



European Federation of Energy Traders

## **Market-based balancing**

Colin Lyle,  
EFET Gas Committee Chairman

***GTE+ workshop***

***3 April 2009, Brussels***



## Contents:

- The Madrid Forum Objective
- Practical implementation
- Compliance & Conclusions

# MARKET-BASED BALANCING

The goal was formally agreed in 2006

---

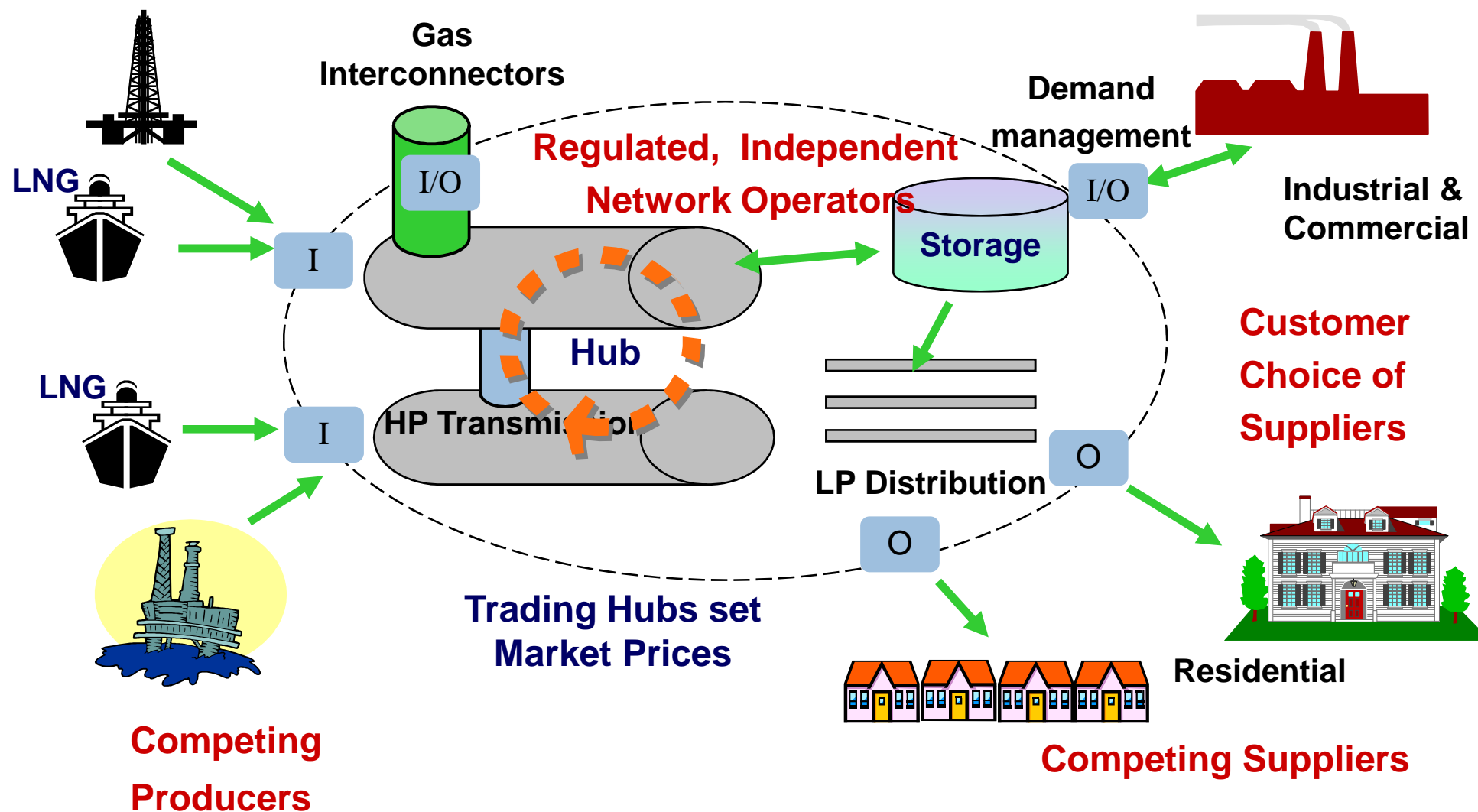


Conclusion 34 of the 11th Madrid Gas Forum:

**“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



# MARKET-BASED BALANCING

## An integral part of Europe's gas trading system

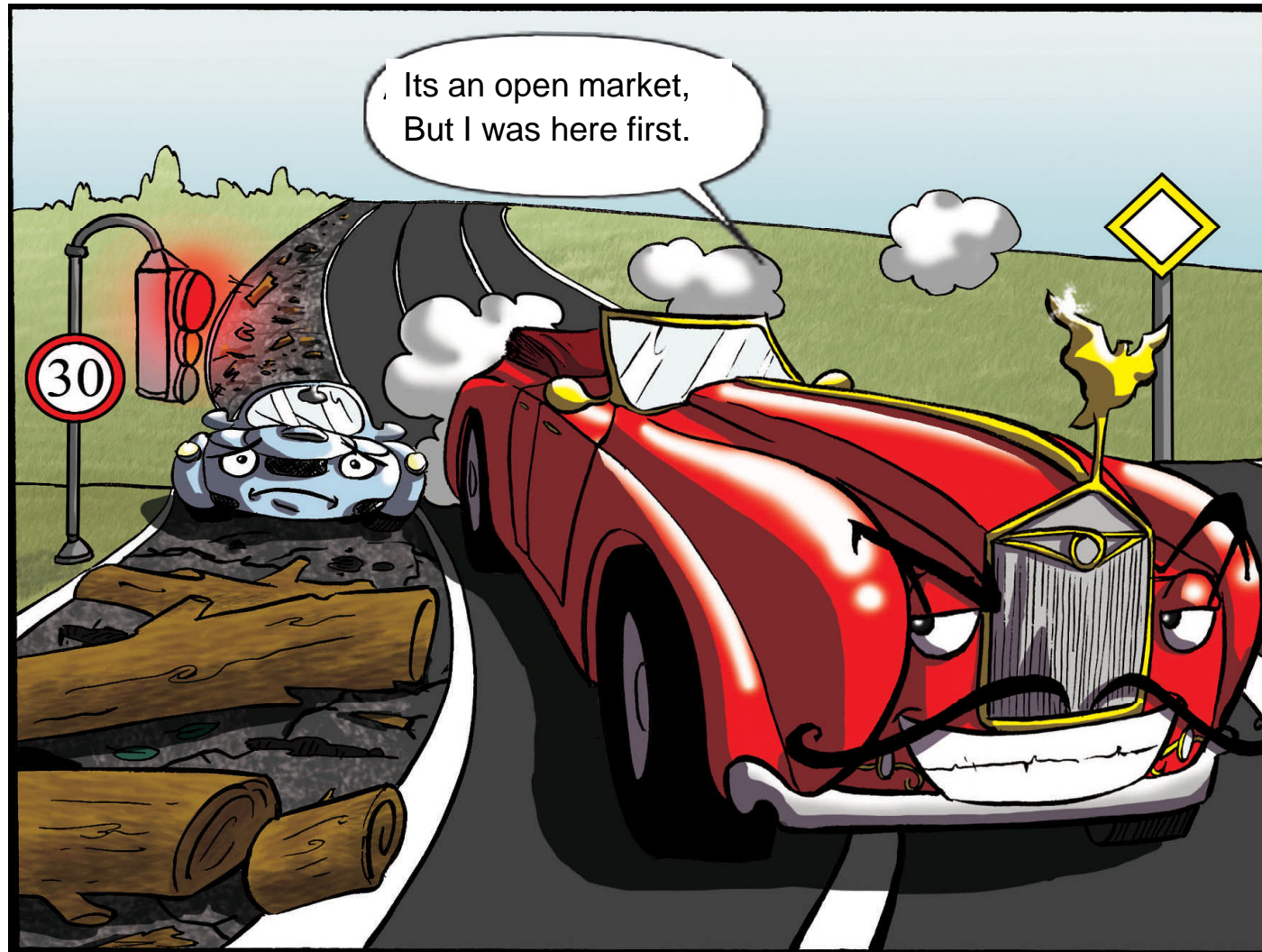
---



- ➞ 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



# MARKET-BASED BALANCING

## Structure

---



### Contents:

- The Madrid Forum Objective
- Practical implementation
- Compliance & Conclusions

# MARKET-BASED BALANCING - IMPLEMENTATION

## Key reference – EFET May 2008 paper

---



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

---



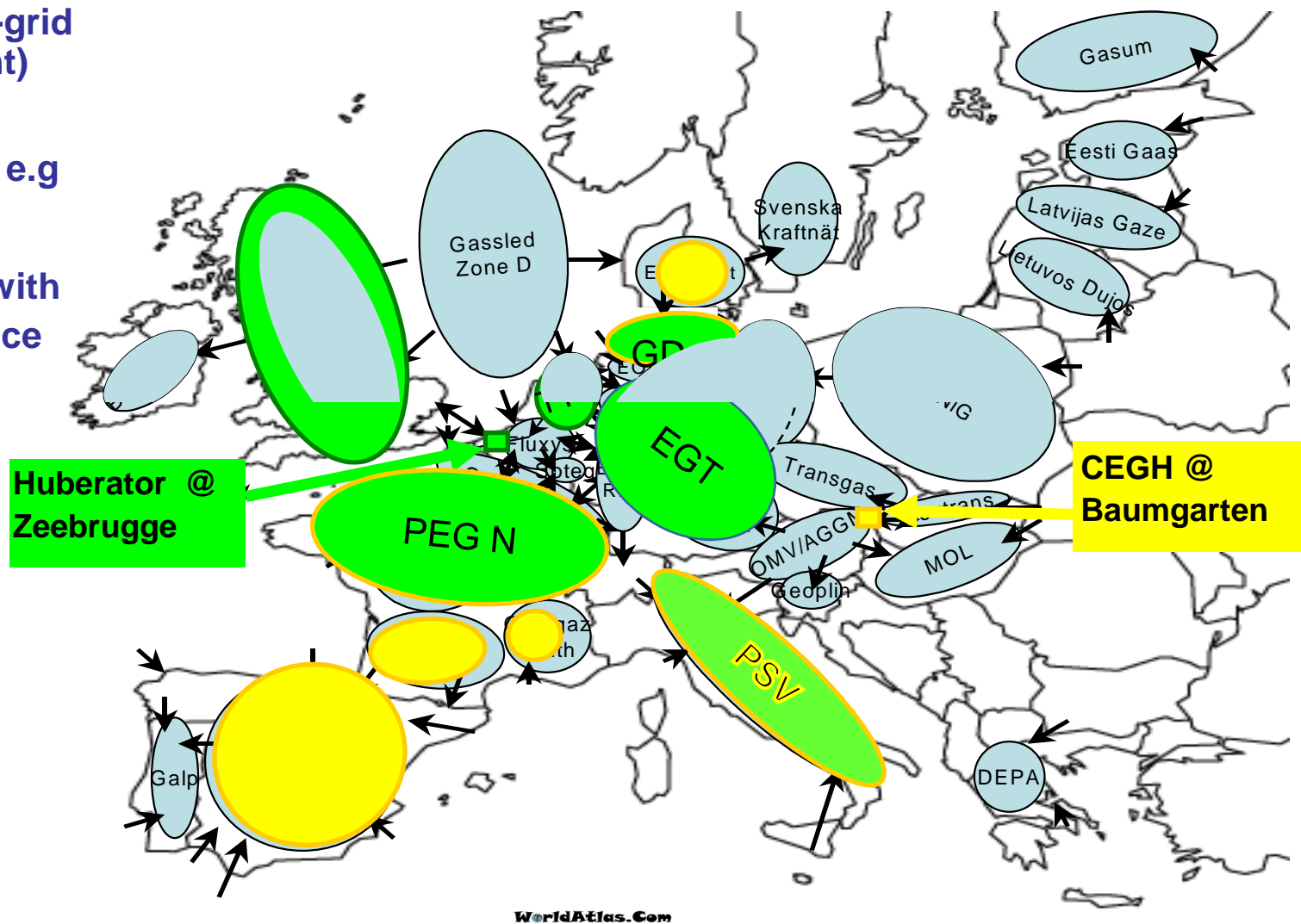
- ➡ Lack of information
  - ➡ Lack of flexibility available to the market
  - ➡ Non-market based imbalance charges
  - ➡ Other factors, for example
    - balancing zones are generally too small
    - not clear that balancing periods are optimal
    - lack of responsiveness from gas sources
- 
- For residual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



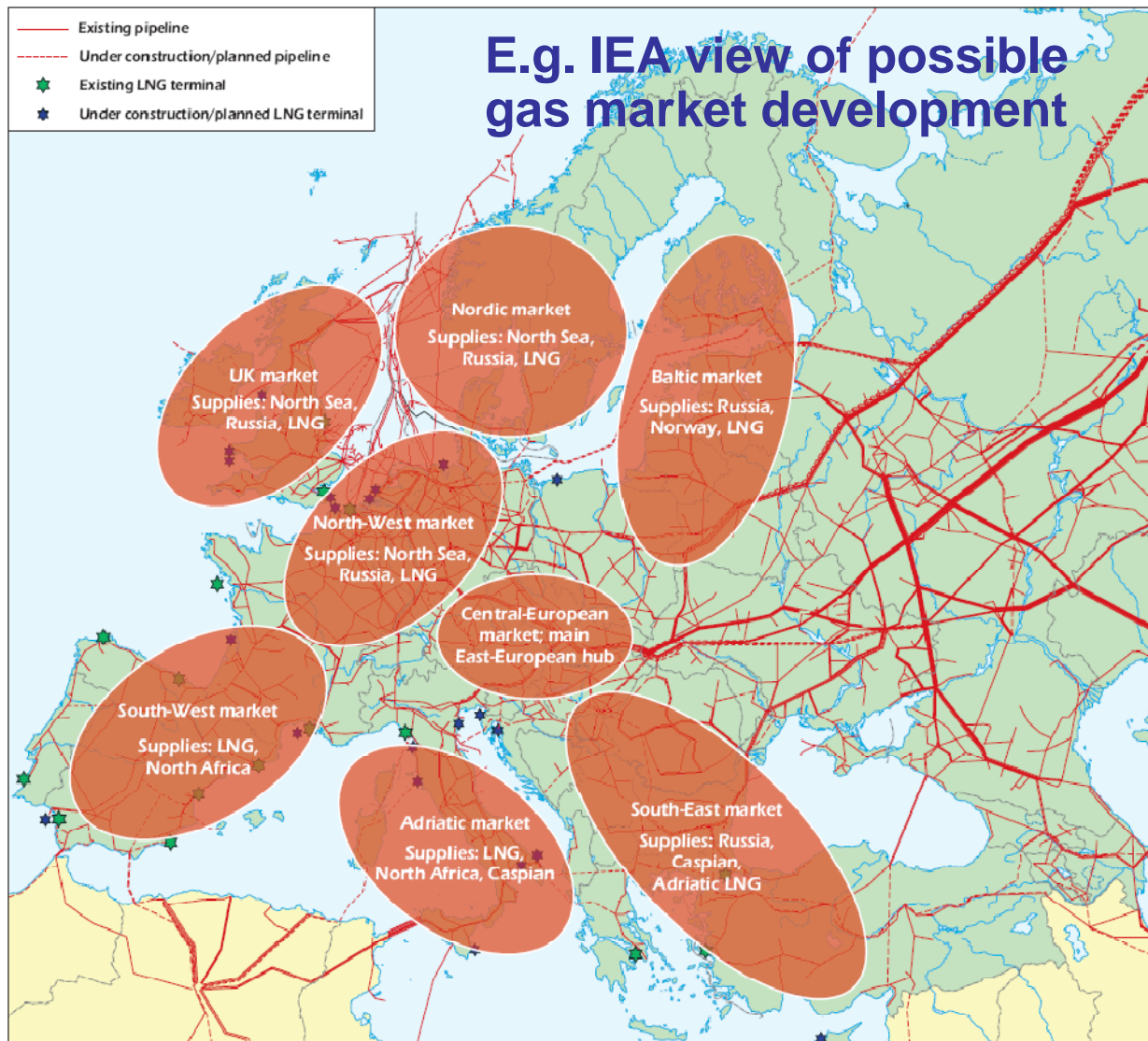
- Virtual hub (in-grid balancing point)
- Physical hub (e.g. border point)
- Trading hub with little or no price transparency
- 



NB. Not all trading locations are shown

# MARKET-BASED BALANCING - IMPLEMENTATION

## Regional markets may provide LT balancing solutions



- 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 ...

## Contents:

- The Madrid Forum Objective
- Practical implementation
- Compliance & Conclusions

# MARKET-BASED BALANCING

## Compliance with the existing ERGEG guidelines

---



- ➡ 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.

# MARKET-BASED BALANCING

## Conclusions

---



- 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.





Macquarie

mark 

  
MERCURIA  
ENERGY TRADING S.A.

Morgan Stanley



  
MVM  
THE SOURCE OF POWER

 MVV Energie

Nexen Energy  
Marketing

 NIDERA®

NOK Nordostschweizerische Kraftwerke AG  
Ein Unternehmen der aspo

 NUON

 PGE

 PLURIGAS

 RBS Sempra  
Commodities

 RUDNAP  
group

 RWE  
The energy to lead™

 OST  
ELEKTRA

raonordic

 SLOVENSKÉ  
ELEKTRÁRNE

 spe

 RE  
RÄTA ENERGI



SJB energy  
trading

 SWM  
Stadtwerke München

Stadtwerke Leipzig  
Alles ganz einfach.



Statkraft

 STATOIL

 SYNECO

 tirler  
wasser  
kraft



TOTAL

Trafigura Ltd

 Verbund  
Austrian Power Trading



Trianel Energie

VATTENFALL



 Vitol



VIVID POWER AD  
THE ENERGY IS LIFE

 UBS

 UNION FENOSA

 WINGAS



 EFET



**European Federation of Energy Traders**

**Tel: +31 (0)20 5207970**  
**Email: [secretariat@efet.org](mailto:secretariat@efet.org)**  
**[www.efet.org](http://www.efet.org)**