



European Union Agency for the Cooperation
of Energy Regulators

Price signals and frameworks to unlock flexibility

CSEI 4th Sustainable Energy Day, 12 September 2025

Felipe Gonzalez Venegas

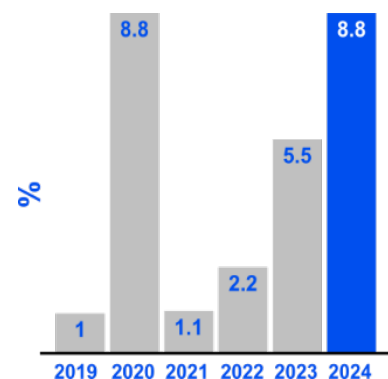
Policy Officer – Flexibility and Resilience

The state of play: flexibility needs are increasing

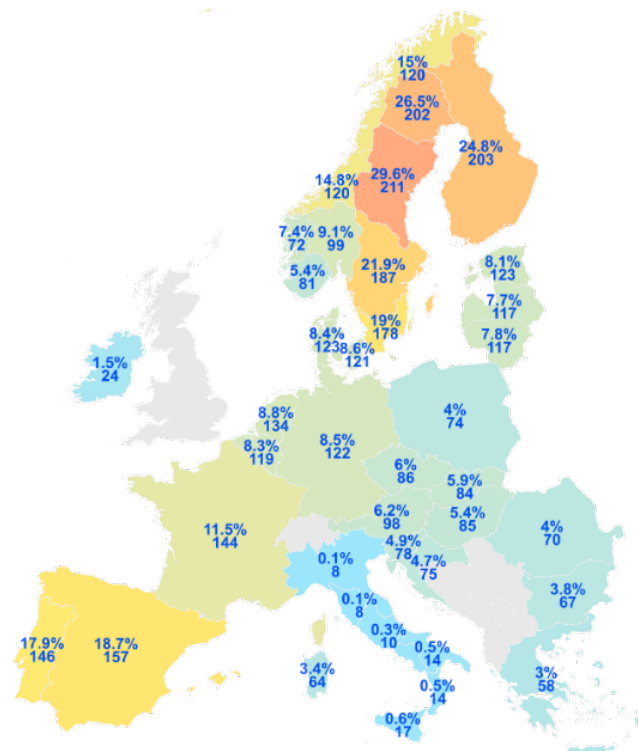
Electricity prices reveal a need for flexibility

Increasing share of low and negative prices, combined with strong price swings.

Share of hours and number of days with electricity prices were below 5 €/MWh (left) & number of days with price swings above 50€ and average within-day price difference (right), EU-27/EEA(Norway), 2024



Annual percentage of the time when prices were <5EUR/MWh, EU-27/EEA (Norway), 2019-2024 (%)



Unlocking our flexibility potential will be key

Different technology solutions can offer flexibility

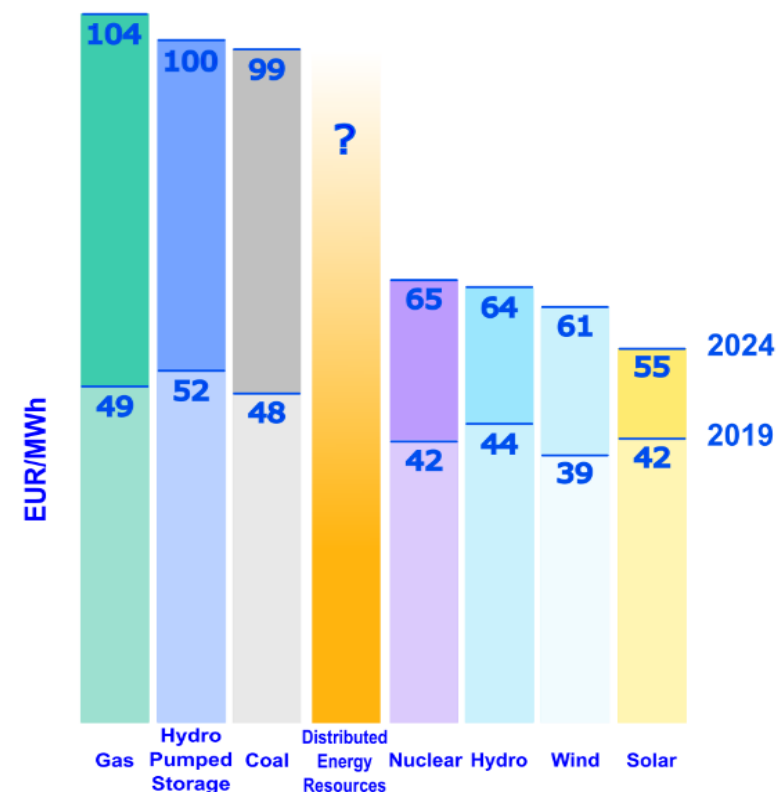
Flexibility services provided by various technologies, sorted according to their duration

Real time	Day/week	Month/year
Demand-side response	Energy efficiency	
Batteries		
Storage (depending on the technology)		
Hydro storage		
	Hydrogen/biomethane	
Electricity network - interconnections		
Gas storage		
Thermal generation unit		

Leveraging flexibility from distributed energy resources such as rooftop solar, battery storage, electric vehicles are crucial to managing grid congestions and price fluctuations.

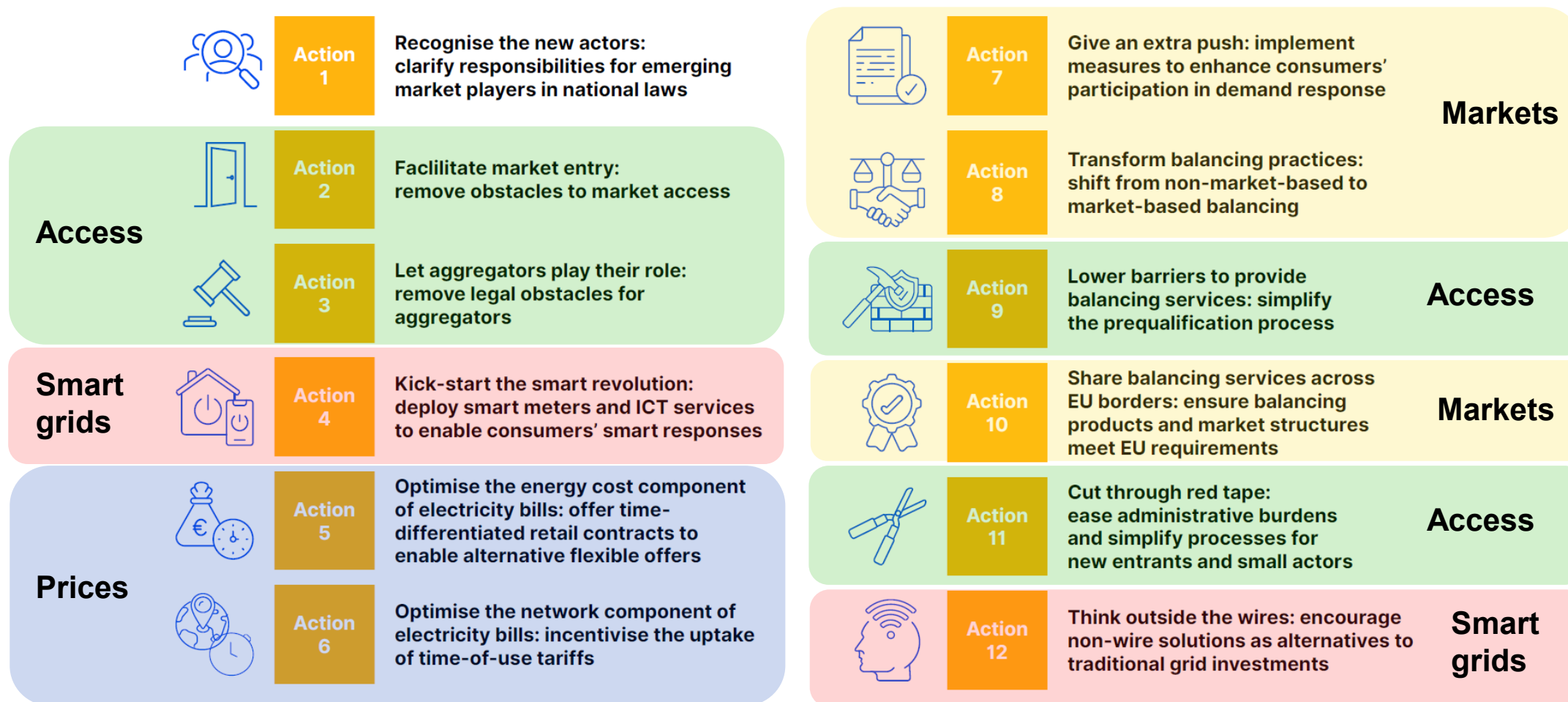
Current market conditions support the deployment of flexibility solutions

Average value of electricity by production type*, EU-27/EEA (Norway), 2024 (EUR/MWh)



Getting the incentives right

ACER proposes 12 actions to unlock demand response flexibility

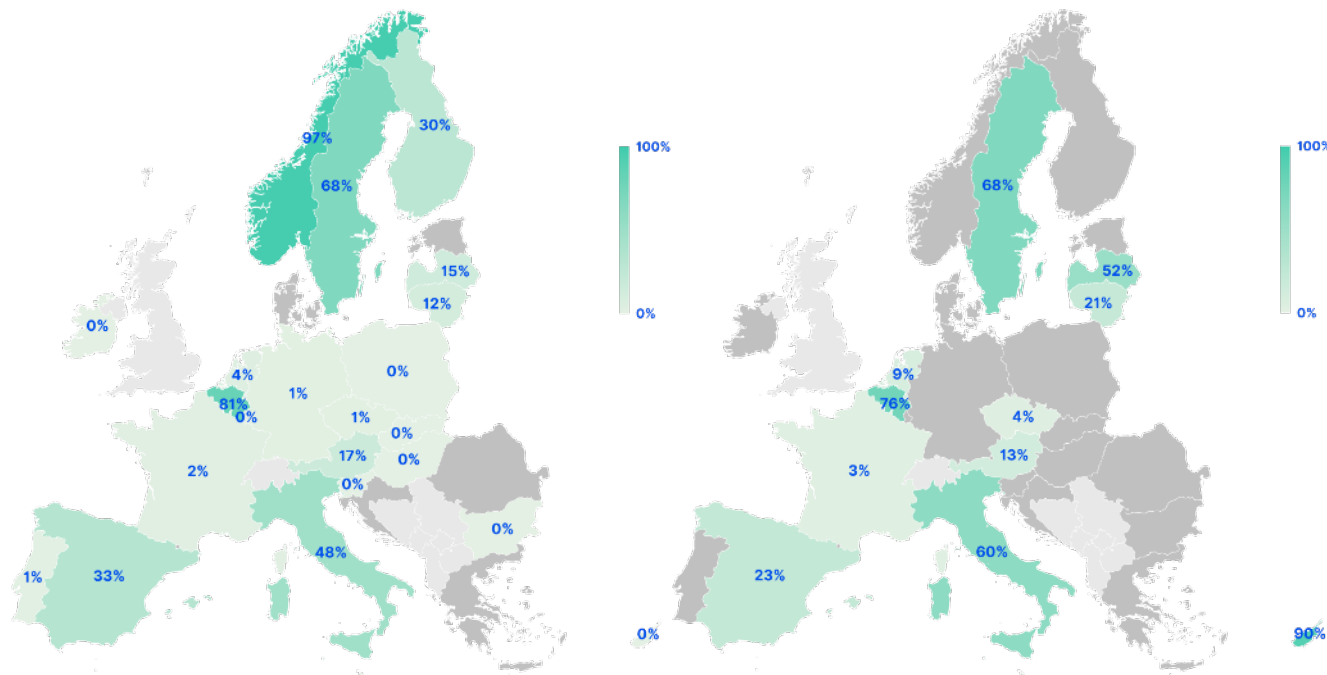


We need to engage consumers to offer flexibility

The energy cost is important.

Consumers need price signals in their electricity bills to provide demand response

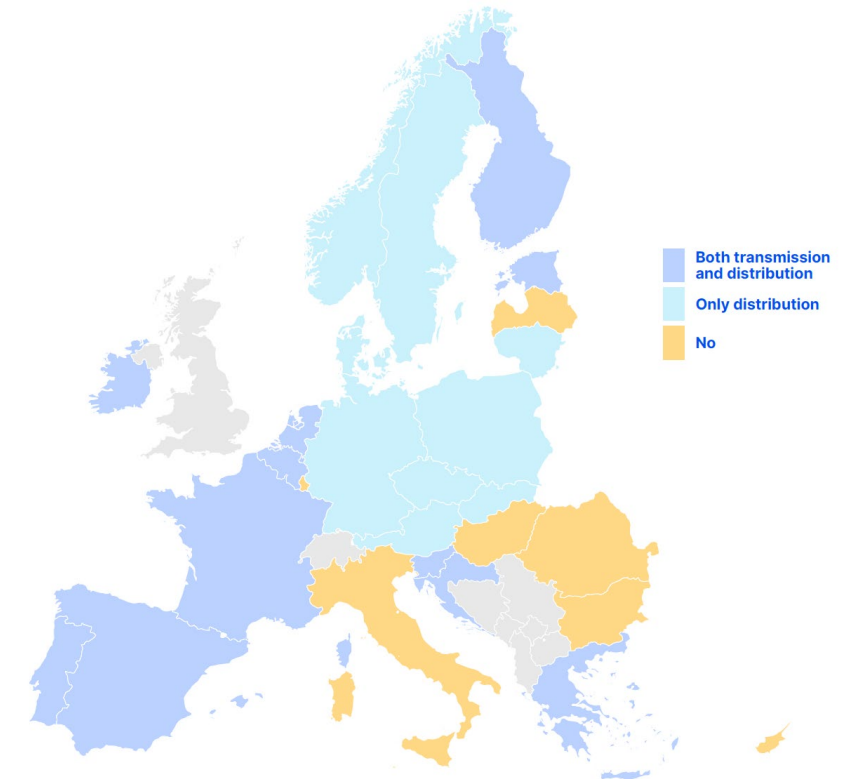
Share of households (left) and non-households (rights) with dynamic electricity price contracts, 2023



Grid tariffs play a role, too.

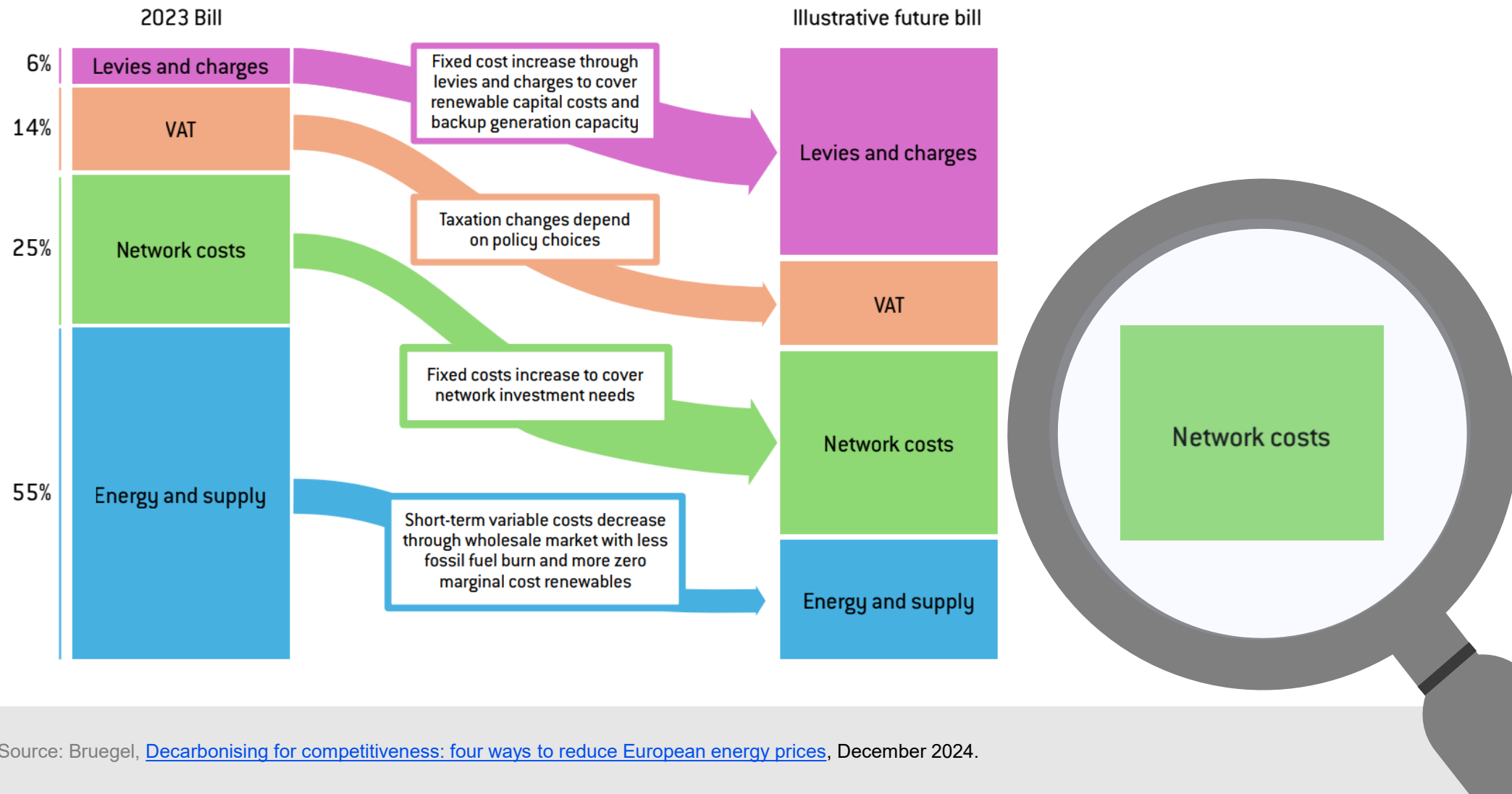
Flexibility needs make flat grid tariffs costly, pushing Time of Use forward ...

Time of Use tariffs in Europe, 2023



Grid costs are expected to increase...

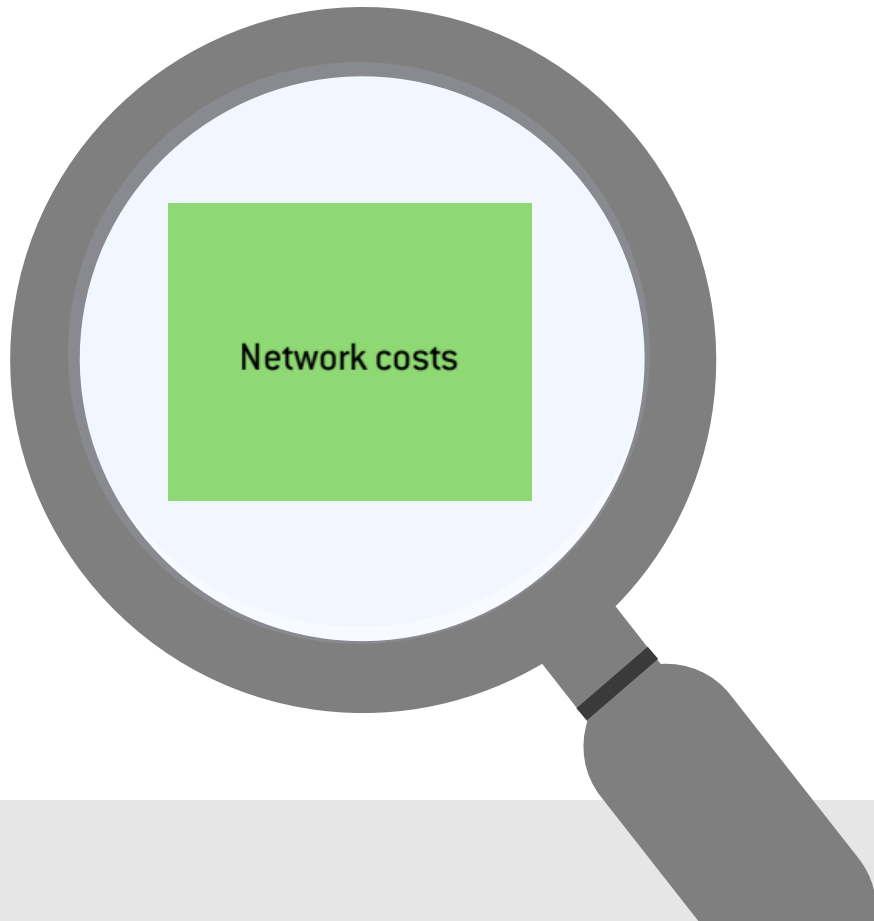
Expected changes in electricity cost components with the energy transition



... which calls for efficient investments and adaptive regulation.

We need to make the most of grid assets:

- Efficient investments (coordinated planning)
- Integrate smart grids solutions



Need for adaptive regulatory solutions!

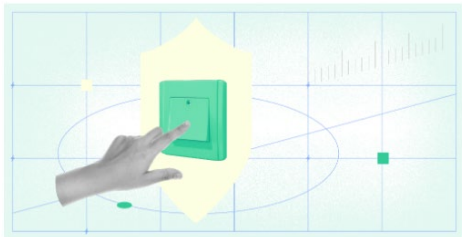
- **Incentives** for system operators
- **Tariffs** for grid users

A new flexibility needs assessment at national and European level

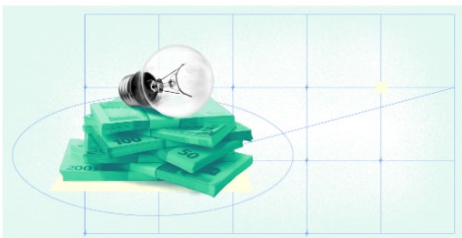
The EMD reform put the focus in RES integration, launching the flexibility assessment

EMD reform -- (EU) 2024/1747

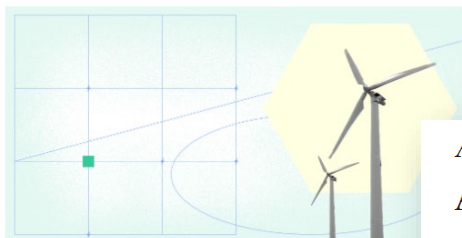
Better protection for consumers



More stability for companies



Increased green electricity



Article 19e

Assessment of flexibility needs

ACER EU-wide report

ACER's EU-wide report
estimating flexibility needs

Define targets

Member States define
indicative national targets for
non-fossil flexibility

National flexibility assessment

Member States conduct a
national flexibility needs
assessment (FNA)

Promote flexibility

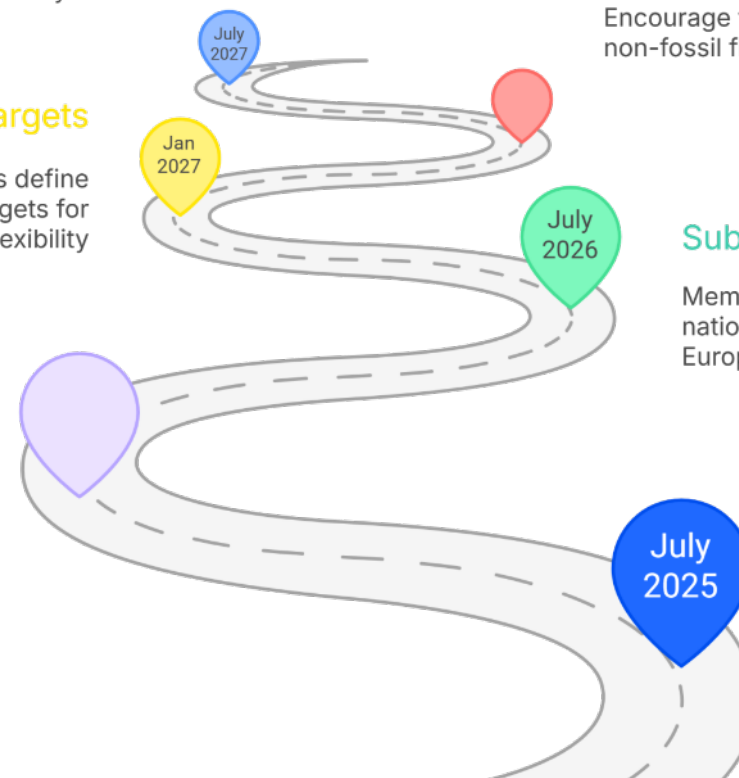
Encourage the entry of
non-fossil flexibility

Submit FNA

Member States submit the
national report to ACER and
European Commission

EU-wide flexibility methodology

ACER adopts the flexibility
needs assessment
methodology



Different assessments have different objectives... although they are all intertwined

Network development

Network development
plans



Security of Supply

Resource adequacy
assessments



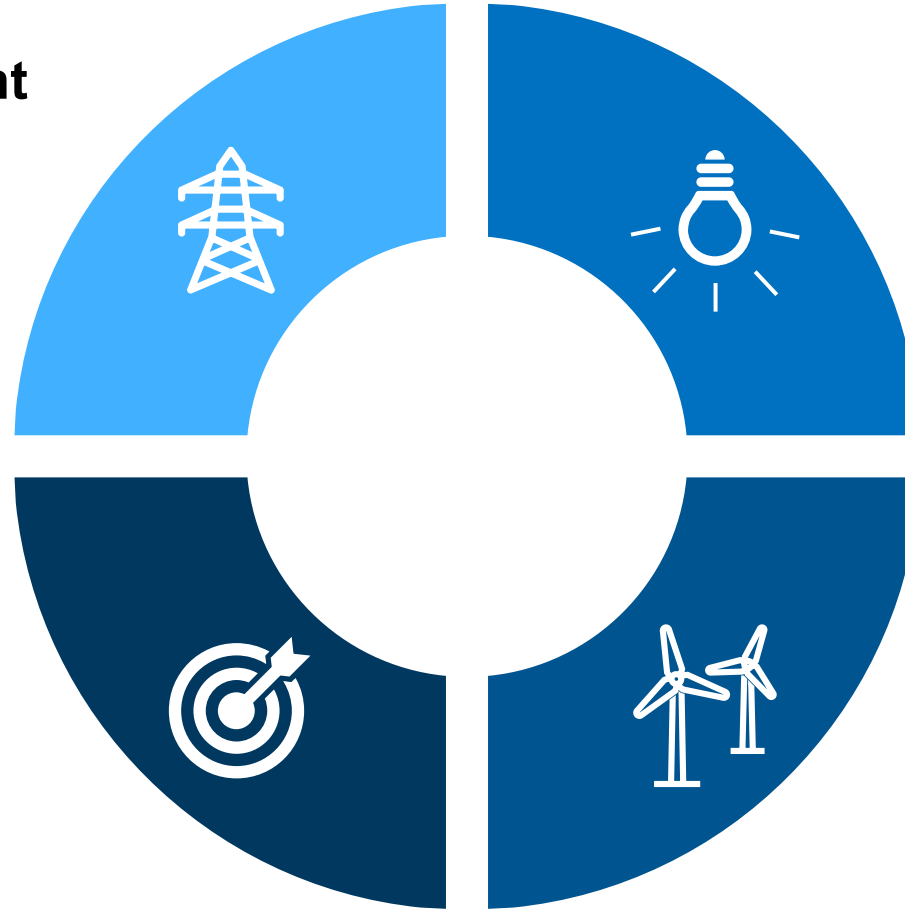
Policy targets

National energy &
climate plans



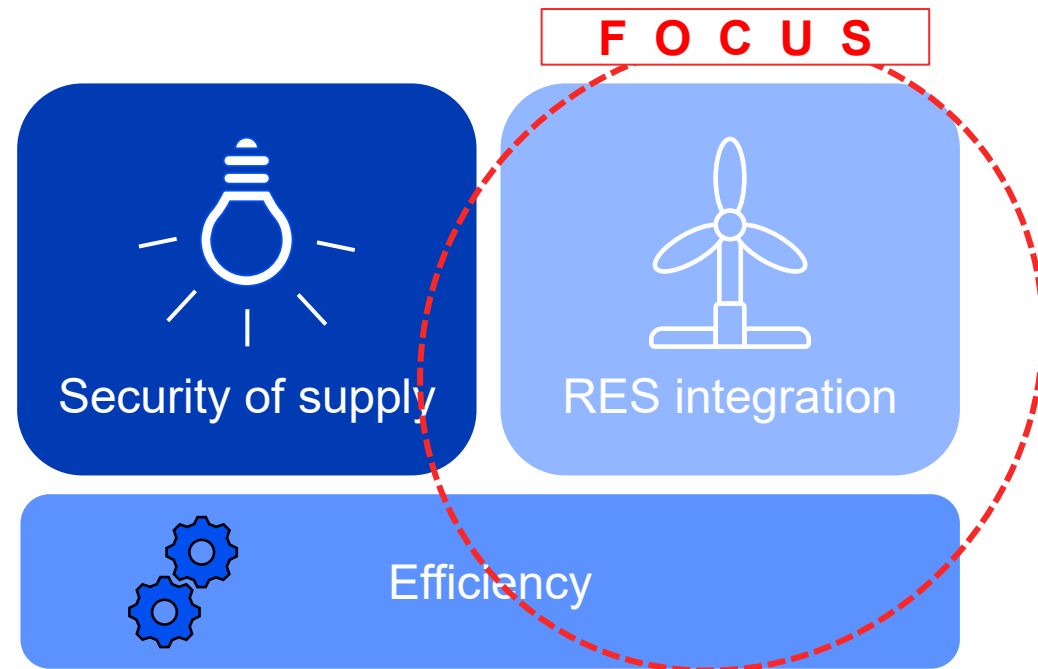
Flexibility

Flexibility needs
assessments



Adequacy and flexibility assessments both have their purpose and metrics

Type of assessment	ERAA/NRAAs	FNA
Goal	Identify capacity gaps	Identify flexibility gaps
Benchmark	Reliability standards	RES integration targets
Metrics	LOLE/ENS	RES integration, short-term needs, ramping



*EMDR Art 19e (1): “the regulatory authority [...] shall adopt a report on the estimated flexibility needs [...] in view of the need to **cost effectively** achieve **security** and **reliability of supply** and **decarbonise the electricity system**, taking into account the **integration of variable renewable energy sources**...”*

We have the tools to unlock flexibility!

Enhance markets



Remove barriers



Improve tariffs



Be smarter



Thank you!



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✉ info@acer.europa.eu
🖱 acer.europa.eu

🦋 [@eu-acer.bsky.social](https://bsky.app/profile/eu-acer.bsky.social)
🌐 [linkedin.com/company/eu-acer](https://www.linkedin.com/company/eu-acer)