



HUBERATOR

Belgian trading landscape – a blueprint for Turkey?

Zeebrugge, Wednesday 27 January 2016



AGENDA

- 1. Introduction**
- 2. What is a hub?**
- 3. Belgian Trading Landscape**
- 4. Latest developments**
- 5. Operational review**

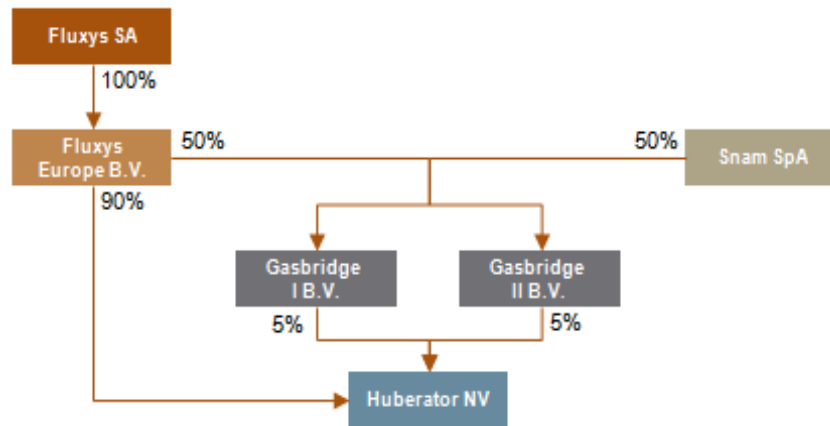


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FROM HUBERATOR ...

- A non-regulated company established in 1999, with a strong shareholder base

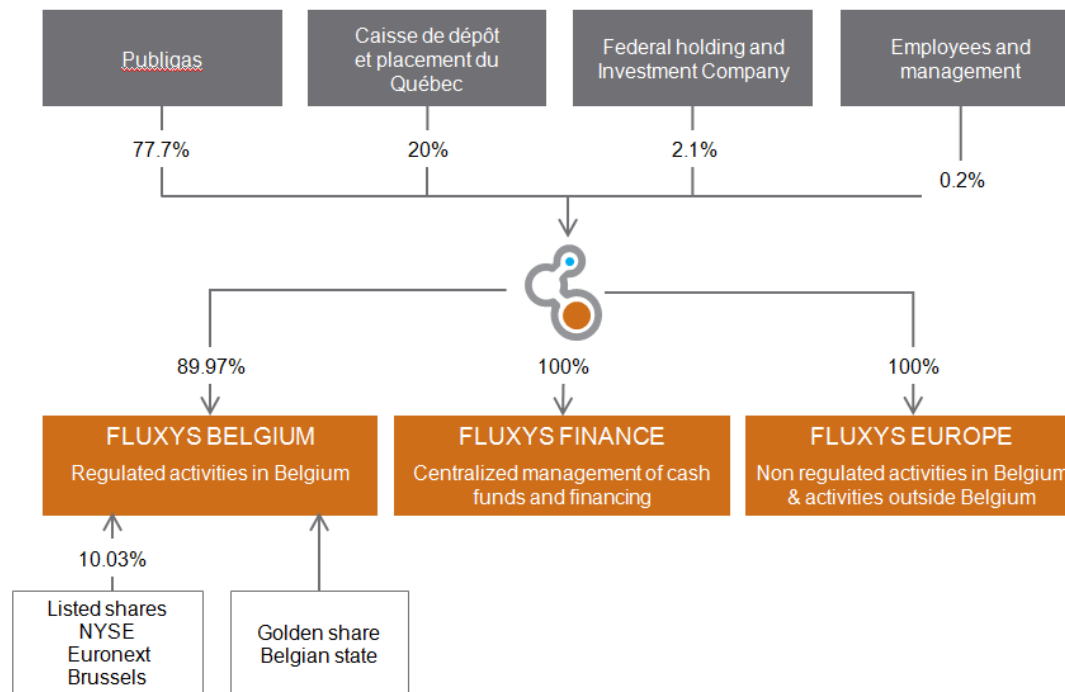


Gasbridge 1 and Gasbridge 2 were set up to acquire shareholdings in Interconnector (UK), Huberator and Interconnector Zeebrugge Terminal, in partnership with Snam

- The operator of both Zeebrugge Beach (Physical) and Zeebrugge Trading Point – ZTP(L) (Notional)

... TO FLUXYS BELGIUM

- On 7 December 2015, Fluxys Belgium took over the trading services from its sister company Huberator. As it goes, these services will come under the regulated framework as part of the transmission activities from 2016 onwards.
- The regulated tariffs for the trading services were approved on 29 October 2015 and become effective as of 1 January 2016.





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HUB DEFINITION

- A hub is a point (physical/local or virtual/notional) at which title to gas can be transferred between buyers and sellers
- In a **physical hub**, the contractual place where the gas is exchanged corresponds to a specific and well identified geographical point on the transmission system (**Zeebrugge Beach**)
- In a **notional hub**, the contractual place where the gas is exchanged is being defined as a group of entry and exit points belonging to a whole transmission system or balancing zone (e.g. **ZTP**, TTF, NCG, GASPOOL, NBP)
- Both types must allow OTC transactions (ideally through brokers) and Exchange trading (anonymous platform).

WHAT DOES IT TAKE TO DEVELOP A HUB?

Infrastructure

Convergence of Pipelines & Available Transmission Capacity

Many Buyers & Sellers with Available Commodity

Access to Tradable Gas, End-Users and Storage

Systems & Commercial Arrangements

Easy Transport to/from Hub

Market Maker

Standard Trading Contract

Hub services Agreement (& Ops rules)

COMMERCIAL REQUIREMENTS

- The hub operator has a standard hub agreement in place with its hub customers (Hub Services Agreement - HSA)
- The HSA is supplemented by Operating Procedures (exchange of messages, matching rules, curtailments...)
- The main components of the HSA are:
 - Tariff (Fee structure): mind the neighbouring hubs, if any!
 - Services
 - Liabilities, FM, amendments...
- Hub customers (as the case may be assisted by the hub operator) jointly develop and/or abide by a standard trading contract to trade at the hub
 - Initially ZBT 2004, followed by ZBT 2012
 - ZBT gradually overtaken by EFET General Agreement (vast majority of transactions at Zeebrugge Beach are EFET based) with a ZBT annex.

OPERATIONAL REQUIREMENTS (1)

- The hub operator must be a separate legal entity from customers at the hub, so all participants should be treated on a non-discriminatory basis. Alternatively, a level playing field should be guaranteed contractually.
- Standard hub terms and conditions are published
- No market dominance by a single market participant
- Title transfer services are provided by the hub operator
 - Nominations
 - Title tracking (tracking the change in ownership of gas volumes)
 - Matching
 - Confirmation
 - Allocation
 - Monthly reporting

OPERATIONAL REQUIREMENTS (2)

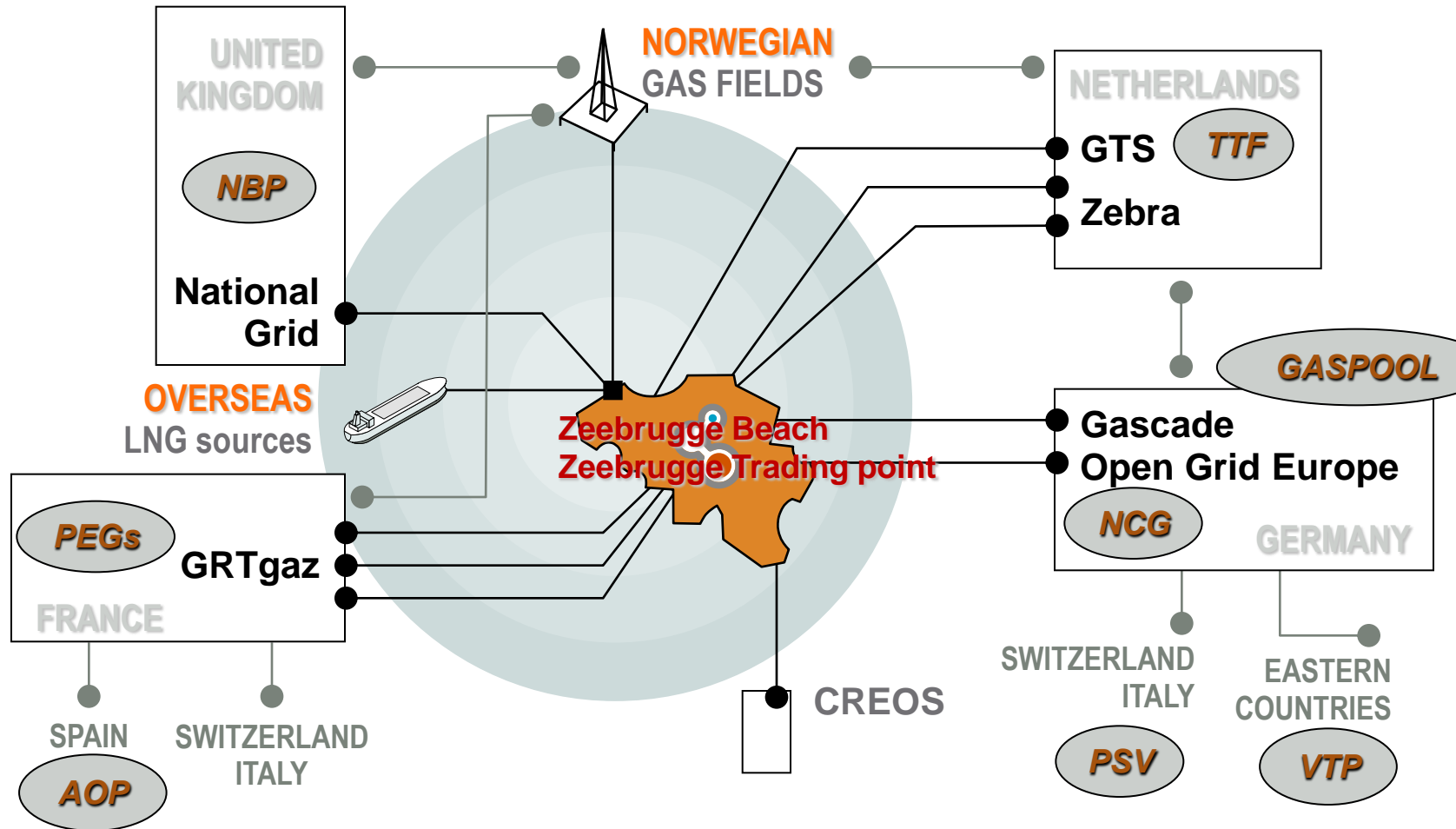
- Physical hub operator provides **firmness** through back-up and offtake services with transparent and market-based charges (to make traded quantities firm in case of physical disruption up- or downstream the hub)
- Ideally, hub prices are used in the settlement of transportation imbalances, in order to foster liquidity
- Robust IT system is needed for
 - Handling of incoming and outgoing e-messages
 - Matching and balancing calculation
 - ➔ EDIGAS messages exchanged by Fluxys dispatching: **± 11 000** (daily)



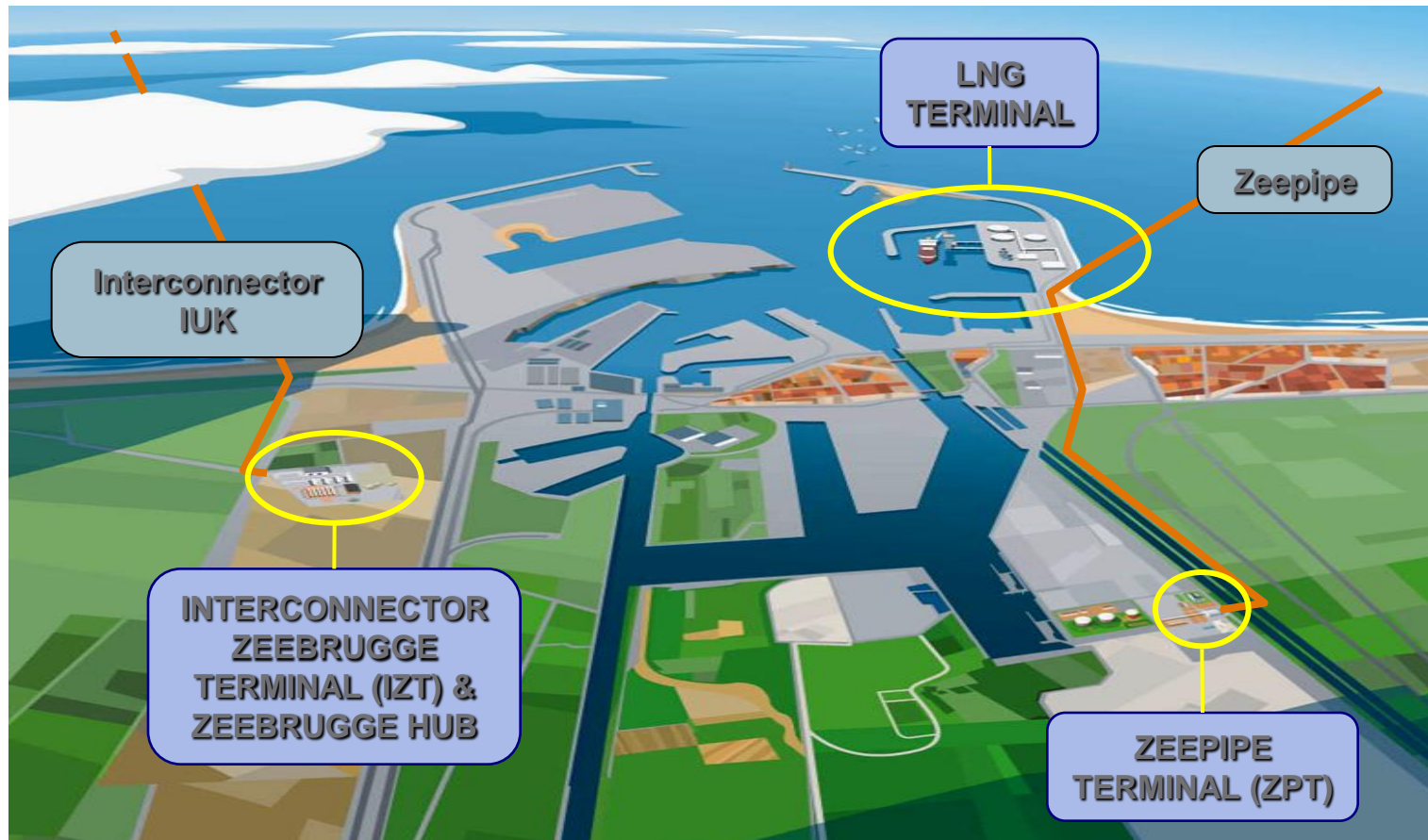
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BELGIUM: A UNIQUE LOCATION TO REACH MAJOR MARKETS & TRADING PLACES



IT ALL STARTED IN THE ZEEBRUGGE AREA (1999)



**Borders IZT, LNG, ZPT:
Total annual delivery capacity of around 50 bcm**

ZEEBRUGGE – A BRIEF STORY OF TIME (1)

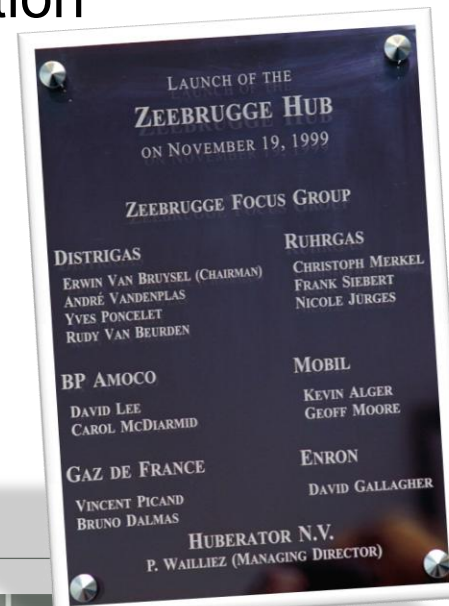
- PM Thatcher's programme of privatisation initiates the liberalisation of the UK gas market in the late 70s
- 1986: the Gas Act sanctions the privatisation of British Gas Corporation and the formation of British Gas PLC (BG). VL Customers offtaking more than 25 000 therms per annum are eligible. First gas regulator is established.
- 1992: threshold reduced to 2 500 therms per annum
- 1993: BG unbundling into separate subsidiaries
- 1994: creation of Transco, responsible for transport & storage
- 1995: Gas Act allows the creation of a fully liberalised gas market incl. competition in the residential market)
- 1996: first Network Code, setting out the rules and procedures for TPA, introduces a regime of daily balancing (coming from monthly)

ZEEBRUGGE – A BRIEF STORY OF TIME (2)

- The daily balancing regime implies the need for a ST traded market, and the Network Code creates a virtual point where shippers can buy/sell and TSO can balance the system (NBP)
- 1997: common standardised contract emerges, the Short Term Flat NBP Trading Terms & Conditions, or NBP 1997
- The rapid liberalisation of the gas market in the UK brings about a gas bubble (oversupply) → need for an “escape valve” to avoid market price collapse (risk of reduced return on existing and new investments for producers)
 - decision to build Interconnector (UK) pipeline between Bacton and Zeebrugge

ZEEBRUGGE – A BRIEF STORY OF TIME (3)

- **October 1998:** IUK starts commercial operations, linking the UK gas market to the Continent for the first time. Flange trading develops in Belgium at several IPs, but most market players wish to exchange gas in a more structured way on a unique trading point (as is the case in the UK)
- Zeebrugge Hub is officially launched in **November 1999** by Huberator after intensive stakeholder consultation
- The 6 “founding fathers” were a perfect mix of
 - UK/US producers
 - Continental vertically-integrated players
 - Trader (spread trading)



ZEEBRUGGE – A BRIEF STORY OF TIME (4)

- Huberator and the founding fathers jointly wrote, under the umbrella of a Focus Group, a Hub Services Agreement (HSA1999) and its Operating Procedures (OP)
- In **December 2001**, a new HSA is drawn out in order to increase the firmness level (IUK switch from forward to reverse mode brings along many curtailments, leading to hub reductions), and to that effect services are added to the initial offer:
 - automatic Back-Up/Off-Take for a period of 5 hours (Huberator temporarily substitutes for the hub customer impacted by the curtailment)
 - Nominated Back-Up/Off-Take after 5 hours (by the hub customer)
 - Rounding (to cover for small differences between counterparties)

ZEEBRUGGE – A BRIEF STORY OF TIME (5)

- In **October 2004**, HSA 2005 is launched in order to foster liquidity and further increase firmness (Nominated Back-Up/Off-Take services didn't prove satisfactory, resulting in hub reductions):
 - Additional Back-Up/Off-Take for a unlimited period of time after 5 hours of automatic Back-Up/Off-Take
 - Creation of an Exchange Platform in cooperation with APX (anonymous screen-based trading)
- In **October 2012** finally, launch of the HSA2012 in order to integrate the newly created notional services at the Zeebrugge Trading Point, a new notional hub where Fluxys shippers can perform balancing operations

ZEEBRUGGE – CONCLUSION

- When developing a hub, it is paramount not only to be a first mover (becoming the reference for a given area) but also to stay ahead of the game by listening to (and evolving in parallel with) the market needs

→ Listening to your customers is essential!

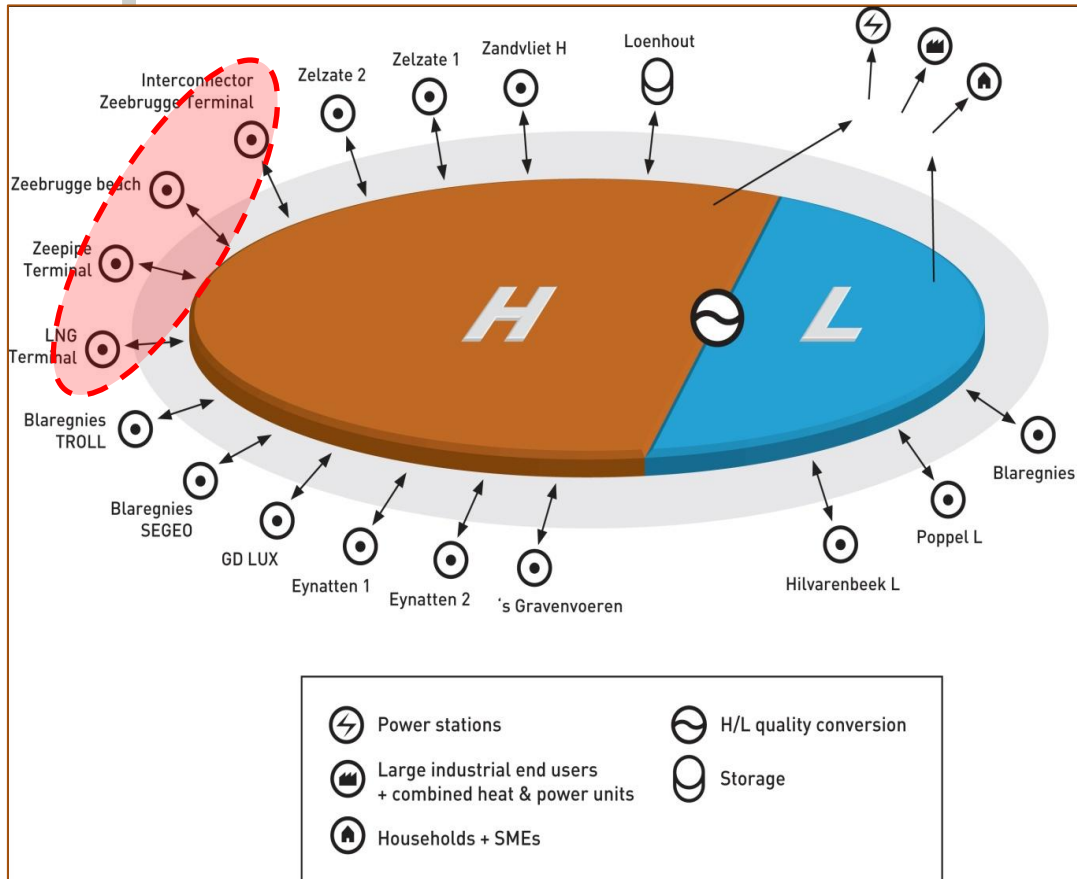
- A well functioning market place, with a great track record of meeting its customers requirements, will not lead a regulatory or national authority to completely revamp it
- The success story of the Zeebrugge Hub has caused the Belgian regulator CREG to further carve the Belgian trading landscape (2012) based on the existing building blocks

... AND IT EXPANDED TO WHOLE OF BELGIUM (OCT 2012)

Main principles

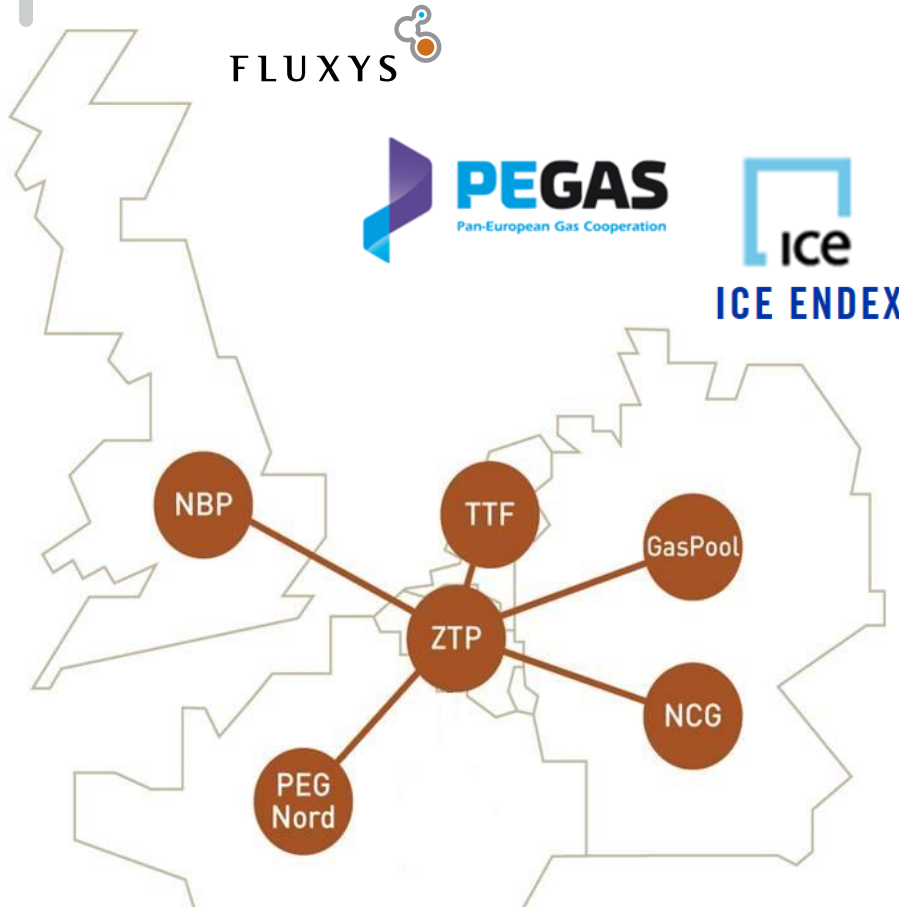
Zeebrugge Beach (Physical Trading Services) is an entry point to the system and stays connected to IZT, ZPT and LNG through ZeePlatform services

Zeebrugge Trading Point (Notional Trading Services) is automatically accessible through bookings in the entry/exit zone

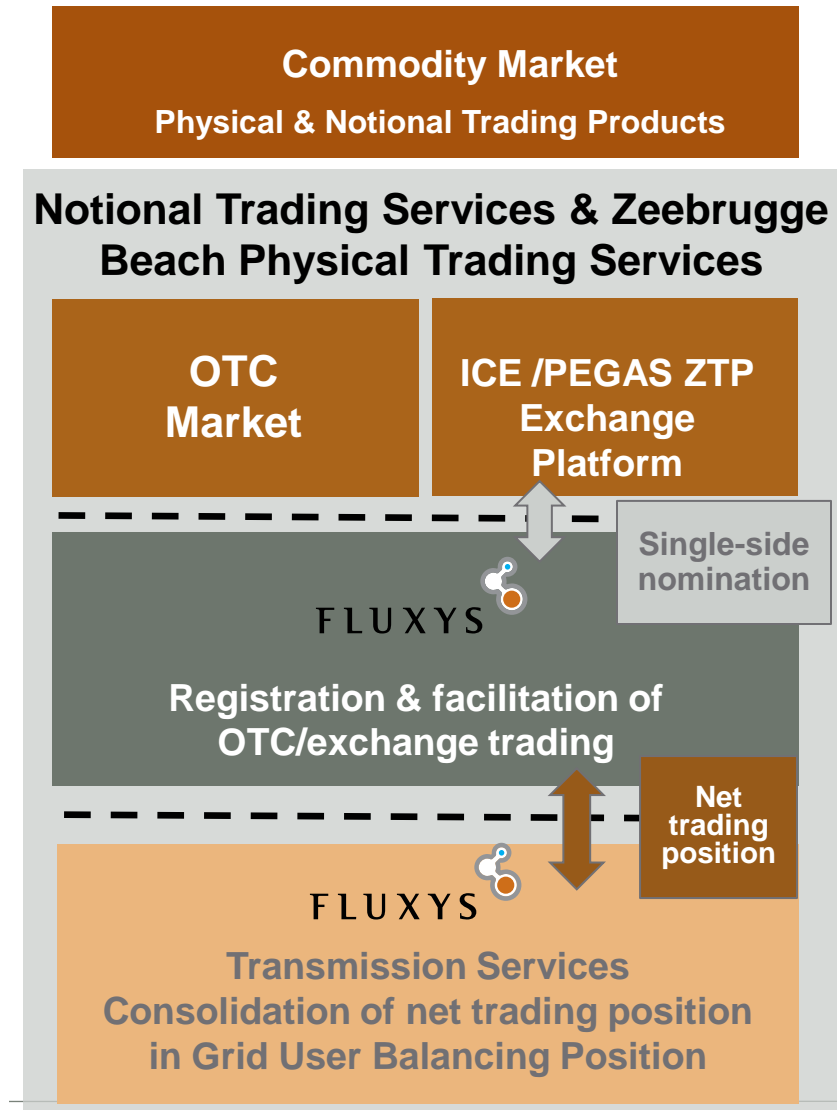


**Transmission inside Belgium + border to border:
annual capacity of around 120 bcm**

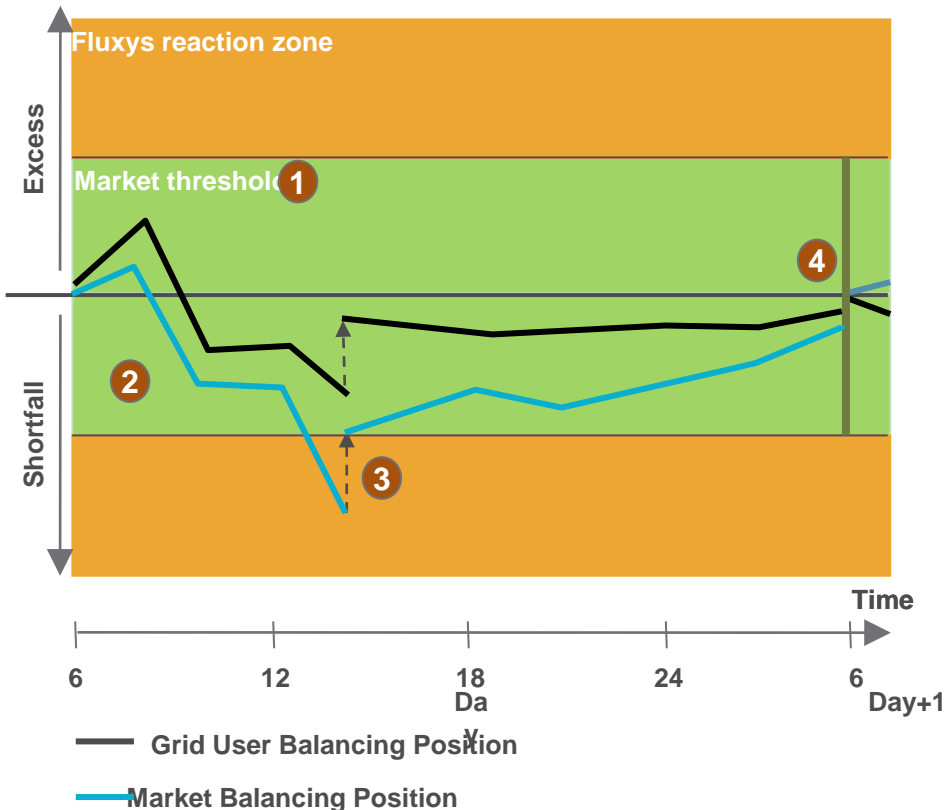
ZTP, ENHANCED WHOLESALE COMMODITY MARKET



ZTP - the Belgian Gas Market combining liquidity of existing Zeebrugge Beach with new notional trading services



A NEW BALANCING REGIME KICKED IN (OCTOBER 2012)



**Comprehensive hourly information provision to the market
In line with EU Balancing Framework Guidelines**

Daily Market Based Balancing

- 1 Thresholds to limit the aggregated market imbalances, sized to domestic market needs
- 2 No Fluxys Belgium action intra-day and no impact on market parties as long as market imbalance is within market threshold
- 3 Residual action initiated by Fluxys Belgium on the exchange when market position goes beyond market threshold, with cash compensation for causers
- 4 Residual end-of day imbalance settled in cash



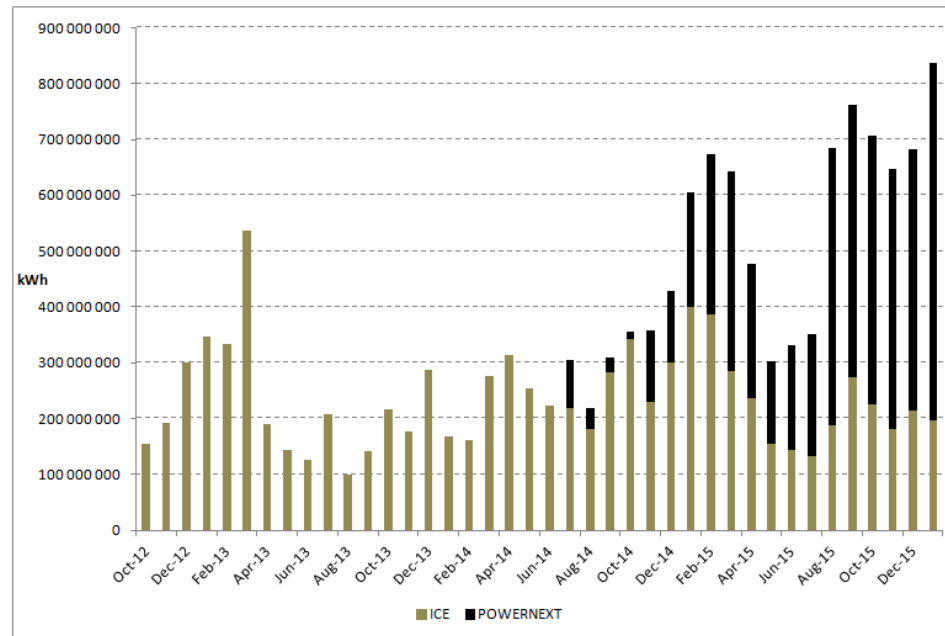
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LATEST DEVELOPMENTS (1)

■ PEGAS (Pan-European Gas Cooperation)

- Trading platform (set up at the end of May 2013 as a cooperative venture between the German company European Energy Exchange (EEX) and the French company Powernext), offers its members both outright products and spreads.
- Launch of ZTP products in July 2014



LATEST DEVELOPMENTS (2)

▪ BeLux 1/10/2015

- First ever gas market integration between 2 EU Member States which reflects the European Union's ambition to create a borderless integrated gas market where gas can move freely from one country to another
- With the creation of an integrated Belgian/Luxembourg market, entry-exit access fees between Belgium and Luxembourg fall away and the Zeebrugge Trading Point (ZTP) is the gas trading point for the integrated market.
- The balancing rules for the two countries are harmonised
- A new joint entity (Balansys) is set up to manage the balancing of the integrated market.
- At the same time, Creos Luxembourg and Fluxys Belgium will keep their distinct identities and organisational structures

LATEST DEVELOPMENTS (3)

- CAM NC:

- through early implementation projects of the Network Code on Capacity Allocation Mechanisms (CAM Network Code), Fluxys Belgium has been progressively adding bundled **hub to hub products** on the PRISMA European Capacity Platform since 2013.
- On 28/10/2015, we successfully completed full implementation (inclusive of within-day products).

LATEST DEVELOPMENTS (4)

- Market Maker Agreements: in order to foster liquidity on ZTP(L), two market agreements have been signed covering the period Q2-Q4 2015. Four MMAs have been signed lately covering civil year 2016, with a noticeable impact on quantities exchanged on trading platforms.
- Greek hub: on 24/11/2014 the Commission of Regulation for Electricity and Gas of Belgium (CREG), the operator of the Belgian natural gas system (Fluxys) and their Greek counterparts, the Regulatory Authority for Energy (RAE) and the operator of the Greek natural gas system (DESFA), have agreed to foster cooperation between Belgium and Greece in the natural gas sector. The aim is to exchange best practices and know-how in market regulation including gas hub developments.

- Module 1 (Hub Creation Feasibility Study) :
 - Scope:
 - > Definition of objective and clarification on motivation
 - > Identification of barriers to trading in current Greek natural gas landscape
 - > Recommendations for an attractive trading landscape, including marketing and operational approach
 - Started: 24/11/2014
 - Report delivered: 7/5/2015
 - Report accepted: 12/6/2015

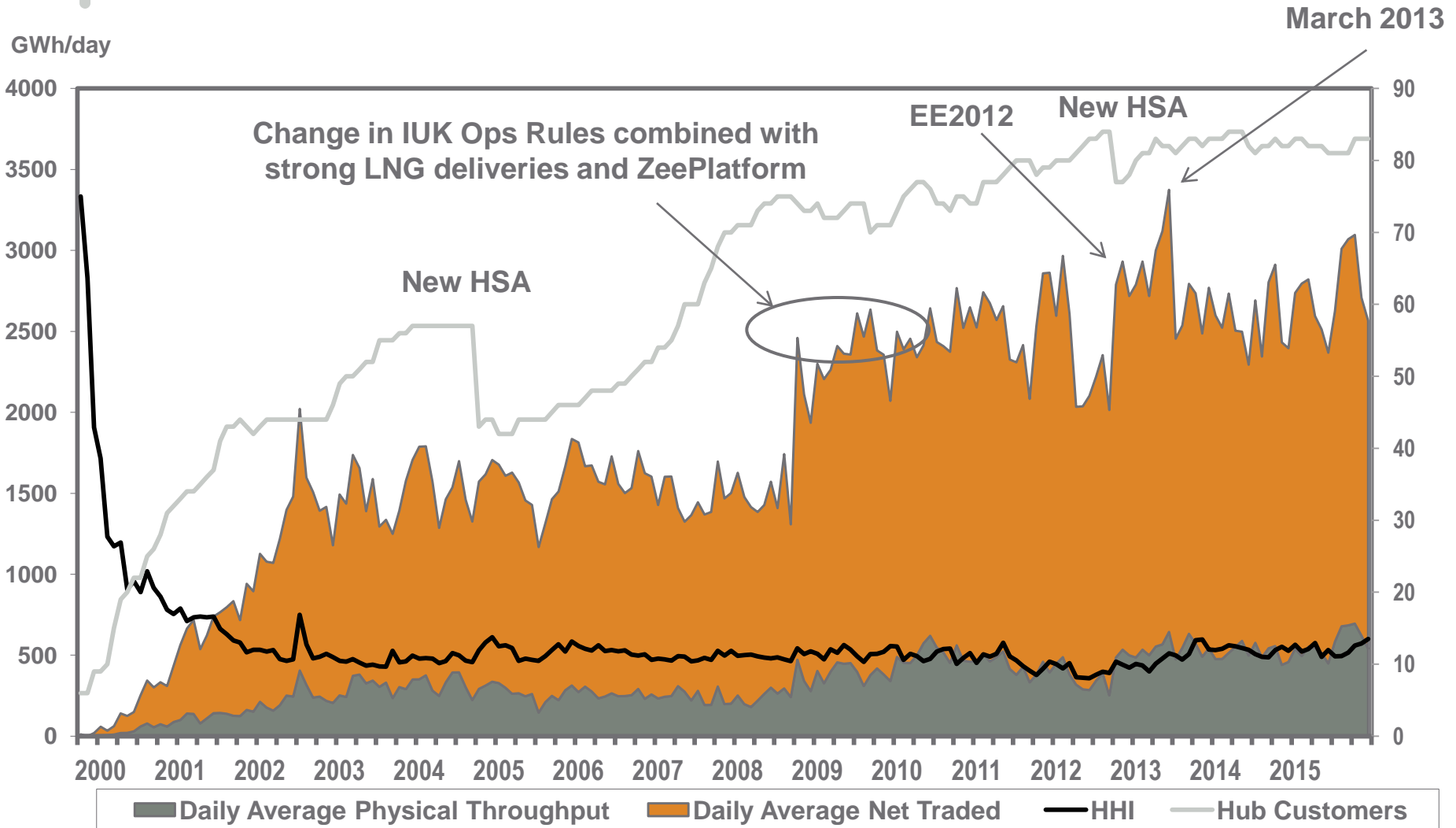
- Module 2:
 - Scope:
 - > Gap analysis & definition of work packages
 - > Stakeholder vision development
 - > Prioritization of work packages & roadmap
 - > Feasibility assessment & preliminary cost analysis
 - > Preliminary project approach & IT roadmap
 - Started: 14/1/2016
 - Deadline: in 3 months



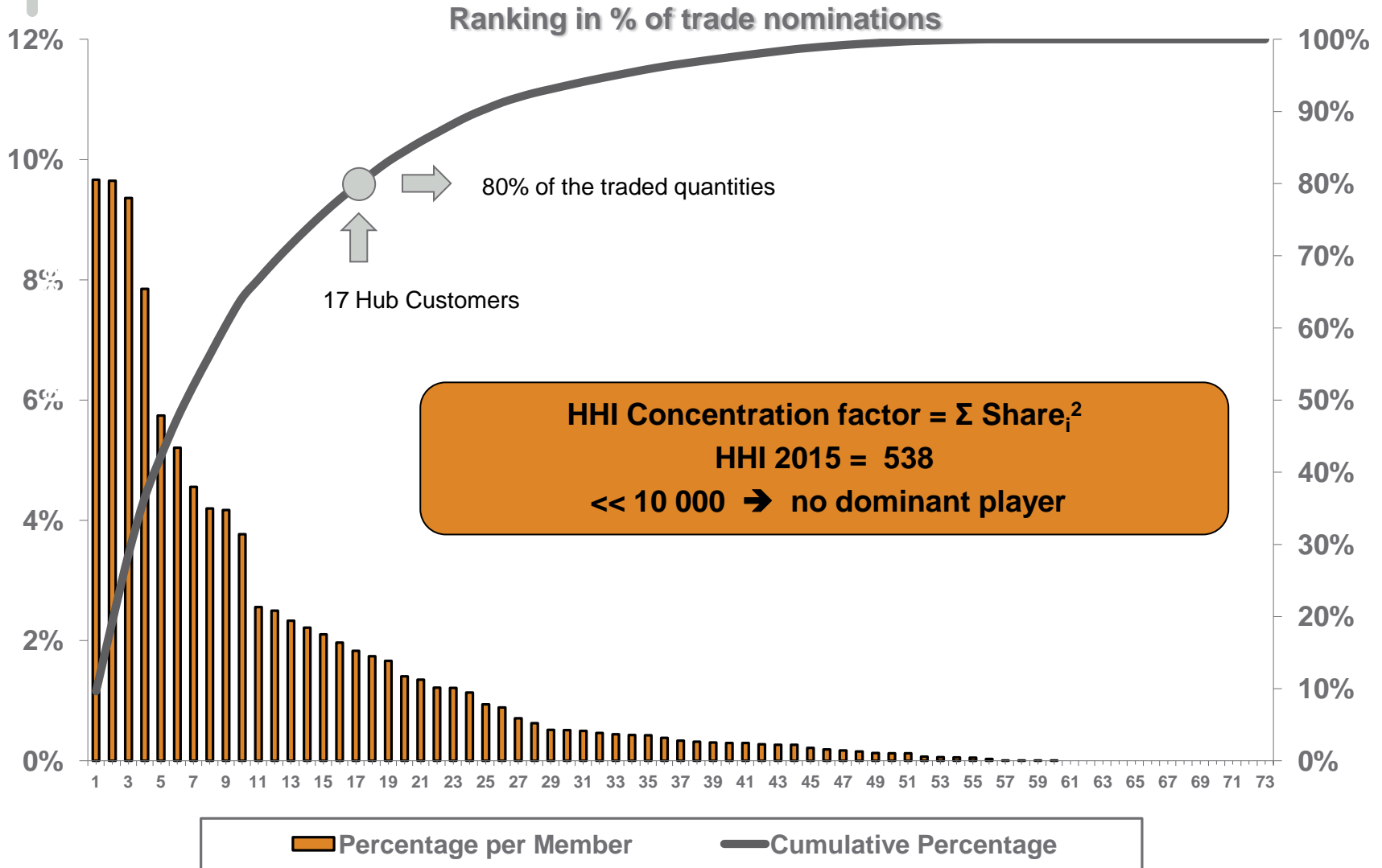
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ZEEBRUGGE BEACH - LIQUIDITY GROWTH

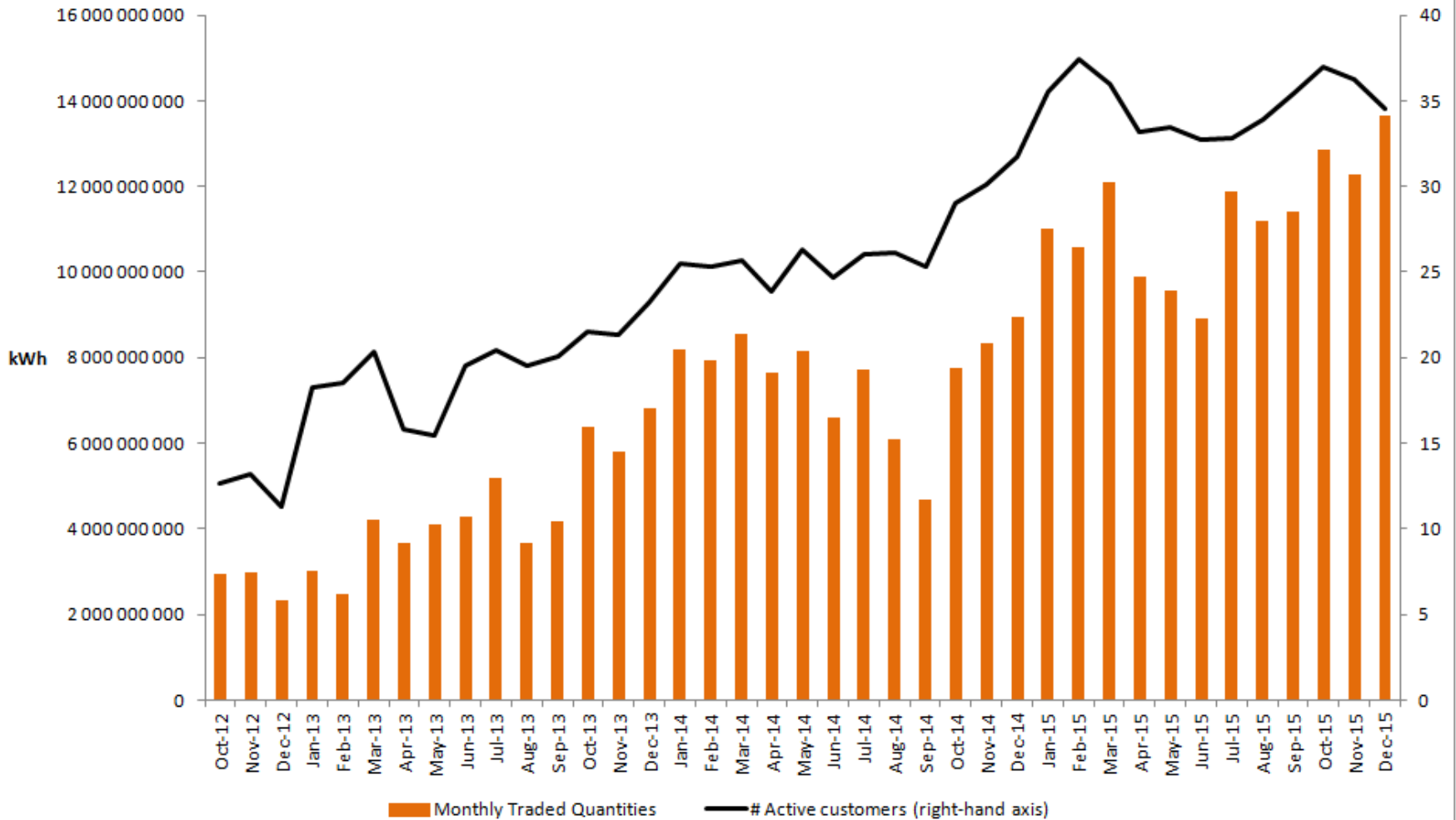


SPREAD OF NOMINATIONS ZEEBRUGGE BEACH 2015



ZTP – LIQUIDITY GROWTH

ZEEBRUGGE TRADING POINT



A FEW FIGURES

- Zeebrugge Beach

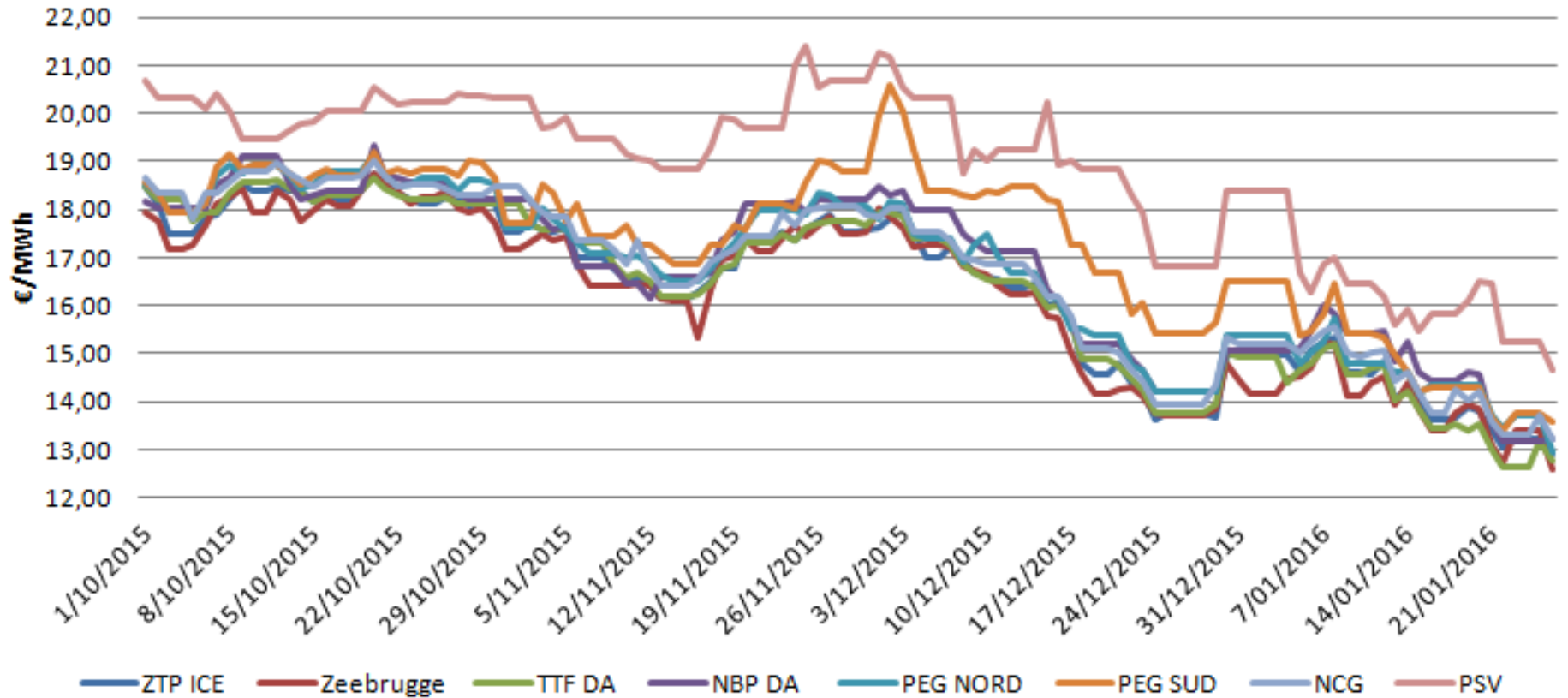
	2014	2015	Difference
Traded Quantities (TWh)	747.2	790.7	+5.8%
Active Customers	50	50	-

- ZTP(L)

	2014	2015	Difference
Traded Quantities (TWh)	96.4	139.2	+44.5%
Quantities on Exchanges (GWh)	252.7	606.9	+140.2%
Active Customers	27	35	+30%

EU PRICES ARE WELL CORRELATED

European Hub Prices





THANK YOU FOR YOUR ATTENTION