



Flexibility solutions and demand response in the electricity market

*European Commission – DG Energy
25/04/2025 DR4EU workshop on CZ*

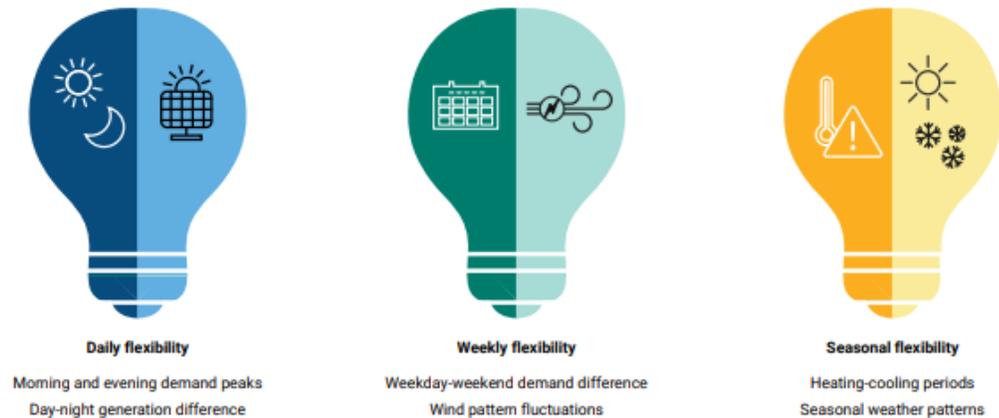
Thomas Kawam – Policy Officer – Internal Energy Market

Flexibility is diverse and its needs are increasing

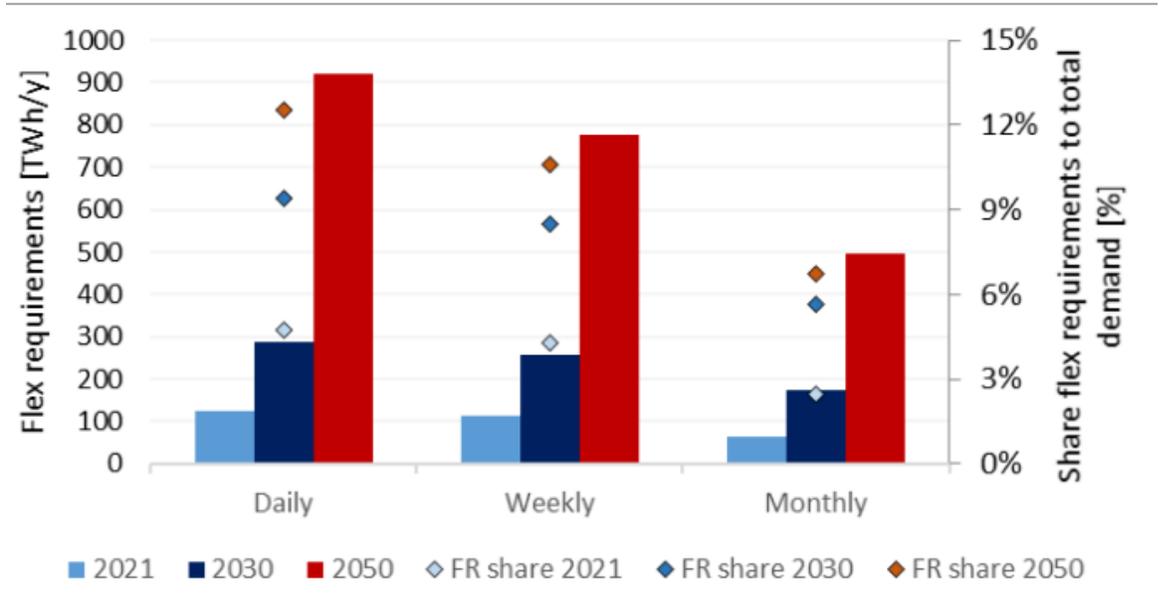
There are different types of flexibility needs.

The needs of all flexibility types are increasing.

Figure 4 Graphical representation of demand and supply patterns affecting daily, weekly and seasonal flexibility needs



Types of flexibility needs, source: EEA/ACER



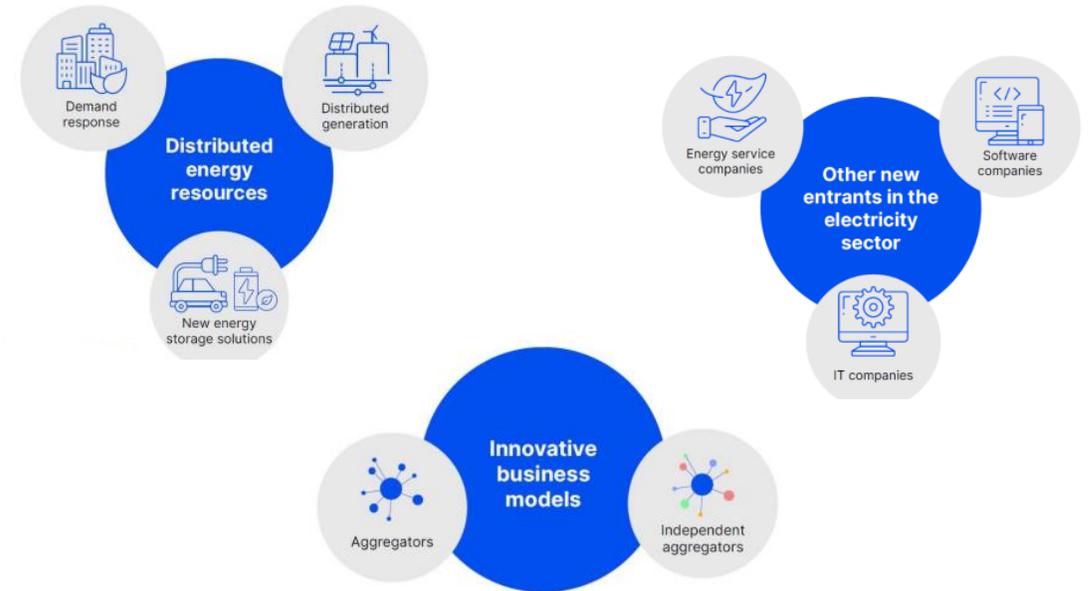
Increase of flexibility needs, source: JRC

To address the different needs, different flexibility solutions are needed

Having in mind the decarbonisation objectives, the flexibility provided by thermal fossil plants will have to be provided by non-fossil means, provided by new resources and players.

	Real-time	Day/week	Month/year
Connection	Electricity grid		
Flexible consumption	Demand-side response		
Flexible generation	Gas-fired power plants (methane/hydrogen)		
	Reservoir hydropower		
	Run-of-river hydropower		
Electricity Storage*	Pumped storage hydropower		
	Batteries		
	Hydrogen		

Non-fossil flexibility solutions, source: Eurelectric



Flexibility providers, source: ACER

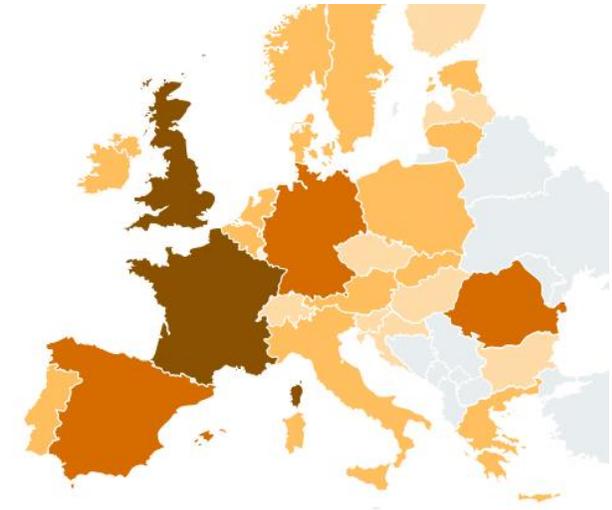
Demand response business cases vary across the EU Member States



Ancillary services

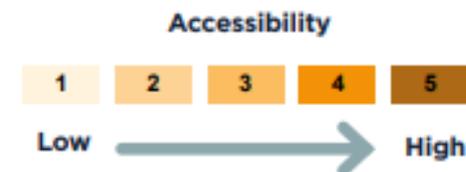


Wholesale market

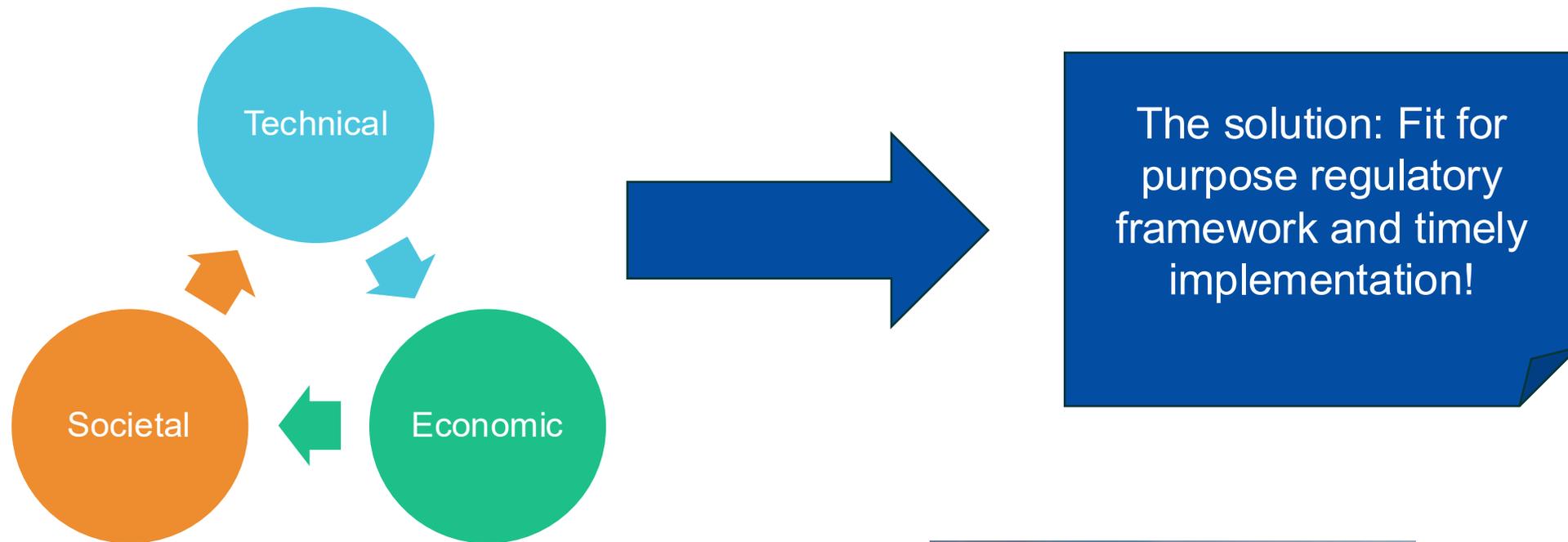


Future development

Source: Market monitor for Demand Side Flexibility, source: SmartEN, LCP Delta



There are different types of barriers to the development of demand-response



On 9 April 2025, ACER published 12 no-regret actions to remove barriers to demand response.



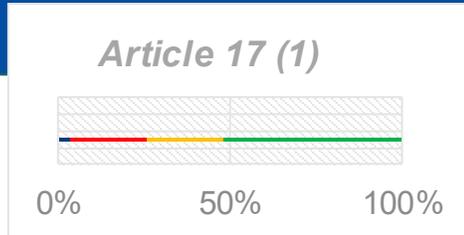
The regulatory framework: What is going on to develop demand response?



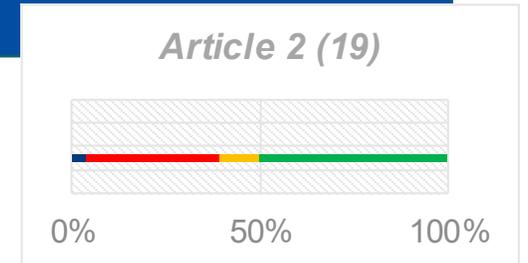
No need to « wait for Brussels »!
Implementation of existing regulation and directives will unlock many barriers to the development of flexibility and demand response.

The building blocks are already in the Electricity Regulation and Directive

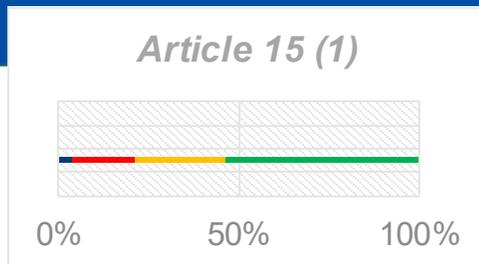
Open the electricity markets to demand response, storage and other flexibility sources, incl. distributed



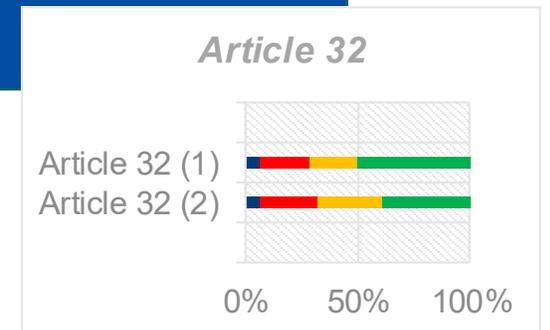
Demand response through aggregation



Active customer



Use of flexibility by system operators, in particular in distribution networks



■ In process ■ not transposed
■ not conform ■ conform

This existing framework will be complemented with new rules on Demand Response

Objective: Address remaining regulatory barriers for the development of demand side flexibility and other flexibility resources in the electricity market.

How: By introducing new rules on demand response, including rules on aggregation, local flexibility markets, energy storage or network development plans

Process: Proposal submitted by ACER to the European Commission in March 2025. The Commission aims at an Entry into Force of the rules by Q1 2026.

- The code covers in particular:

Market access

Requirements
for service
providers

Local flexibility
markets

Coordination

Thank you! Any question?

Thomas Kawam

thomas.kawam@ec.europa.eu