposition at all No Baseload and Peakload block

hupx



Testers please pay attention!







- 1. Sum up the points from last Workshop
 - 1. Background, how we got here
 - 2. Market coupling gain
 - 3. XBID project overview (XBID Common Projects, XBID System, Local Implementation Projects)
- 2. What will change with the go live of XBID
 - 1. Cross zonal capacity allocation
 - 2. Gate opening
 - 3. Gate closure
 - 4. Product changes
 - 5. The screen
- 3. Member testing period
- 4. Go-live
- 5. XBID success

What is Member test?

- Member Test Period gives the Market Participant the opportunity to connect via Local Trading Systems (HUPX M7) to the XBID system.
- Member test will be conducted in production-like conditions, meaning that following items are configured in accordance with the foreseen go-live configuration:
 - product range;
 - product naming and product scheduling;
- > Post-coupling activities like **nominations are out of scope** of the Member test
- Operational Messages: the purpose of the Trial Period is to simulate operation as close as possible to the standard production operation. This implies that the systems / HUPX MO will send operational messages.

XBID – Member testing 3/2



Period of execution:

- 1st timeslot: 14/10/2019 18/10/2019
 - Mo 14.10.2019 Normal operations
 - Tu 15.10.2019 Normal operations
 - We 16.10.2019 Normal operations + Trade recall and trade cancellation + Closing of market(s)
 - Th 17.10.2019 Normal operations + Trade recall and trade cancellation + Closing of borders
 - Fr 18.10.2019 No testing planned
- 2nd timeslot: 21/10/2019 25/10/2019
- 3rd timeslot: 28/10/2019 02/11/2019
- Note: activation of the timeslot is decision of the XBID project week by week. The goal is to execute all related scenarios within the first timeslot.
- The IT System will be operating on a 24x5 basis during the Trial Period.

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During member test in case of question HUPX **Market operation** is available:

- from 9:00 to 17:00 weekdays
- Phone: +36 1 304 1092
- E-mail: idmarketops@hupx.hu







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	D-2: Pre-launch							D-1: Launch														D: Delivery of energy traded in XBID																					
	18 November								19 November															20 November																			
	14	15	16	17	18	19	20	21	22	23	24	1	2	3	45	6	7	8	9	10	11	12	13	14	15	5 16	5 1	7 1	8 1	.9	20	21	22	23	24	1	2	3	4	5	6	78	_
Hungary																																											

Local Market Trading for delivery D-1
No trading
Local Market Trading for D
XBID is running
Cross bordes trading via XBID for delivery D
Cross bordes trading via XBID for delivery D (capacities provided)





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No more Cross Border Intraday auction on the concerned borders

- Cross Border Gate opening time at 15:00, Effective GOT at 22:00
- Local Gate Opening at 15:00
- Gate Closure 60 min before delivery
- Separated Product for OTC matching
- Clearing and settlement is not influenced by XBID/coupling



Questions?





Thank you for listening!



gabriellajuhász

MARKET DEVELOPMENT EXPERT HUPX ZRT.

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