LET´S GET TO THE **POINT.**

The impacts of market changes on the pricing of flexibility of supply of natural gas in Europe

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1. Overview of the most relevant changes in the Gas Storage Markets in Europe in the last few years
2. Impacts of such changes on long term Gas Storage Agreements (GStA)
3. Adjustment Tools in long term GStAs (?)
4. Compare to traditional Adjustment Tools in long term Gas Sales Agreements
5. Traditional Adjustment Tools have their limitations
6. Extraordinary Adjustment Tools in long term GStAs
7. Hardship Clauses
8. Competition Law

Some of the Major Changes influencing Gas Storage in Europe

Less demand for Storage

- **Lehmann crisis reduces demand for gas in industry, consequently lower demand of industry for flexibility.**
- **Gas fired power production is substantially reduced due to**
  - i. **lower demand for electricity;**
  - ii. **lower electricity prices;**
  - iii. **coal becomes best alternative: low coal prices due to US shale gas substituting coal fired power production in US, make coal available on world market;**
  - iv. **subsidization of renewables makes gas fired power production inefficient.**
- **Summer-Winter spread is minimized – no seasonal arbitrage; seasonal storage becomes uneconomical.**
- **Reduced arbitrage possibilities between different national markets reduces demand for storage.**

Some of the Major Changes influencing Gas Storage in Europe

More flexibility supply:

- **More storage facilities become available (2007-2014 storage volume in German speaking markets increases by more than 80%).**
- **Reduced gas demand leads to importers under long term TOP obligation dump gas on hubs; hubs become liquid.**
- **Regulatory changes add liquidity to hubs (transit gas is available at hub) and make hubs accessible across borders (eg German NCG for Austrian demand).**
- **Liquidity of hubs becomes alternative for storage.**

Impacts of such Changes on Storage Markets in Europe

- **Duration of GStA becomes (much) shorter; security of supply has no value; buyers have less reason to accept Store-or-Pay.**
- **Long Term GSA and GStA become non-competitive.**
- **New GStA not longer than 3-5 years; prices of long term Storage lower than short term.**
- **Gas fired power plants (with traditionally high demand for flexibility) are out of the market.**
- **Secondary trading of Storage becomes reality adding to the fall of storage prices.**

Net effect on Storage prices

Until a few years ago

- Flexibility essentially came out of storage and the number of accessible storage facilities was limited;
- Storage was agreed long term;
- Storage was priced based on cost of storage, not on market; indexation was on operating cost of storage, not on market development;
- Due to insufficient hub volumes, no sufficient reliable market data on prices for alternatives to storage was available;
- Whole sellers simply passed on prices for storage and end user had to and did accept for lack of alternatives.

Net effect on Storage prices

Today

- **Flexibility comes out of storage and market liquidity;**
- **Sufficient winter liquidity of gas means summer-winter spread becomes small to nil;**
- **Pricing of flexibility is to market, not based on cost (storage market became competitive);**
- **Storage agreements are short term; no premium/need for long term committment; security of supply becomes political issue only;**
- **Auctions and secondary market for storage developed.**

Traditional Adjustment Tools in Long Term GStAs (?)

- **Traditional Gas Storage Agreements are long term (up to 40 years).**
- **Traditional Gas Storage Agreements are priced and indexed to the (errection and operating) cost of the storage provider.**
- **Traditional Gas Storage Agreements have no Price Review Clause.**
- **Traditional Gas Storage Agreements have 100% TOP (store or pay).**
- **Most GStA contain a hardship clause.**

Compare: Traditional Adjustment Tools in Long Term GSAs

- **Traditional Risk Distribution in long term GSA**
  - Seller bears the price
  - Buyer bears the volume risk

- **Traditional Adjustment Tools modify Pricing Provisions of the Contract**
  - TOP usually lower (around 70-80%)
  - Indexation is to alternative sources of energy
  - Price Review Clause
  - (Occasionally) Hardship Clause

Adjustment Tools in Long Term GSAs - A model for GStA adjustment also?

- **Leave volume risk for the Buyer, but shift price risk to the storage operator?**
- **Index to market (summer winter spread)**
- **Price review will tend to shift end user market risk to storage operator (undesired effect?).**
- **Can a reduction of TOP alternatively do the trick?**
- **In return for reduced TOP, storage providers could be released from having to provide flexibility out of a defined facility (and many are already today).**
- **Will shorter duration of contract (otherwise unchanged) result in a reasonable risk splitting?**
- **Regulated storage prices?**
- **What about security of supply?**

Traditional Adjustment Tools have their limitations

Indexation

- Does not reflect all changes of the relevant market;
- What may be the competitive primary energy source factored into the index may change over time;
- Price setting on liquid markets;
- Does not address all fluctuation of demand.

Price Review Clause

- Trigger (Significant Change)
- Periodicity
- Market value concept in the "market of the Buyer"
- Reflecting price changes of the end product of the buyer?
- Taking the past to define the future (always the wrong price?)
- No change of other contract terms (TOP; contract quantity; Term)

(Extraordinary) Adjustment Tools in long term GStAs

- Hardship / Loyalty Clause
- Competition Law

Extraordinary Adjustment Tools in long term GStAs

Hardship Clauses

- **Trigger event:**
  - External, frustrating, fundamental, irreversible (excessively onerous)
  - Economic, regulatory and/or technical circumstances prevailing at time of contracting have changed
  - Unforseeability
  - Will a claim lie if there is no hardship clause in the agreement?

- **Agreements to agree:**

  Enforceability?
  - Depending on Jurisdiction (common/civil law) and specific wording
  - Adjustment criteria and adjustment objective should in any case be defined in “sufficient” clarity to allow application by court
  - *“ex aequo et bono”* clause – increases application options

Hardship Clauses

- **Are the reasonable expectations of a party when contracting a prevailing circumstance at time of contracting, which, if unfulfilled, justifies adjustment?**
- **Is the change fundamental/reversible (look into future of agreement)?**
- **Was the change forseeable?**
- **Is unconscionability of the situation for plaintiff a precondition for the claim?**
- **Must plaintiff prove this is a loss making agreement?**
- **What remedy? Adjust or rescind? Balance economic interest of the parties. Is the change requested acceptable for defendant? Is defendant‘s cost structure relevant?**
- **Adapt price to market? Adapt duration and/or TOP?**

Extraordinary Adjustment Tools in long term GSAs

Competition Law

Art 102 TFEU

- **Prohibits an abuse by one or more dominant undertakings affecting trade between member states;**
- **Abuse may, in particular, consist in**
  - Imposing unfair (purchase or) selling prices
  - Imposing other unfair trading conditions
  - Applying dissimilar conditions to similar/equivalent transactions

Extraordinary Adjustment Tools in long term GStAs

Competition Law

- **Art 102 TFEU does NOT stipulate an express EU law legal consequence of a violation**
- **Legal consequences to be determined by applicable law**
- **Recognized legal consequences**
  - Nullity of the abusive contract term
  - Potential adjustment of the abusive term
- **The effects on the remaining parts of the contract are to be determined under the applicable law that governs the GStA**

Extraordinary Adjustment Tools in long term GStAs

Competition Law

Art 102

- **Establishing dominance at what point in time?**
- **Can a development of the market in effect be attributed to a dominant undertaking?**
  - Long term effects of the original contract (preserving dominance)
  - Refusal to adjust

Extraordinary Adjustment Tools in long term GStAs

Competition Law

Art 101

- **Long-Term GStA = a vertical agreement which has the object or effect of market partitioning/foreclosure and thereby directly or indirectly restricting competition**
- **<u>Legal consequence</u>: void partially or totally under applicable contract law**
- **80% of demand, 5 years; 30% market share**
- **Bundling effect vs. obligation to treat equal**

Extraordinary Adjustment Tools in long term GStAs

Competition Law

Art 101

- **Who bears the (competition law) risk of fluctuating demand of the buyer?**
- **Is a slipping of the seller's market share relevant?**
- **Can the seller argue no foreclosure if the buyer has no demand?**

Extraordinary Adjustment Tools in long term GStAs

Competition Law

In summary

- **May allow attack on price, indexation, but also on other contract terms eg. TOP and duration**
- **Has procedural beauties**
  - Challenge of award?
  - Jurisdiction of the competition courts despite arbitration clause

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