

The logo for EFET, consisting of the letters 'EFET' in a bold, red, sans-serif font.

European Federation
of Energy Traders
SO YOU CAN RELY ON THE MARKET

Trading in short timeframes

10 March 2022

Jérôme Le Page | Chair of the EFET Electricity Committee

Agenda

- **An overview of spot trading**
- **Why trade short-term horizons**
- **Trading interconnected markets**
- **A reflection on the 2021/2022 electricity price increases**



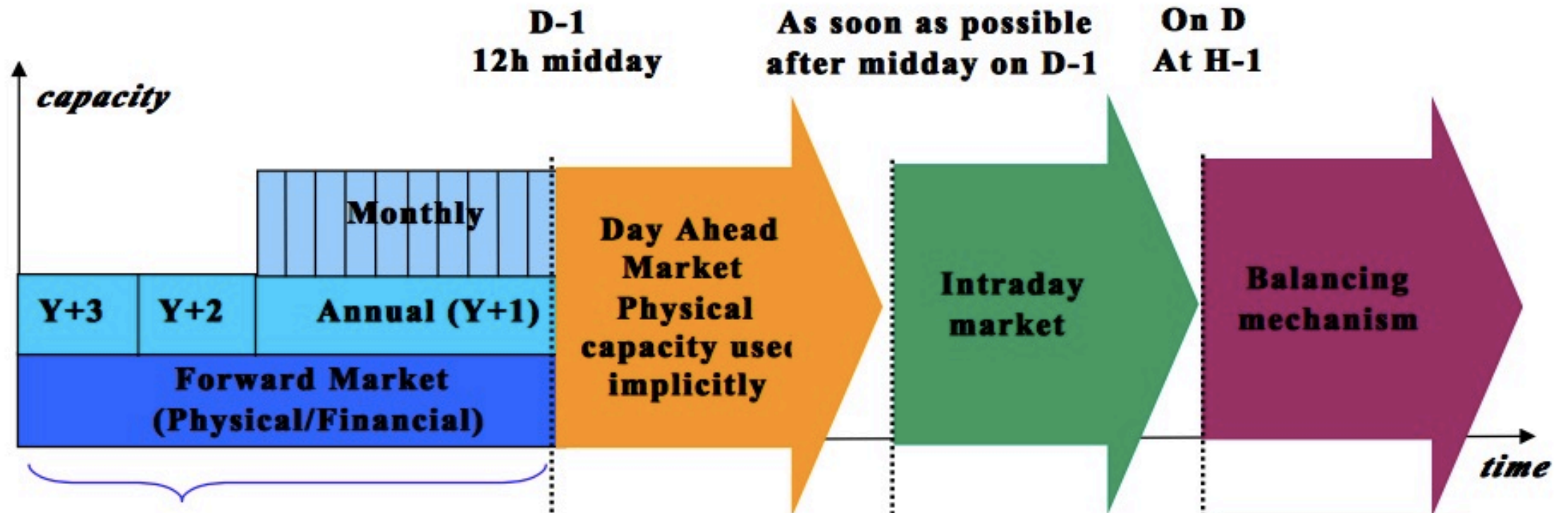
An overview of spot trading

Trading horizons, contracts, trading venues

The 3 elements of a trade in electricity

- **What?** – you agree on a **volume** of electricity in MWh
- **For how much?** – you agree on a **price** for the electricity in EUR
- **For when?** – you agree on a **time for the delivery** of the electricity

Trading horizons: the delivery time of electricity

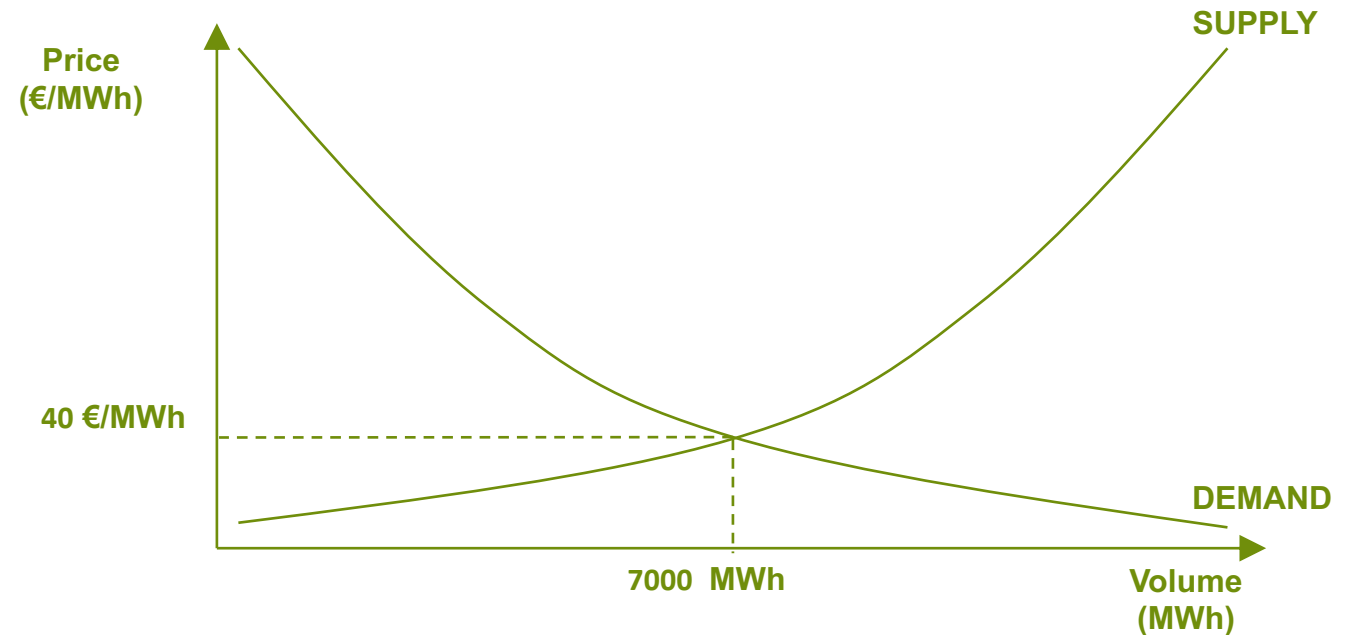


Source: European Commission

Day-ahead and intraday trading: spot, physical contracts

- **Spot contract:** a buyer and a seller agree to transact:

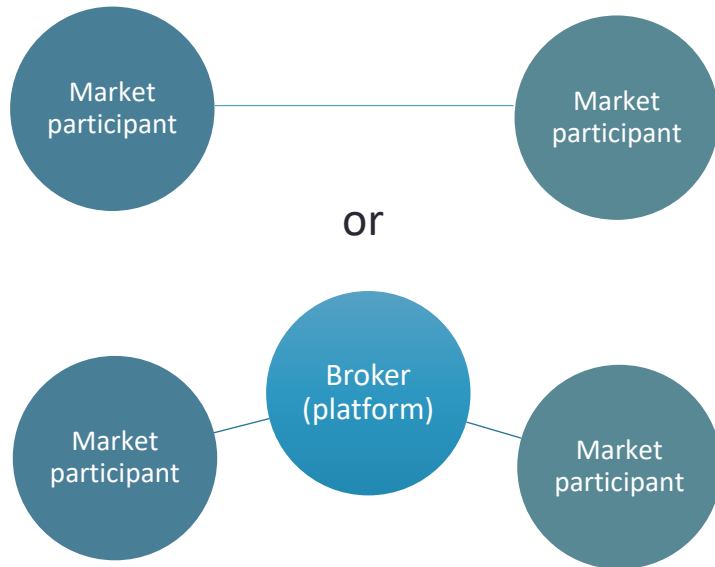
- a certain quantity of electricity (MWh)
- at a certain price (€)
- for immediate delivery (“on the spot”)



- **Physical contract:** the MWh of electricity are delivered physically:
 - injected on the grid by the seller
 - off-taken from the grid by the buyer

Trading venues: OTC & power exchange

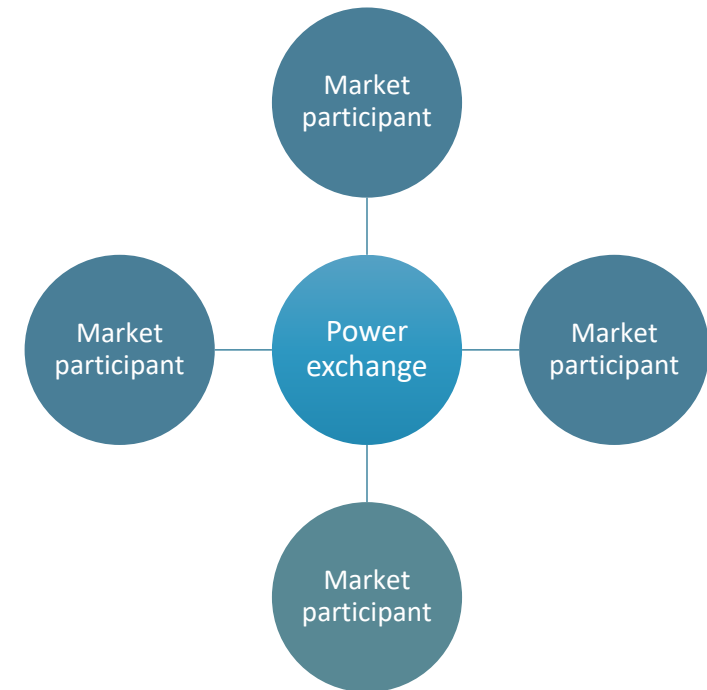
OTC trading



Transparency:
For both OTC and PX trading, REMIT obligations apply (order and transaction reporting, market surveillance)

- Any type of contracts
 - Trading with known counterparty
- Settlement by the parties (need for collateral)
 - No fees (or limited when through broker)

Exchange trading



- Standardised contracts
 - Anonymous trading
- Settlement via the exchange, with margining
 - Exchange fees

Evolution of spot markets towards mostly exchange-based trading

- **From OTC trading:** historically, spot trades were traded OTC like forward contracts
 - > This is still the standard case in few European countries, mainly in CEE & SEE.
 - > OTC trading is still an option – though rarely used – in the rest of Europe.
- **To exchange-based trading:** market coupling projects resulted in a move to exchange-based trading.
 - > Market coupling in day-ahead: MRC now covering all the EU and most borders.
 - > Market coupling in intraday: XBID in most of the EU (except Greece, Slovakia).

Reference market vs. optimisation market

- **Day ahead market:** considered the market giving the reference price in Europe.
 - > Link to nomination and scheduling processes historically happening in D-1.
 - > **But... the real price signal for market participants is the imbalance price!**
- **Intraday market:** considered the market to optimise/correct positions close to real time.
 - > Link to historically poor liquidity, or even non-existing possibility to trade after DA.
 - > **But... intraday market liquidity increases, product granularity closer to ISP and ability to trade closer to real time!**

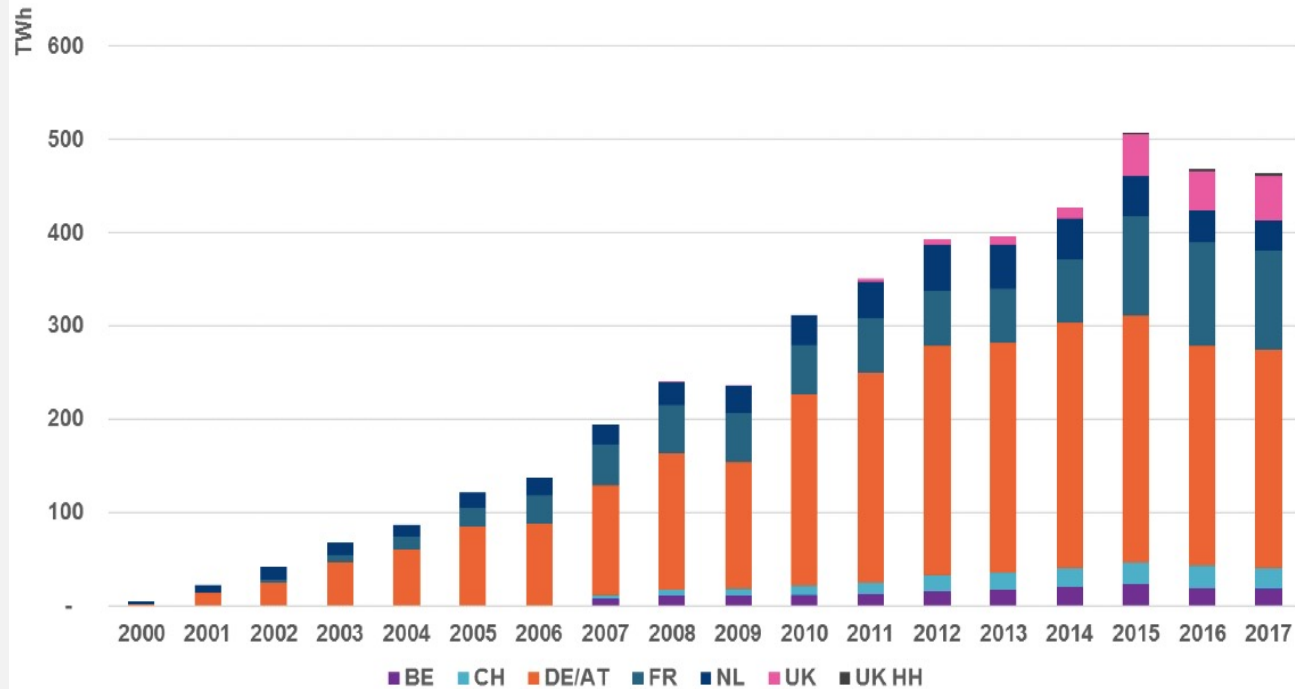


Why trade short-term horizons?

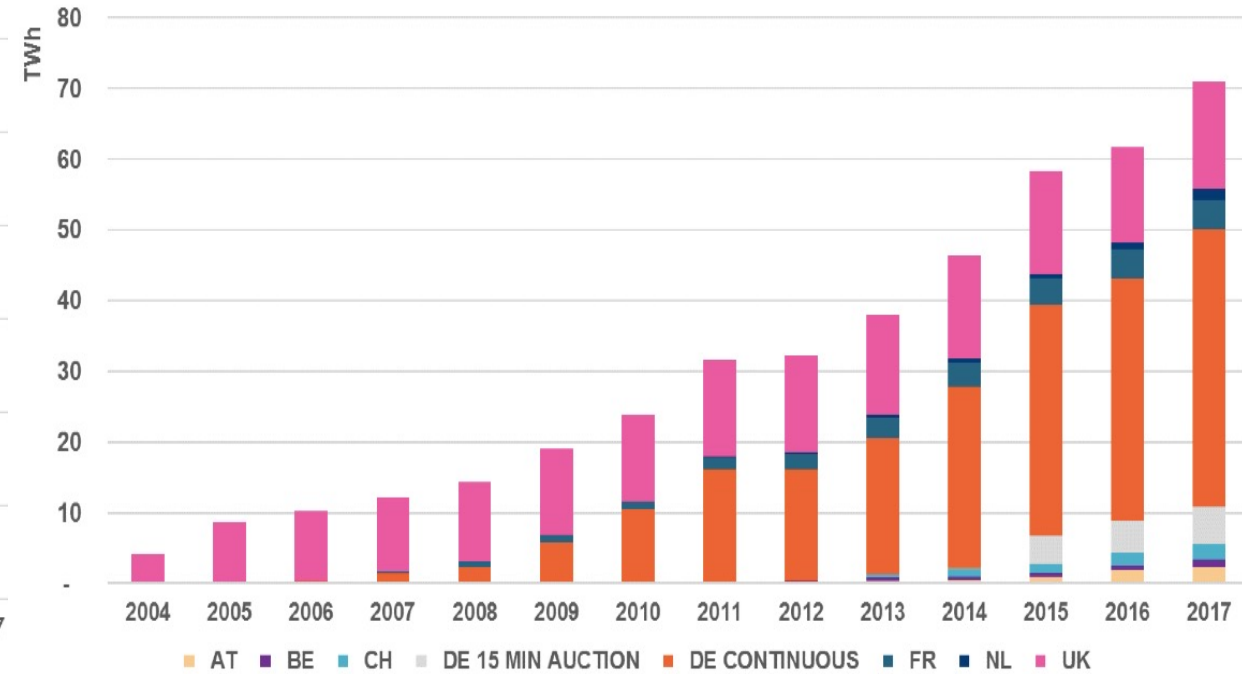
Market drivers, regulatory developments

The undeniable trend: growing DA and ID volumes

EPEX SPOT YEARLY DAY-AHEAD VOLUMES

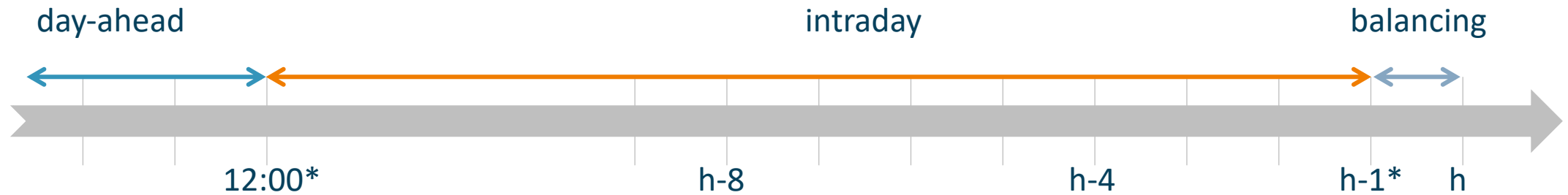


EPEX SPOT YEARLY INTRADAY VOLUMES



Source: EPEX Spot

Short-term trading allows to adjust portfolios close to real time



* Exact time of market closure might slightly vary depending on country

As time passes, uncertainties reduce...

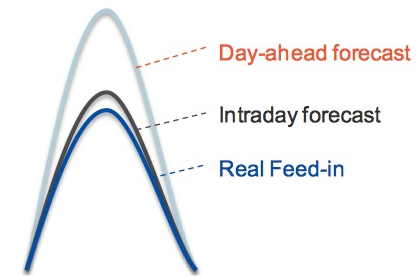
examples of uncertainties to manage:

- > Weather – impact on RES production, consumption
- > Generation plant outages
- > Transmission line outages...

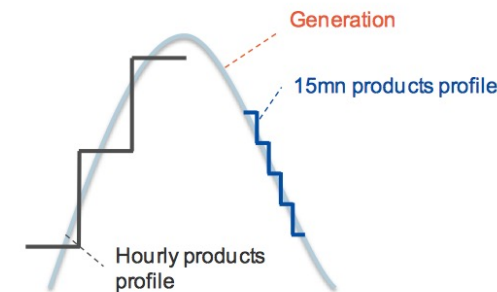
The reasons behind the growth of short-term trading

- Growing penetration of intermittent renewable energy:
 - > All market participants need to adapt to more price volatility
 - > RES-E generators gradually brought to the market
- Improvement of intraday markets (from few auctions to continuous trading, more granularity in products)
- Better access to cross-border capacity in intraday (move to cross-border continuous at bilateral level initially, now XBID).
- Introduction of automated (robot) trading in intraday.

FORECAST DEVIATIONS

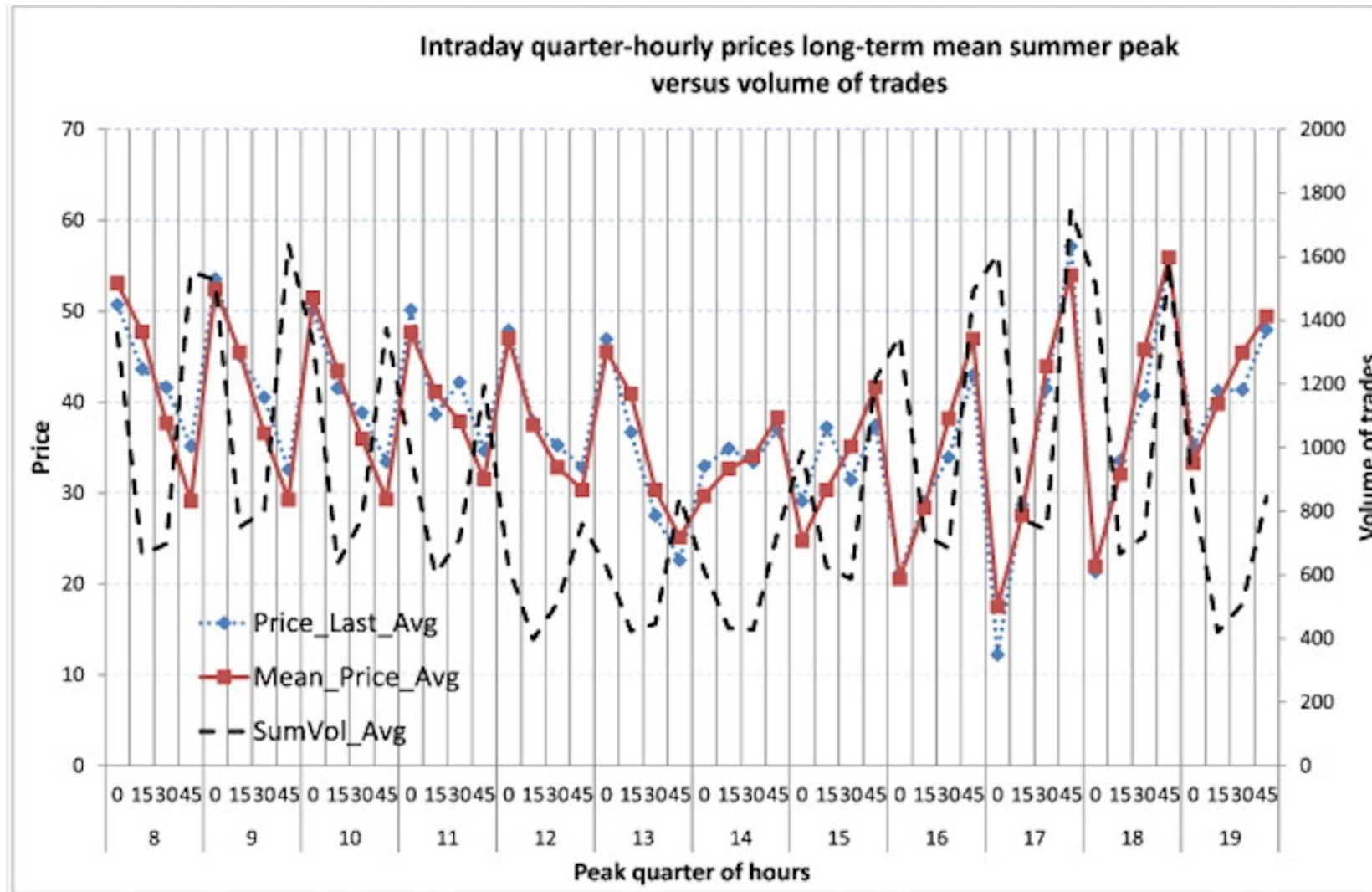


GENERATION RAMPS



Source: EPEX Spot

Trade volumes increase closer to delivery



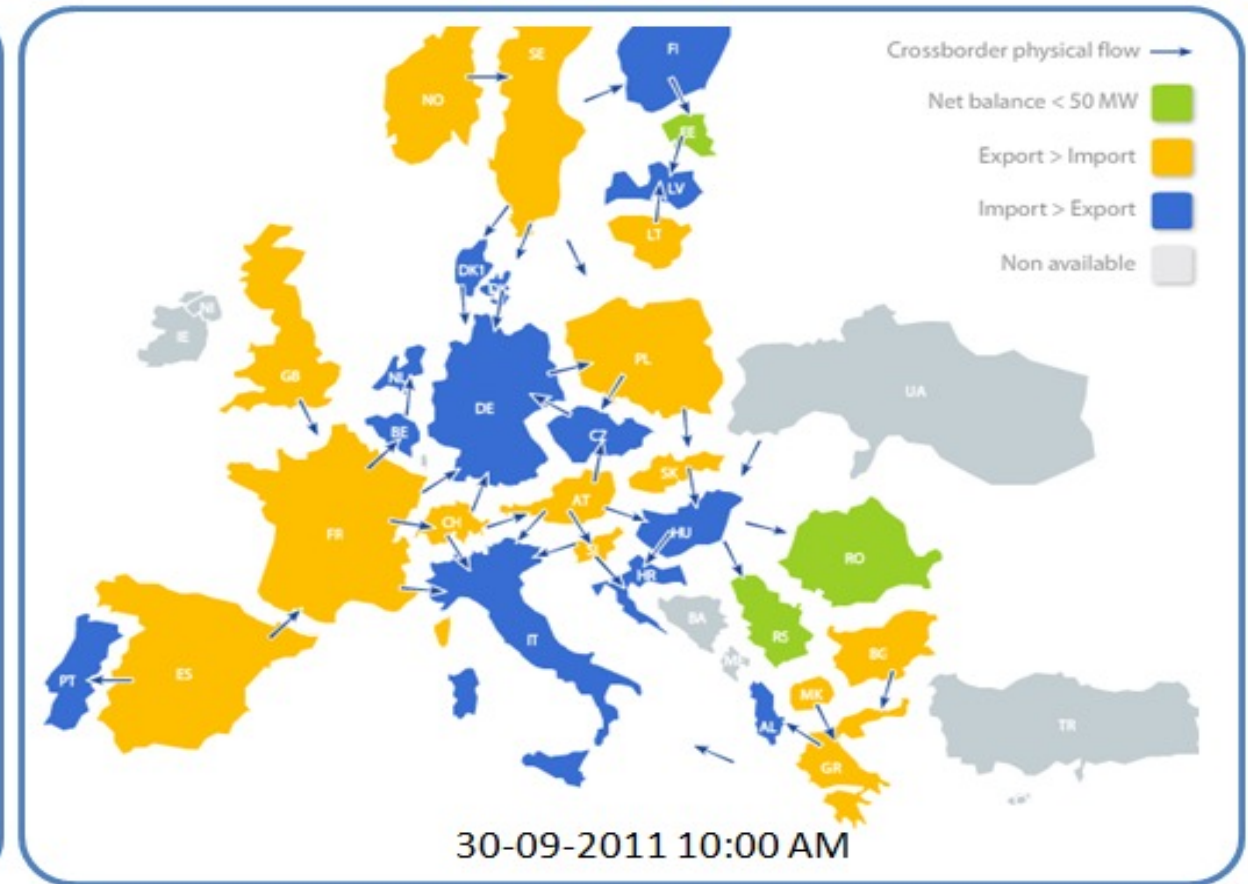
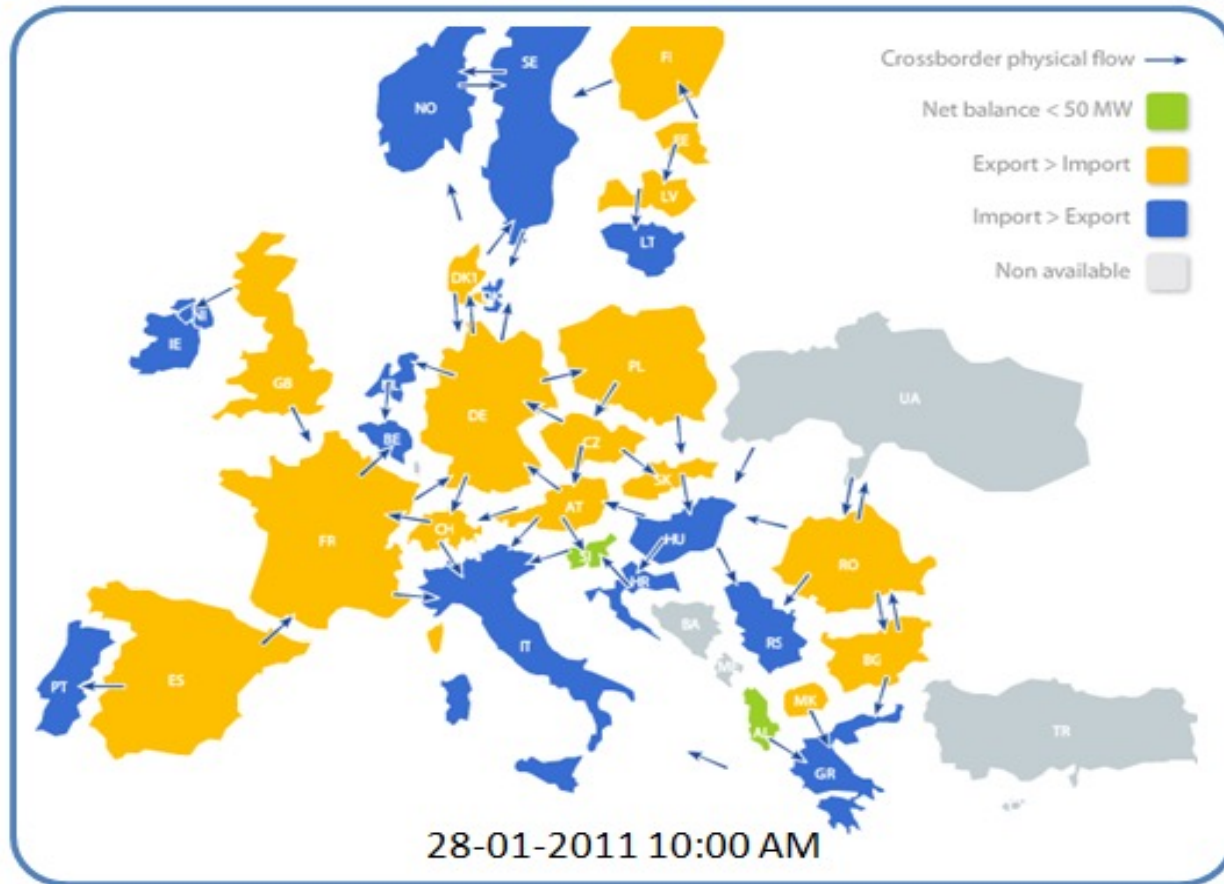
Source: Science Direct



Trading interconnected markets

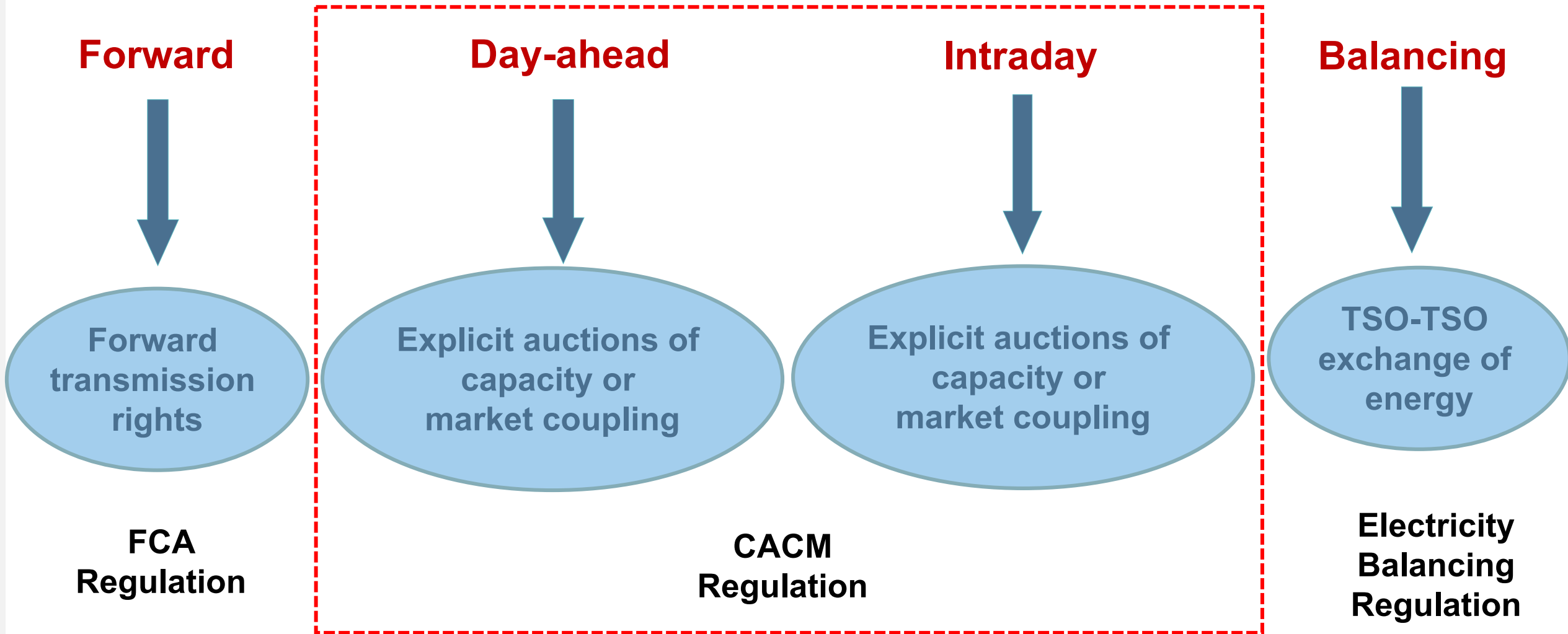
Day-ahead and intraday market coupling

Networks are highly interconnected in Europe



Electricity flows from low to high price zones,
based on **local market prices** and **cross-zonal capacity availability/price**

Markets are interconnected thanks to cross-border capacity allocation



Coupling of day-ahead markets

- **All EU countries part of MRC**
 - > Only Hungarian-Croatian border not yet coupled (coming up next month!)
- **One allocation mechanism but multiple capacity calculations:**
 - > Flow-based in CWE, NTC elsewhere
 - > Flow-based extended to Core (in April) and Nordic, coordinated NTC elsewhere
- **Third countries excluded unless an agreement exists (CH, GB)**

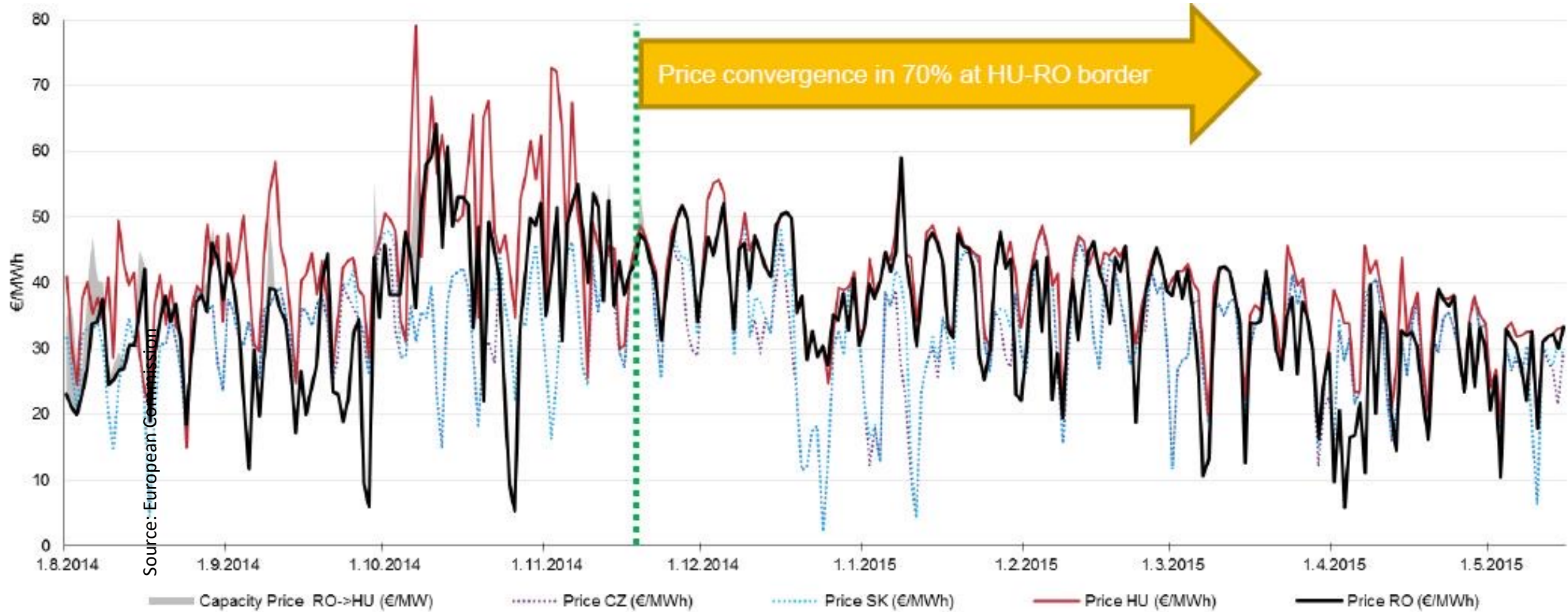


Source: NEMO Committee

Organisation of day-ahead market coupling

- Auction process – every day at 12:00 CET
- Marginal pricing
- One single algorithm run by the power exchanges: EUPHEMIA
- Market participants place their orders to their local power exchange

Effect of market coupling on price convergence (4MMC)

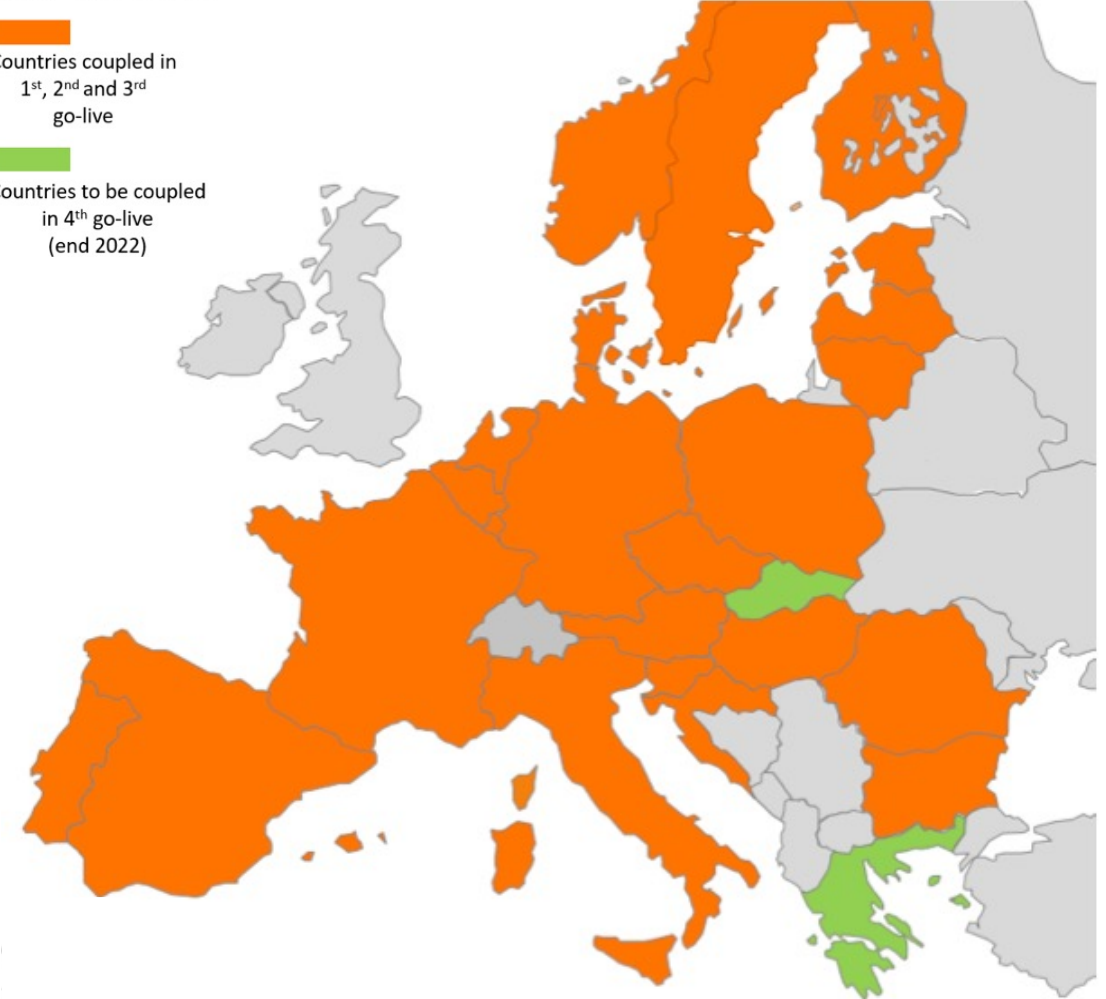


Coupling of intraday markets

- **Most EU countries part of XBID**
 - > CWE, SWE and Nordic since 2018
 - > Extensions to CEE in 2019, Italy 2021
 - > Slovakia and Greece planned end 2022
- **XBID is the primary tool for ID capacity allocation in the EU**
 - > Will be complemented by implicit auctions for capacity as of 2024
- **Third countries excluded unless an agreement exists (CH, GB)**

Countries coupled Intraday with 4th SIDC Go-Live

- Countries coupled in 1st, 2nd and 3rd go-live
- Countries to be coupled in 4th go-live (end 2022)



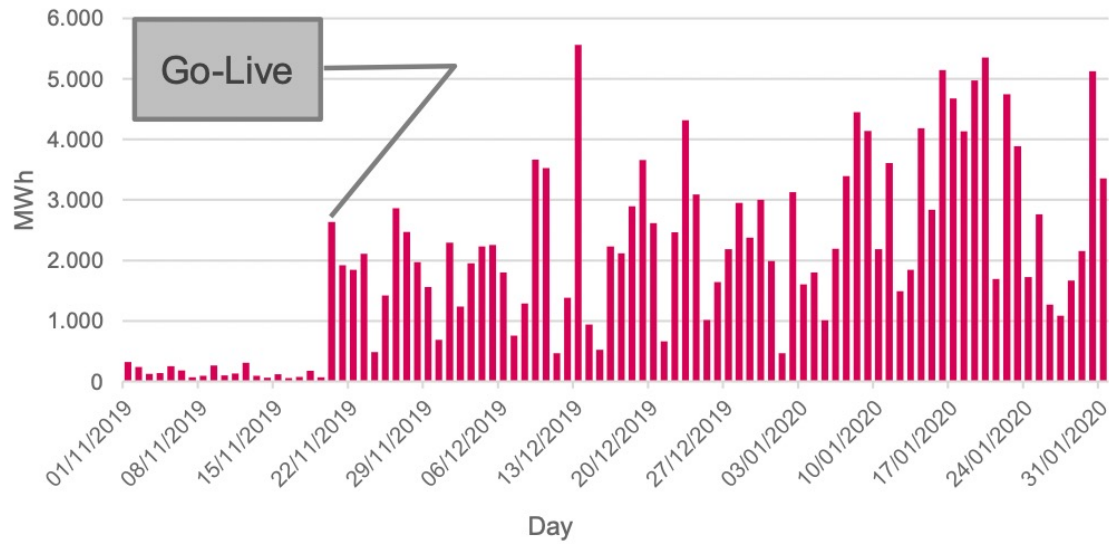
Source: NEMO Committee

Organisation of intraday market coupling

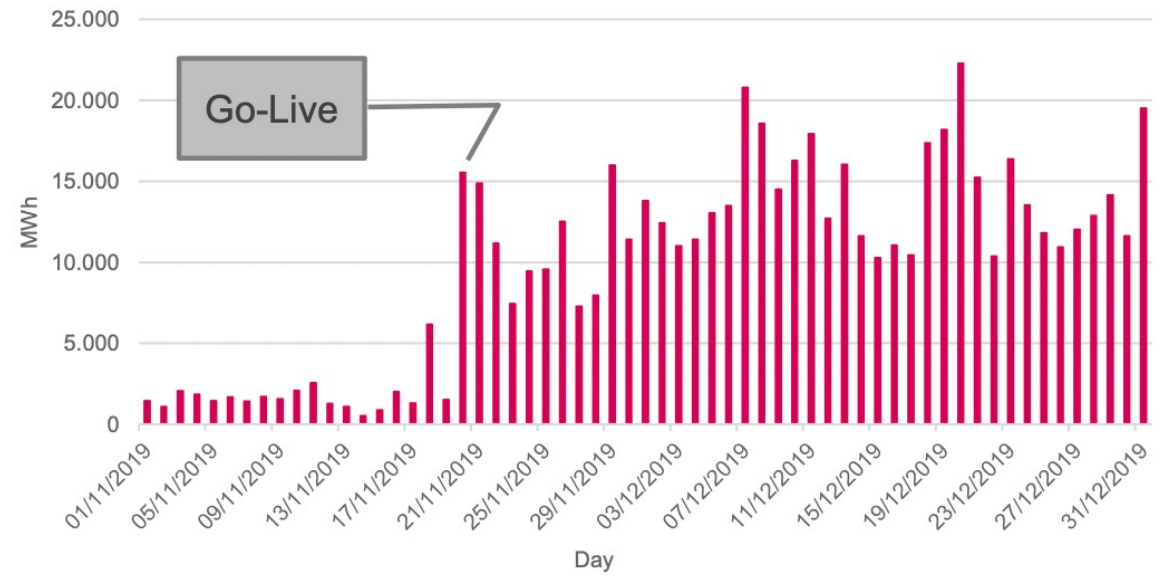
- Continuous trading – throughout the day as of D-1 15:00 CET
- First-come-first-served matching service
- Pay-as-bid pricing
- Market participants place their orders to their local power exchange
- Capacity is free

Example of intraday market growth after introduction of XBID

HUPX traded volume before/after SIDC



OTE traded volume before/after SIDC



Source: XBID Project Parties



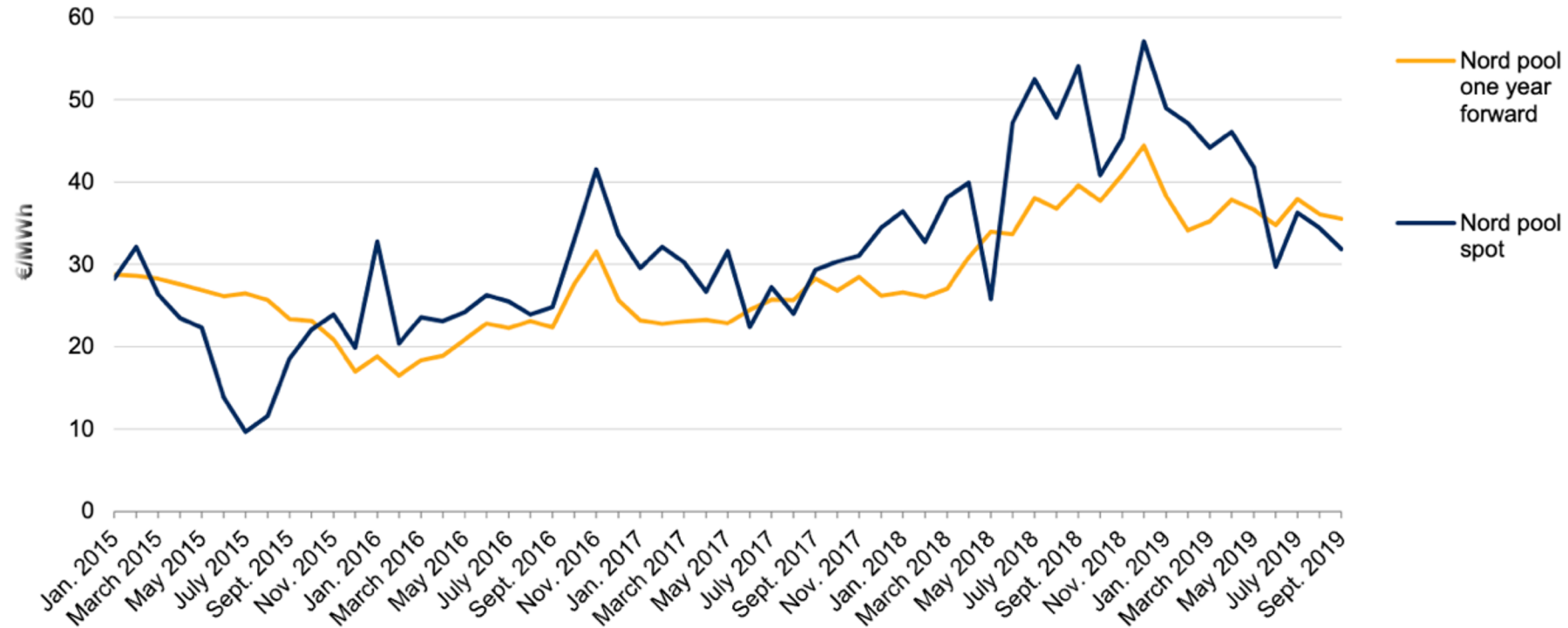
A reflection on the 2021 price increases

The 2021 rise in electricity prices is linked to multiple drivers

- **High demand**: Economic recovery following the Covid-19 crisis
- **Tight supply** linked to:
 - Soaring prices of natural gas (exacerbated by the war in Ukraine)
 - Soaring prices for coal
 - Poor conditions for RES-E production in September
 - Low hydro reservoir capacity

Hence, the market is reacting appropriately to fundamentals

But forward hedging shields consumers from short-term spot market volatility



Source: Platts

Much can be done to improve electricity markets efficiency



Summary

- **DA and ID markets are growing largely thanks to:**
 - the energy transition (RES-E)
 - regulatory developments (XBID, product granularity, GOT/GCT)
 - technological change (automated trading)
- **Market coupling makes spot markets more efficient, truly pan-European**
- **Volatile spot markets require require forward trading to shield customers from price fluctuations**
- **Targeted reform can help improve electricity markets even further**

Thank You

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