

## Annual Report 2015

In 2015 the total traded volume increased by 18,21% to 14 972 329,4 MWh compared to 12 665 571,9 MWh in 2014. The average daily traded volume was 41 021,1 MWh. The highest daily traded volume was 56 849,2 MWh on 28.03.2015 delivery day which is a record daily traded volume since the launch of HUPX DAM market. The number of admitted members was 61 in the examined year.

### List of the Members

#### Founder members

- ALPIQ ENERGY SE
- CEZ, a.s.
- Danske Commodities A/S
- E.ON Global Commodities SE
- Energy Financing Team (Switzerland) AG
- GEN-I, trgovanje in prodaja elektricne energije, d.o.o.
- Holding Slovenske Elektrarne d.o.o.
- JAS Budapest Zrt.
- Magyar Aramszolgáltató Kft.
- Matrai Eromu ZRt.
- MVM Partner ZRt.
- Statkraft Markets GmbH

#### New members

- ARELCO POWER S.R.L.
- Dufenergy Global Commodities
- EDF DEMASZ Zrt.
- EPS Trgovanje, d.o.o.
- EVN Trading South East Europe EAD

#### Admitted members

- BC-Energiakereskedo Kft.
- Budapesti Eromu Zrt.
- Citigroup Global Markets Limited
- EDF Trading Limited
- Edison Trading S.p.A.
- EDS International SK
- EGL AG
- Elektro Energija d.o.o.
- Enel Trade S.p.A.
- Energi Danmark A/S
- Energija Naturalis Int d.o.o.
- Energo-pro Trading JSC
- Energy Supply EOOD
- Energya VM Gestion De Energia S.L.U.
- Ezpada s.r.o.
- Freepoint Commodities Europe LLP
- Gazprom Marketing & Trading Ltd
- GDF Suez Trading SAS
- Greenergy-Trade Kft.
- Gunvor International B.V.
- HEP d.d.
- IFC Energy Kereskedelmi Kft.
- Interenergo d.o.o.
- ISD Power Kft.
- KDF Energy SRL
- LE Trading a.s.
- MAVIR ZRt.
- Mercuria Energy Trading SA
- MET Power Hungary Kft.
- Monsson Trading S.R.L.
- Morgan Stanley Capital Group Energy Europe Limited
- NEAS Energy A/S
- OAM Ozdi Acelmuevek Kft.
- OMV Trading GmbH
- Petrol d.d., Ljubljana
- RWE Supply & Trading GmbH
- TEI Energy S.p.A.
- TINMAR ENERGY SA
- Trailstone GmbH
- TRANSENERGO COM S.A.
- Vattenfall Energy Trading GmbH
- VERBUND AG
- Vitol Gas & Power B.V.
- VPP ENERGY Eromu-uzemelteto es Kereskedelmi Zrt.

### HUPX Day-Ahead Market

Description	2014	2015	Change	
HUPX Base Average Price (EUR/MWh)*	40,50	40,60	0,10	0,24%
HUPX Peak Average Price (EUR/MWh)*	47,02	46,84	-0,18	-0,38%
HUPX Base Trimmed Mean Price (EUR/MWh)**	40,47	40,48	0,01	0,02%
HUPX Peak Trimmed Mean Price (EUR/MWh)**	46,94	46,62	-0,31	-0,67%
OTC Base Trimmed Mean Price (EUR/MWh)**	40,74	40,31	-0,42	-1,04%
OTC Peak Trimmed Mean Price (EUR/MWh)**	49,98	50,81	0,83	1,66%
Trimmed Diff. BL. HUPX↔OTC	0,29	-0,01	-0,30	-102,12%
Trimmed Diff. PL. HUPX↔OTC	0,14	0,03	-0,11	-81,02%

Highest Traded Price (EUR/MWh)	160,02	150,06	-9,96	-6,22%
Lowest Traded Price (EUR/MWh)	-6,31	0,00	6,31	-100,00%

Total Turnover (EUR)	512 518 967	607 399 497	94 880 530	18,51%
Average Daily Turnover (EUR)	1 404 172	1 664 235	260 063	18,52%
Max. Daily Turnover (EUR)	2 765 832	4 491 641	1 725 809	62,40%
Min. Daily Turnover (EUR)	350 480	498 558	148 078	42,25%

Description	2014	2015	Change	
Total Volume (MWh)	12 665 571,9	14 972 329,4	2 306 757,5	18,21%
Average Daily Traded Volume (MWh)	34 700,3	41 021,1	6 320,8	18,22%
Highest Daily Traded Volume (MWh)	43 451,3	56 849,2	13 397,9	30,83%
Lowest Daily Traded Volume(MWh)	26 923,7	28 986,4	2 062,7	7,66%
Highest Hourly Traded Volume (MWh)	2 378,3	2 877,1	498,8	20,97%
Lowest Hourly Traded Volume(MWh)	814,6	939,6	125,0	15,34%
Average Hourly Traded Volume (MWh)	1 445,8	1 709,2	263,3	18,21%

DAM - Weekdays	01-24 (Baseload)	01-24 (Baseload)		
Average Daily Traded Volume (MWh)	35 253,5	41 387,5	6 133,9	17,40%
DAM - Weekend	01-24 (Baseload)	01-24 (Baseload)		
Average Daily Traded Volume (MWh)	33 311,5	40 098,1	6 786,6	20,37%

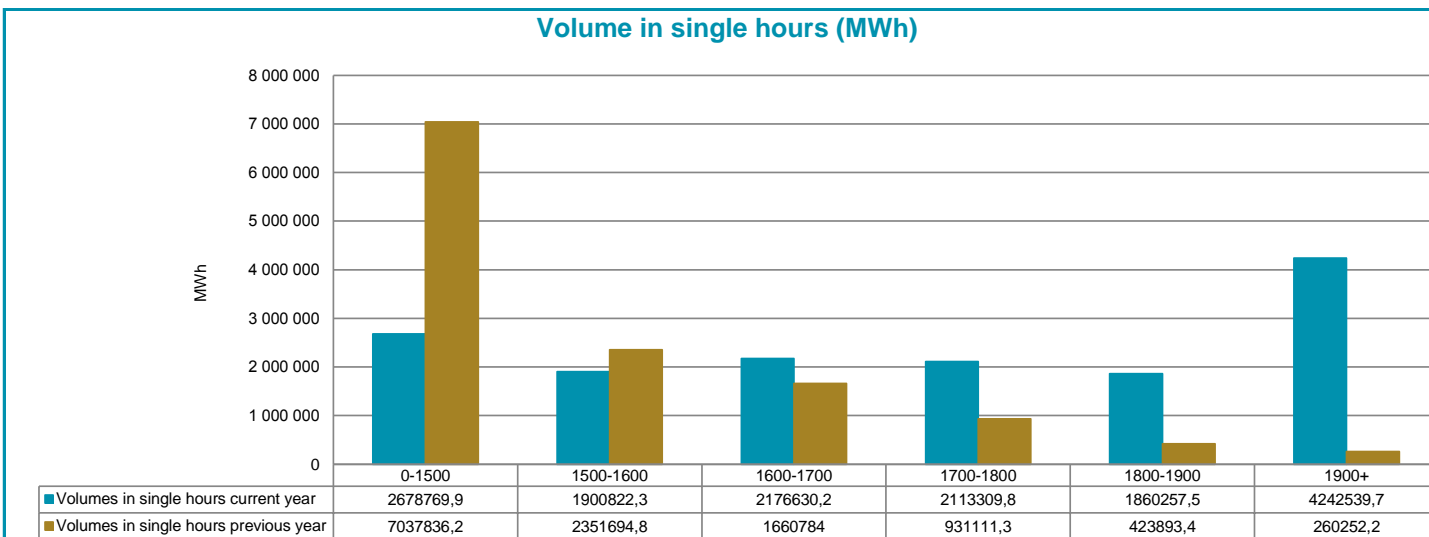
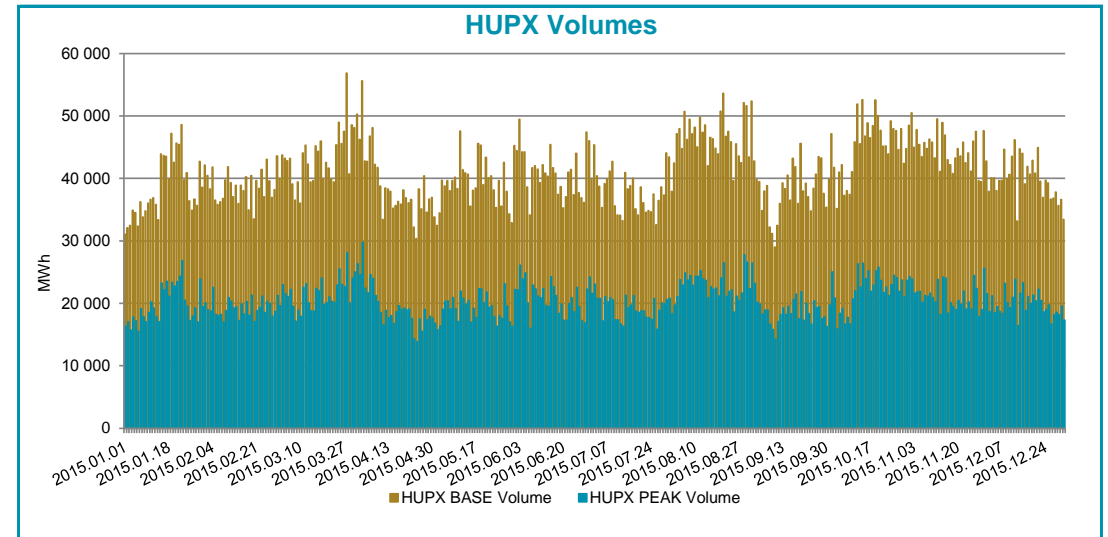
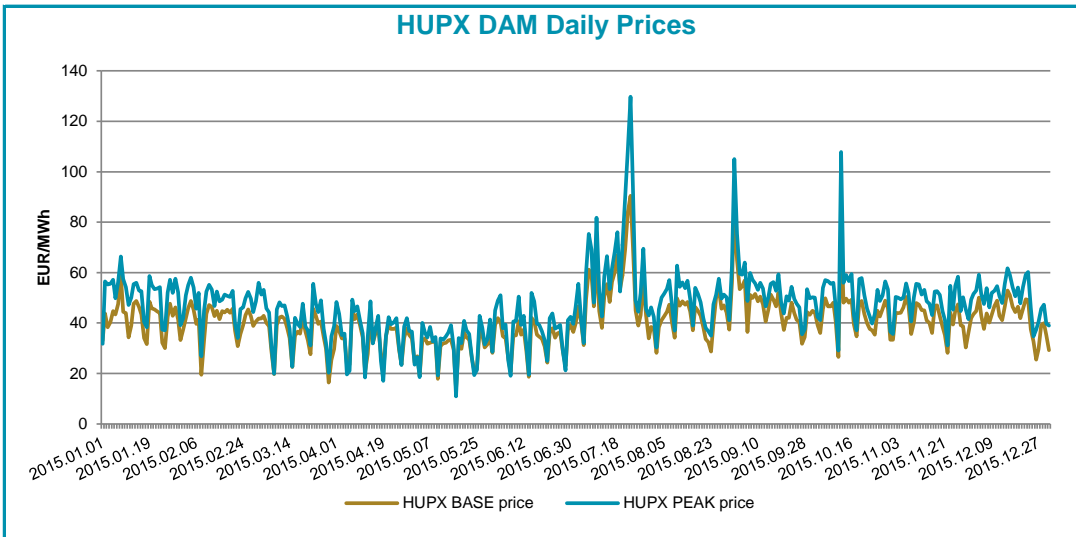
DAM - Weekdays	09-20 (Peakload)	09-20 (Peakload)		
Average Daily Traded Volume (MWh)	17 207,8	20 627,3	3 419,5	19,87%
DAM - Weekend	09-20 (Peakload)	09-20 (Peakload)		
Average Daily Traded Volume (MWh)	15 772,1	19 679,7	3 907,6	24,78%

### Note:

\*The average price contains all the hourly prices in the examined periods.

\*\*Trimmed Mean is a special average which shows yearly mean prices considering all prices except for the two lowest and the two highest. We applied this indicator to avoid from distortion of the results. Mean is very sensitive to extreme values.

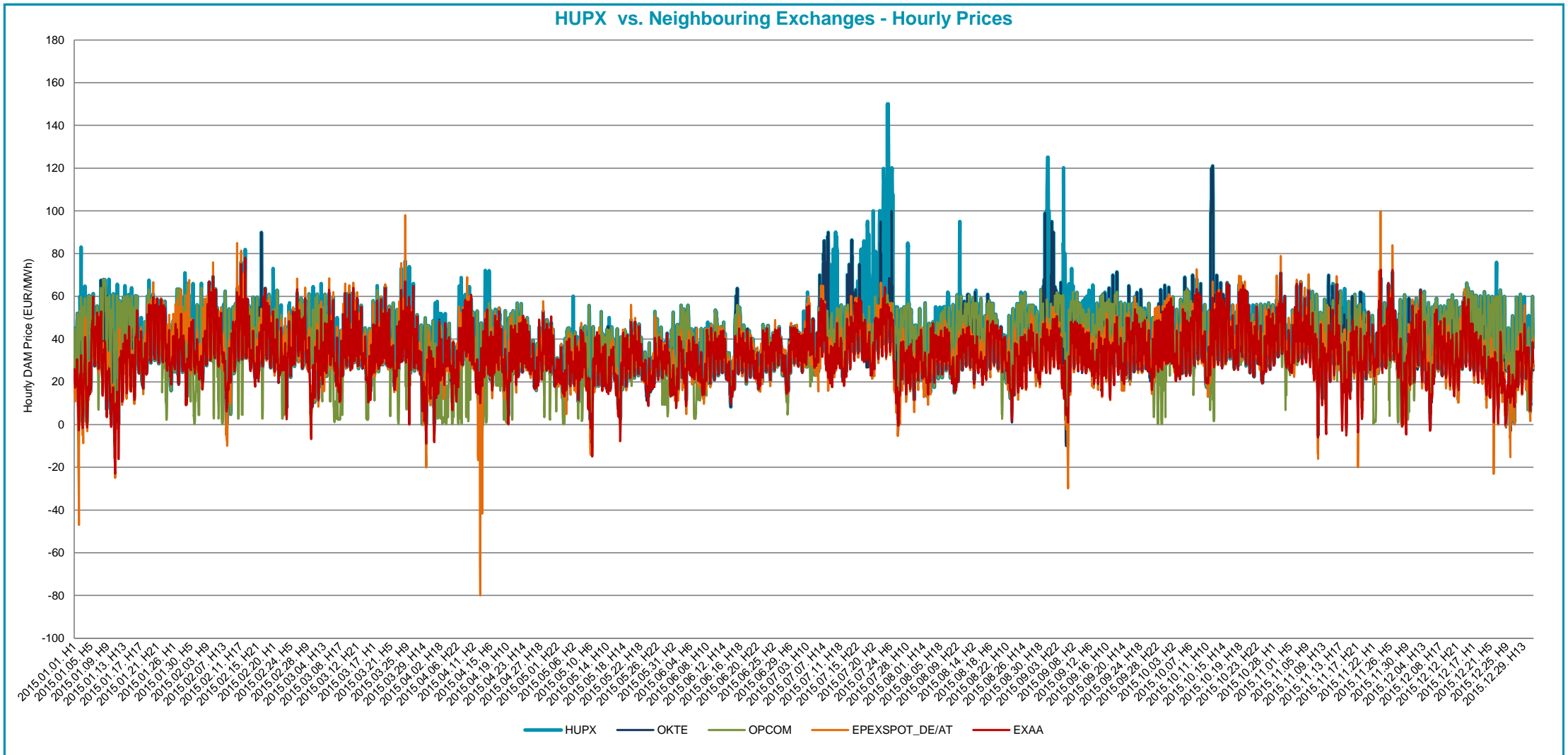
## Prices and volumes



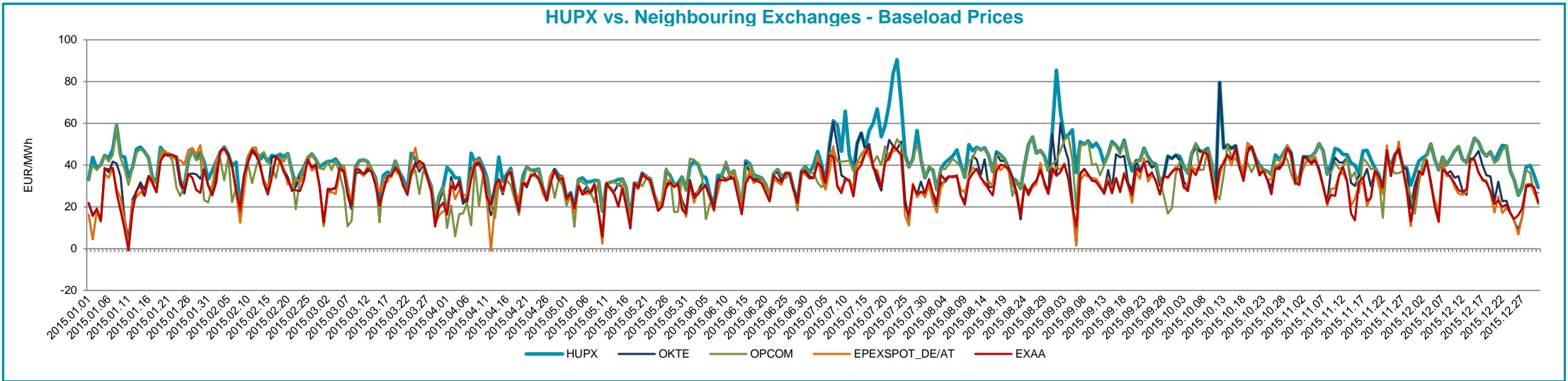
**Note:**

The bar chart shows the traded volumes in single hours in the examined period (01/01/2015-31/12/2015). We categorized the results according to the traded volume of each hour. Compared to the previous year, the distribution of executed volumes shows changes in the traded volumes: the ratio of the range 0-1500 MWh and 1500-1600 MWh decreased, while the ratio increased regarding the 1600-1700 MWh, 1700-1800 MWh, 1800-1900 MWh and 1900+ MWh.

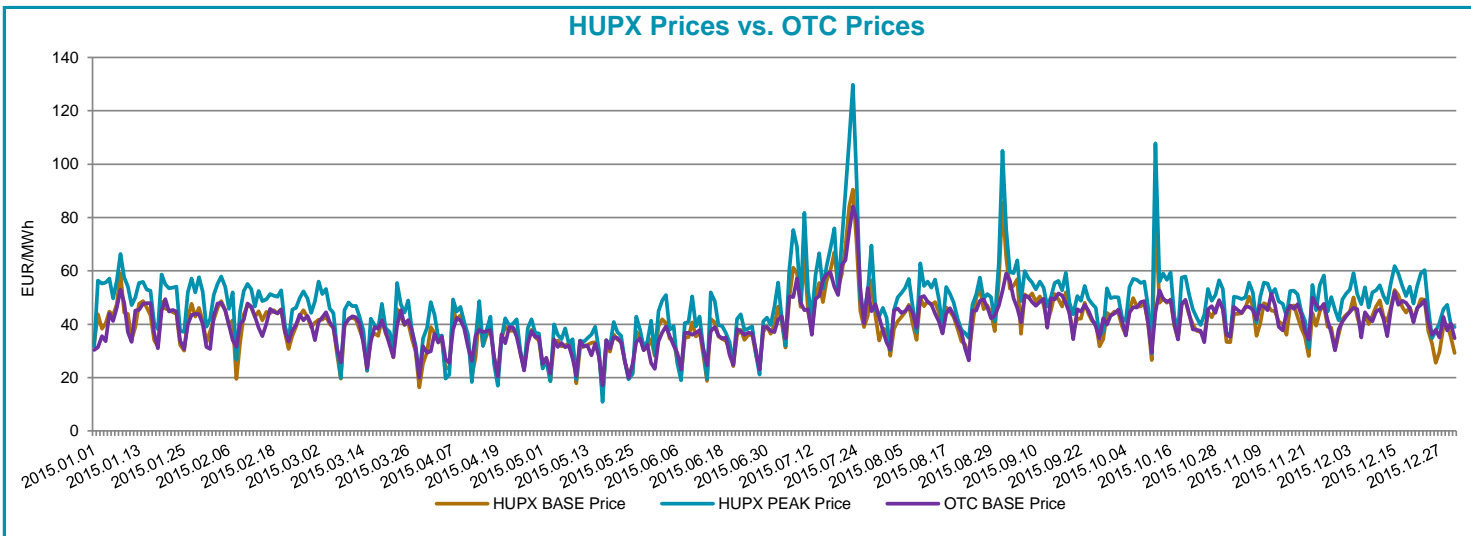
## HUPX vs. Neighbouring Exchanges - Hourly Prices



## HUPX vs. Neighbouring Exchanges - Baseload Prices



## HUPX vs. OTC



Trimmed Diff. BL.	HUPX↔OTC	-0,01
Trimmed Diff. PL.	HUPX↔OTC	0,03

### Average of aggregated OFFERS/BIDS 01/01/2015-31/12/2015

Data shown in the table reflects the average hourly aggregated maximum sell and buy volumes, not considering price steps.

Hour	Offers	Bids	Index volumes
H1	2 470,5	2 592,7	1 670,8
H2	2 569,5	2 613,4	1 736,2
H3	2 662,5	2 628,1	1 814,8
H4	2 683,6	2 628,8	1 823,4
H5	2 627,4	2 612,8	1 778,8
H6	2 530,0	2 603,1	1 719,3
H7	2 446,5	2 655,0	1 631,7
H8	2 550,3	2 793,5	1 683,4
H9	2 448,3	2 884,4	1 647,7
H10	2 448,3	2 942,6	1 671,6
H11	2 454,5	2 977,7	1 692,5
H12	2 453,7	3 020,3	1 720,4
H13	2 431,2	3 047,1	1 732,6
H14	2 435,6	3 018,3	1 724,2
H15	2 456,4	2 969,8	1 704,7
H16	2 454,2	2 949,2	1 686,6
H17	2 437,5	2 951,6	1 683,7
H18	2 474,9	2 946,1	1 692,7
H19	2 471,0	2 953,4	1 699,6
H20	2 446,4	2 970,5	1 700,9
H21	2 516,6	2 974,3	1 752,9
H22	2 517,8	2 863,9	1 705,8
H23	2 479,4	2 745,2	1 685,9
H24	2 484,1	2 646,5	1 659,9
<b>Σ</b>	<b>59 950,3</b>	<b>67 988,3</b>	<b>41 021,1</b>

Base	
MIN (offer)	2 431,2
MAX (offer)	2 683,6
MIN (bid)	2 592,7
MAX (bid)	3 047,1
Average (offer)	2 497,9
Average (bid)	2 832,8

Peak	
MIN (offer)	2 431,2
MAX (offer)	2 474,9
MIN (bid)	2 884,4
MAX (bid)	3 047,1
Average (offer)	2 451,0
Average (bid)	2 969,2

### Aggregated OFFERS/BIDS 01/01/2015-31/12/2015

Data shown in the table reflects hourly aggregated maximum sell and buy volumes, not considering price steps.

Hour	Offers	Bids	Index volumes
H1	901 739,3	946 330,3	609 825,7
H2	937 883,5	953 893,4	633 704,5
H3	971 829,8	959 263,7	662 391,0
H4	979 524,5	959 509,0	665 543,2
H5	959 009,5	953 674,5	649 275,2
H6	923 443,2	950 131,4	627 532,2
H7	892 987,7	969 085,5	595 573,6
H8	930 842,7	1 019 641,9	614 423,6
H9	893 635,4	1 052 797,4	601 411,4
H10	893 646,0	1 074 067,2	610 132,1
H11	895 881,2	1 086 862,5	617 769,5
H12	895 602,9	1 102 411,5	627 964,2
H13	887 371,4	1 112 193,2	632 403,1
H14	888 979,3	1 101 666,4	629 324,1
H15	896 579,5	1 083 977,2	622 218,8
H16	895 780,8	1 076 469,4	615 621,6
H17	889 694,4	1 077 317,2	614 533,1
H18	903 341,5	1 075 310,1	617 838,8
H19	901 899,8	1 077 986,6	620 357,0
H20	892 929,3	1 084 241,5	620 840,7
H21	918 576,3	1 085 616,4	639 824,2
H22	918 986,6	1 045 341,6	622 601,9
H23	904 998,6	1 001 986,8	615 356,3
H24	906 705,1	965 955,0	605 863,6
<b>Σ</b>	<b>21 881 868,3</b>	<b>24 815 729,7</b>	<b>14 972 329,4</b>

Base	
MIN (offer)	887 371,4
MAX (offer)	979 524,5
MIN (bid)	946 330,3
MAX (bid)	1 112 193,2
Average (offer)	911 744,5
Average (bid)	1 033 988,7

Peak	
MIN (offer)	887 371,4
MAX (offer)	903 341,5
MIN (bid)	1 052 797,4
MAX (bid)	1 112 193,2
Average (offer)	894 611,8
Average (bid)	1 083 775,0