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European Federation of Energy Traders

## Market Based Balancing – A Target Model for Gas Balancing

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# “Balancing shall be market based”

## We suggest five core principles for a harmonised regime

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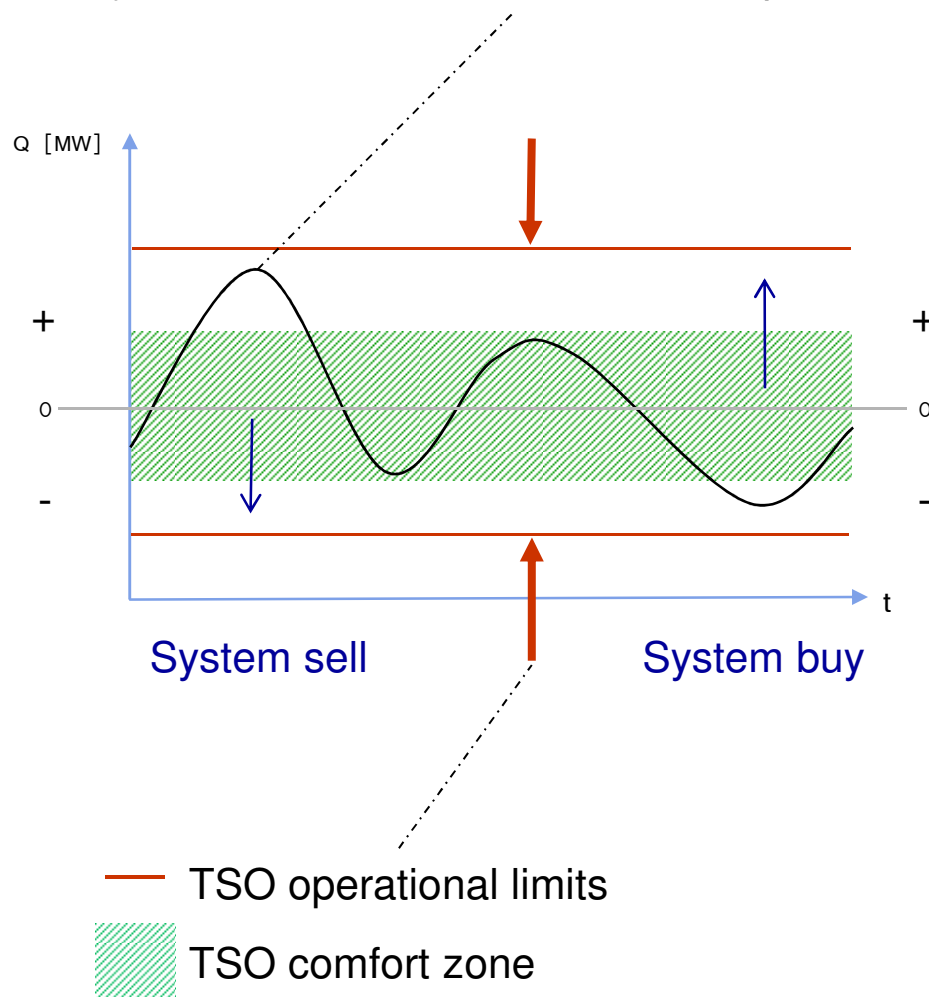


1. **Daily balancing.** The balancing period is a day.
2. **Primary balancing by Network Users.** The users aim collectively for the network to be physically balanced. There is a commercial responsibility on each individual user to balance their own portfolio, but not an obligation to achieve a physical balance.
3. **Integration with trading markets.** The TSO procures balancing energy on the spot trading markets, primarily within-day.
4. **Cost reflective cash-out.** Cash-out prices reflect the TSO costs incurred: marginal TSO buy/sell action determines cash out of short / long positions. This leads to efficient actions by the TSO and network users.
5. **Information provision.** The calculation of imbalances is based on within-day information provided by the TSO.

# How the future model will operate: keeping the system in balance



System balance =  $\sum$  network users' portfolios

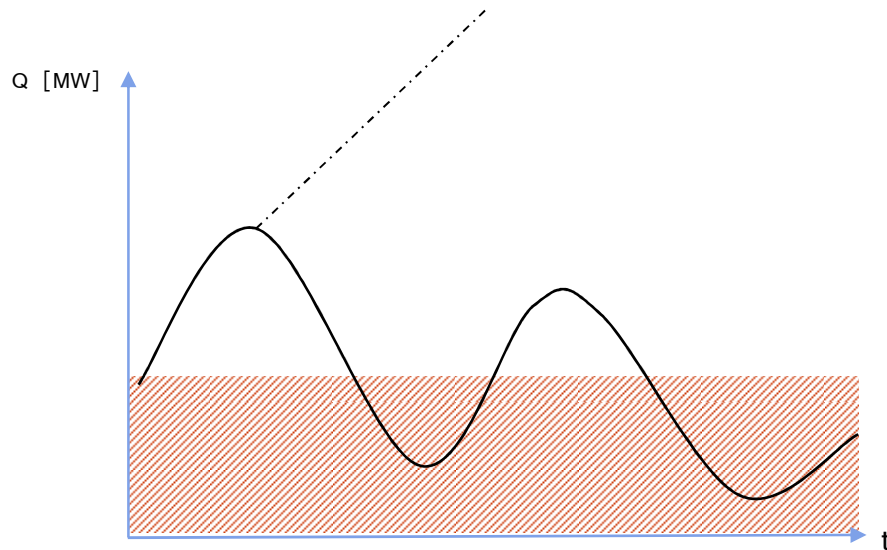


- TSO buy/sell actions will trigger within-day market activity
- Network users will put in gas/ take off gas in response to within-day prices.
- Physics don't change, flexibility is still available, but more efficiently managed
- Economic net effect will be positive: TSOs procure lower cost flexibility due to portfolio effect and enhanced competition on trading market.
- Locational or temporal products might increase efficiency.


# How the future model will operate: adjusting flows within-day



Individual network user load curve (forecast)



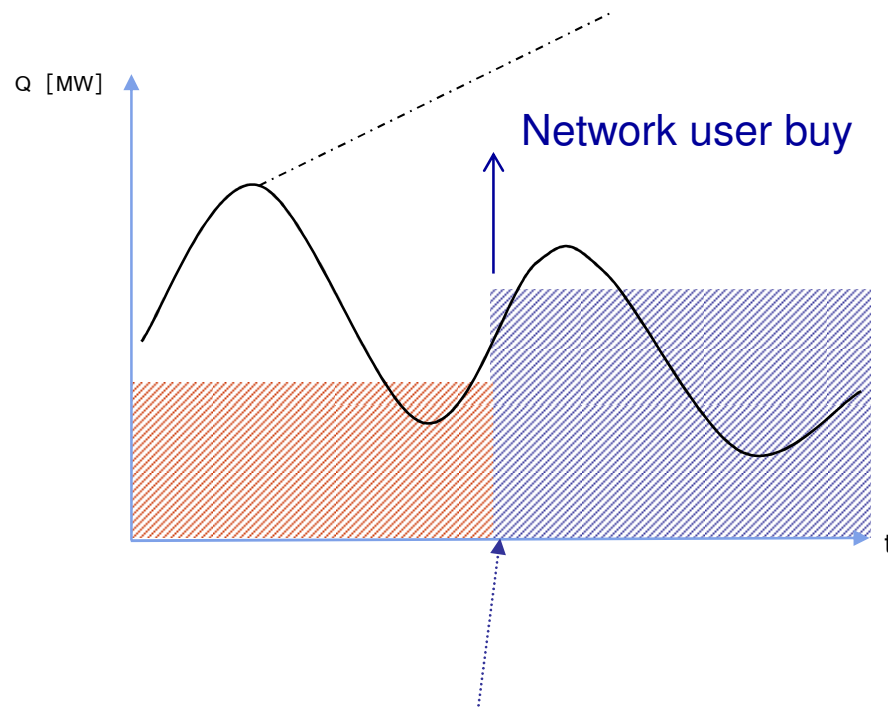
- End of day balancing means lower transactional cost for network users.
- Information on your individual portfolio is key: the better your forecast for e.o.d. volumes the less transaction needed.

 Network user nominations d-1

# How the future model will operate: adjusting flows within-day



Individual network user load curve (forecast adjusted)



update of forecast e.o.d. volumes



Network user nominations d-1



Network user nominations d (adjusted)

- End of day balancing means lower transactional cost for network users.
- Information on your individual portfolio is key: the better your forecast for e.o.d. volumes the less transaction needed.
- Network users need information on individual balance and system balance, updated within-day
- Forecast deviations for end of day volumes will bring network users to act on the within-day market.

# There is a need for transitional measures in most networks.



1. **Balancing period.** The balancing period may be one hour or any symmetrical multiple thereof within a day. The minimum length of the balancing period has to be consistent with the frequency of TSO information provision.
  2. **Procurement of system energy.** Until market liquidity is deemed sufficient, the TSO shall have the option to procure balancing energy through a ( $\leq$  yearly) tender process on a balancing platform separate to the trading market.
  3. **Cost reflective cash out.** Until market liquidity is deemed sufficient to provide a system reference price, the cash-out prices may be derived from a price basket of correlated liquid gas trading markets as a proxy.
  4. **Tolerances.** Tolerances shall be granted until the target model is implemented.
- Transitional” means, that these measures have to end! NRAs to monitor, assess and consult development each year.

# Market Based Balancing: main Messages



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- The most efficient way to balance supply and demand is through market mechanisms.
  - Daily balancing is less operationally complex for network users. It therefore encourages new entrants and market liquidity, making wholesale gas markets more competitive and hence efficient.
  - Every European network is ultimately able to implement daily balancing. Expanding balancing zones to their economic limits helps to provide sufficient linepack.







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