

European  
Workshops  
on Demand  
Response  
2026



**DR4EU**  
DEMAND RESPONSE FOR EUROPE

## Demand Response in Europe

*Contribution to power markets by 2030 –  
Implementation priorities today*

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***When?***

**27<sup>th</sup> March 2026**

**10:00 – 11:30 CET**

***On-line***

***How to join?***

Link will be sent by e-mail  
to registered participants

# *Introductory Comments*

Pierre BIVAS

Chair, DR4EU

27<sup>th</sup> March 2026

# Structural Challenges: Prior to Iran, Europe was already facing major challenges for managing the cost of power to consumers

Europe is heading toward 50% variable renewables by 2030, but even with just 24% today the **power system is already showing cracks.**



## Exploding price volatility

+143%

(2018 – 2024)  
Average of

UK, DE, FR, IT, ES, BE



## Rising average prices

+62%

EU (2019 – 2024)



## Rising congestion costs

5 Bn EUR

EU (2024)



## Growing curtailment of RES generation

+97% (1.4 TWh)  
PV curtailment

Germany (2024)

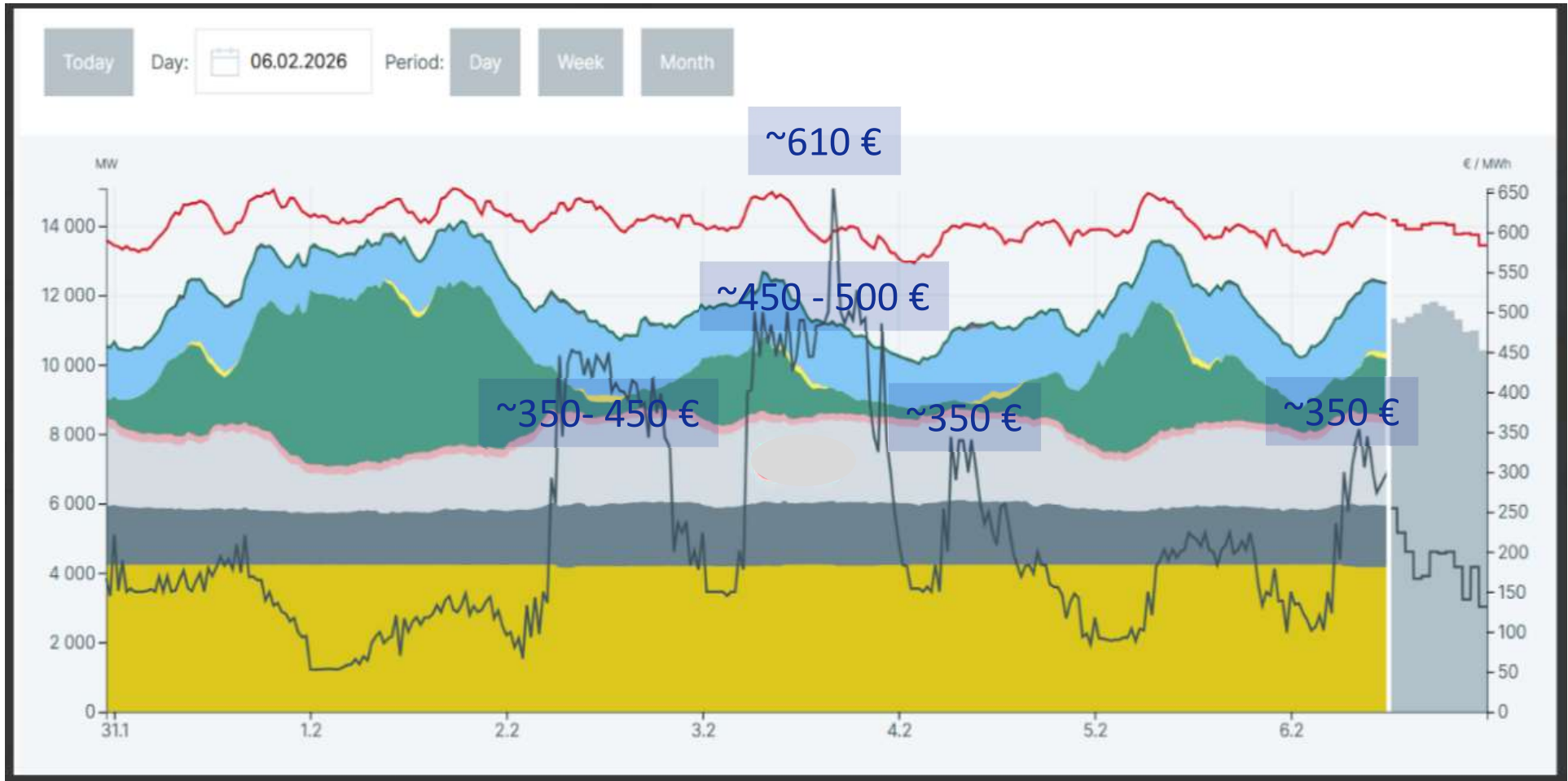


## Growing resource adequacy challenges

Peak demand: +24%  
Residual Demand: -46%

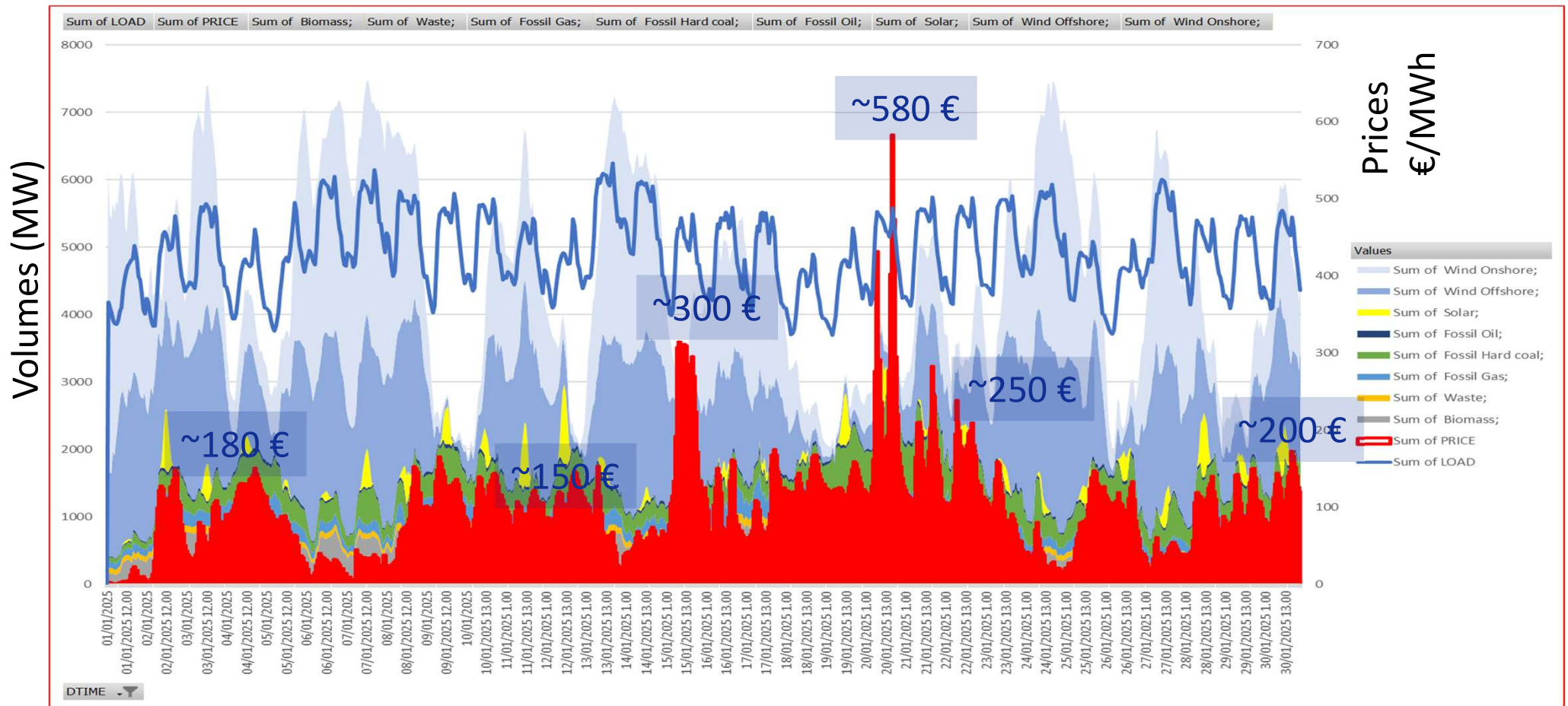
UK (2026-30)

# Extreme price events, such as this one in Finland in February...



Week of 31Jan2026, source: Fingrid

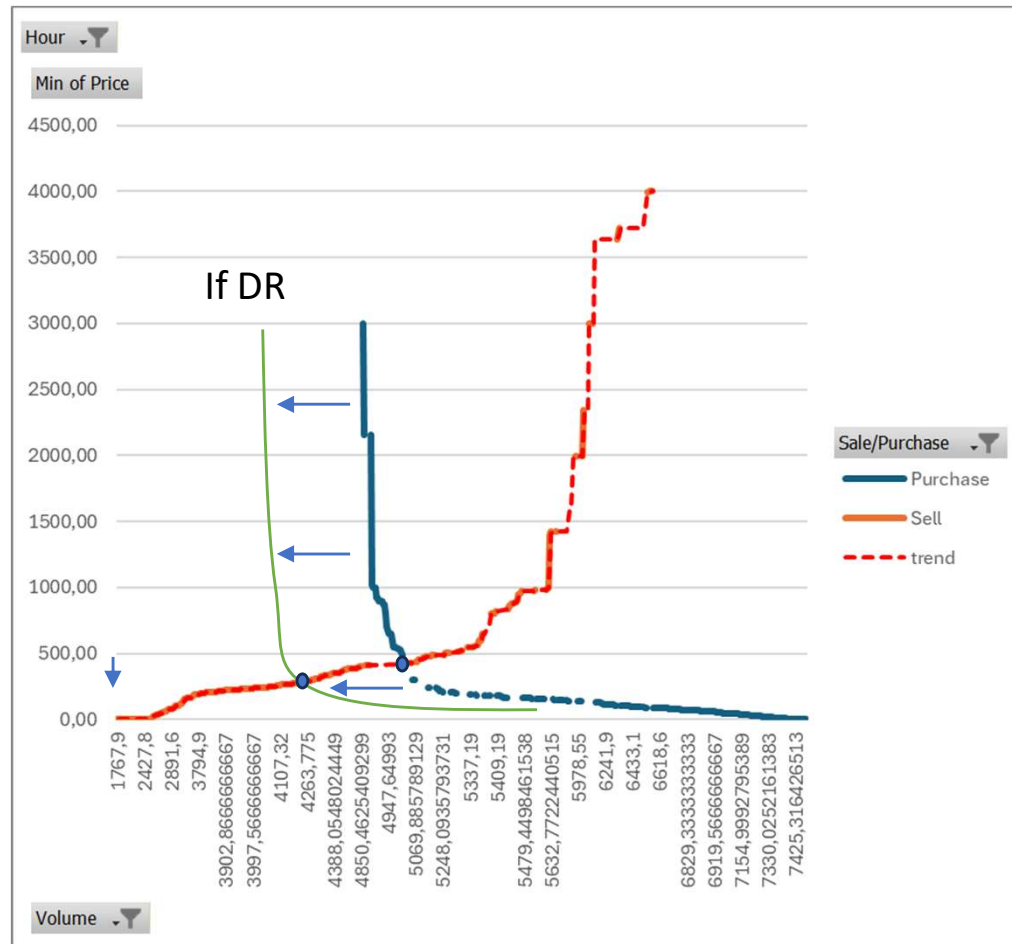
....or this one in Denmark,  
were already becoming more common ...



Month of January 2025, Source: EPEX

# How DR would help to lower peak power prices: a concrete example of 200, 400, 600 MW in Denmark

## DA Sell / purchase curves 22Jan2025



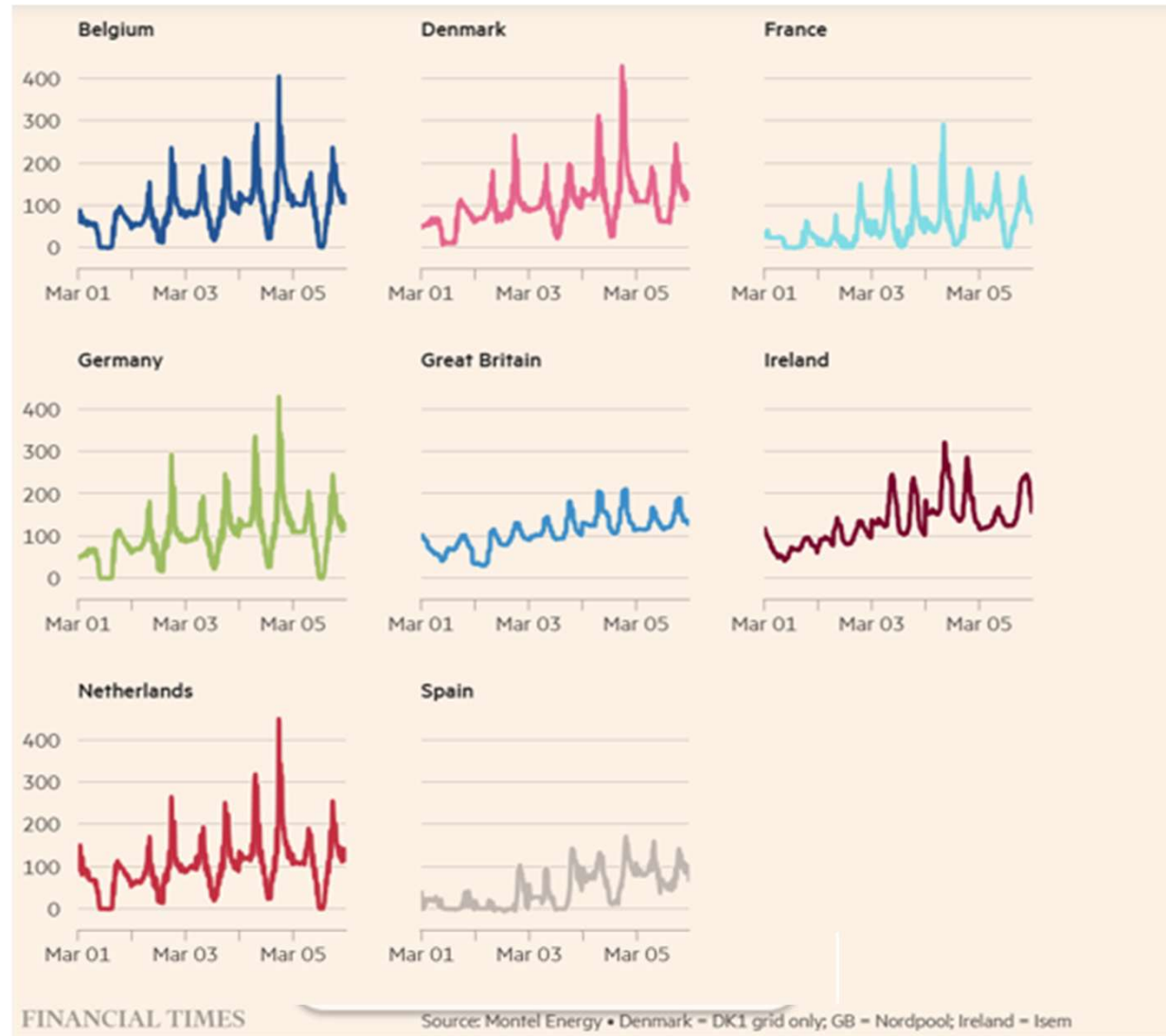
Day Ahead (H8)	22/01/2025 Price	Volume	
Volume thru market		4231	
<b>Amount of DR</b>		<b>200</b>	
Suppliers purchasing expense			
Without DR	285,4	4231	1208 k€
With DR	244,05	4231	1033 k€
<b>Savings by suppliers</b>			<b>175 k€</b>
DR expense	244,05	200	49 k€
<b>Net benefit</b>			<b>126</b>
<b>Benefit ratio</b>			<b>3</b>

Day Ahead	22/01/2025 Price	Volume	
Volume thru market		4231	
<b>Amount of DR</b>		<b>400</b>	
Suppliers purchasing expense			
Without DR	285,4	4231	1208 k€
With DR	195,30	4231	826 k€
<b>Savings by suppliers</b>			<b>381 k€</b>
DR expense	195,3	400	78 k€
<b>Net benefit</b>			<b>303</b>
<b>Benefit ratio</b>			<b>4</b>

Day Ahead	22/01/2025 Price	Volume	
Volume thru market		4231	
<b>Amount of DR</b>		<b>600</b>	
Suppliers purchasing expense			
Without DR	285,4	4231	1208 k€
With DR	185,6	4231	785 k€
<b>Savings by suppliers</b>			<b>422 k€</b>
DR expense	185,6	600	111 k€
<b>Net benefit</b>			<b>311</b>
<b>Benefit ratio</b>			<b>3</b>

Post-Iran, these effects are magnified:  
too much gas-fired flexibility, setting prices too often

DA power prices in week of  
beginning of war in Iran  
(€/MWh)



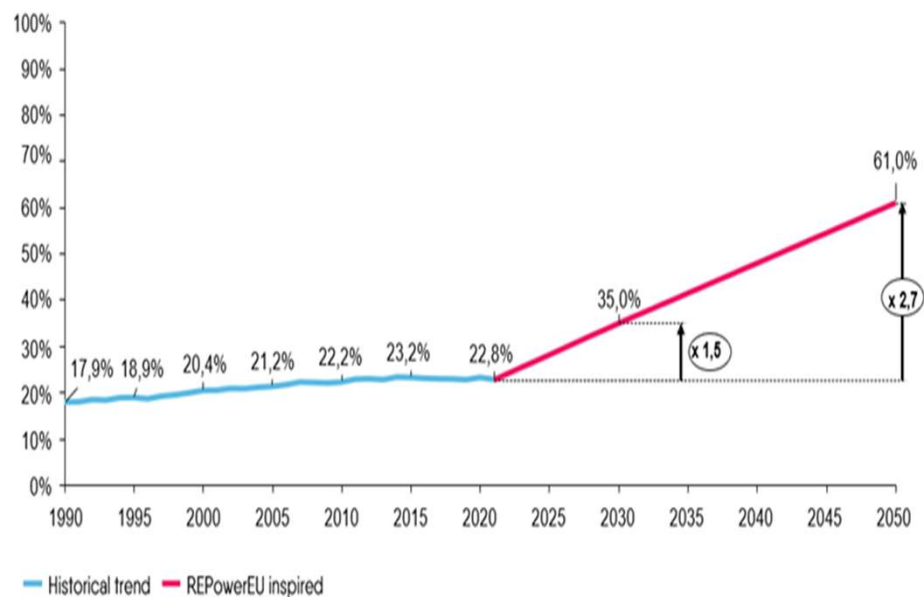
## Europe's current options to lower electricity prices...

1. Subsidise consumers / undermine carbon market
2. Change the market design...
3. Scale up cleaner, cheaper sources of flexibility
  - Strong focus & reg frameworks on grids and batteries
  - DR is needed any way, at a large scale... yet constantly delayed or underemphasised

*... and thus move forward on the energy transition*

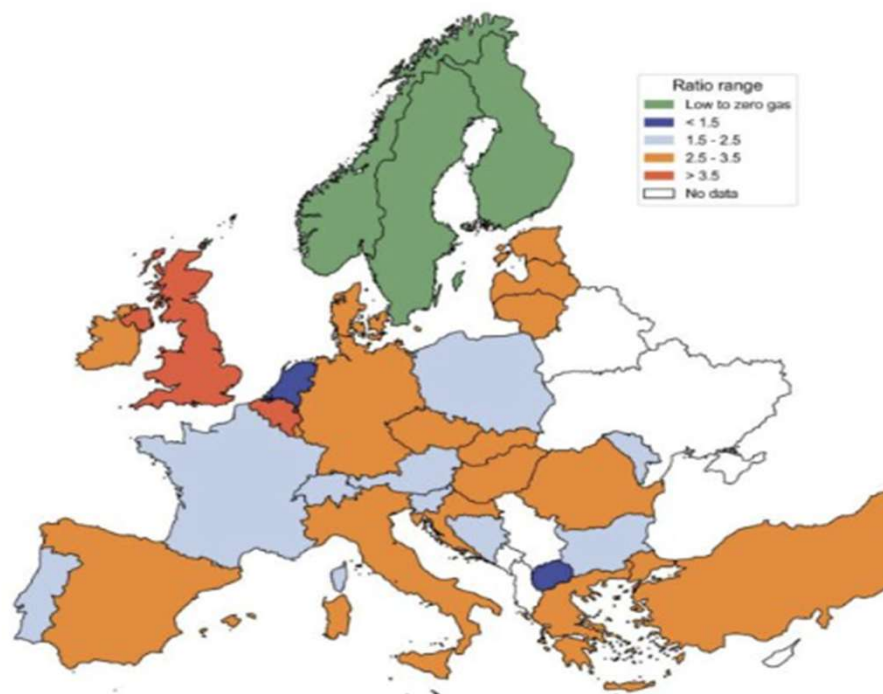
# Failure to electrify demand at the required speed

**Share of electricity in total final energy consumption EU (historical vs. REPowerEU goals)**



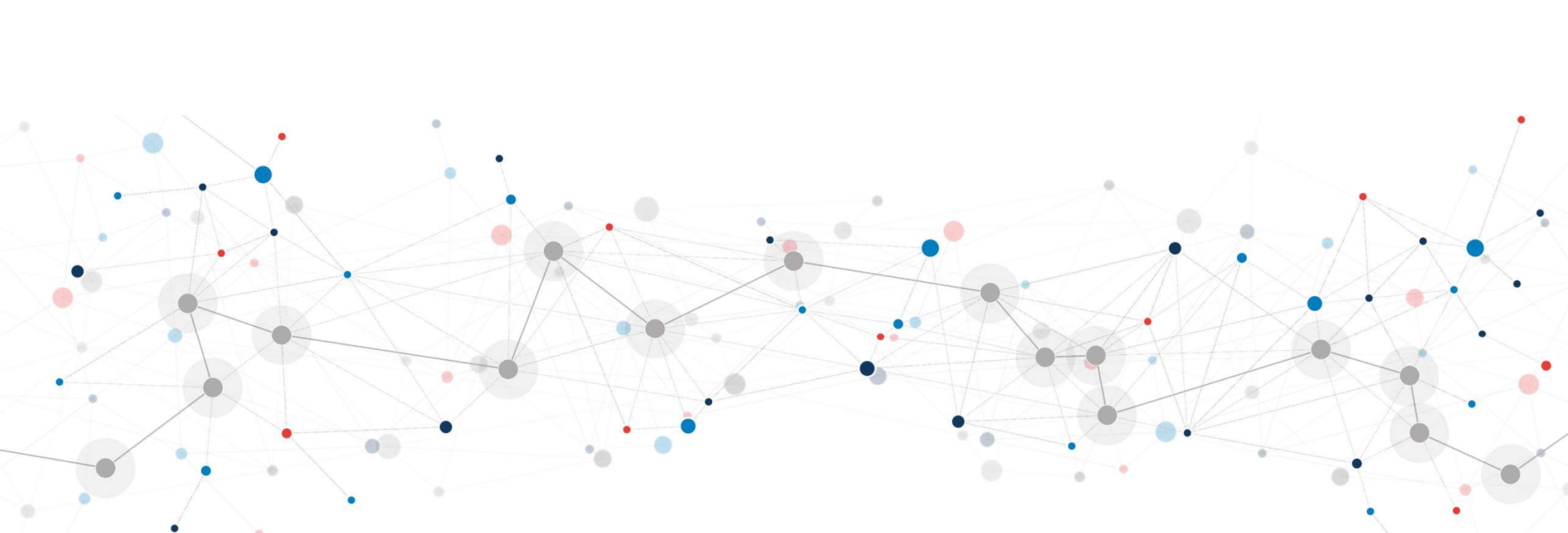
Source: Eurelectric *Decarbonisation Speedways*

**Elec/Gas price ratio (EHPA goal: 2:1)**



Source: Eurostat, UK Heat Pump Association (HPA), Polish Organisation of Heat Pump Technology Development (PORT PC), Swiss heat pump association (FWS). Includes all taxes and levies.

Sources: EHPA, Eurelectric



# Analysis of Demand-Side Response benefits to the EU power system

*Online DR4EU conference - What contribution of Demand Response to European power markets by 2030? What are the implementation priorities today?*

A study commissioned by:



Sponsored by:



Fabien Roques, EVP, Compass Lexecon

27 March 2026

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# Contents

## **There is growing evidence of an urgent need for more flexible capacity in the EU power system**

- Price volatility is increasing in the EU power markets
- Power systems security faces growing and more diverse challenges
- Daily flexibility needs are expected to increase materially by 2030

## **Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030**

- We quantify several indicators to assess the benefits of DSR in European markets
- Increased DSR deployment by 2030 would yield substantial benefits for consumers
- Increased DSR deployment by 2030 would reduce wholesale market costs and CAPEX expenditures

## **Our 2022 study showed the benefits of DSR at times of high energy prices**

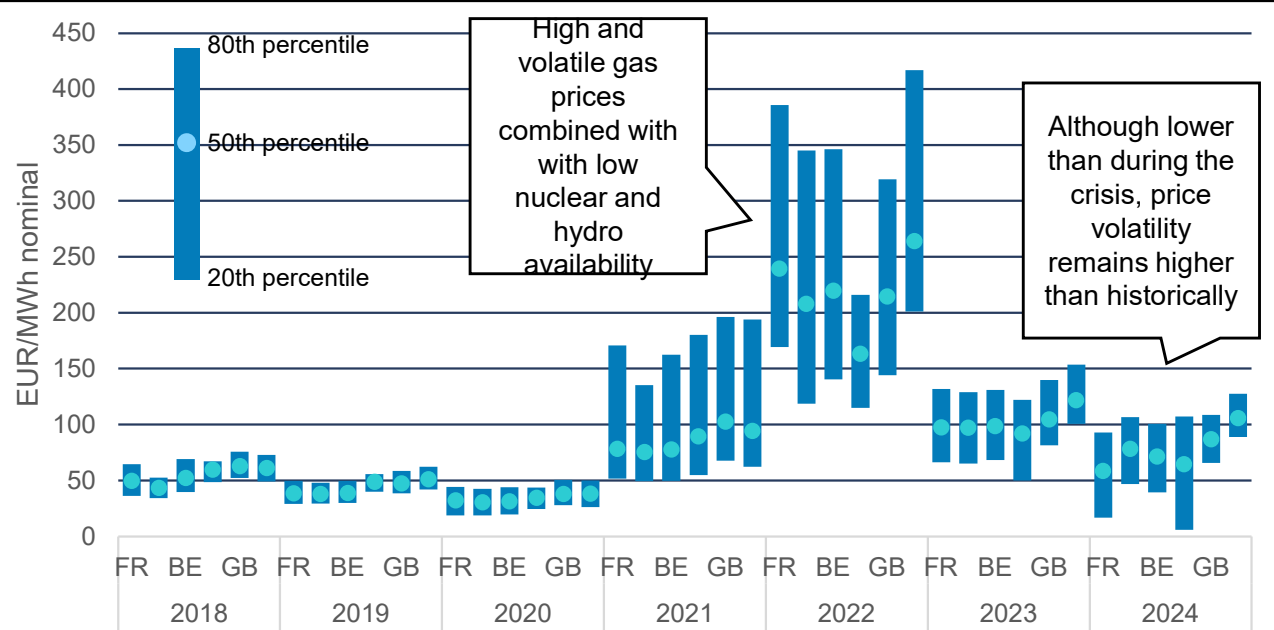
# Price volatility is increasing in the EU power markets

1. There is growing evidence of an urgent need for more flexible capacity in the EU power system

**Power price volatility has increased over the past few years, driven by:**

- Gas market tensions
- The increasing penetration of renewables
- Decommissioning of conventional thermal capacity

**Day-Ahead power prices volatility**



	2018	2019	2020	2021	2022	2023	2024
<b>Standard deviation of prices (EUR/MWh)</b>	18.3	15.3	16.2	88.0	135.0	44.6	44.5
<b>Increase in standard deviation of prices since 2018 (%)</b>		-17%	-11%	+381%	+638%	+143%	+143%

Source: CL analysis, European Wholesale Electricity Price Data sourced from ENTSO-e by Ember [LINK](#)

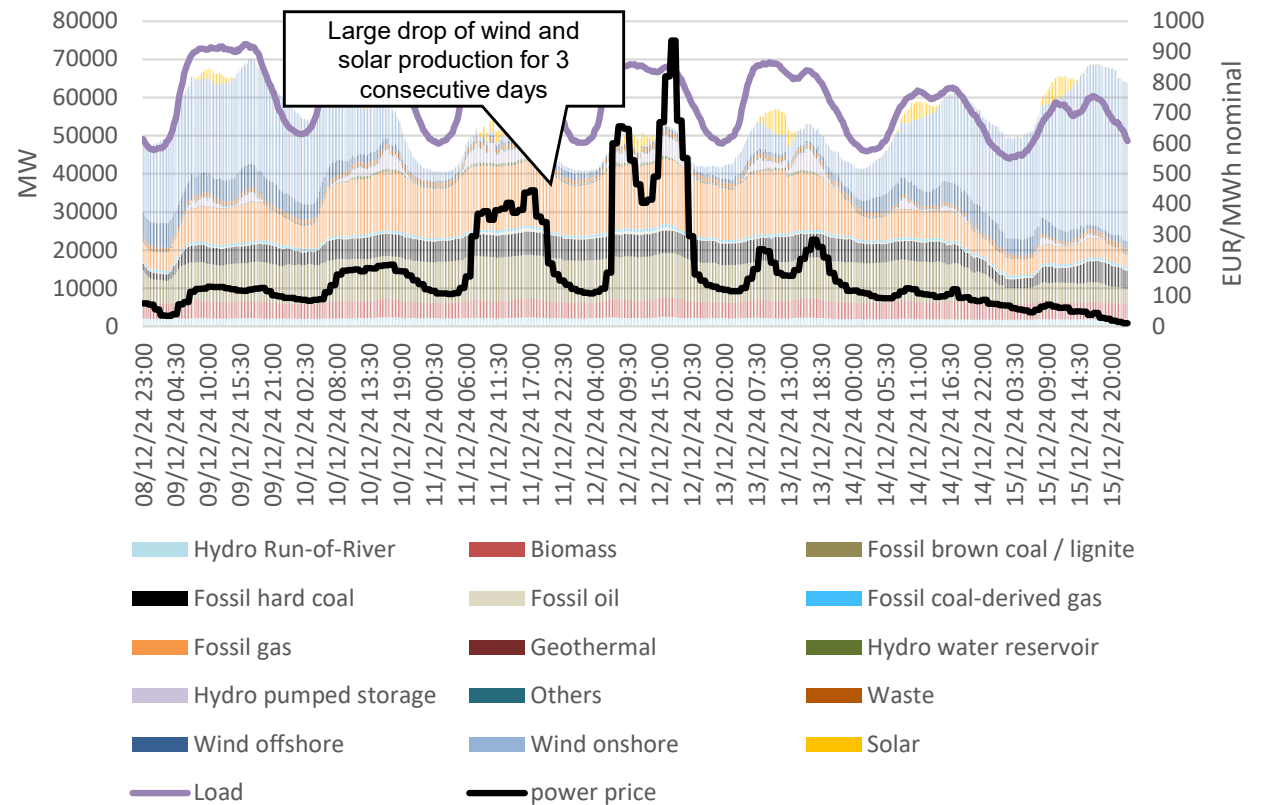
1. There is growing evidence of an urgent need for more flexible capacity in the EU power system

# Power systems security faces growing and more diverse challenges

The EU power system faces evolving security of supply challenges that point to a growing lack of flexibility:

- Dunkelflaute events
- Grid balancing challenges, including curtailment and congestion losses
- Dispatchable production gap with rising renewable capacity
- Grid constraints
- Climate change related extreme events impact

Dunkelflaute event in Germany (10 to 13 December 2024)



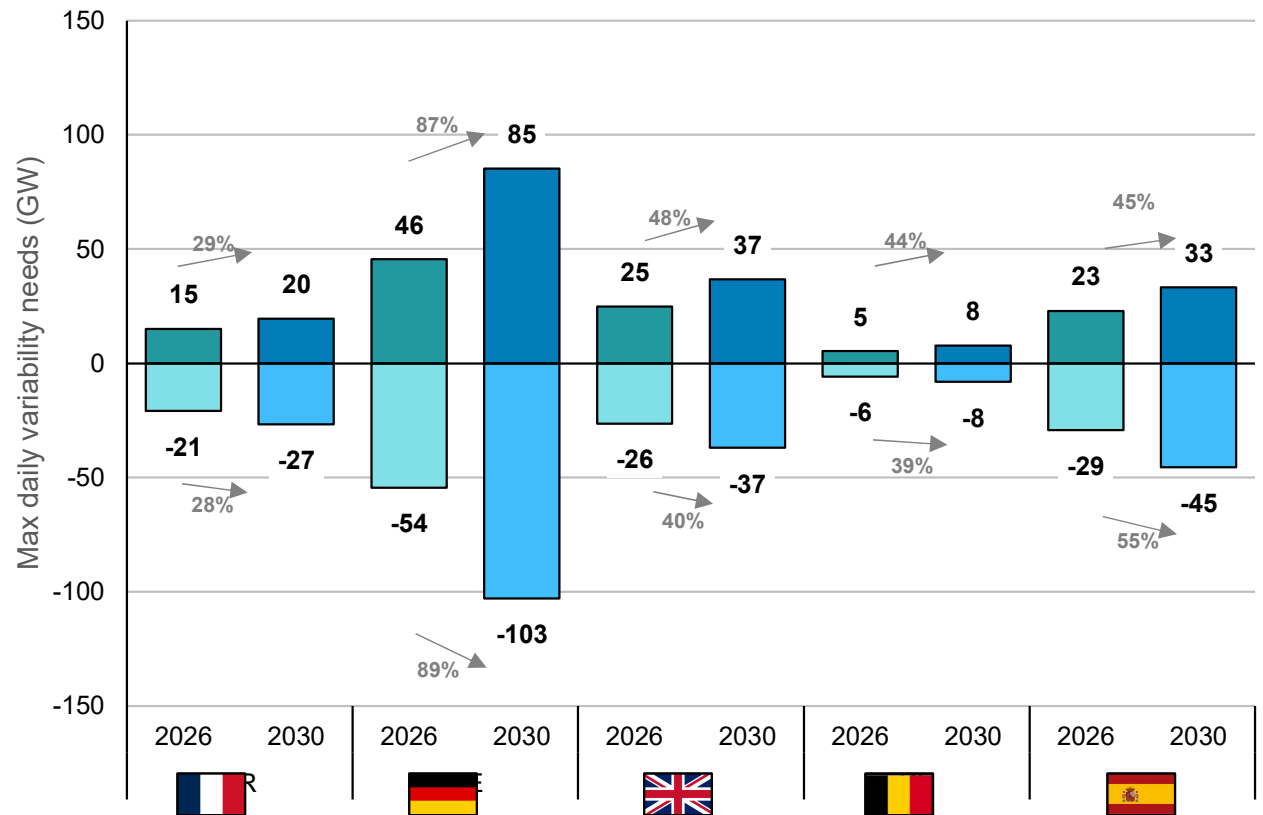
Source: CL analysis, Energy Market Price, energy-charts  
Abbreviations: DSR ... Demand-side response

# Daily flexibility needs are expected to increase materially by 2030

1. There is growing evidence of an urgent need for more flexible capacity in the EU power system

- **Daily flexibility needs** - calculated as the hourly residual demand minus the daily average residual demand – **are projected to increase substantially in all countries in both directions between 2026 and 2030.**
- Similar results appear for other timeframes, esp. weekly.

Max daily variability needs up/down (GW) – 2026 to 2030



**Max needs:** Maximum flexibility need in each direction observed during the year.

**Total needs:** Total flexibility need in each direction observed over the whole year.

**Source:** CL analysis, ENTSOE ERAA 2024 **Abbreviation:** RES ... Renewable energy system, DSR ... Demand-side response **Notes:** 1. residual demand is computed as demand minus renewable production including onshore wind, offshore wind and solar

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

## We model potential benefits associated with faster EU DSR development to 2030

### Modelling approach

Our analysis focuses on DSR benefits for the EU wholesale power market in 2030 in four scenarios:

- 1 **ERAA 2024** - Designed to reflect the expected evolution of the EU power market by 2030 planned in ERAA 2024 scenario (average market conditions with expected DSR deployment by 2030)
- 2 **No DSR growth** - Designed to reflect a market situation in which DSR capacity would not grow by 2030 and serves as a counterfactual of scenario 1 to assess DSR benefits.
- 3 **Additional DSR & slower battery growth** – Designed to showcase the benefits of additional DSR relative to ERAA 2024 in a world with a slower battery buildout than anticipated by ERAA 2024 (50% of the growth between 2026 and 2030).
- 4 **No DSR growth & slower battery growth** - Designed to reflect a market situation in which DSR would not grow by 2030 and a slower battery buildout and serves as a counterfactual of scenario 3 to assess DSR benefits.

In the study, we **compare scenario 1 to scenario 2** to highlight the benefits of adding DSR as planned in ERAA 24, and **scenario 3 to scenario 4** to highlight the benefits of adding DSR and account for the risk of a slower battery buildout than anticipated due to e.g. battery supply chain issues and/or grid connection bottlenecks.

Source: CL Energy

Abbreviations: DSR ... Demand-side response

### Geographic scope of the model



#### Simulation:

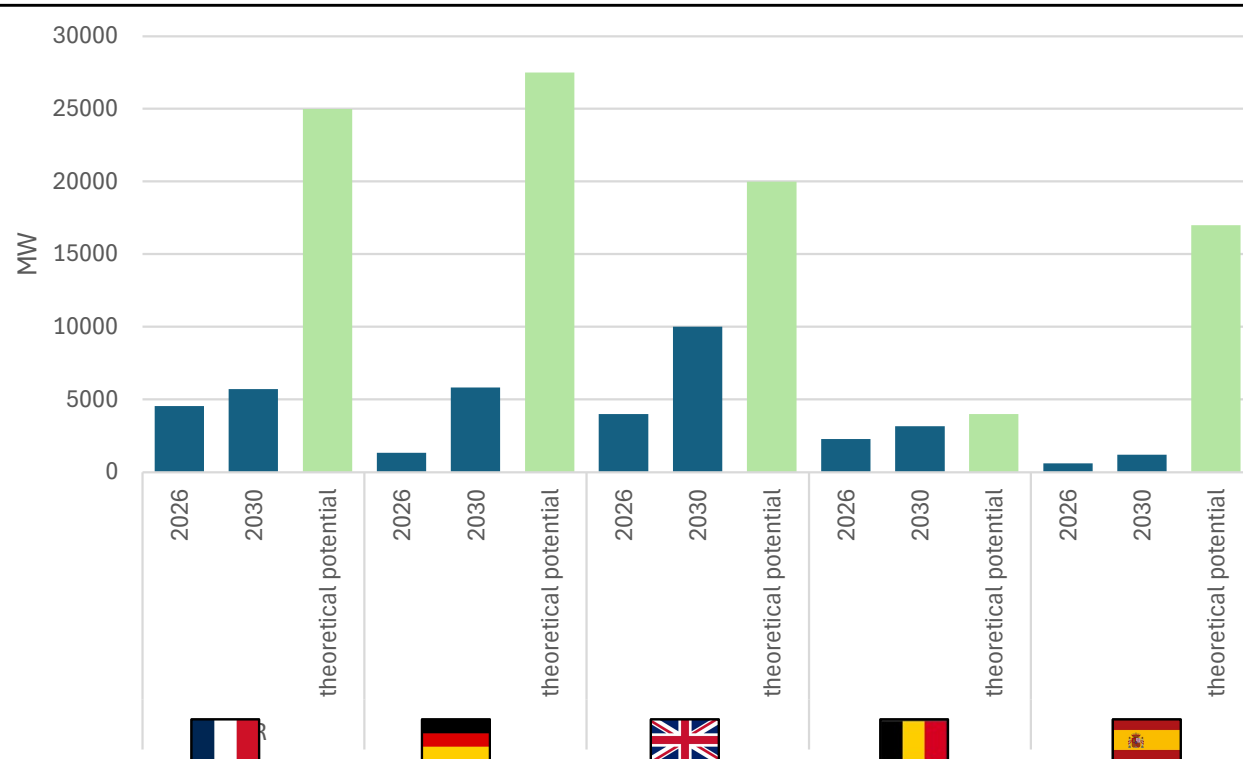
- Hourly dispatch of generation, hourly cross border flows, hourly power prices
- The model runs on the commercial modelling platform Plexos®

# ENTSOE' s ERAA 2024 adequacy study assumptions on DSR capacity compared

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

- **The latest adequacy study from ENTSOE, ERAA 2024, assumes an increase in DSR capacity in Europe by 2030:**
  - 40.7 GW in EU + GB in 2030
  - Compared to 15.6 GW in 2025
- **This still only represents a small share of the estimated potential:**
  - For instance, the potential in France or Germany is estimated >25 GW while ERAA foresees less than 6GW for France or Germany.
  - In comparison, ERAA 2024 assumes 48 GW of battery capacity in Germany by 2030, a fourfold increase from 2004 level
  - In Spain, the potential is estimated >15 GW while ERAA2024 foresees 1.1 GW of DSR by 2030.

Projected DSR capacity in ERAA 2024 and FES 2024<sup>1</sup>



Source: CL analysis, ENTSOE ERAA 2024, FES 2024, [DSR impact assessment study](#)

Notes: including EVA capacity, FES 2024 data for GB

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

## We quantify several indicators to assess the benefits of DSR in European markets

To evaluate the benefits of DSR in EU power markets, the following metrics were quantified:

Metric	Description
Generation	The impact of adding DSR to EU power markets on the generation mix is assessed via comparing variations in generation by technologies across scenarios.
CO <sub>2</sub> Emissions	Typically displacing more expensive thermal power plants when activated, DSR reduces CO2 emissions.
Energy Not Supplied	Decreasing DSR capacity may lead to an increase in energy not supplied.
Top prices drop	In a similar fashion as for emissions, due to the activation of DSR during peak price hours displacing more expensive production units, DSR reduces power prices in these periods.
Wholesale market cost	Wholesale market costs correspond to the cost of supplying the load in EU countries, that is the hourly demand multiplied by the corresponding hourly power prices.
Net benefits for consumers	Net benefits are assessed as follows: $Net\ benefits = Wholesale\ costs_{sensitivity} - Wholesale\ costs_{reference\ scenario} + DSR\ revenues_{reference\ scenario} - DSR\ revenues_{sensitivity}$

Today's focus

Source: Compass Lexecon

Abbreviations: DSR ... Demand-side response

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

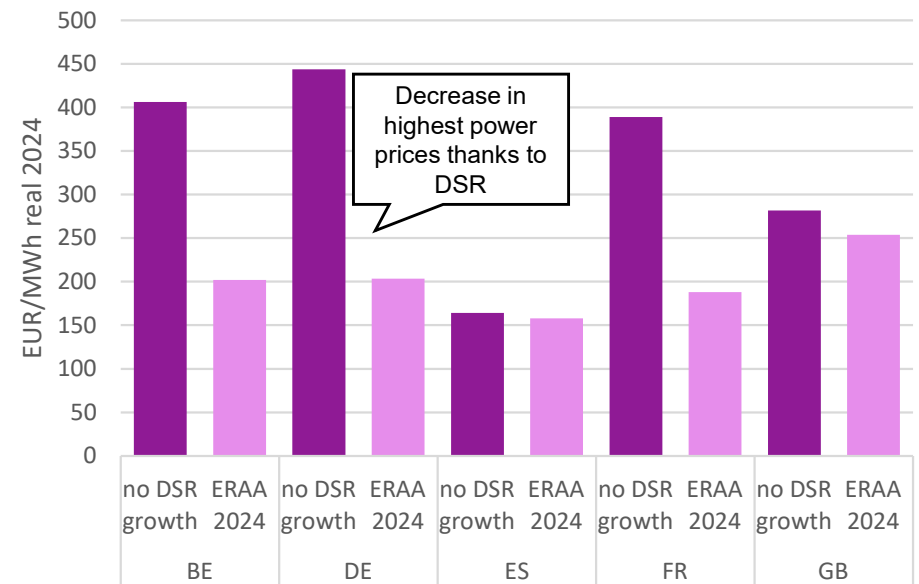
## Demand Side Response activation lowers power prices – particularly at peak times

Peak prices and thus average power prices are reduced thanks to DSR. This is the result of displacing more expensive production units out of the merit order.

Day-ahead market power prices average in 2030 (EUR/MWh real 2024)

market	ERAA 2024	no DSR growth	Difference
DE	87.7	93.6	-5.9
ES	78.0	78.2	-0.2
BE	88.7	93.2	-4.5
FR	83.5	86.1	-2.6
GB	69.2	69.6	-0.5

Top 100 day-ahead market power prices average in 2030



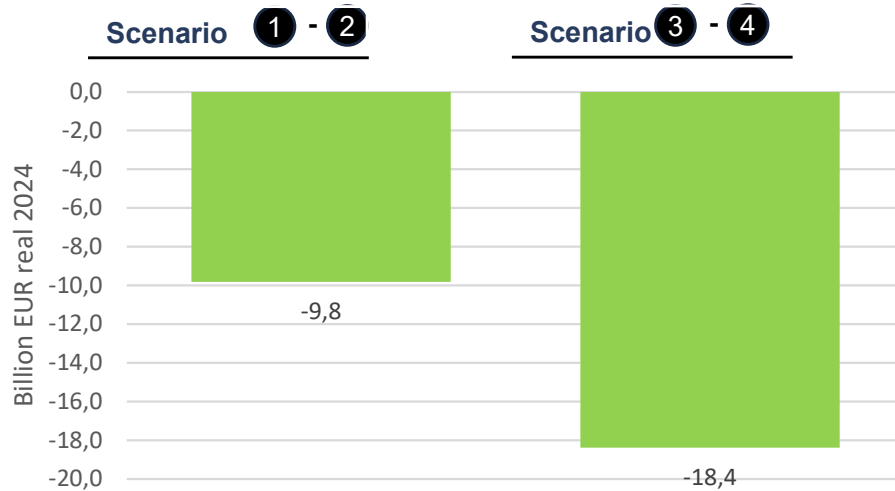
Source: Compass Lexecon

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

# Increased DSR deployment by 2030 would yield substantial benefits for consumers

## EU day-ahead market costs reduction in 2030 (billion EUR real 2024)

Wholesale market costs — the cost of supplying the load — is decreased if DSR is further developed by 2030 as DSR lowers market prices.



Reduction in EU+GB wholesale market costs thanks to DSR (%)

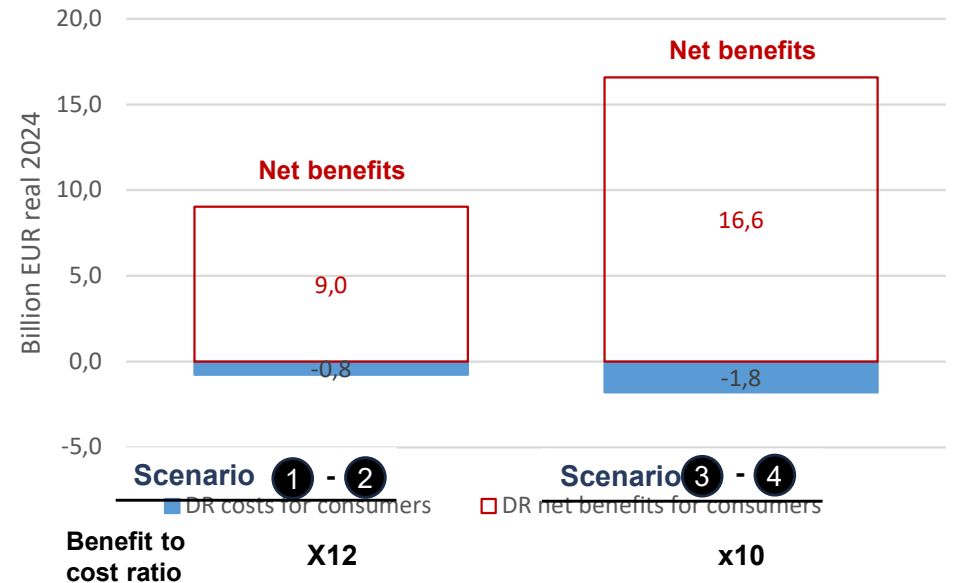
-2.9%

-3.8%

## DSR benefits versus costs analysis in 2030<sup>1</sup> (billion EUR real 2024)

Net benefits for consumers — defined as the cost savings with greater DSR compared to scenarios with less DSR minus the payments to DSR operators — are estimated above 9 billion euros in 2030 in all scenarios.

The benefits increase to 16.6 bn Euros in scenarios with slower batteries buildout: Increased DSR deployment is also an insurance against potential battery buildout delays.



Source: CL Energy Notes: 1. hours with loss of load are valued at the wholesale market price cap of 4000 EUR/MWh, and not at the value of loss load (VOLL) which is typically higher

Key: 1 ERAA 2024 2 No DSR Growth 3 Additional DSR & slower battery growth scenario 4 No DSR growth & slower battery growth scenario

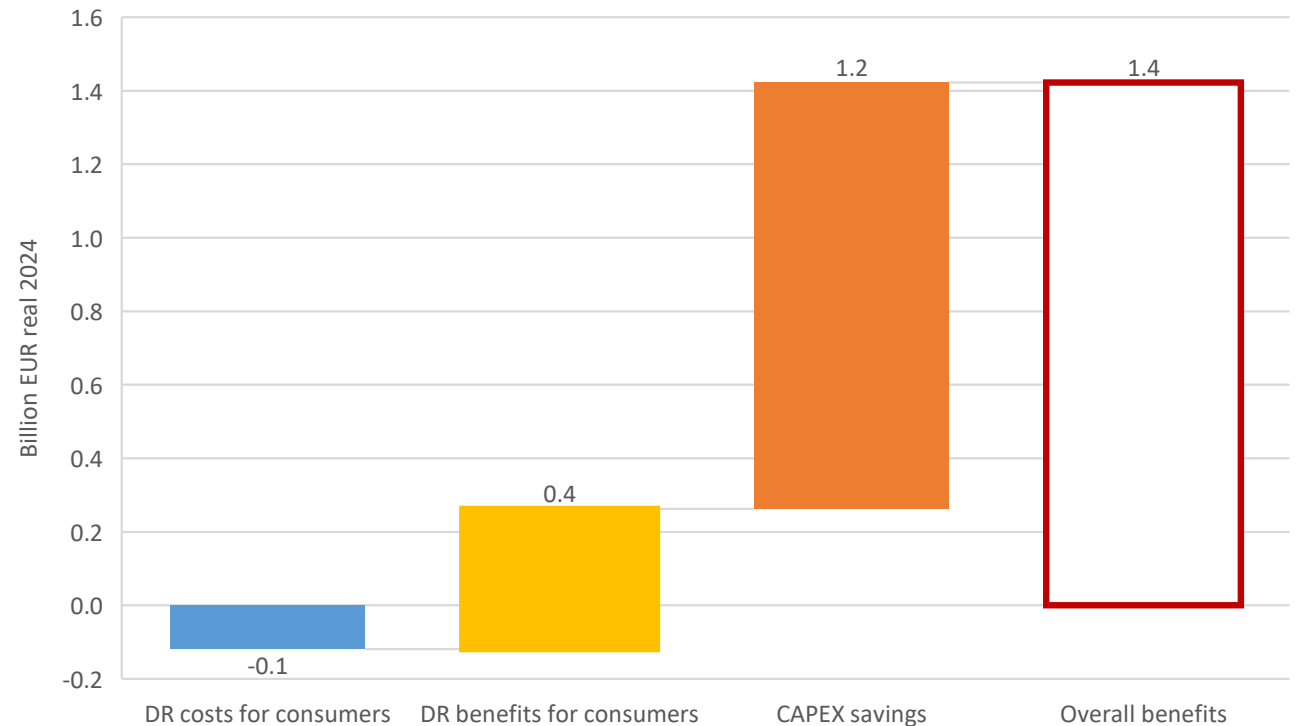
Abbreviations: DSR ... Demand-side response

# In a scenario with headwinds for batteries deployment, increased DSR by 2030

2. Our study uses a pan EU market model to assess the potential benefits associated with faster EU DSR development to 2030

- The DSR & slower battery growth scenario considers 35 GW less of batteries by 2030 relative to ERAA 2024 scenario, replaced by a commensurate amount of DSR.
  - In this scenario greater DSR reduces wholesale market costs by 3.8 billion EUR.
  - Additionally, considering a CAPEX of 170 EUR/kW for DSR and 500 EUR/kW for batteries, higher DSR deployment and slower battery buildout would reduce CAPEX expenditures by c.11.6 billion EUR.

DSR benefits versus costs analysis in 2030 (billion EUR real 2024)



Source: CL Energy

Key: 3 Additional DSR & slower battery growth scenario

1 ERAA 2024

3 - 1

Abbreviations: DSR ... Demand-side response

# Deploying DSR provides many benefits to power markets

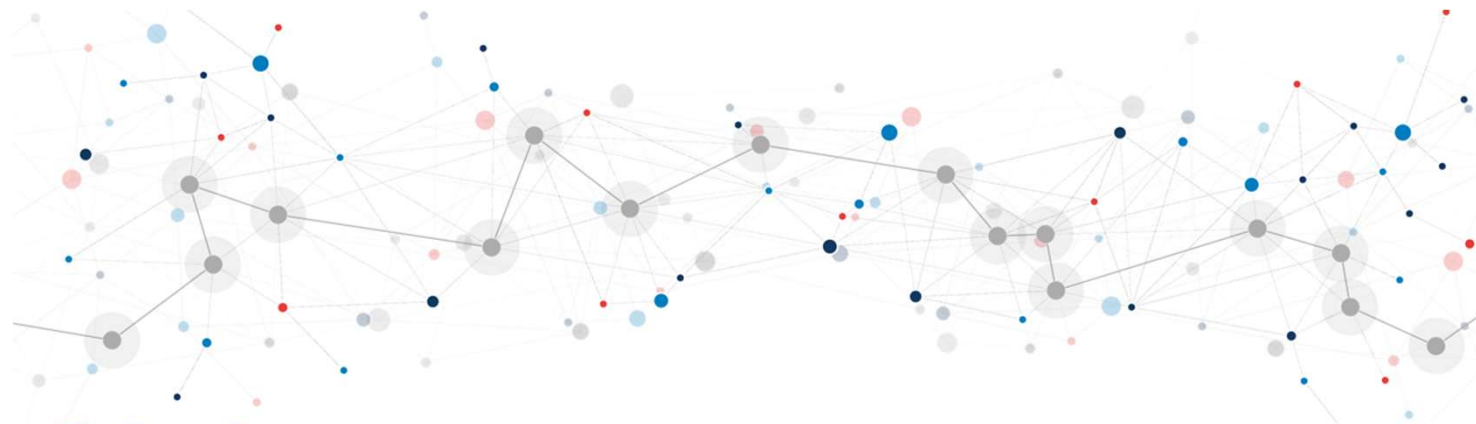
## 3. Analysis of the benefits of Demand-Side Response in European power markets in 2030

DSR benefits	Description	scenario 1 – scenario 2 <i>Benefits of developing DSR as planned in ERAA 2024 by 2030</i>	Scenario 3 – scenario 4 <i>Benefits of developing DSR beyond ERAA 2024 in a world with less batteries than in ERAA 2024 by 2030</i>
		<i>Benefits evaluated for 2030 projection year</i>	
<b>Lower thermal generation and associated CO<sub>2</sub> Emissions</b>	By displacing more expensive thermal power plants when activated, DSR reduces production of thermal power plants and associated CO2 emissions.	<b>+5.8 TWh of DSR production -5.7 TWh of gas production - 3.2 Mton of CO2eq</b>	<b>+14.2 TWh of DSR production -13.8 TWh of gas production - 8.3 Mton of CO2eq</b>
<b>Lower Energy Not Supplied (ENS)</b>	When deployed, DSR contributes to decrease ENS and thus improves security of supply	<b>-55 GWh of ENS</b>	<b>-98 GWh of ENS</b>
<b>Decrease in peak prices and price volatility reduction</b>	In a similar fashion as for emissions, due to the activation of DSR during peak price hours displacing more expensive production units, DSR reduces power prices in these periods, thereby decreasing power price volatility.	<b>Average top 100 hourly prices across BE, DE, ES FR and GB decrease by 40%</b>	<b>Average top 100 hourly prices across BE, DE, ES FR and GB decrease by 60%</b>
<b>Decrease in average power prices</b>	Thanks to DSR deployment, average wholesale market prices are decreased	<b>Average power prices across BE, DE, ES FR and GB decrease by 3%</b>	<b>Average power prices across BE, DE, ES FR and GB decrease by 6%</b>
<b>Wholesale market cost reduction</b>	Wholesale market costs correspond to the cost of supplying the load in EU countries + GB, that is the hourly demand multiplied by the corresponding hourly power prices. These are decreased with additional DSR deployment.	<b>-9.8 billion EUR real 2024 in 2030</b>	<b>-18.4 billion EUR real 2024 in 2030</b>
<b>Lower risk premia in forward markets</b>	Higher DSR deployment decreases power price volatility and thus impacts downward the risk premia in forwards electricity markets		
<b>Lower system management costs (balancing, congestion)</b>	A more volatile residual load due to renewable penetration exerts and upward pressure on balancing costs	For instance, in Spain, technical restrictions surged due to RES penetration and a grid not sized accordingly. The lack of flexibility leads to curtailment in the grid and high redispatch costs (see slide 35)	
<b>Lower transmission and distribution infrastructure costs</b>	DSR can help reducing investments in infrastructures by reducing the dimensioning of the grid.	“Grid-friendly flexibility, could reduce investment needs related to distribution grids by EUR 12 bn annually, representing 18 % of the total investment needs.” <a href="#">(link)</a>	
<b>Decrease in capacity costs</b>	Demand Side Response investment costs are typically lower than conventional generators which are CAPEX intensive.	DSR is generally considered a more cost-effective resource for grid flexibility and peak capacity than building new conventional power plants, particularly peaking plants.	

Source: Compass Lexecon

# The benefits of DST are substantial during periods of high prices

## Key findings from our 2022 study on the energy crisis



### Final results

Study on the quantification of Demand Response (DR) benefits to electricity suppliers and consumers thanks to the reduction of wholesale prices in Europe in winter 2022/2023

Presented to:  
18 May 2022



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# Key findings from our study on the 2022 energy crisis

DR4EU has mandated CL Energy to provide an assessment of DR benefits to electricity suppliers and consumers thanks to the reduction of wholesale prices during one year in Europe

## Modelling approach

- DR capacity 30 GW**  
 (5% of peak load)
- DR volume 10 TWh/year**  
 (0.3% of annual demand)
- France, GB, Germany and Italy represent more than half of the European DR capacity
- A total **30 GW of DR capacity** is considered for the period (July 2022 – June 2023) in Europe, accounting for 5% of the European peak load.
- We simulated a realistic DR portfolio of activation hours: capacities are available for various durations, from a few ten hours to 600 hours per year.
- The total volume of DSR amounts to **10 TWh per calendar year**, or 0,3% of EU annual power demand.
- The country allocation of DR capacity is based on existing studies of pan-European DR potential and taking into account the more advanced stage of DR development in France and GB.

## DR benefits assessment

- DR benefits for suppliers**  
**4700 M€**  
 (1.4% of power sourcing cost)
- DR “costs” for suppliers**  
**1400 M€**
- Benefits versus costs**  
**+335%**
- Price cap at around 150 €/MWh**  
 from an average highest price reduction of up to **-120 €/MWh**
- CO<sub>2</sub> emission reduction**  
**6.7 Mt**  
 Gas saved  
**1.5 bcm**
- The considered DR portfolio reduces energy sourcing costs by approximately **4700 M€** in Europe between July 2022 and June 2023.
- Over the same time horizon, suppliers incur “costs” to buy DR in the market of **1400 M€**, thus providing market-based revenues for DR.
- Market benefits for suppliers, as they save on their sourcing costs, are **335%** of their “cost” as they buy DR in the market – i.e. 235% net benefit
- Thanks to DR participation, price volatility on European spot markets reduces, i.e. spikes are avoided and capped at around **150 €/MWh** thanks to an average reduction of the highest hourly prices of up to **-120 €/MWh**.
- In terms of GHG, the 30 GW DR portfolio avoids **6.7 Mt/year of CO<sub>2</sub> emissions**, mostly avoiding use of natural gas generation (**1.5 bcm**)

# Key messages

**1 Flexibility needs are increasing substantially in EU power markets – Scaling up and fast-tracking flexible capacity development is critical to maintain security of supply, support renewable deployment and lower power prices**

Over 2026-2030, maximum upward daily flexibility needs are expected to increase by +87% in Germany, + 29% in France, +48% in GB, +44% in Belgium, +45% in Spain

**2 Demand Side Response has substantial potential, could be deployed quickly and could bring material benefits to EU consumers.**

In 2030, net benefits for consumers are >9 billion EUR in all modelled scenarios, with a benefit to cost ratio > 10x

**3 Our study shows that beyond challenges to achieve battery development planned in ERAA2024, higher DSR deployment by 2030 would both reduce wholesale market costs and CAPEX expenditures**

In 2030, a more balanced deployment between DSR and batteries could save c.12 billion EUR in CAPEX

**4 Our 2022 study showed that the benefits of DSR are substantial at times of high energy prices / during energy crises**

Our study showed that 30 GW of DR capacity (5% of the European peak load) would have brought very substantial benefits over July 2022 – June 2023) in Europe

Source: CL Energy

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# Thank you for your attention



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# The power market model is set up with assumptions derived from ERAA 2024

## 3. Annexes

Key power price driver	Sources	Optimisation
<b>Demand</b>		
Power demand	■ ERAA 2024	<ul style="list-style-type: none"> <li>■ Base demand exogenous</li> <li>■ Part of the demand is endogenously optimised (EVs, Heating, cooling, H2)</li> </ul>
<b>Supply</b>		
RES capacity	■ ERAA 2024	■ Endogenously optimised based on contract type (FiT vs CfD)
Nuclear capacity	■ ERAA 2024	■ Dispatch optimised by hourly dispatch model
Thermal capacity	■ ERAA 2024	■ Dispatch optimised by hourly dispatch model
Storage technologies	■ ERAA 2024	
DSR	■ ERAA 2024	
<b>Commodity prices</b>		
Gas	■ ERAA 2024	■ Fixed set as an input
Coal ARA CIF	■ ERAA 2024	■ Fixed set as an input
CO2 EUA	■ ERAA 2024	■ Fixed set as an input
<b>Interconnections</b>		
Interconnection	■ ERAA 2024	■ Fixed set as an input

Source: CL analysis, ENTSOE ERAA 2024

Abbreviations: DSR ... Demand-side response

# Key modelling assumptions – Generation mix and commodity prices

## 3. Annexes

### Demand

- Customer load reaches c.3860 TWh in 2030 in all scenarios

### Commodities

- Gas prices is set at 22.4 EUR/MWh
- CO2 price is set at 136.4 EUR/MWh

Installed capacity in 2030 EU+GB in the different scenarios (GW)

Key technology	1	2	3	4
	ERAA 2024	no DSR growth	Additional DSR & slower battery growth	no DSR growth and slower battery growth
CCGT	172.1	172.1	172.1	172.1
Coal	17.8	17.8	17.8	17.8
DSR	40.7	15.6	75.3	15.6
Hydro Pumped storage	53.7	53.7	53.7	53.7
Hydro Reservoir	64.3	64.3	64.3	64.3
Hydro Run of river	47.4	47.4	47.4	47.4
Lignite	14.6	14.6	14.6	14.6
Nuclear	101.2	101.2	101.2	101.2
OCGT	38.1	38.1	38.1	38.1
Oil	10.3	10.3	10.3	10.3
Other Non-RES	48.6	48.6	48.6	48.6
Other RES	30.9	30.9	30.9	30.9
Solar	661.2	661.2	661.2	661.2
Steam Gas	10.8	10.8	10.8	10.8
Wind Offshore	124.7	124.7	124.7	124.7
Wind Onshore	380.3	380.3	380.3	380.3
Battery	119.3	119.3	84.4	84.4

Source: CL Energy

# Three different scenarios for Demand-Side Response capacity and activation

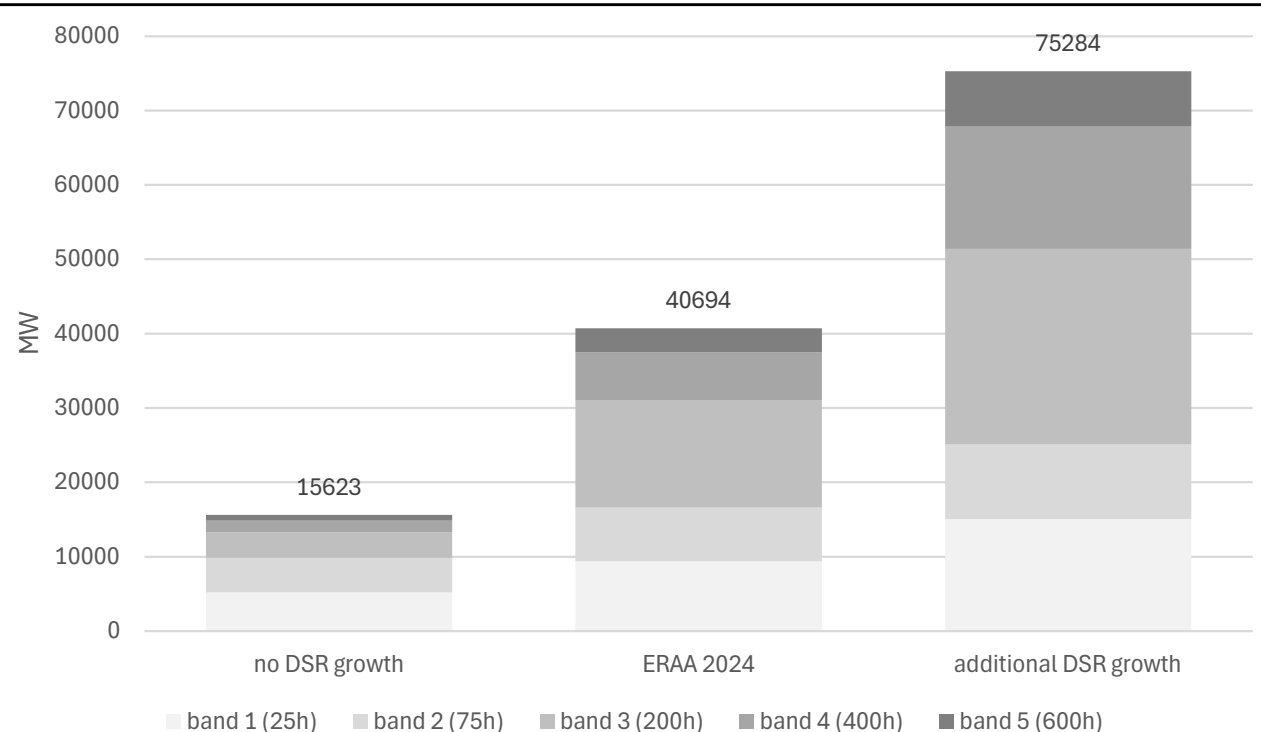
## 3. Annexes

### A realistic portfolio of DSR activation hours and associated capacity was simulated

- A total of c.40.7GW of DSR is considered in the *ERAA 2024 scenario* in 2030<sup>1</sup>.
- The *no DSR growth scenario* considers a total of c.15.6 GW of DSR capacity in 2030 in EU+GB.
- The *additional DSR growth scenario* considers a total of c.75.3 GW of DSR capacity in 2030 in EU+GB.
- The overall capacity is divided into 5 bands, with their corresponding capacity and maximum number of activation hours per year: not all capacity can be used all the time.
- The first band is activated up to 25hours of activation per year at an activation price of 550 EUR/MWh
- Remaining bands are activated optimally within the limit of activation hours per year

Beyond this portfolio, the modelling embeds demand flexibility on electric vehicles charging, heat pumps and cooling as well as hydrogen production.

### Modelled Demand-Side Response potential in EU+GB in 2030



Source: CL analysis, ENTSOE ERAA 2024; 2. [link](#); 3. counterfactual scenario of FES 2024; 4. [link](#) p96

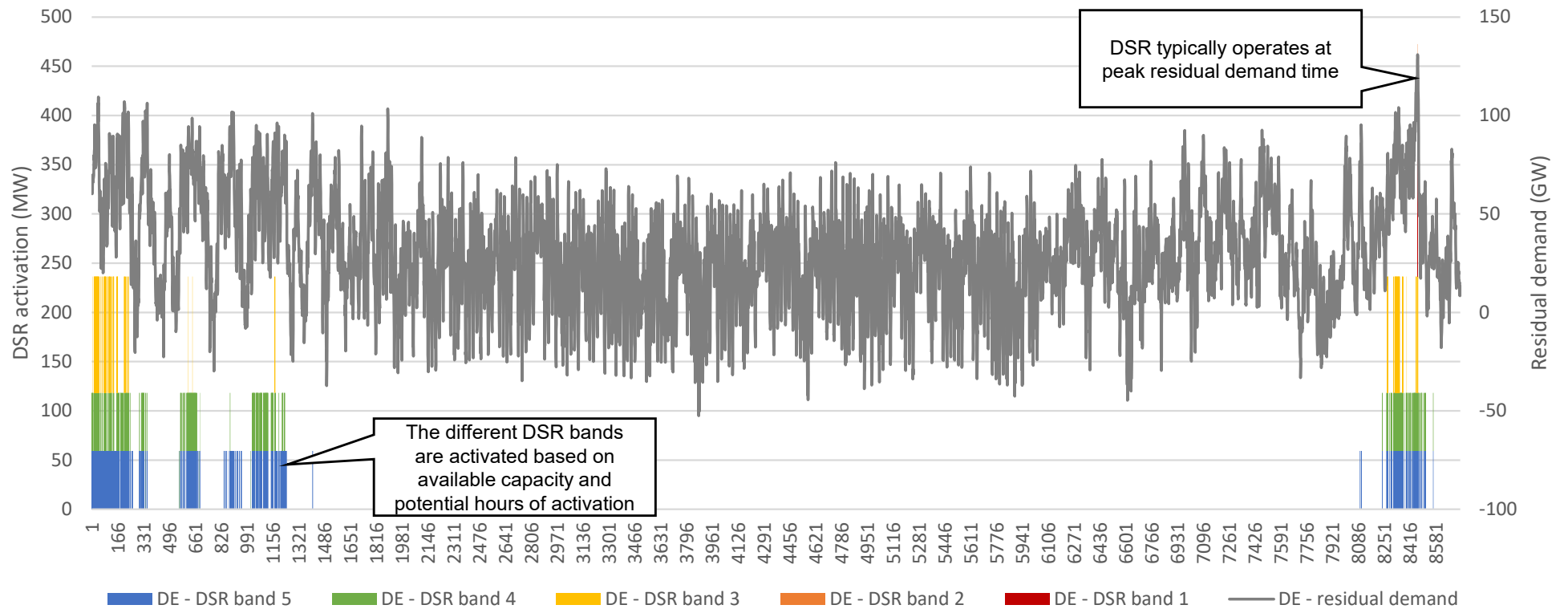
Notes: 1. capacities were adjusted relative to ERAA 2024 for GB (10 GW considered based on FES), Ireland (860 MW considered based on EIRGRID latest adequacy study) and Poland (1313 MW given latest development in the Polish capacity market)

Abbreviations: DSR ... Demand-side response

# Demand-Side Response is dispatched in the model at times of high residual

3. Annexes

Hourly DSR dispatch in Germany in 2030



Source: CL Energy

Abbreviations: DSR ... Demand-side response

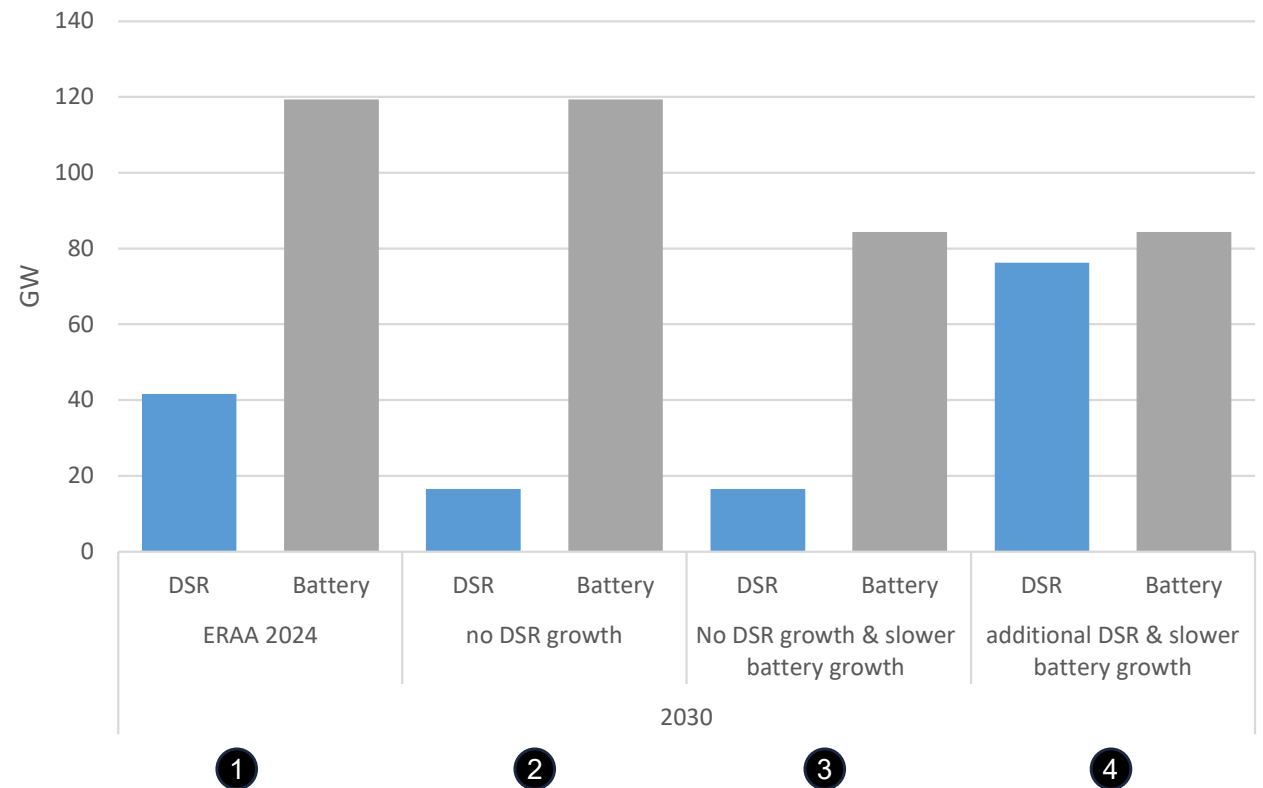
# Assumptions on batteries and DSR capacity deployment by 2030 in the different

## 3. Annexes

- Beyond the scenario with no DSR growth by 2030, an additional scenario was designed to assess the impact of a slower battery buildout than anticipated on the EU+GB power market.
- Overall, battery installed capacity reaches c.119 GW in ERAA 2024<sup>1</sup>, and c.84 GW in the slower battery buildout scenario.

**A total of c.40GW of DSR is considered in the ERAA 2024 scenario in 2030 vs c.119 GW of batteries or a threefold difference.**

**Battery installed capacity in the EU+GB in the different scenarios<sup>1</sup>**



Source: CL Energy, ERAA 2024

Notes: 5GW of capacity was considered for France by 2030 in the ERAA2024 scenario, in line with latest trajectories of RTE instead of flat ERAA 2024 value of 470MW

Abbreviations: DSR ... Demand-side response

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European Union Agency for the Cooperation  
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# ACER Recommendation on the Demand Response Network Code

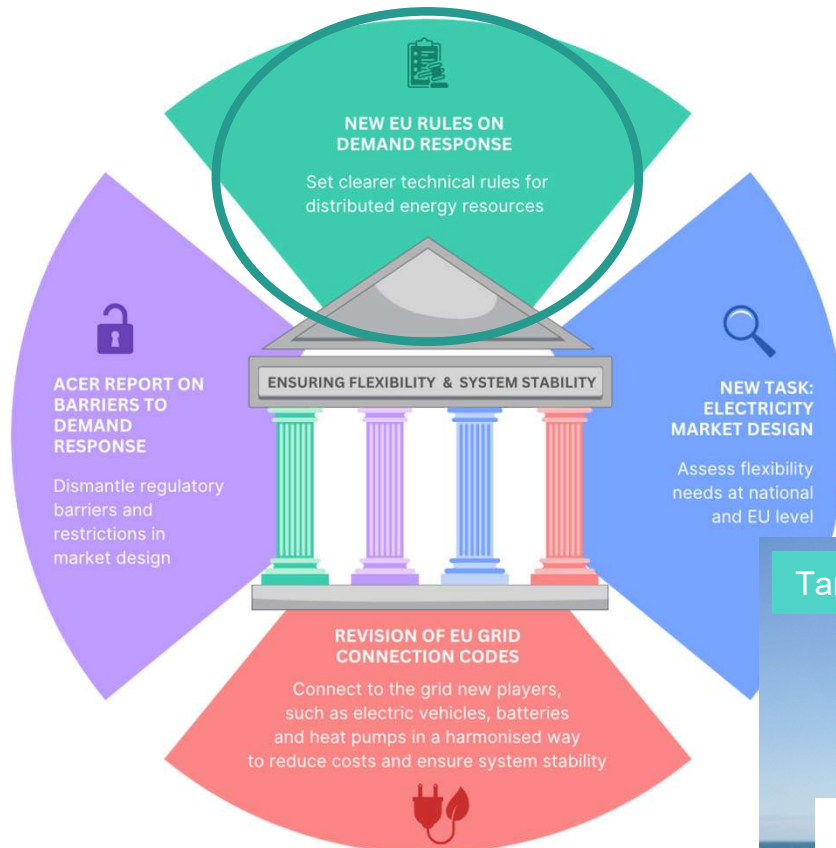
DR4EU - Compass Lexecon event on  
Demand Response

Friday, 27 March 2026

10:00 – 12:00 CEST

**This presentation is about the DR NC proposed by ACER to the EC.**

# What is it about?



Enable demand response participation in electricity markets



Market rules to ensure level playing field



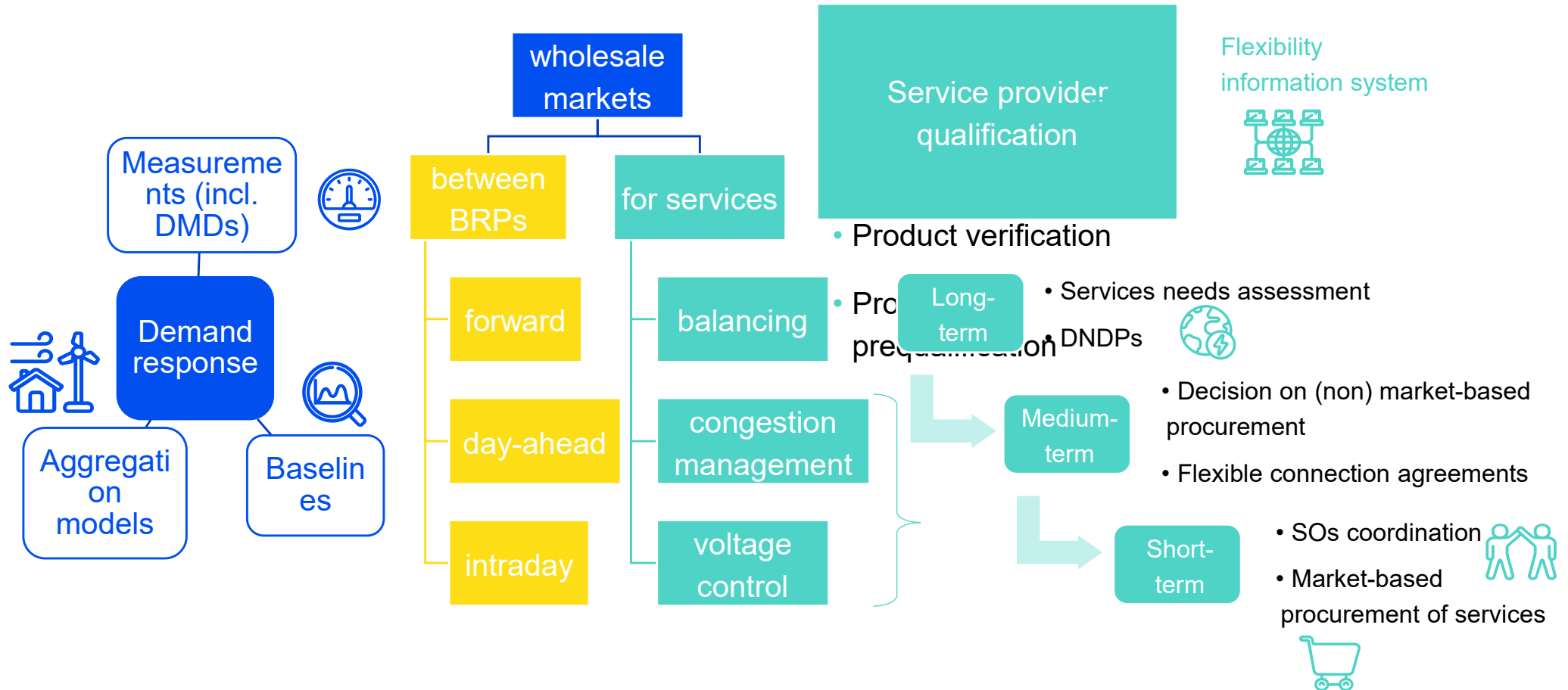
TSOs/DSOs coordination inter/intra markets



Lift barriers for DR to provide system services



# Which topics does it cover?



BRP: balance responsible party

DMD: dedicated measurement device

DNDPs: distribution network development plans



## Effective participation of small system users in electricity markets

- Clearer requirements to implement **aggregation models**
- European **registry for baselining** methodologies

## Easier access to balancing and market-based procurement of local services

- Product verification or **simpler and shorter** prequalification, if applicable
- **Flexibility information system**

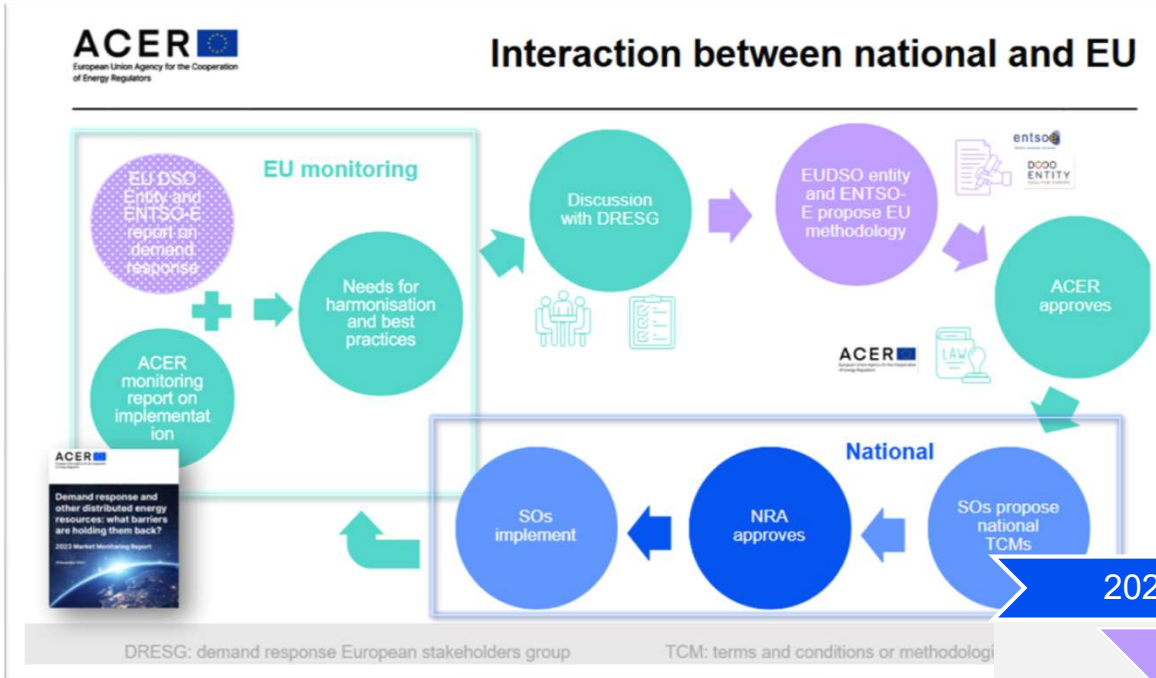
## Transparent process to ensure **market-based procurement of local services** can be set up

- Market-based procurement of local services by **default**; deviation to non-market-based procurement duly justified
- Clear requirements for the **interactions** between markets

## Ensure overall **efficient operation**

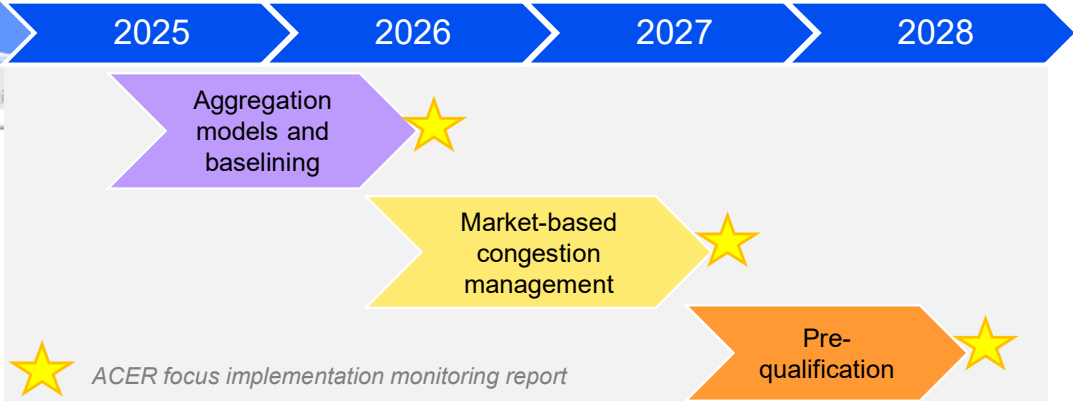
- TSO-DSO and DSO-DSO **coordination** for **identifying and solving** physical congestion and voltage control issues

# ACER monitoring on DR NC related topics



The aim is to better understand what has already been implemented and to identify best practices, so that we are well-prepared when EU methodologies need to be developed/approved.

Before the implementation of the DR NC, the monitoring covers the national implementation following the European Regulations (national transposition of the Electricity Directive and implementation of EU methodologies).





# Thank you for your attention

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