

TTF VS. THE REST

WHAT DOES A DOMINANT TTF MEANS FOR OTHER HUBS
AND LIQUIDITY?

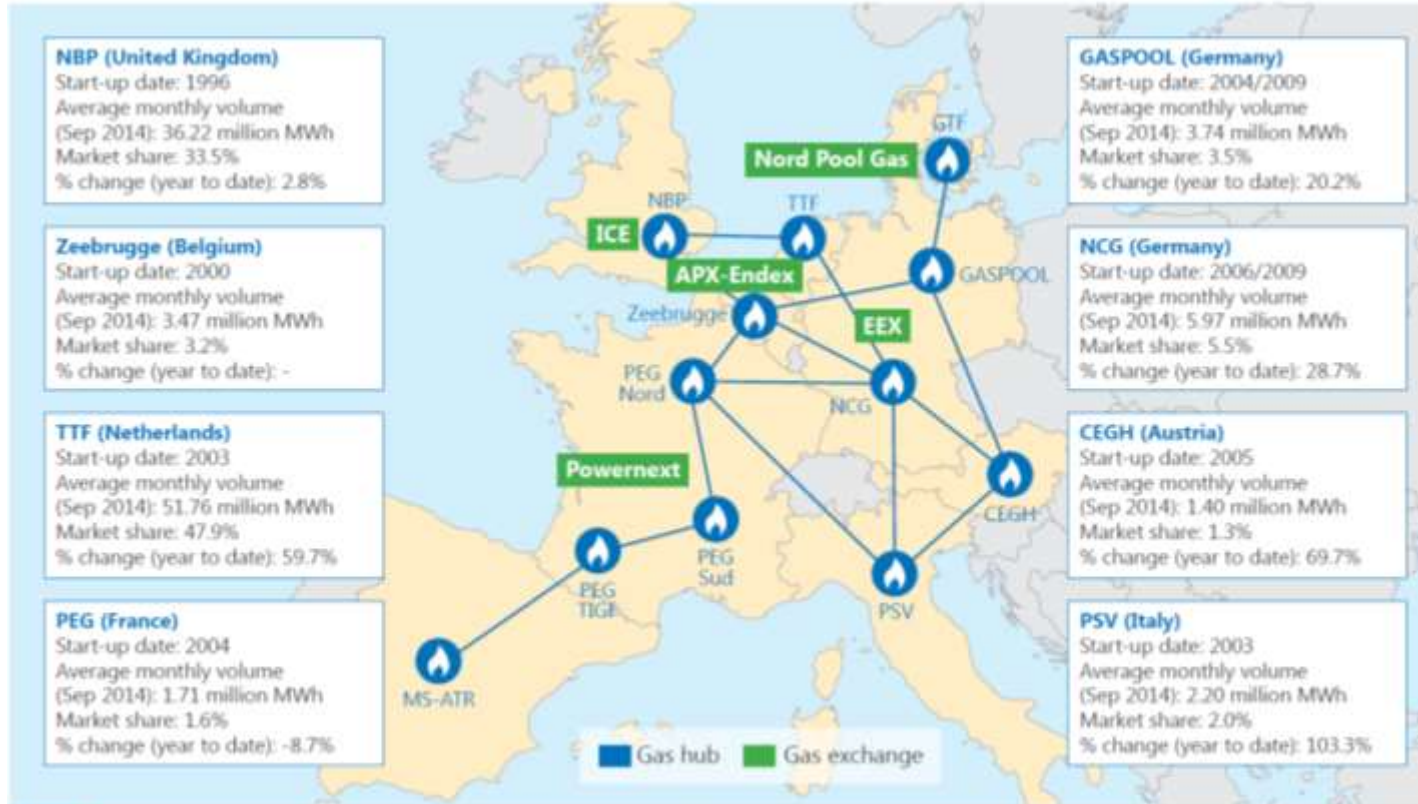
Flame, Amsterdam, May 9th 2017

Lars Mähl, Vattenfall Energy Trading

CONTENT

- Look at Liquidity
- Price Interdependencies
- Impact on other hubs
- So what does it mean

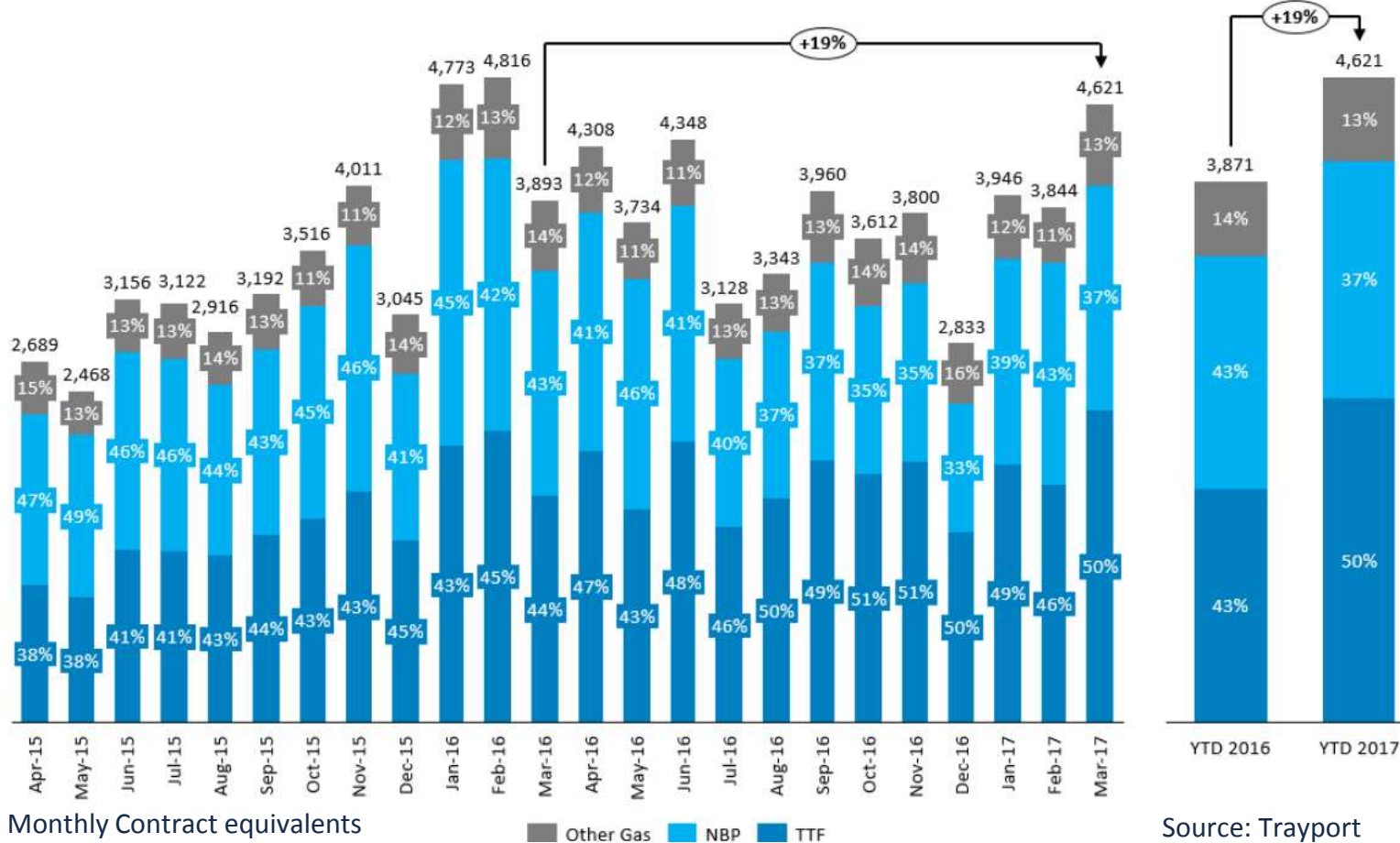
EUROPEAN HUBS - OVERVIEW



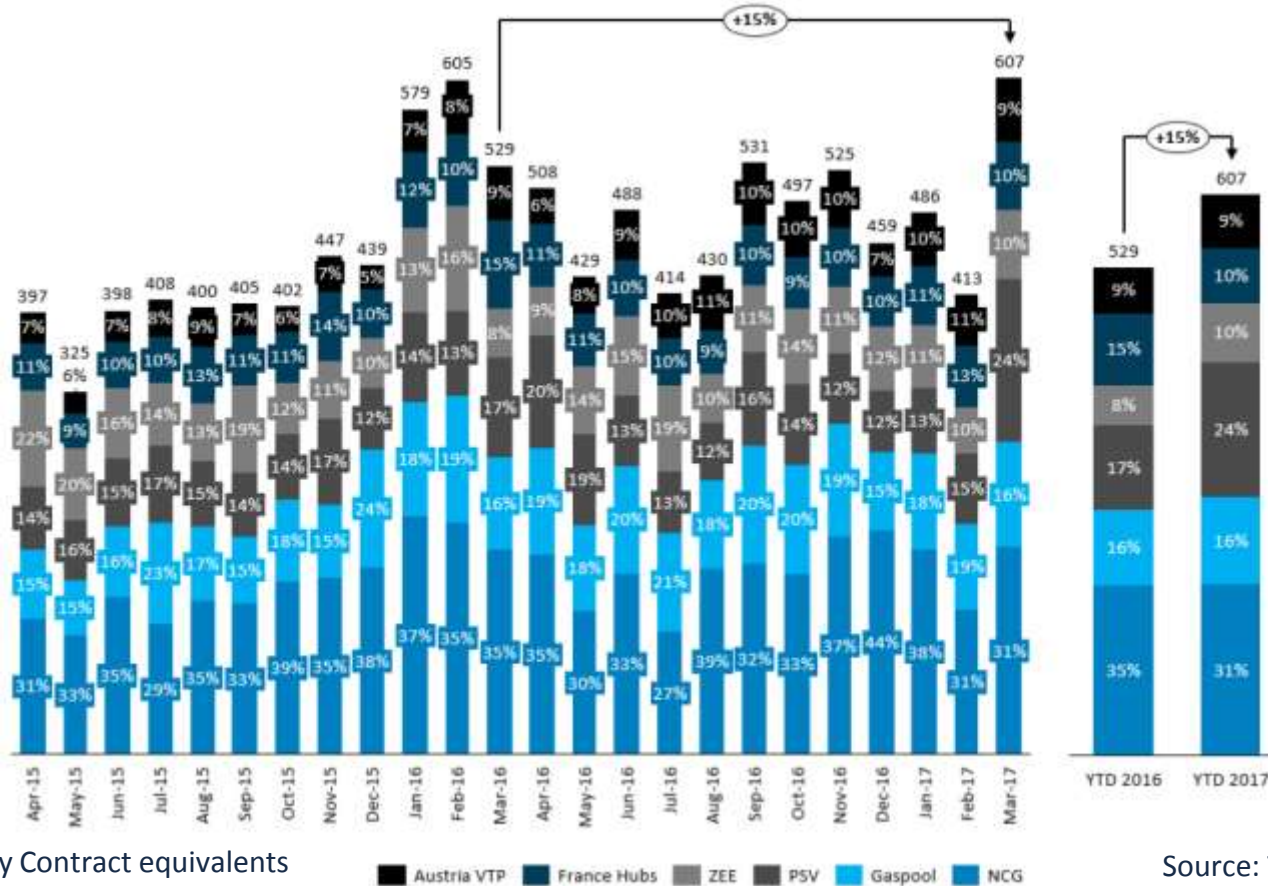
- NBP and TTF longest history
- Highest churn rates
- NCG catching up

Figure 1 European natural gas hubs and exchanges (London Energy Brokers' Association, Interfax)

TTF AND NBP THE MAIN HUBS ...



... WITH NCG, GPL AND PSV 2ND TIER.



- NCG and GPL volumes growing
- PSV driven by storage auctions

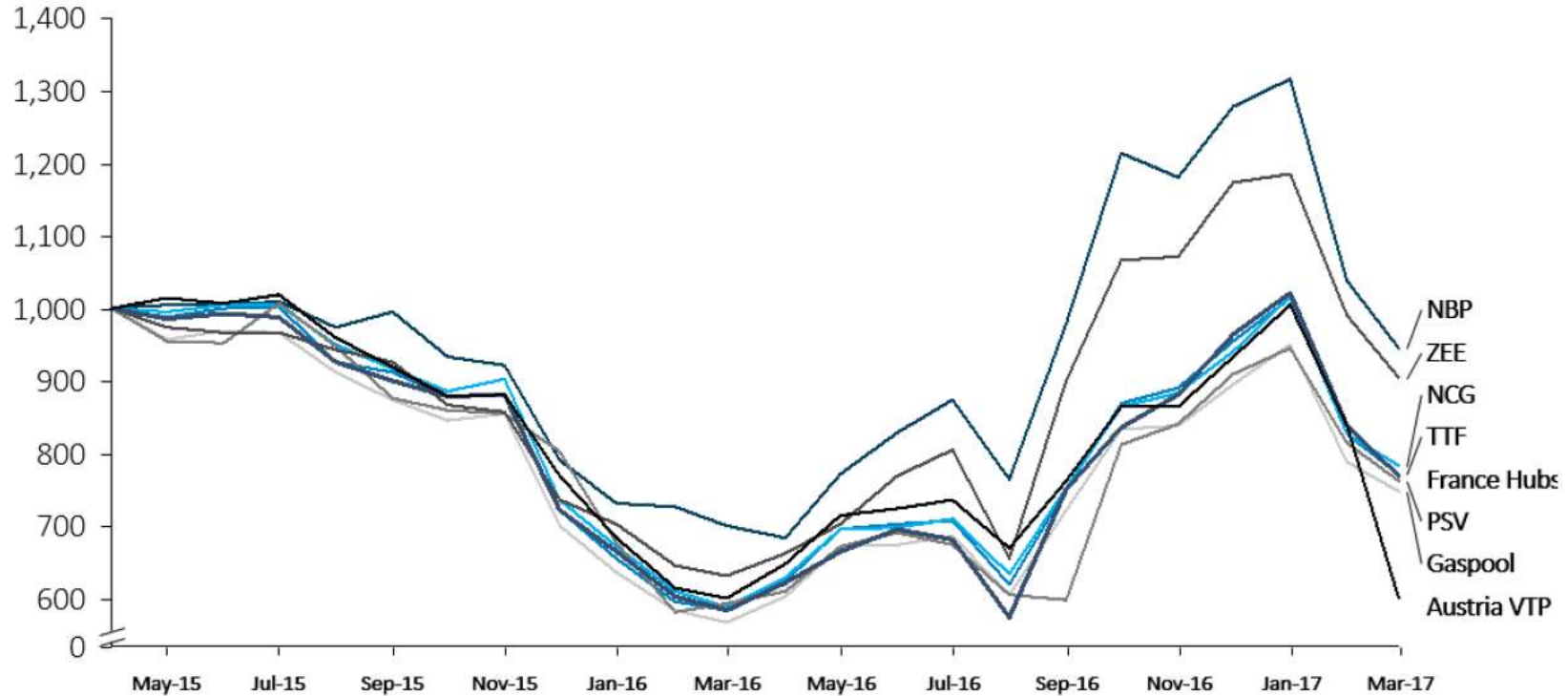
Source: Trayport

HUB LIQUIDITY DEVELOPMENT SUMMARY

- NBP volumes up 1% YoY. Market share split 42% broker bilateral / 9% broker cleared / 49% exchange executed
- TTF volumes up 37% YoY. Market share split 70% broker bilateral / 5% broker cleared / 25% exchange executed.
- NCG volumes up 43% MoM. Market share split 88% broker bilateral / 12% exchange executed.
- PSV volumes 40 – 100 TWh per month, March driven by storage auctions, 99% bilateral brokered
- A-VTP volumes 20 – 50 TWh per month
- PEGN between 20 - 50 TWh per month
- Czech VTP monthly volume between 5 – 20 TWh

Continental trading dominated by bilateral trade vs NBP.

RELATIVE PRICES ON MONTHLY BASIS



YEAR AHEAD PRICES STRONGLY CONNECTED



- Liquidity pools for hedging available but
- ... how about unwinding the hedges?

DAY AHEAD PRICES REFLECT SHORT TERM S&D



SO WHAT DOES IT MEAN?

- TTF now largest trading hub and proxy for hedging NCG, GPL, PEGN and PSV with some basis risk
- NCG and GPL catching up but rather stable the last 18 month → Back-end hedging common with unwinding before delivery
- Austria correlation can be distorted by missing liquidity
- PSV – TTF correlation by definition – what if the price indexation changes
- TTF likely to attract the liquidity going forward

THANK YOU

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