



**h u p x**  
HUNGARIAN POWER EXCHANGE

# HUPX markets Intraday in the spotlight

Montel - SEE Energy Day 2024  
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# HUPX SPOT MARKET RESULTS

2023

# ANNUAL RESULTS

## Day-ahead Market



Total traded volume in 2023: **26 050** GWh

+14 new members in 2023

**Record  
onboardings**

## Intraday Market



Total traded volume in 2023: **6 850** GWh

+15 new members in 2023

**+59 %** to 2022

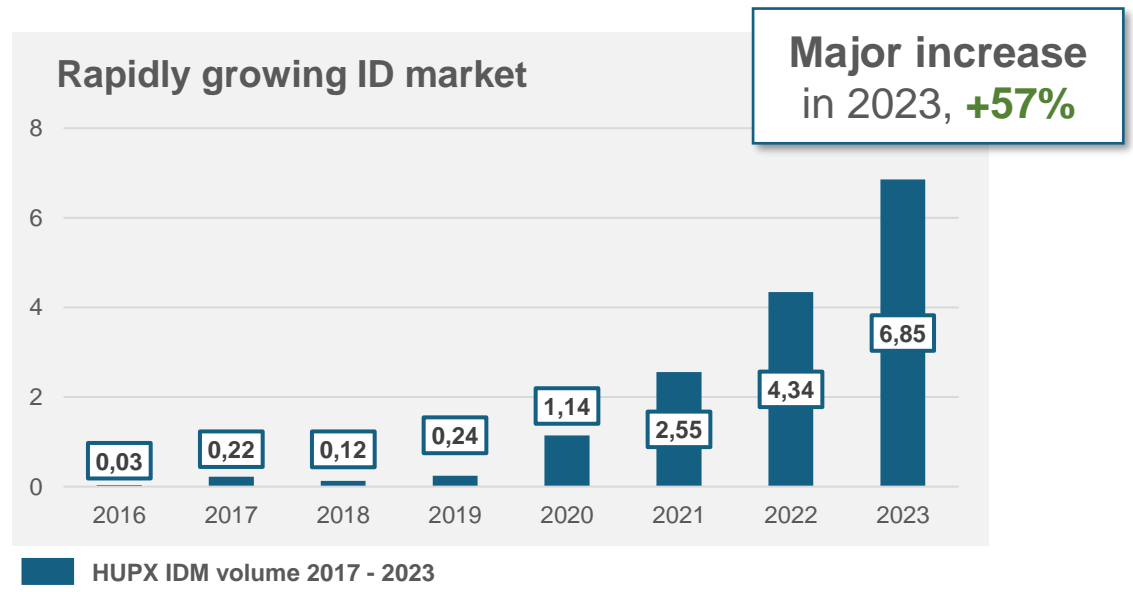
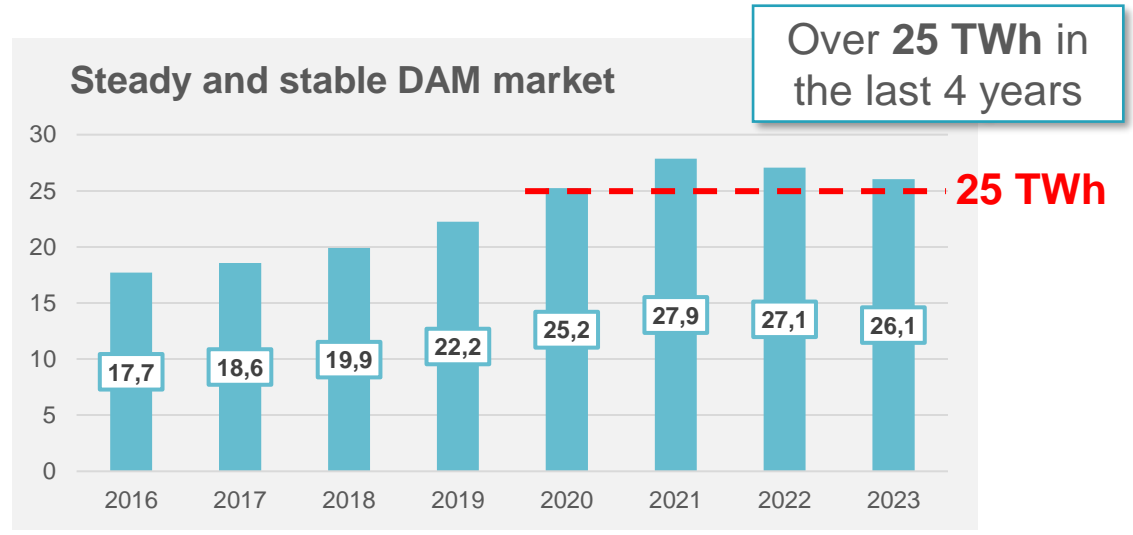
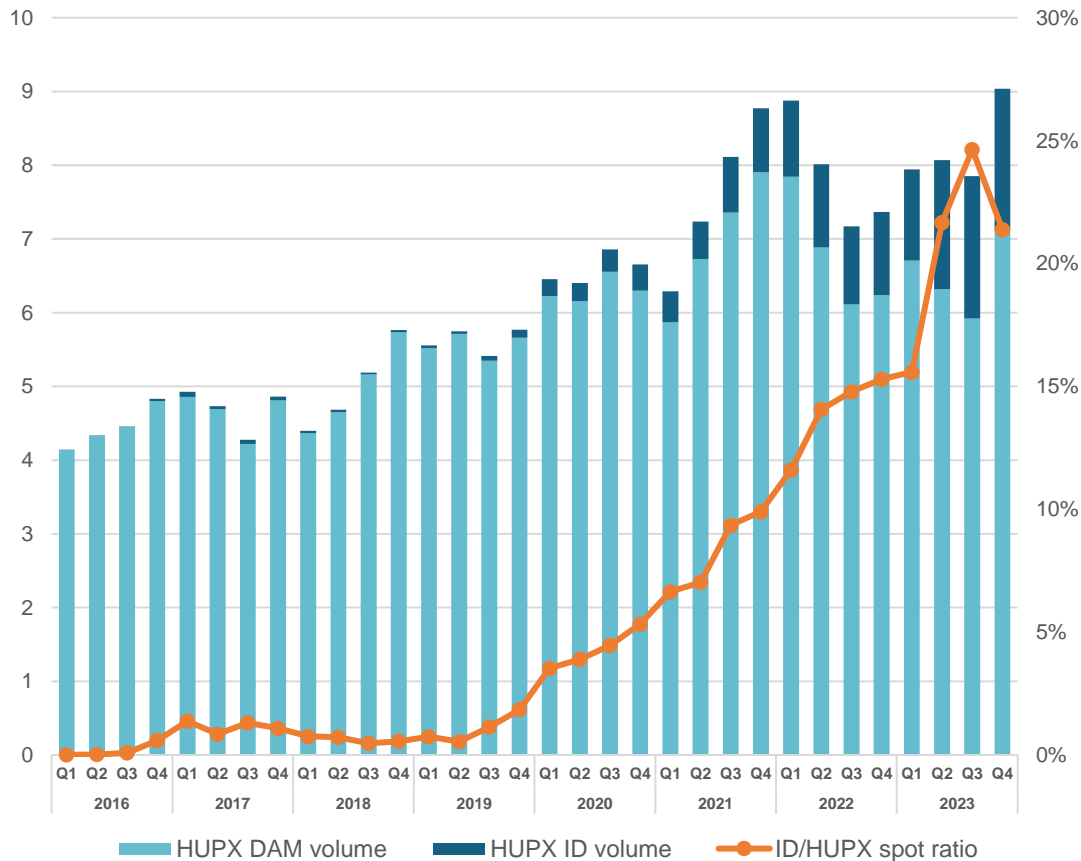
**Record  
volumes**

**Members:  
76 DAM  
60 IDM**

# INCREASING SPOT VOLUMES WITH A SHIFT OF FOCUS

**↑ HUPX SPOT: 32,9 TWh (+1,5%) ↑**

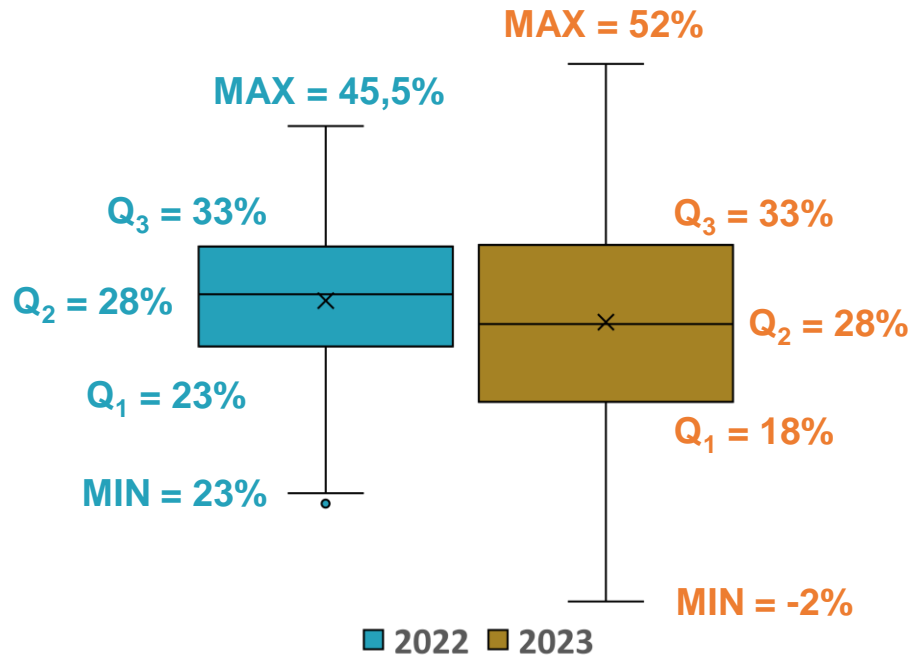
HUPX SPOT traded volume and the shift of focus [TWh]



Source: HUPX data

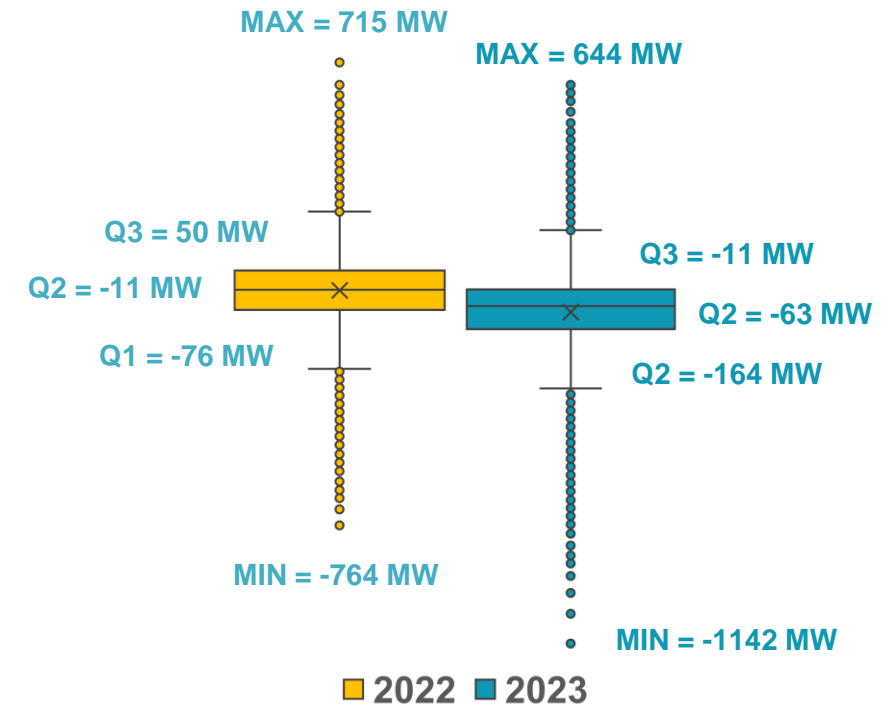
# HUNGARIAN MARKET TRENDS

## HU import rate change 2023



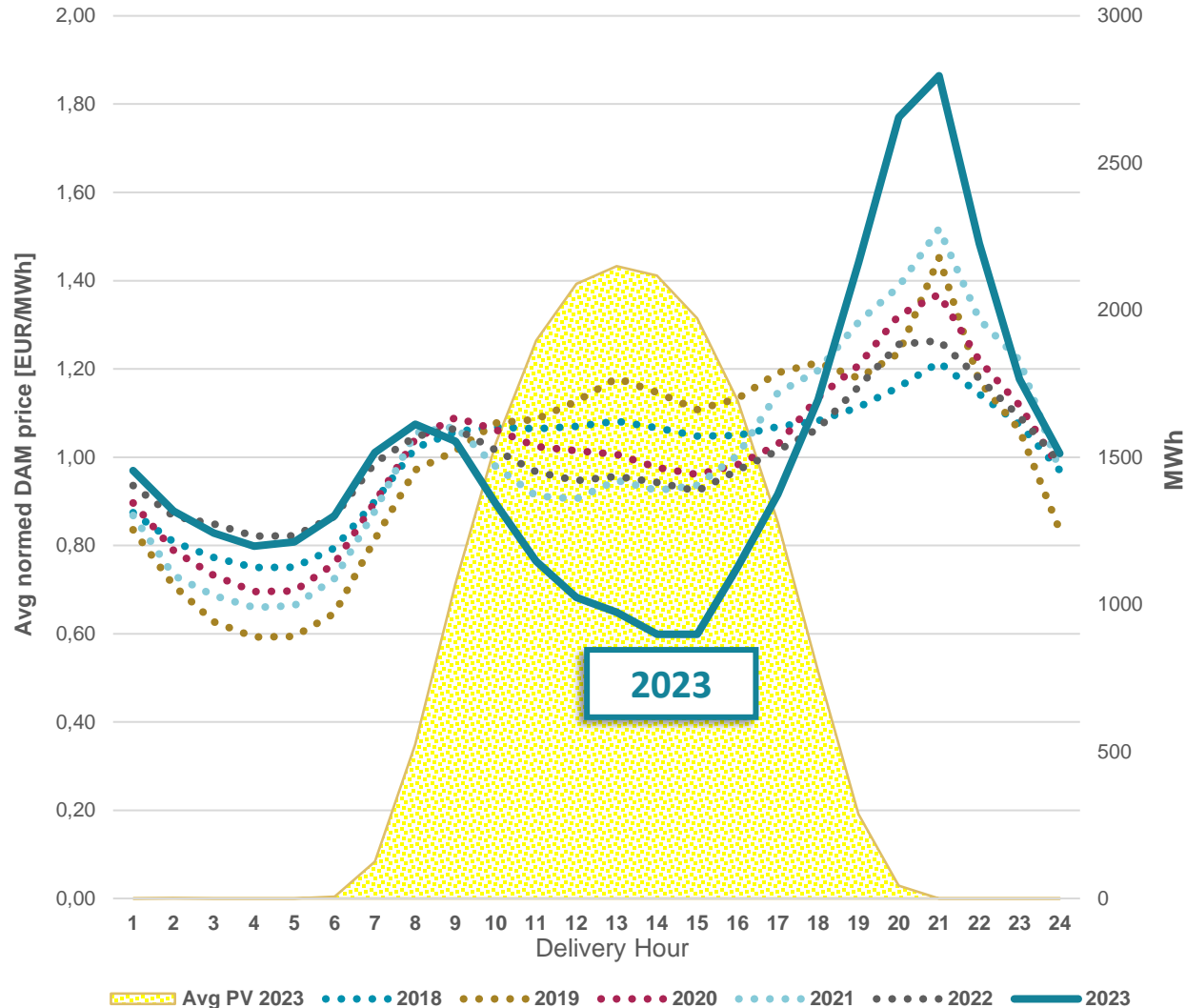
- » The average daily import rate decreased
  - » This is due to the **summer period**, when the **import** in the peak periods were **relatively low**
- » The **min-max interval** and the **volatility** (especially in summer) had **increased**

## HU net dispatch and change 2023



- » Similar processes can be seen in the distribution of the **net dispatch**, as in the import rate
- » The QH HU net dispatch became **more volatile** in 2023
  - » **The min-max interval is around 1800 MW in 2023**

Daily HUPX DAM price change – 2023.08



- » The growing PV generation, especially in the peak periods, **indicates a drop in the DAM hourly prices**
  - » This phenomena was significant in the **summer months of 2023**
- » „**DUCK curve**”
- » The transition **was not smooth, major difference in 2023** relative to previous years

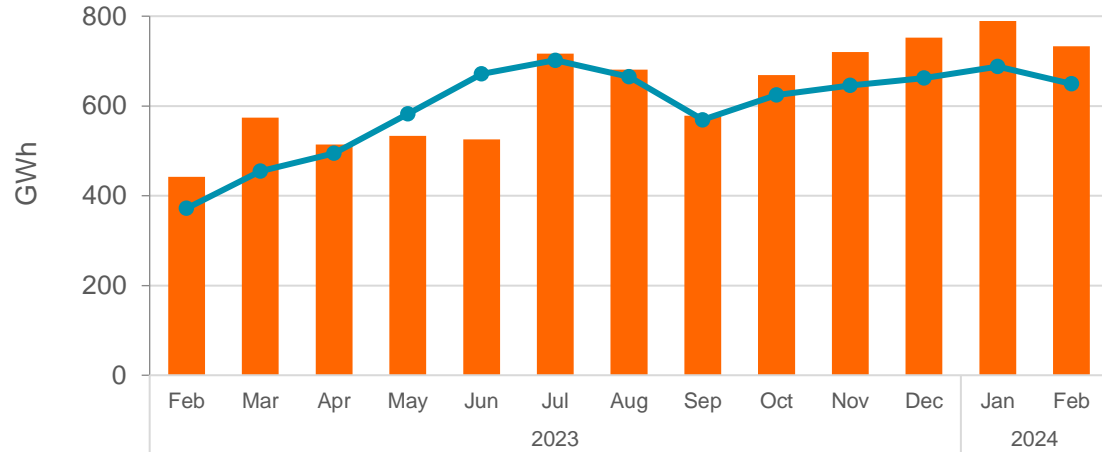
Change in PV generation

2020	2021	2022	2023
1590 GWh	2307 GWh	3001 GWh	4400 GWh
<b>+82%</b>	<b>+45%</b>	<b>+30%</b>	<b>+46%</b>

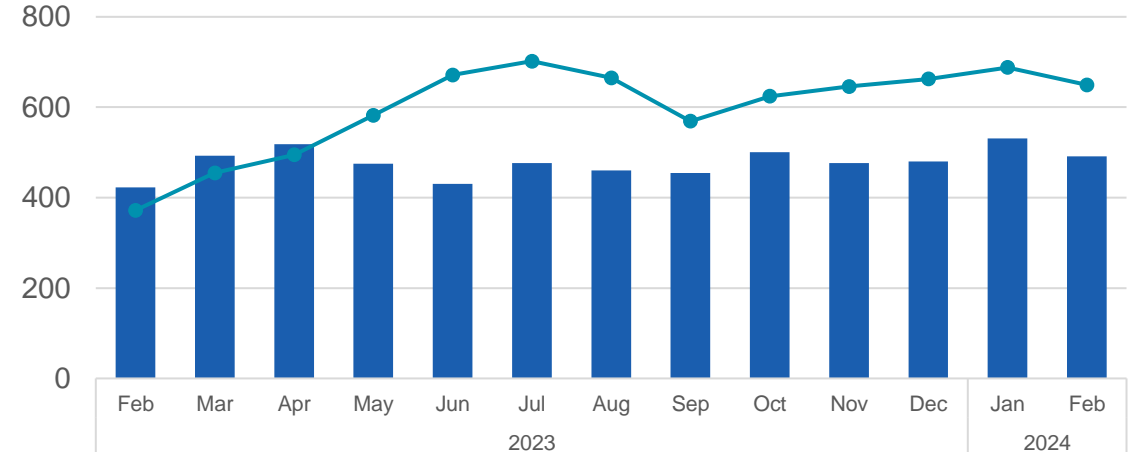
**2023 PV generation reached 2022 total generation in 2023.08.**

**HUPX ID with its 6-700 GWh monthly liquidity,  
is a leading intraday market in the region next to EPEX AT**

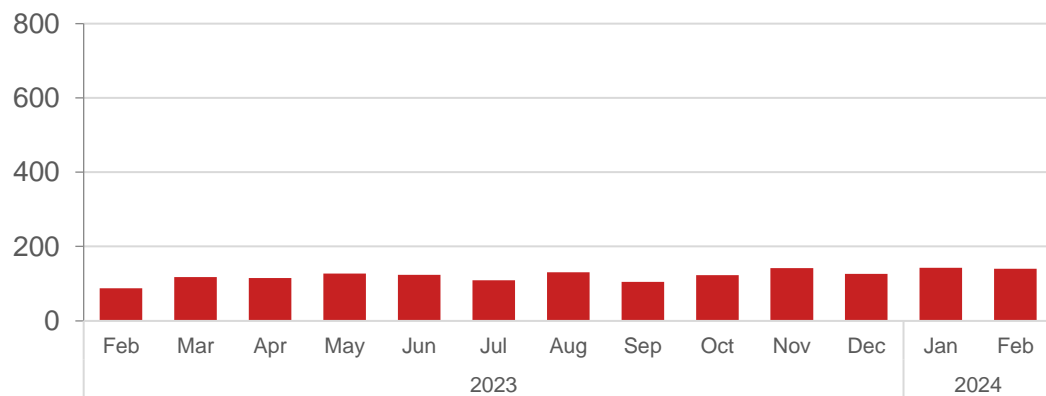
**EPEX AT IDM [GWh]**



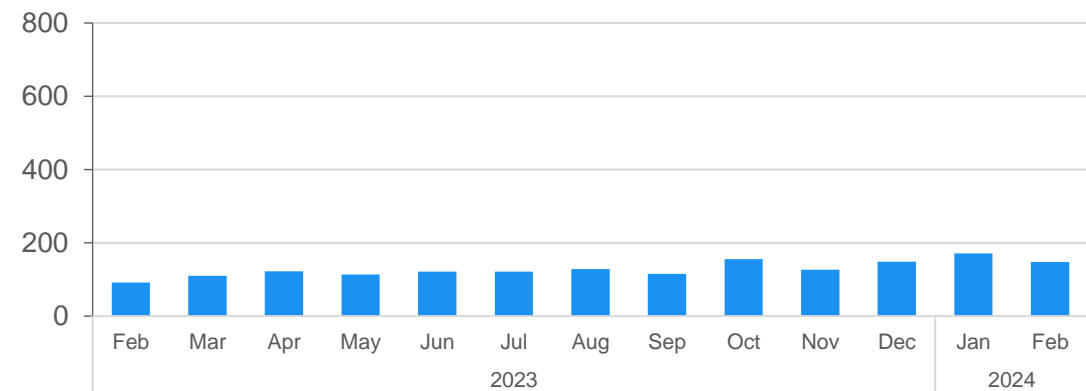
**OTE IDM [GWh]**



**CROPEX IDM [GWh]**

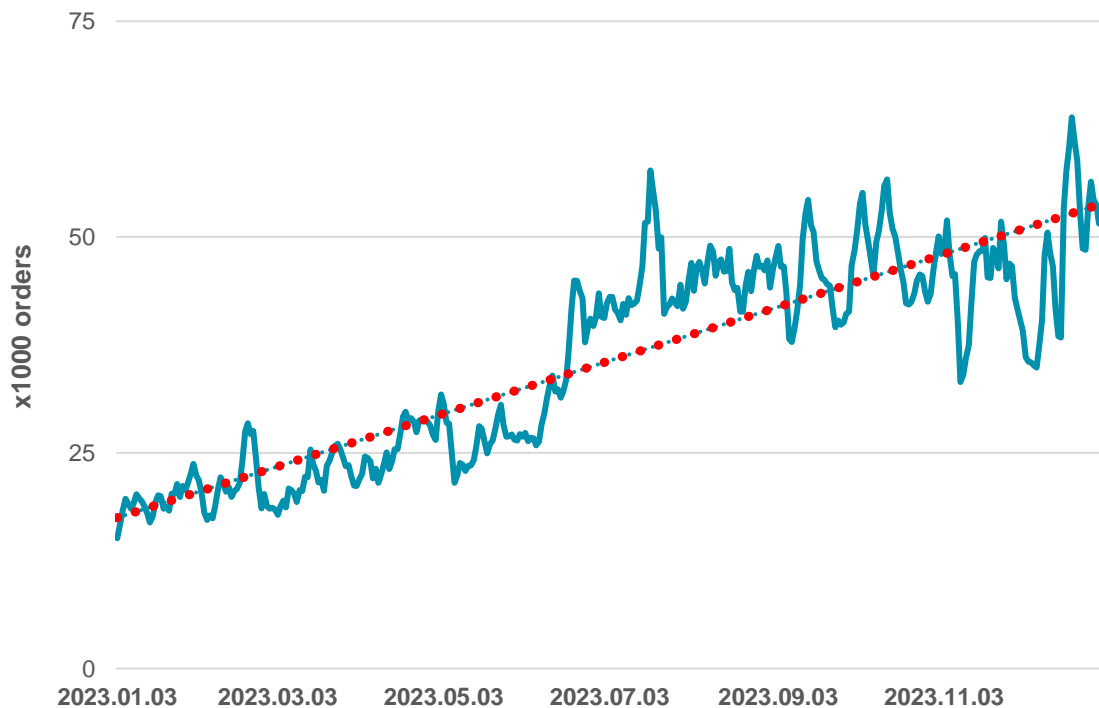


**OKTE IDM [GWh]**



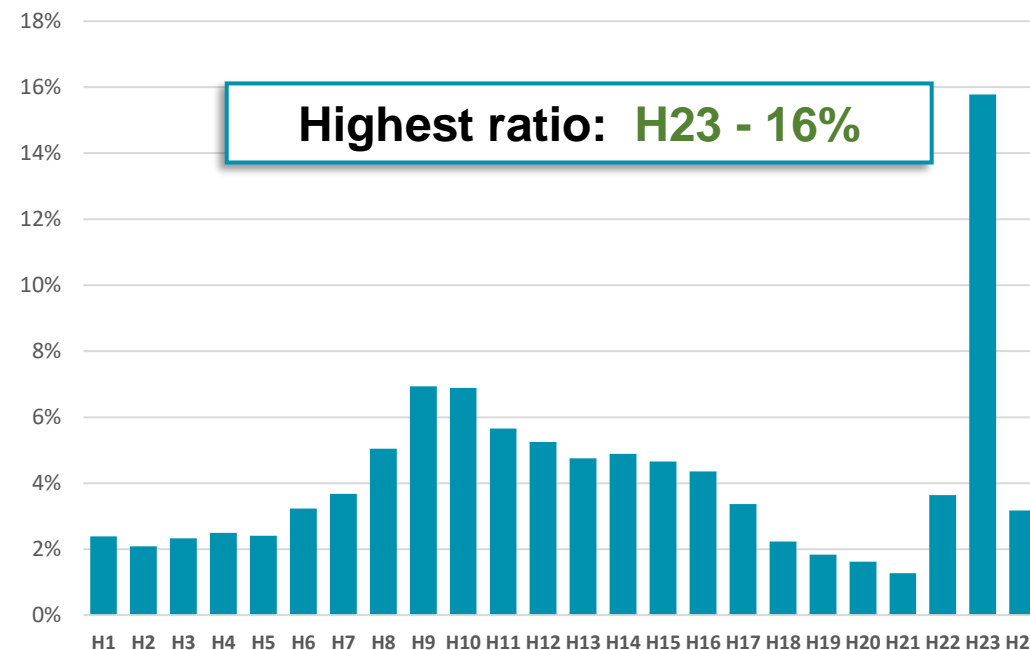


## Order numbers – 5 point moving average



- » Increasing order numbers on HUPX IDM market
- » The average weekly order numbers raised from 15 000 to 55 000 orders per day

## PV production effect on ID volume



**Lowest ratio: H21 - 1,3%**

- » The peak number of trades is highly correlated with the opening hour of XBID.
- » Total trade number in 2023: 4 297 387

## 2024 Q3

API to be available on  
HUPX DAM and IDA

- » **API endpoints** will be available for both **IDA and HUPX DAM** markets
- » Increasing flexibility in the order actions

## 2024 Q2

Introduction of  
ID3 index

- » New **price index** for HUPX Intraday market
- » VWAP for the **last three trading hours** before GTC
- » Liquid price index for **all quarter-hours**

## 2024 Q2

Introduction of Intraday Auctions

- » New **market segment for HUPX spot**

## 2024 Q3

Development of data  
access and  
transparency

- » **Improved data accessibility** for HUPX market data
- » Export function for HUPX aggregated and historical data  
**with API endpoints**

## HUPX DAM POWER



### Day-ahead Power Market (DAM)

- Daily auction through the year
- Hourly and block products
- Gate closure: 12:00 am CET
- SDAC Market Coupling
- Core Flow-Based Market Coupling

## HUPX IDA POWER



### Intraday Auction Market (IDA)

- 3 Auctions, GCT:
  - D-1 15:00
  - D-1 22:00
  - D 10:00
- HUPX Service Provider: EPEX
- Coupled with EU markets
- Products: 15 min MTU & blocks

## HUPX ID POWER



### Intraday Power Market (ID)

- Gate opening: D-1 3:00 pm CET
- Gate closure: 15 min before delivery
- Products: 15 min, 60 min products and blocks
- Price, Time, Capacity priority
- XBID connectivity
- 24/7

# WHAT TO EXPECT FROM IDA?

## HUPX IDA POWER

3

### Intraday Auction Market (IDA)

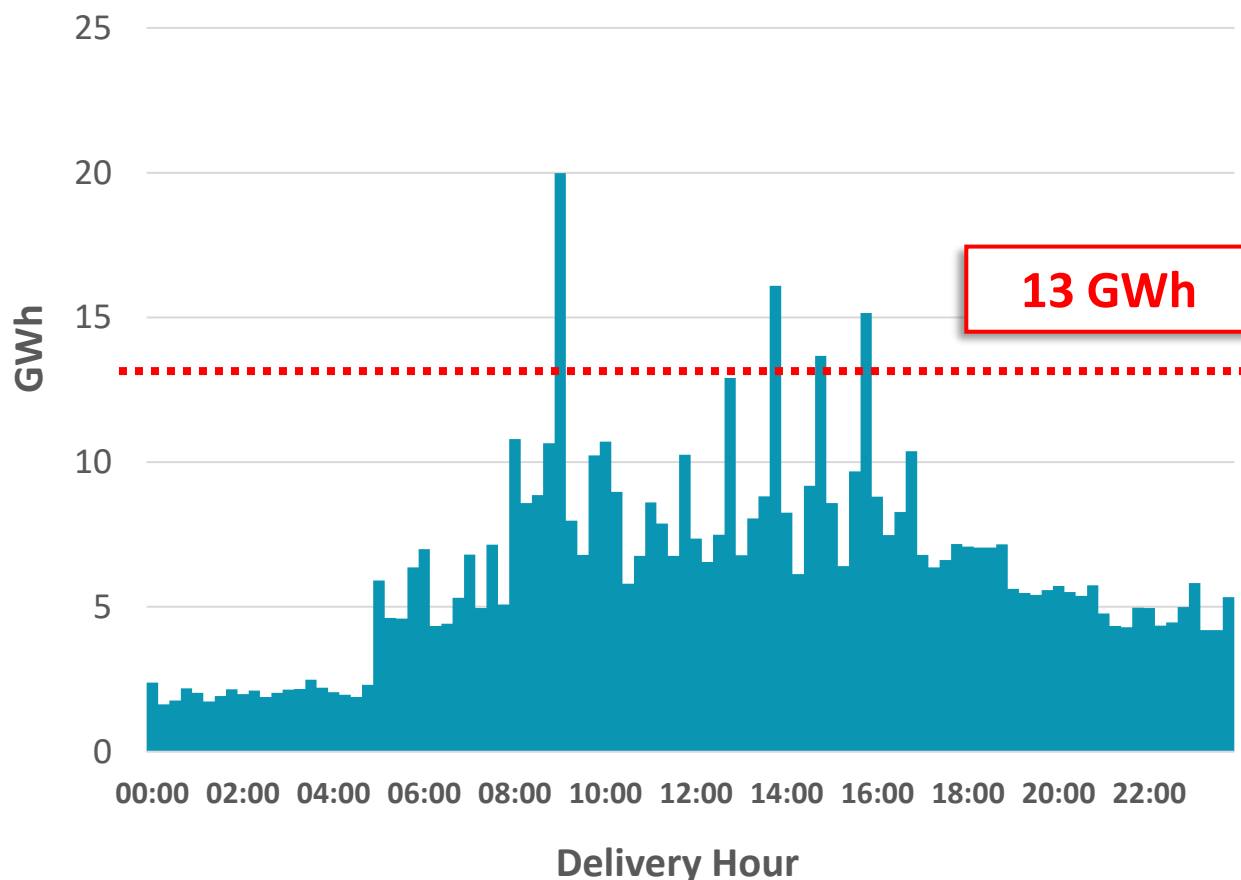
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**Potential for additional liquidity** for the market

**Cross-border trading begins earlier, 15min MTU** starts on auction-based market

**New, efficient price indicators to use for the market**, but not an alternative to continuous trading

## Average remaining volumes on HUPX IDM in 2024 Q1

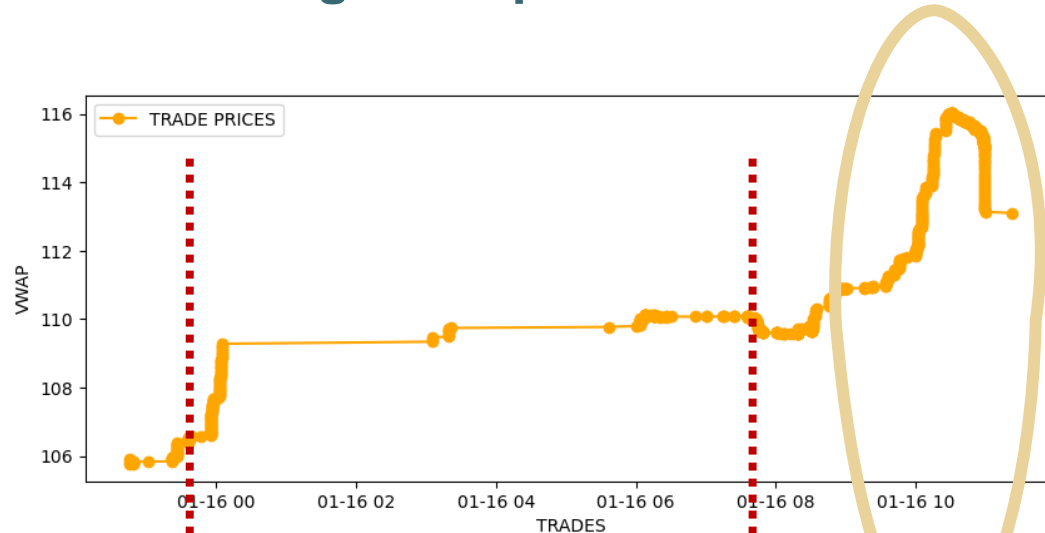


### PERIOD : 2024 Q1 average values

- » Average volumes for each QH
- » There is still a **room for trading** especially in the peak periods
  - » In some QH the remaining volumes reaches **13 GWh**

**There is significant unmatched volumes on HUPX ID to leverage for an auction-based segment**

## Cross-border trading beginning earlier also flattens early liquidity on ID timeframe and brings new price indicators with IDA



D-1  
15:00

D-1  
22:00

D  
10:00

- » XBID Hour power product 13:00-14:00 contract
- » Spread in VWAP for different timestamp reaches 10 EUR
- » VWAP peaks close to delivery, but there is a drop at the last hour
- » In the last hours, the trade prices decreases to 80 EUR/MWh from a 130 price range
- » Low volatility in the first period of the trading, regarding the trade prices

IDA 1, IDA 2, IDA 3 price benchmarks for indexation

Last hours close to real-time still to rely on continuous ID market  
» HUPX ID3 index

## HUPX IDA POWER

3

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## WHAT TO EXPECT FROM IDA MARKET?

- **There is volume potential for this new segment** with
  - Earlier XB opportunities
  - Introduction of 15 min MTU on coupled auction
  - Unmatched orders from ID cont.
  - Easier access for not ID continuous native market players
- With meaningful liquidity, **useful new price signals becoming available** in a more volatile environment
- **No expectation for substituting existing, liquid HUPX markets**, rather additional liquidity.





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**Thank you for  
your attention!**

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