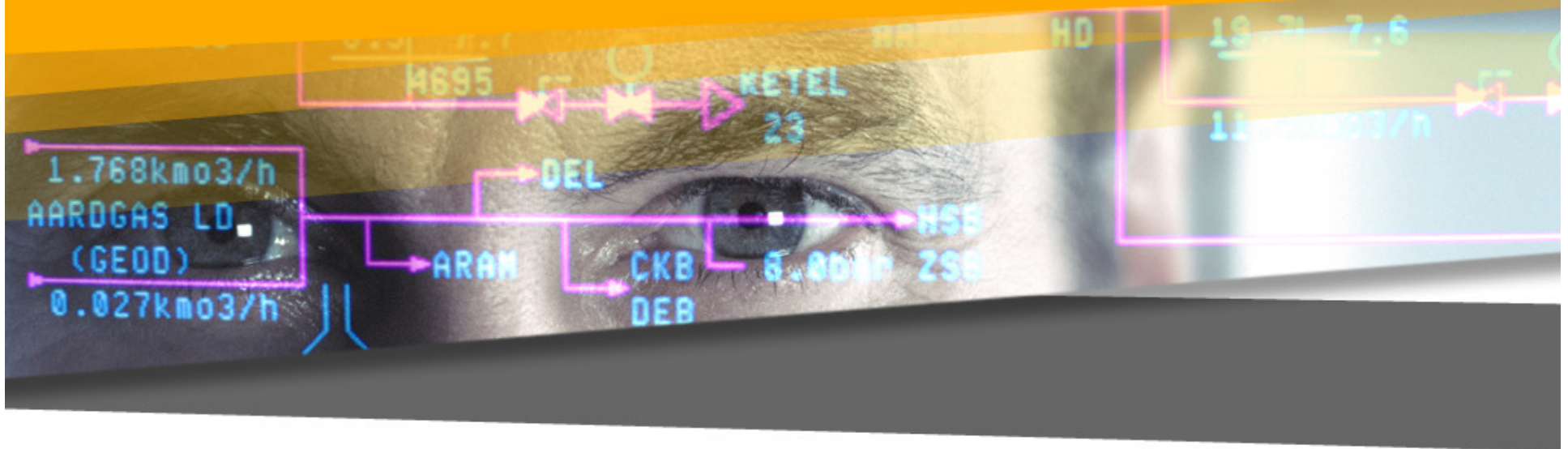


gas transport services

Framework guidelines on balancing views on key principles

Jan Willem van Dijk

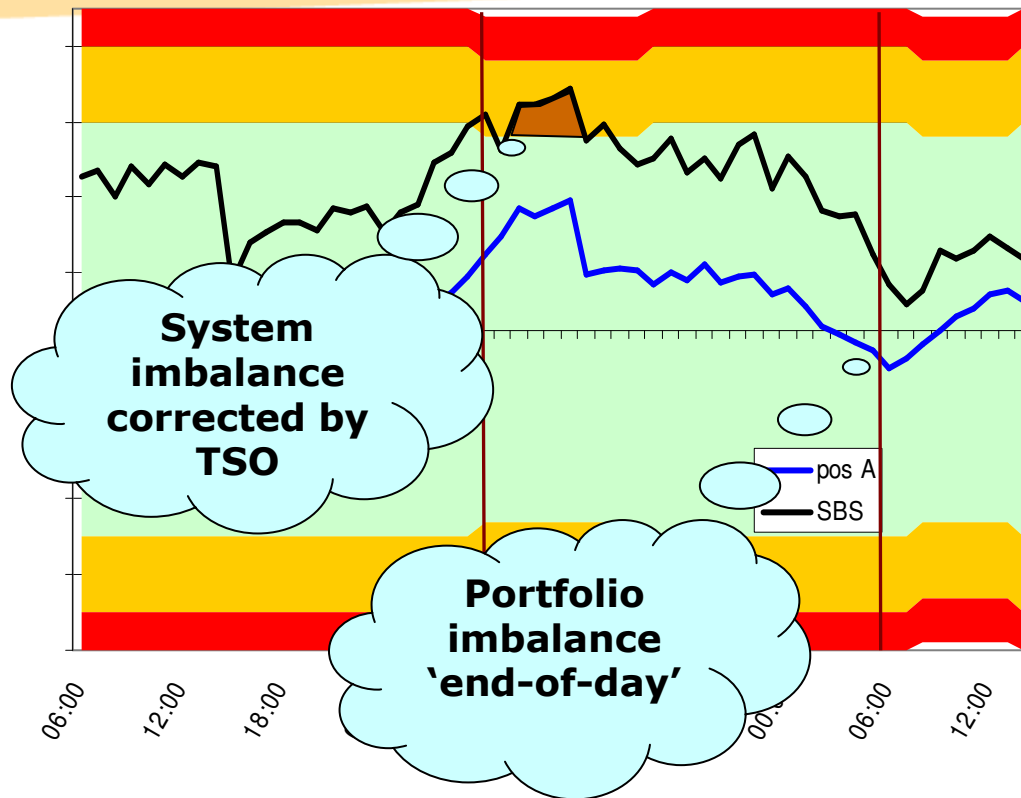


12 october 2010

Key principles target model

- Market responsible for portfolio balancing
 - Access to short term liquid within day markets
 - TSO provides information within balancing period
- TSOs role is residual balancing
 - TSOs procure gas on wholesale market on an equal footing with market
- Participants that contribute to system imbalance should bear reflective costs
 - TSOs provide aggregate/system imbalance information
- **Within day** cross border cooperation: zone merging, TSO balancing, portfolio balancing
- Daily balancing with end of day cash out

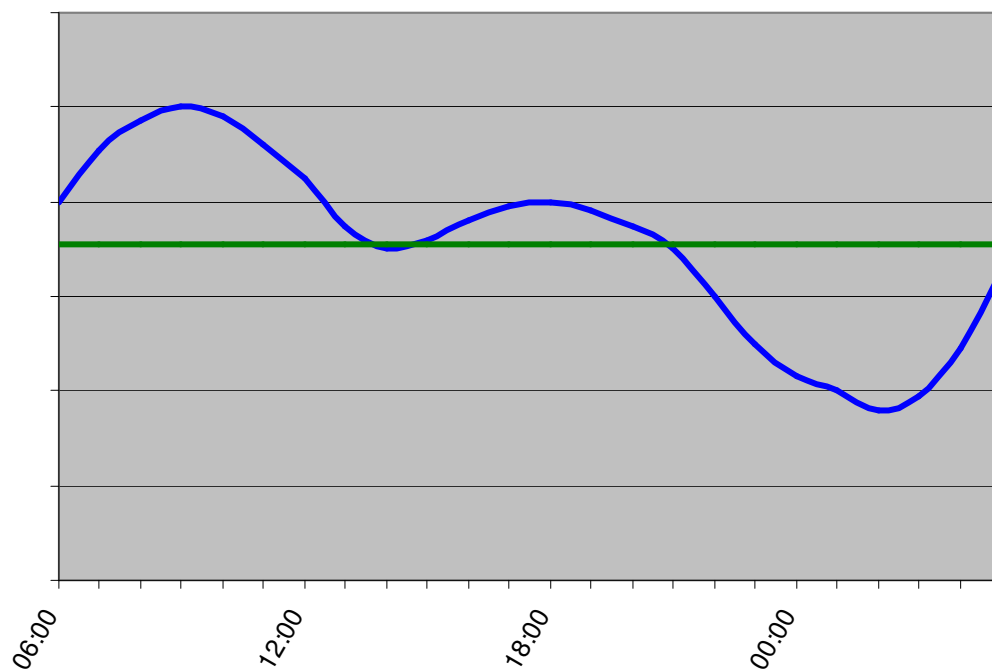
End-of-day balancing



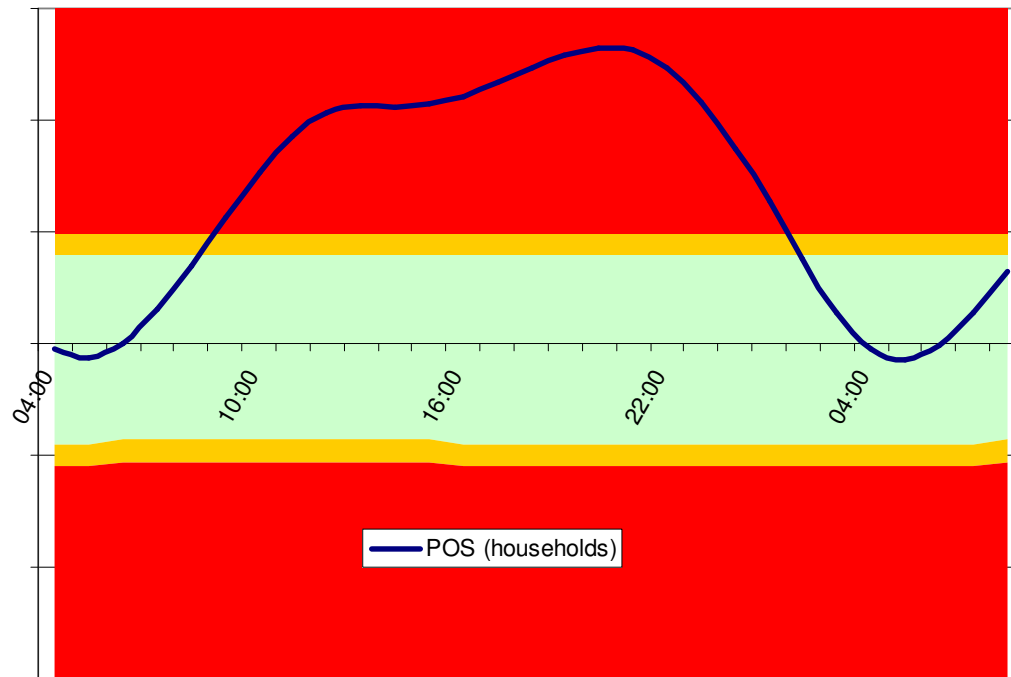
Real time information is available:

- Costs of the system imbalance cannot be allocated to party responsible
- Market based TSO balancing is not possible
- Physical flow restrictions are required
- International TSO cooperation excludes market

Typical Dutch households and small commercial users profile



End-of-day balancing Netherlands



TSO control of “upstream” diurnal storage

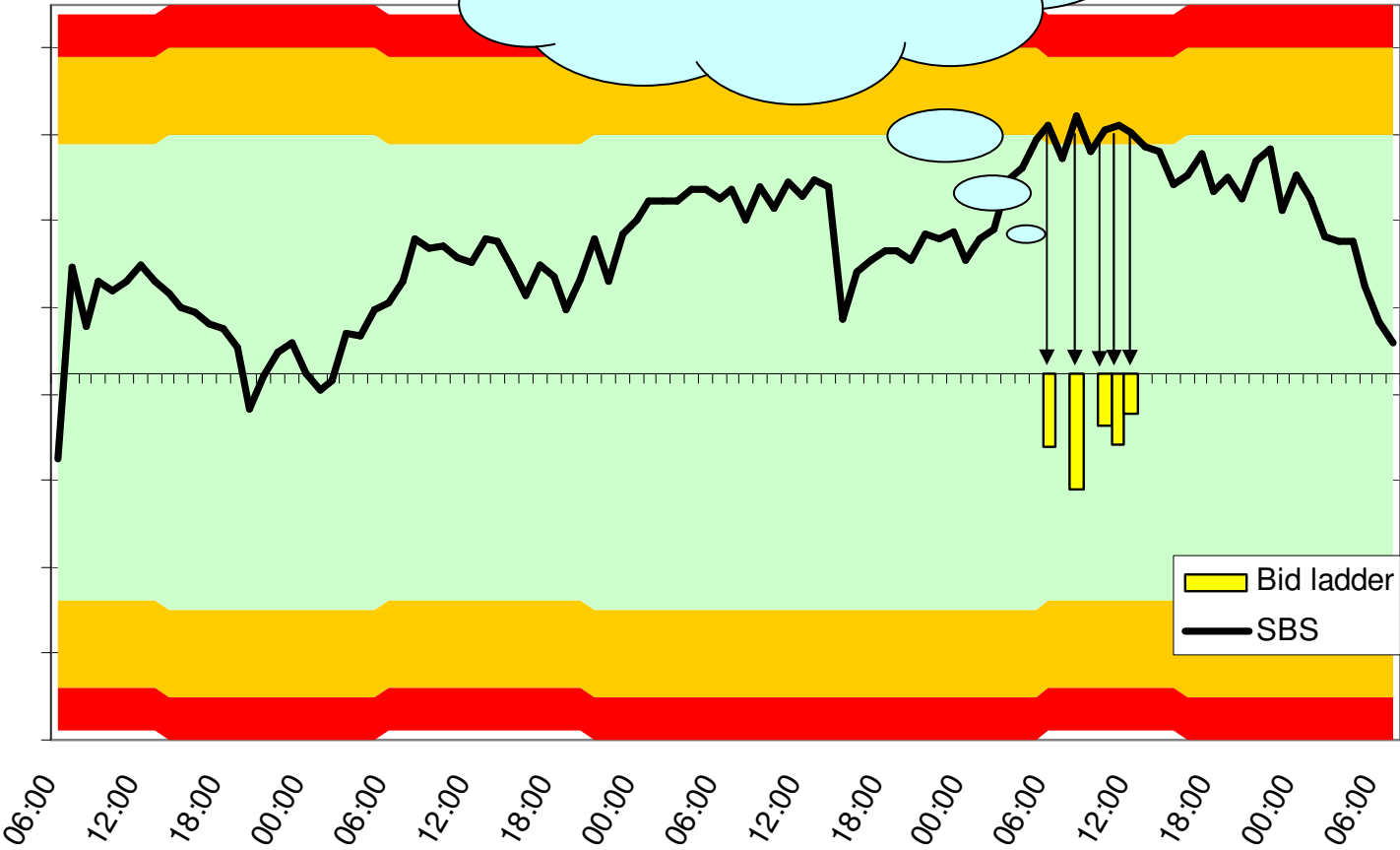
- Abundance of new cross border competitors in diurnal storage
- Decrease of liquidity on intra day market
- Beyond European law

Accept intra day cost reflectivity

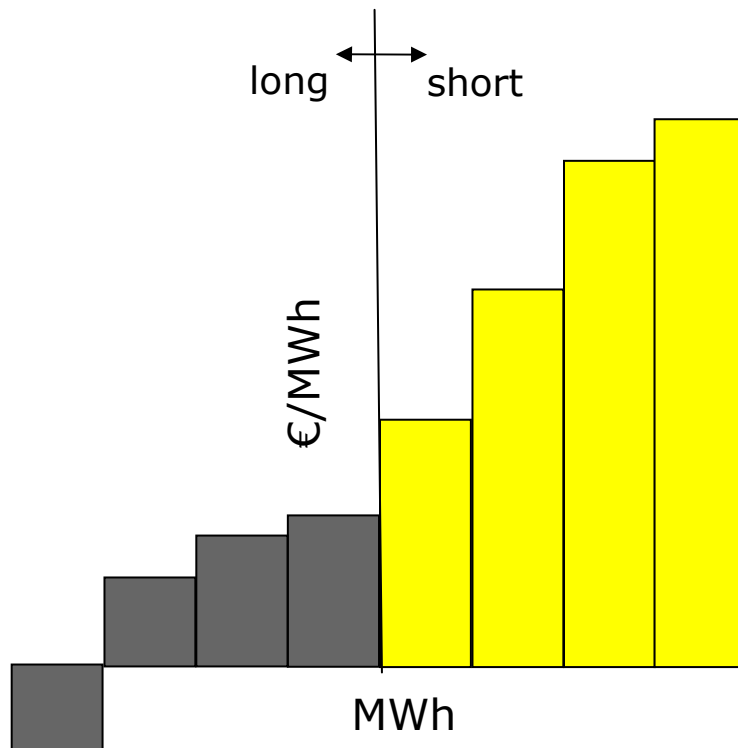
- International competition but at market price

Dutch system in 2011

Crossing the boundary results in a call for gas



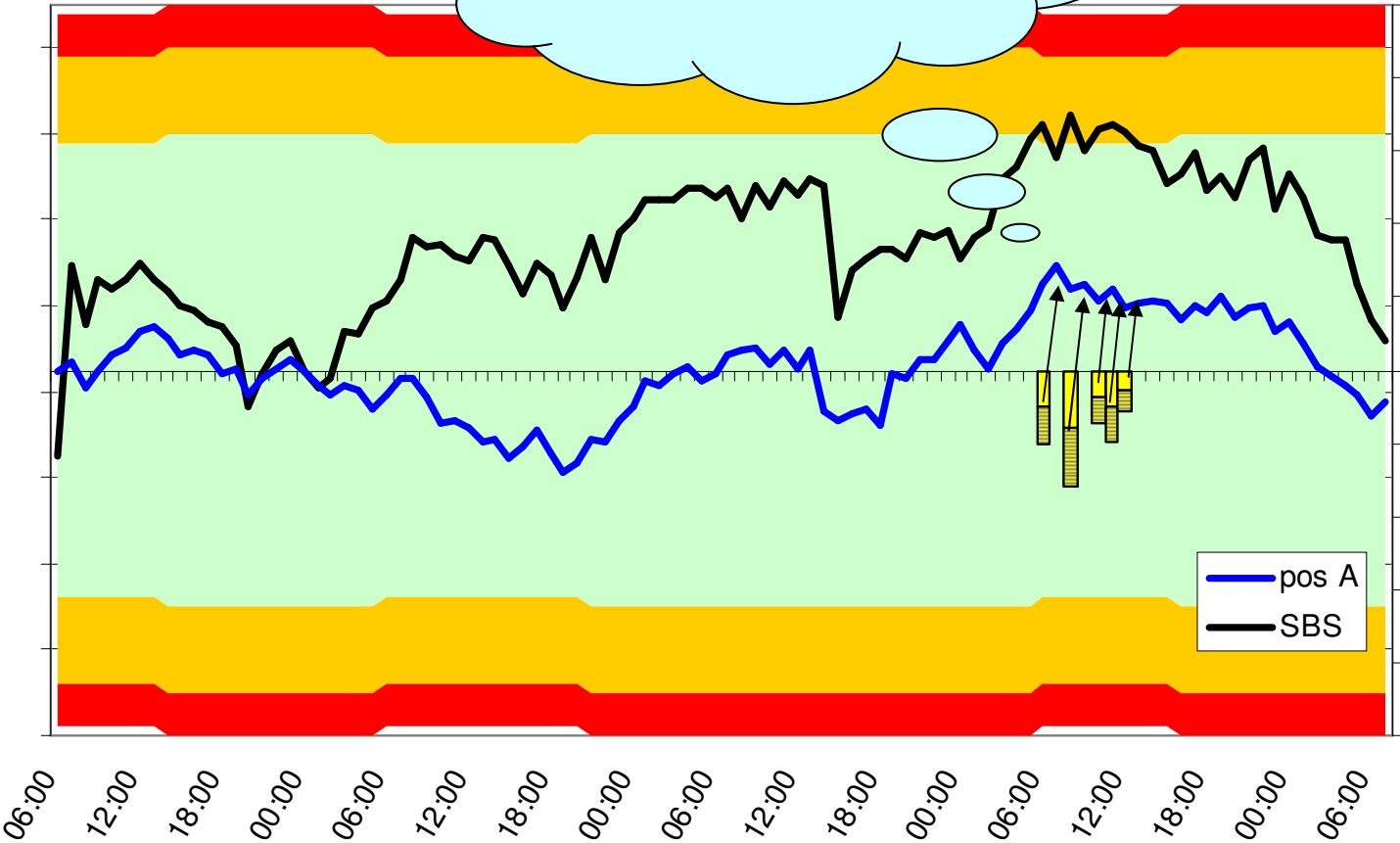
Bid price ladder



- Market offers to TSO
- Marginal price
- Feasibility study to connect platform to gas exchange

Portfolio signal

Gas bought by GTS is allocated to the individual portfolio



Conclusion

- Drawbacks end of day balancing
 - Costs of the system imbalance cannot be allocated to the party responsible
 - Hurdle to market based TSO balancing
 - Constrains within day European transportation flexibility
 - Market is excluded from European TSO cooperation
- End of day balancing is not possible in combination with real time portfolio information
- E of D is not compatible with other f.g. targets
- Pragmatic stepwise approach advocated but....
 - Third package front runners should not be slowed down!