

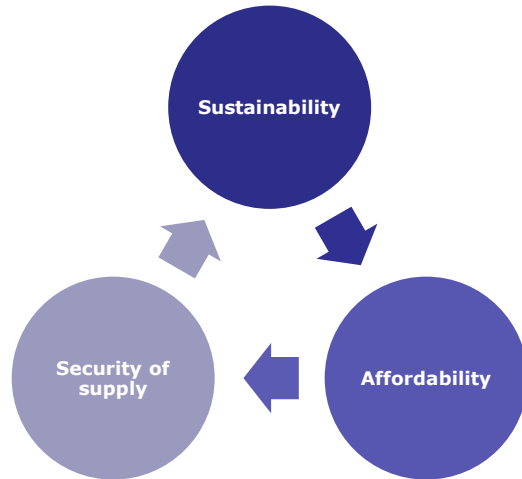


Energy dialogue Japan-EU

Adriana Guth, DG ENER
17 April 2024

1. EU energy policy

- **European Green Deal & clean energy transition**

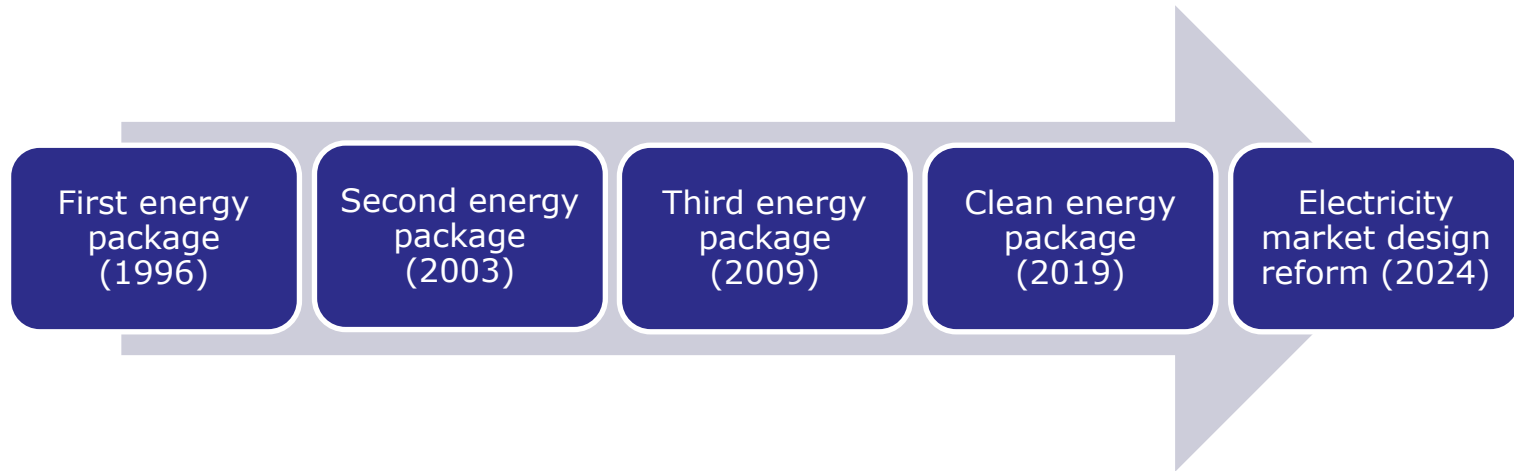


The EU will:



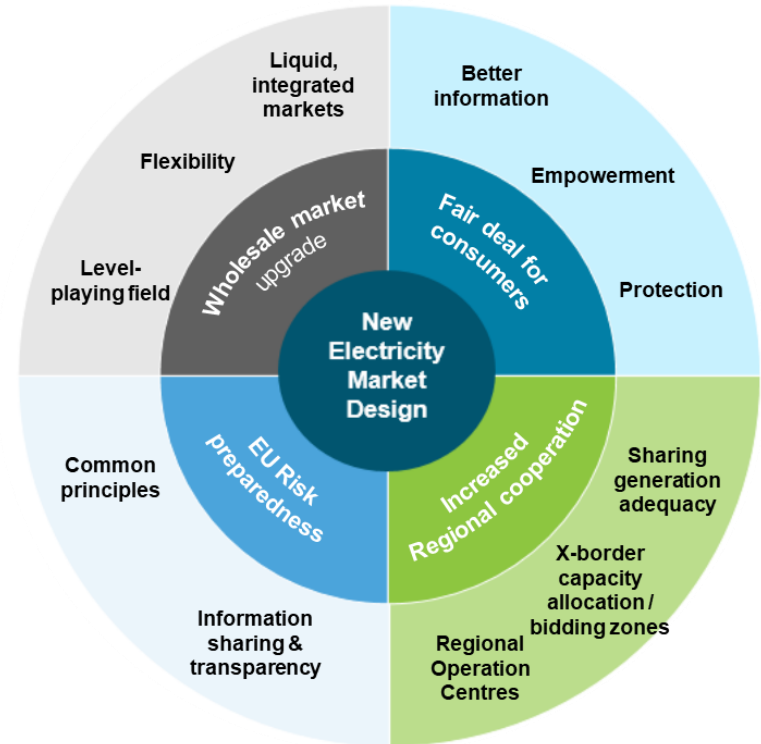
Become
climate-neutral
by 2050

2. Main EU framework for electricity markets



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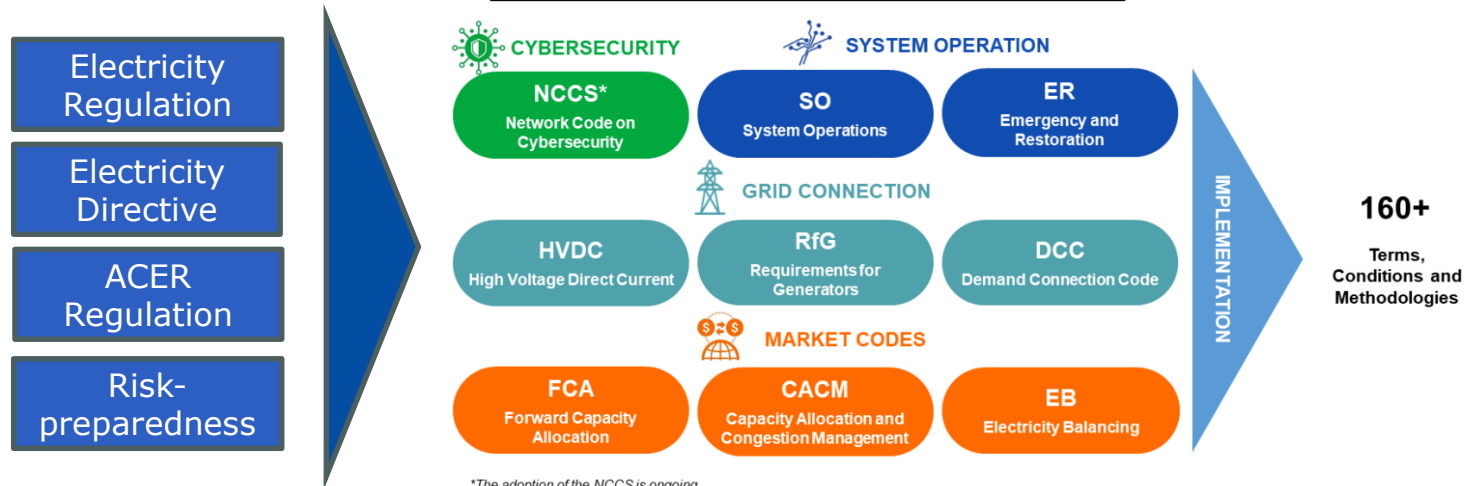
- **Clean Energy Package:
regulatory framework**



2. Main EU framework for electricity markets

Electricity Network Codes and Guidelines

9 ELECTRICITY NETWORK CODES

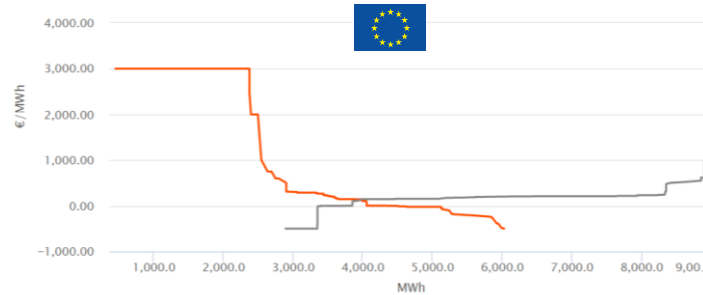


3. Main objectives & guiding principles

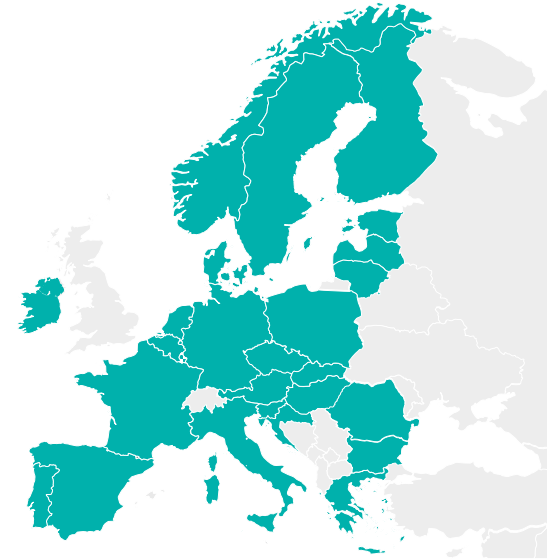
- Electricity target model
 - Integration of electricity markets (market, grids, system operation)
- Competition & level playing field
 - Unbundling of generation, transmission/distribution and supply activities
 - Third-party access
 - Rules on operation of electricity markets
 - Rules on cross-border trade of electricity
- Supervision, monitoring: EU Agency for cooperation of energy regulators (ACER) & independent regulatory authorities

4. EU electricity market coupling

The fondation of the EU single electricity market



**One common price if no grid
bottleneck**



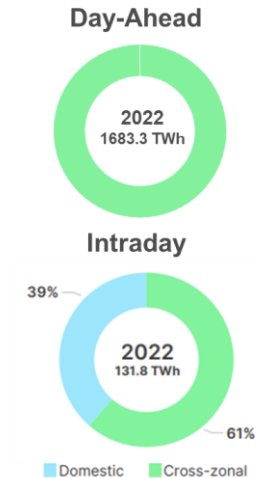
4. EU electricity market coupling

Day ahead market coupling

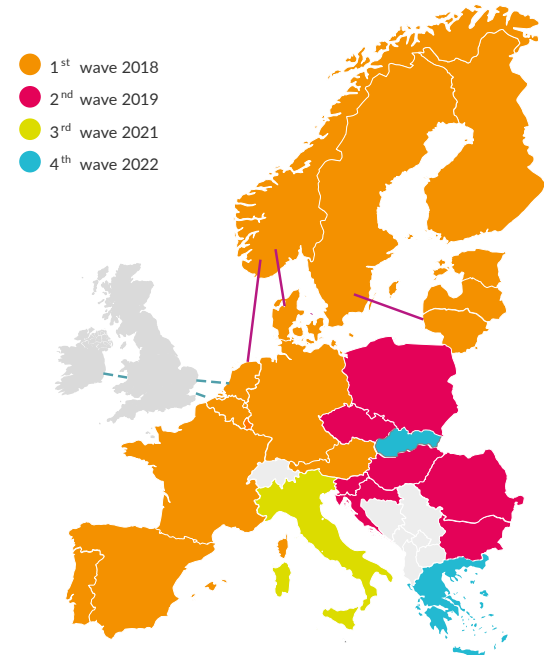


Intraday market coupling

Traded volumes and integration



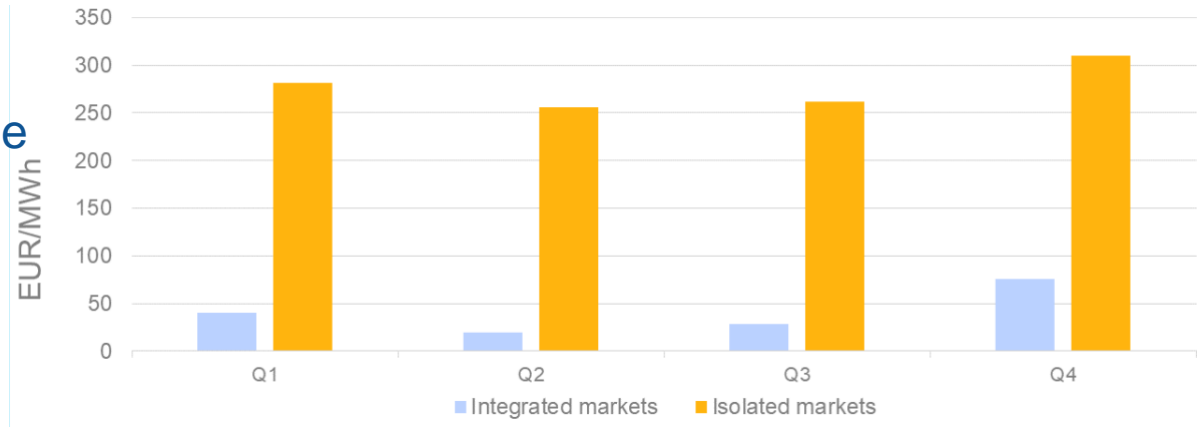
Source: ENTSO-E (2024)



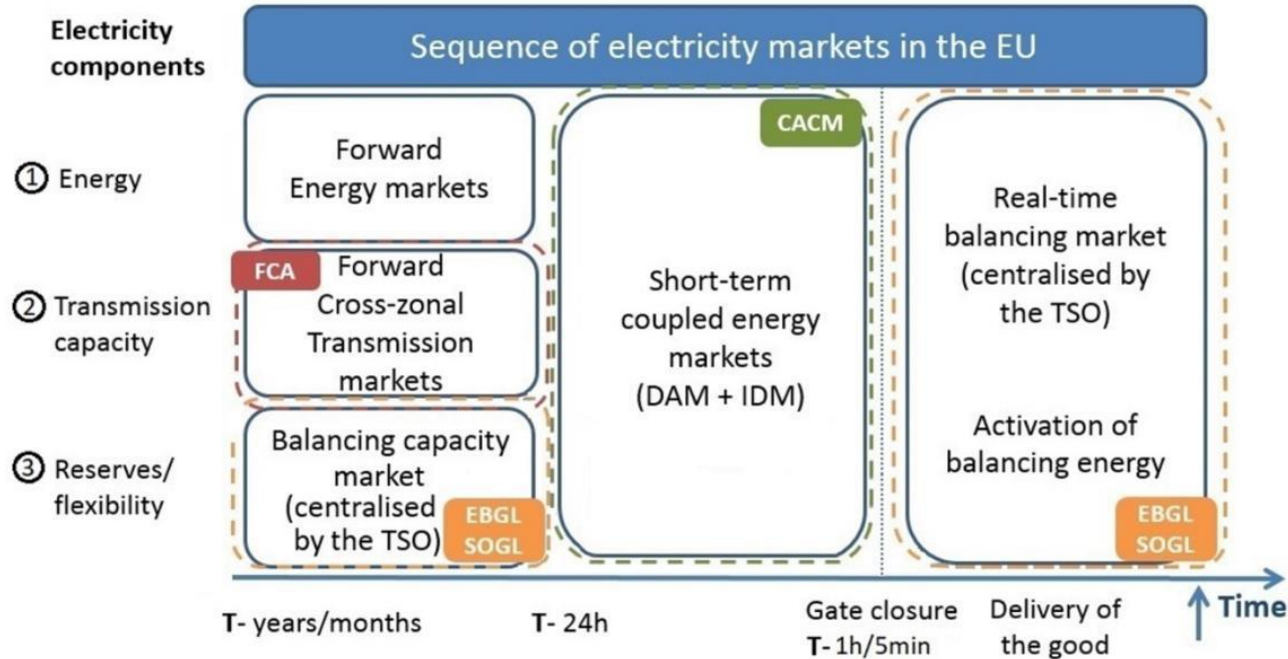
4. EU electricity market coupling

The EU electricity market is the biggest integrated market world-wide, covering **98.6% of the EU consumption**. More than **100 billion € of welfare** are optimised each day.

In 2021, cross-border trade delivered an estimated **34 billion €** of benefits while helping to smoothen price volatility.



5. Trading on the EU electricity market



Source: FSR (2019)

6. The reform of the Electricity Market Design

On 14 December 2023, EU co-legislators have reached a provisional agreement

The objectives of the reform were to:

- Accelerate **deployment of renewables** and the phase-out of gas
- Make **consumer bills less dependent on volatile fossil fuel prices**
- Better **protect consumers**
- Make the **EU's industry clean and more competitive**

In particular, it introduces measures that:

- Incentivise **longer term contracts** with non-fossil power production through forward markets, power purchase agreements or contracts for difference
- Bring more **flexible solutions** into the system such as demand response and storage through new support schemes and demand-reduction procurement
- Reinforce the framework for **market integrity** and transparency

6. The reform of the Electricity Market Design

- Power purchase agreements:

State of play:

- Constant growth in ppa's helping of renewable energy capacity without public support
- Remaining barriers remain:
 - Lack of financial products to cover the risk of payment default
 - High transaction costs
 - No standardized contracts

New reform:

Member States shall:

- Facilitate PPAs to reach national objectives
- Ensure that instruments to cover default risk
- Allow reservation in RES tenders for generation of PPAs
- Access entrance barriers for PPA markets and address them

6. The reform of the Electricity Market Design

- Contracts for differences:

State of play:

High share of Renewables still relying on public funding

Different support schemes:

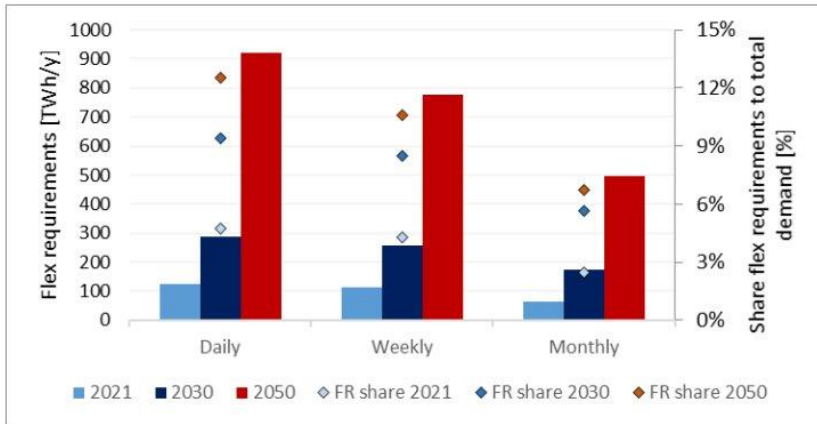
- Feed in tariff: administratively, technology specific support, not connected to market signals
- Fixed feed-in-premium: support on top of market prices
- Sliding feed-in-premium: paid if market prices remain below a certain threshold

New reform:

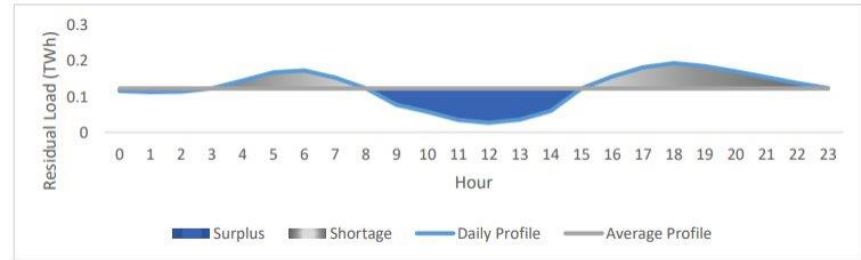
- Obligation to use CfDs or equivalent schemes with the same effects for new wind, solar, geothermal, hydro without reservoir and nuclear installations
- Definition of design principles applicable to all CfDs
- Generated revenues need to benefit customers

7. Ongoing work on flexibility

- Why the system requires flexibility?



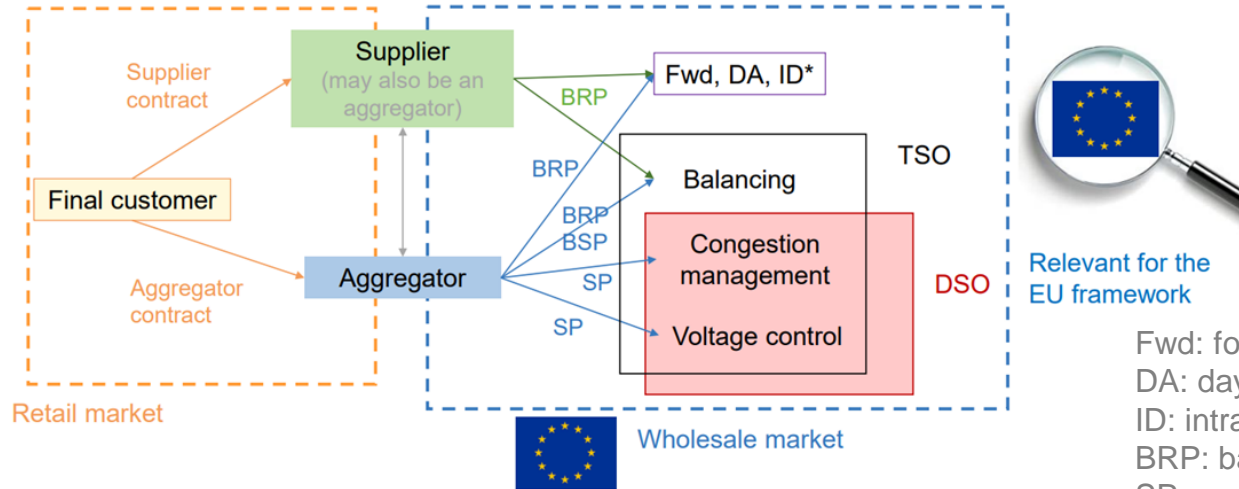
Increase of flexibility needs, source: JRC



Daily flexibility needs to double between 2021 and 2030, source: JRC

7. Ongoing work on flexibility

- New regulatory framework on demand response



Fwd: forward market
DA: day-ahead market
ID: intraday market
BRP: balancing responsible party
SP: service provider

Thank you