

# THE USE OF GAS INTERCONNECTORS ACROSS THE EU: ANALYSING THE EVIDENCE FROM THE DAY AHEAD MARKETS

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Energy



## **OUTLINE**

- 1. FAPDs: purpose, assumptions, applications, data used
- 2. Working with FAPDs
- 3. Some preliminary observations



## 1.1 FAPDS: PURPOSE AND ASSUMPTIONS

Provide an ex-post metric to measure the consistency of economic decisions of market participants in the context of close to real time operation of the natural gas system

- A1. In a normal market setting with no IC constraints, energy should flow from the low price area to the high price area. Exceptions allowed if transaction cost > 0.
- A2. The nomination decision is based on the information set that was used for the price discovery process.



## 1.2 FAPDS: APPLICATION AND DATA USED

The FAPD approach could be applied to:

data sets with different time frequency.

different pricing mechanisms (auction, continuous, etc.)

In our Quarterly reports we use:

daily and monthly frequency (the price data set comes from Platts and the flow data set comes from TSOs / ENTSO-G)

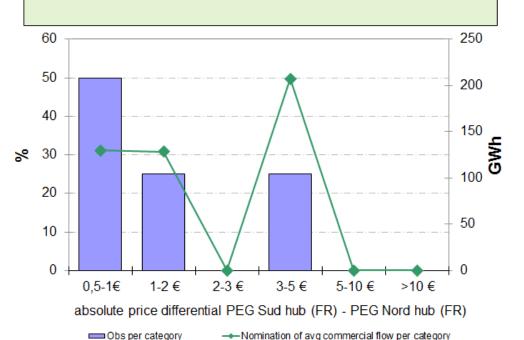
transaction cost threshold = 0.5 EUR/MWh (1p/therm)



## 2.1 Working with FAPDs: FR

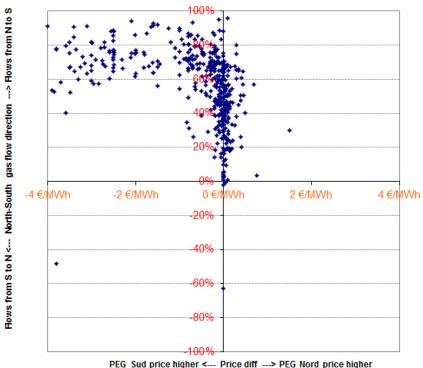
#### gas FAPD PEG Sud\_PEG Nord

In 2011 Q1 - 2012 Q3 4 daily observations out of a total of 435 (0,92 %) were FAPD € 1.16 M out of a total mark-up of € 113,24 M (1,03 %) were exchanged during **FAPDs** 



#### FR PEG Nord - FR PEG Sud Q1 2011 - Q3 2012 :

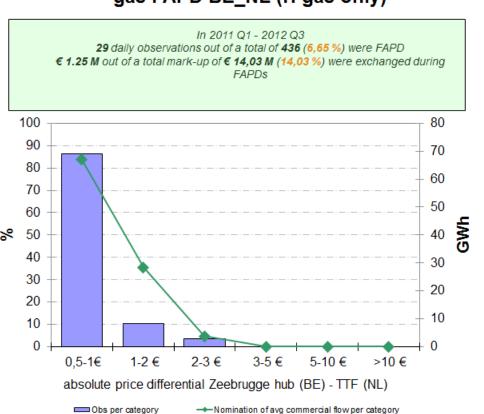
Price differential on the day-ahead vs Nominated flows at the connection of the PEG Nord and PEG Sud balancing zones

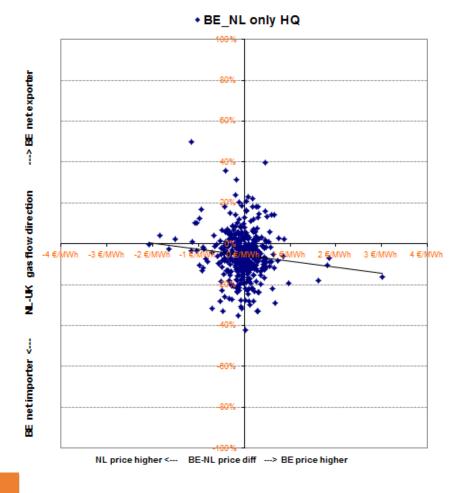




## 2.2 Working with FAPDs: BE-NL

#### gas FAPD BE\_NL (H gas only)



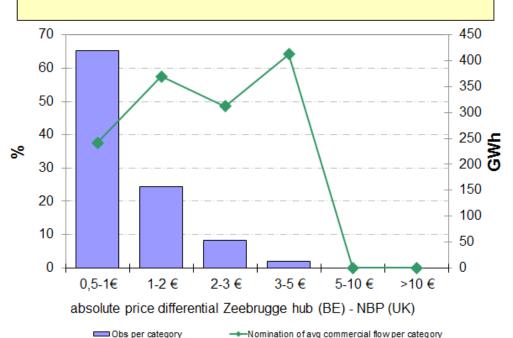


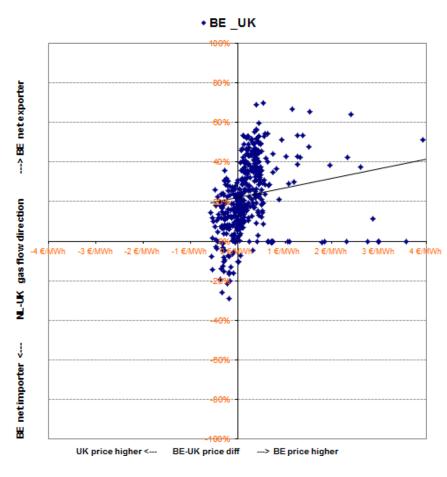


## 2.3 Working with FAPDs: BE-UK

#### gas FAPD BE\_UK

In 2011 Q1 - 2012 Q3 49 daily observations out of a total of 436 (11,24 %) were FAPD € 15.39 M out of a total mark-up of € 34,37 M (44,77 %) were exchanged during FAPDs

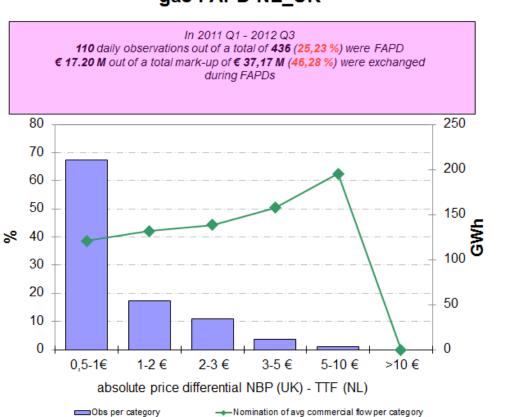


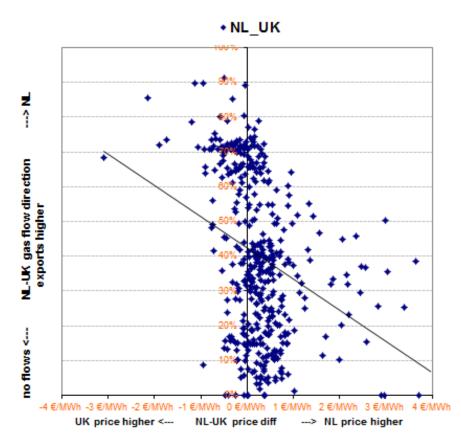




# 2.4 Working with FAPDs: NL-UK

#### gas FAPD NL\_UK







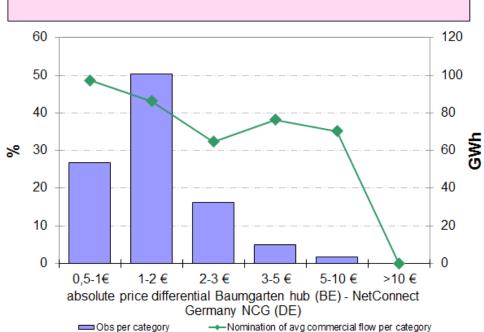
Hows from AT to DE

Hows from DE to AT <---

## 2.5 Working with FAPDs: DE-AT

#### gas FAPD AT\_DE (NCG)





#### AT - DE Q1 2011 - Q3 2012 :

Price differential on the day-ahead (Baumgarten, NetConnect Germany) vs

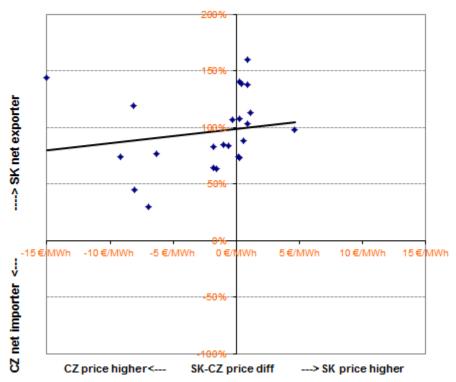
Nominated flows at the DE-AT cross-border point(s)



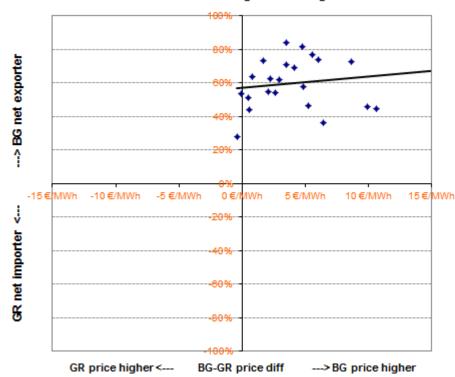


## 2.6 Working with FAPDs: CZ-SK vs BG-GR

 SK-CZ: monthly observations of the differential of estimated prices and interconnection utilisation rate: August 2010 - August 2012



 BG-GR: monthly observations of the differential of estimated prices and interconnection utilisation rate: August 2010 - August 2012





## 3. Some preliminary observations

In hubs with active trade and bilateral flows on ICs, market participants are generally shipping energy in the right direction.

After the day ahead market closes, market participants still have the opportunity to level off their positions on the balancing market. That is why a high level of FAPD does not necessarily equate to irrational behaviour.

Close-to real time transactions represent only a fractional amount of the total trade on gas contracts. The FAPD tool captures just that part of the market and it is not designed to test consistency over the entire price curve.



### More information on:

http://ec.europa.eu/energy/observatory/gas/gas\_en.htm

http://ec.europa.eu/energy/observatory/electricity/electricity\_en.htm



## **THANK YOU FOR YOUR ATTENTION**

