Market-based balancing

Colin Lyle, EFET Gas Committee Chairman

GTE+ workshop
3 April 2009, Brussels
The Madrid Forum Objective

Practical implementation

Compliance & Conclusions
Conclusion 34 of the 11th Madrid Gas Forum:

“The Forum agreed that balancing regimes should converge to a market based approach and stressed that regional balancing markets must be compatible with the goal to achieve a single European gas market and invited all stakeholders to accelerate the process.”
MARKET-BASED BALANCING
Illustration of the Developing EU Gas Market

Regulated, Independent Network Operators

Trading Hubs set Market Prices

LNG Interconnectors

Competing Producers

Competing Suppliers

Industrial & Commercial

Customer Choice of Suppliers

Residential

Colin Lyle, EFET Gas Committee
Brussels 3rd April 2009
MARKET-BASED BALANCING
An integral part of Europe’s gas trading system

✦ The Forward market
  • Forward maturities facilitate investments, promote effective competition, efficient operations & maintenance, efficient risk management
  • Important to be based on a solid physical underlying price.

✦ The Day-Ahead market
  • Participants optimise their physical and financial positions.
  • Physical underlying price based on demand & supply (incl. congestion).

✦ The Intra-day market
  • Fine-tune physical positions on a very short basis
  • avoid imbalances during (physical) delivery and reduce costs

✦ The Balancing market
  • Grid Operator and shippers cover their balancing needs
  • Ultimately, the balancing market is part of the intra-day market.
  • The market facilitates the residual balancing role of Grid Operator
MARKET-BASED BALANCING
Removing the barriers to help the market to work

Colin Lyle, EFET Gas Committee  Brussels 3rd April 2009
MARTET-BASED BALANCING Structure

Contents:

- The Madrid Forum Objective
- Practical implementation
- Compliance & Conclusions
EFET recommended the implementation of within-day balancing markets in Europe. The effects of this will be:

- reduction in the costs of balancing for TSOs
- provision of better economic signals to ensure within-day market response and timely investment decisions
- provision of cost-reflective cash-out prices based on the cost the TSO actually incurs in bringing its system into balance
- improvement of liquidity in the traded market
- increase in information transparency*

(*e.g. quantities, locations and prices of balancing actions are essential)
MARKET-BASED BALANCING - IMPLEMENTATION
Difficulties in meeting balancing obligations

- Lack of information
- Lack of flexibility available to the market
- Non-market based imbalance charges
- Other factors, for example
  - balancing zones are generally too small
  - not clear that balancing periods are optimal
  - lack of responsiveness from gas sources

- For residual balancing only, TSOs need the right to use the market.
- TSO recovery of efficiently incurred costs in fulfilling their obligations.
- Continuous regulatory investigations to establish efficiently incurred costs until a balancing market is in place?
MARKET-BASED BALANCING - IMPLEMENTATION
Traded markets are needed for clear price signals

Virtual hub (in-grid balancing point)

Physical hub (e.g. border point)

Trading hub with little or no price transparency

NB. Not all trading locations are shown
Large trading hubs are needed for sufficient liquidity.

Gas takes far longer to travel than electricity.

High economic cost of full interconnection across whole of EU.

EU gas market will be a series of ‘pools’ rather than a ‘copper plate’

LNG and pipeline gas need access to balancing pools.
MARKET-BASED BALANCING - IMPLEMENTATION

Importance of the provision of flexibility

- Allowing bids and offers on the day, enables cheaper sources of flexibility compared to an annual option

- TSO reduces costs by buying and selling gas only when required

- Flexibility offers via a screen based balancing market:
  - Enables the ability to buy or sell within-day gas to be used
  - Screen-based transactions give transparent information on
    - current prices & actions taken by TSOs to balance the system
    - the marginal price of gas used to balance the system
    - the total costs of balancing the system on any given day.

- Long-term flexibility options acquired by TSOs tend to distort the market, and should be phased-out as liquid balancing markets are developed.
MARKET-BASED BALANCING - IMPLEMENTATION

Additional considerations

TSO neutrality
- charges or rebates can be ‘smeared’ across all system users
- vertically integrated companies can outsourcing system balancing

Regulatory measures
- dominant wholesalers could agree with regulator to make flexibility available on a day, within an agreed bid/offer spread

Transitional measures (phased out as liquidity increases)
- Retain some annual flexibility contracts
- Book some gas in store (e.g. A ‘Balancing Margin’)

TSO incentives

Shipper incentives

Other balancing considerations
- improved interconnection, ability to buy/sell within day …
The Madrid Forum Objective
Practical implementation
Compliance & Conclusions
The GTE+ objective should be to help TSOs to comply with the Madrid Forum objective, not to re-write the guidelines to fit with the status quo.

The eventual new balancing guidelines/code will need to look forward to the market requirements in 2012 and beyond.

Balancing cannot be implemented in isolation, other features of market development are essential to provide sufficient flexibility.

In particular, information provision by TSO and/or the balancing agent must attain the highest standard.
Balancing markets significantly improve efficiency through more accurate economic signals and wider participation.

Temporary, transitional measures can provide safeguards for specific concerns around levels of market maturity.

For gas, a daily-balanced regime should enable greatest liquidity, with an intra-day balancing market operating to achieve a system balance by the end of the balancing period.

Failure to implement even the existing ERGEG guidelines is not acceptable. Now is the time to move forward towards fully functioning balancing markets across Europe.

EFET offers to work with TSOs and regulators to help agree plans for the changes that are necessary to enable full implementation of market-based balancing.