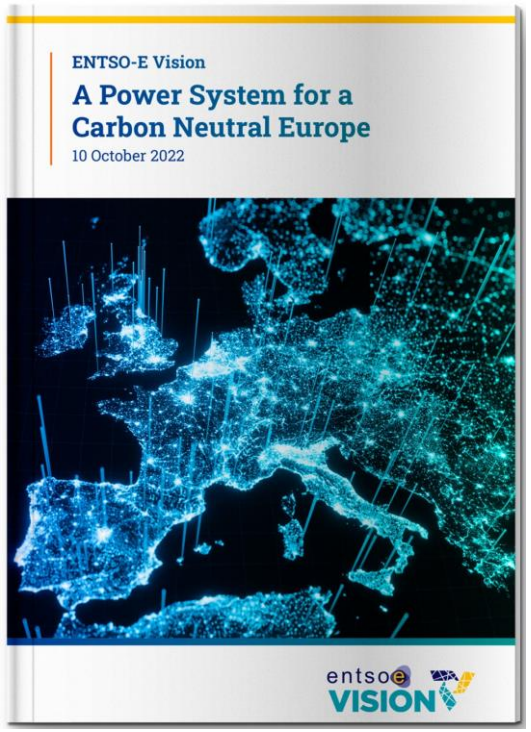
EEF debate - Electricity Market Design Reform – flexibility solutions

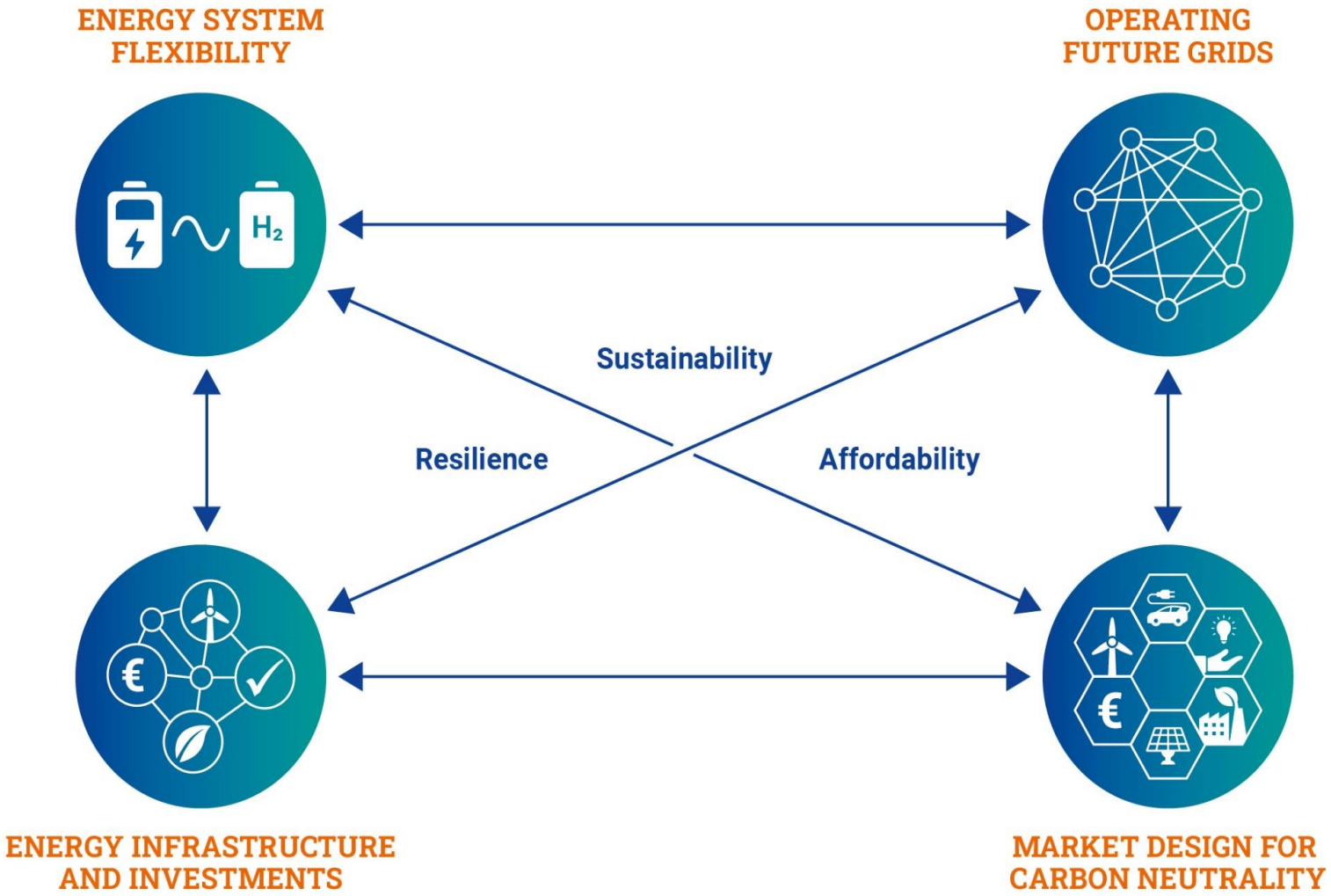
23 May 2023

entsoe

Reliable Sustainable Connected

ENTSO-E Vision: a Power System for a Carbon Neutral Europe

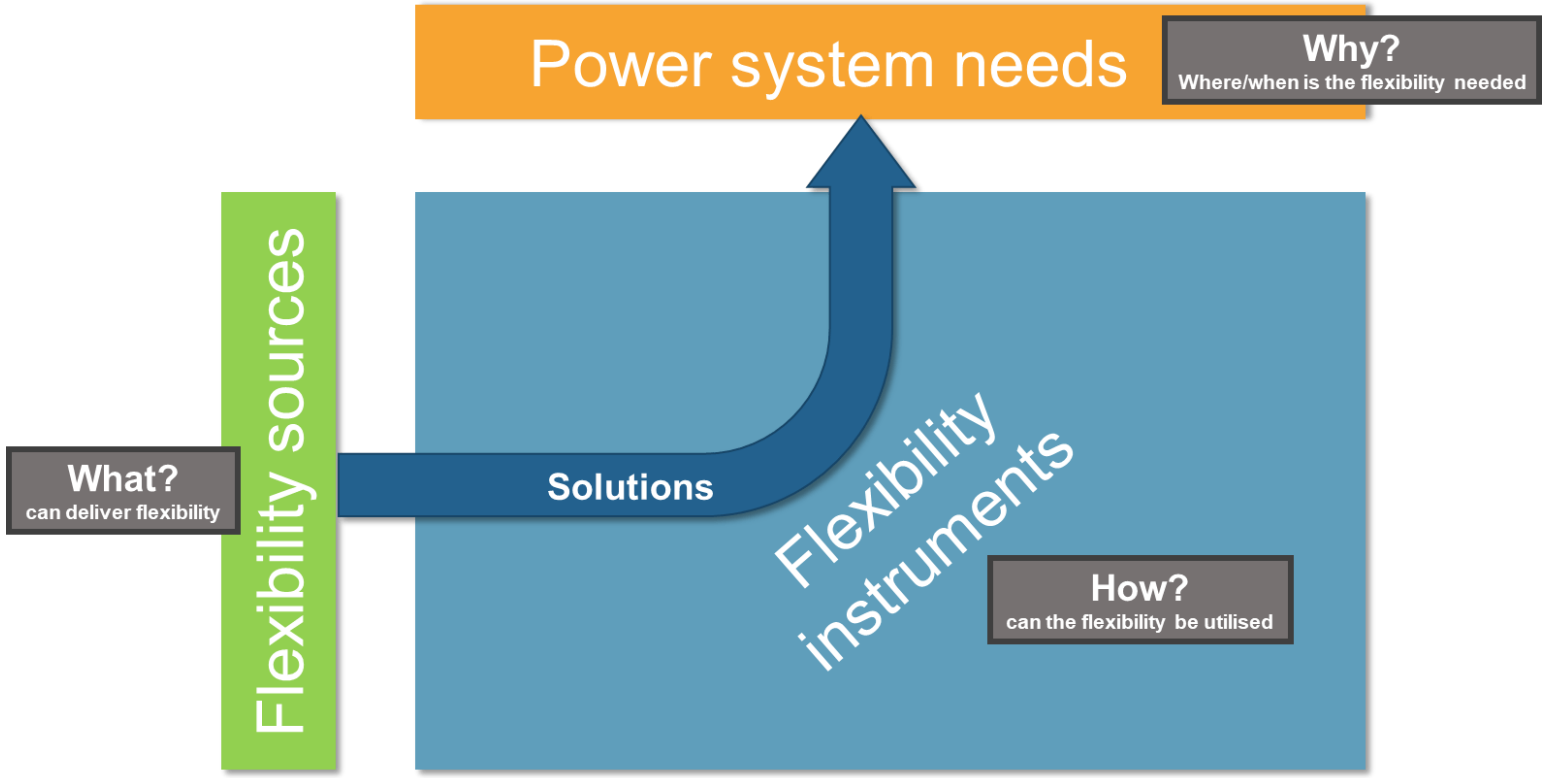




Energy System Flexibility: a key for the energy transition

A fully carbon neutral system, based mainly on variable renewable energy sources, will be much more complex, and strongly weather-dependent

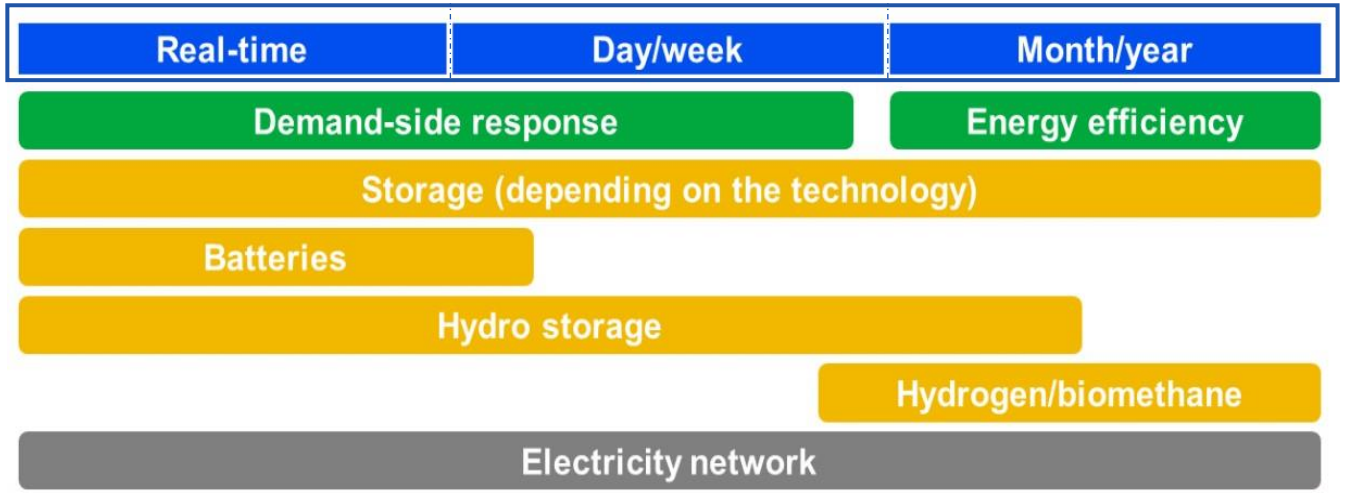
"Flexibility refers to the ability to cope with variability and uncertainty in generation, demand and grid availability"



Not all resources will be suitable to cover all flexibility needs

2 main types of Flexibility needs:

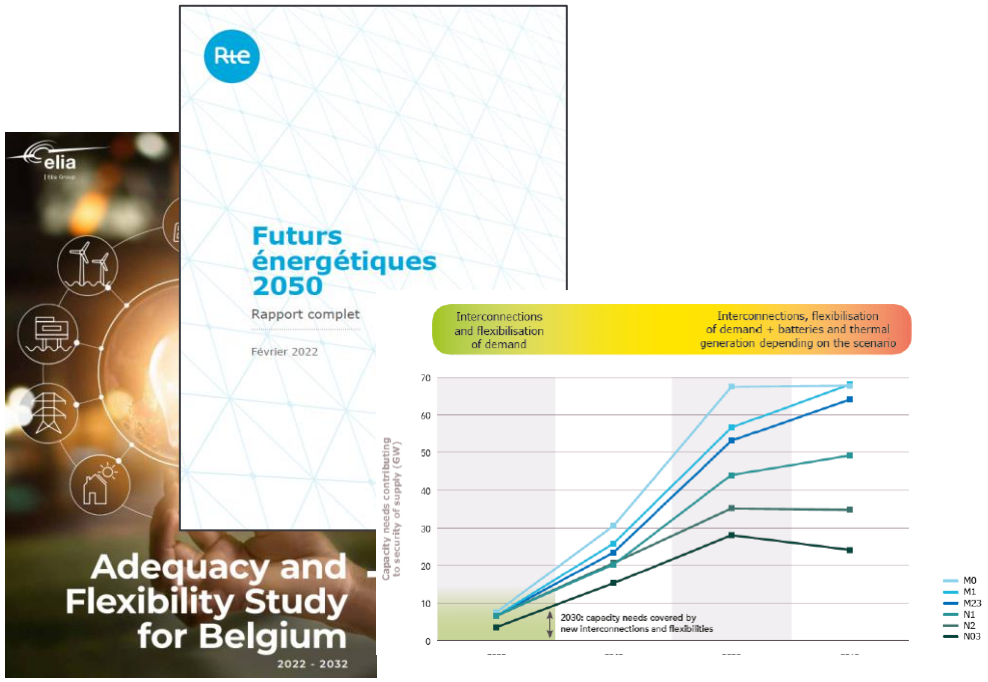
- **Short duration flexibility,** from milliseconds up to a few hours, to balance the system within the day and ensure system stability
- **Long duration flexibility,** up to several weeks, to compensate for long events such as winter with shortage of wind/solar and hydro generation



Source: ACER - Final Assessment of the EU Wholesale Electricity Market Design (2022)

The deployment of both types of flexibility resources shall be **coordinated** with the integration of weather-dependent renewables and the phase-out of fossil-fuel generation

Quantifying flexibility needs



Some TSOs are already running some national analysis on flexibility needs, but pan-European assessments, including interdependencies, will be needed.

Accurately quantifying all types of flexibility needs, across time and space, will become an essential tool to guide a cost-efficient and market-based deployment of flexibility resources

ENTSO-E VISION RECOMMENDATION

ENTSO-E shall produce with relevant stakeholders a pan-European assessment of flexibility needs for the whole timespan of the energy transition, to guide a cost-efficient deployment of flexibility resources

Within this Market Reform: need for clearer scope of work, roles and responsibilities for effective Flexibility Assessments

Introduction of flexibility needs assessment is most welcomed.
But, the assessment and its methodology should build on existing roles, expertise and resources, and the scope should first focus on flexibility needs rather than flexibility sources.

Fit for purpose Governance

- **State level ->** Identification of the most relevant entities for the assessment (not necessarily NRAs)
- **European level -> ENTSO-E,** in cooperation with EU DSO Entity, **should realise the European flexibility needs assessment, including the methodology**. This will be strongly linked to the TYNDP and the ERAA.

Scope & Implementation

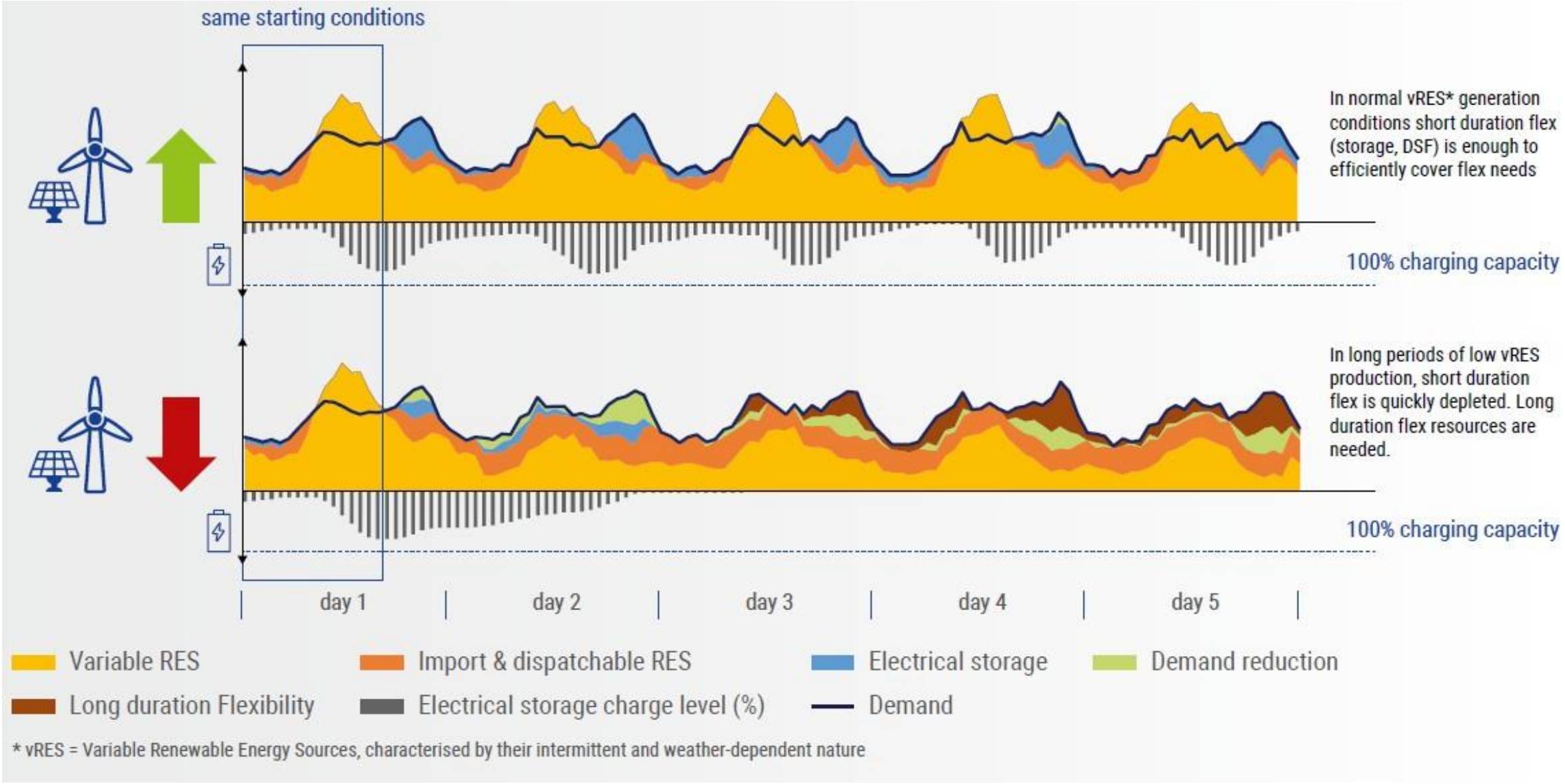
- The **scope should be first focused on flexibility needs,** capturing national specificities and providing a clear picture for decision makers and marker actors.
- Methodology can also include **guidance criteria the estimation of capabilities** for planning purposes**.**

Feasible Timeline

- **Proposed deadline of March 2024 is unrealistic** considering the novelty and complexity of work and the numerous interdependencies. A step-wise approach should be preferable.

Back-up

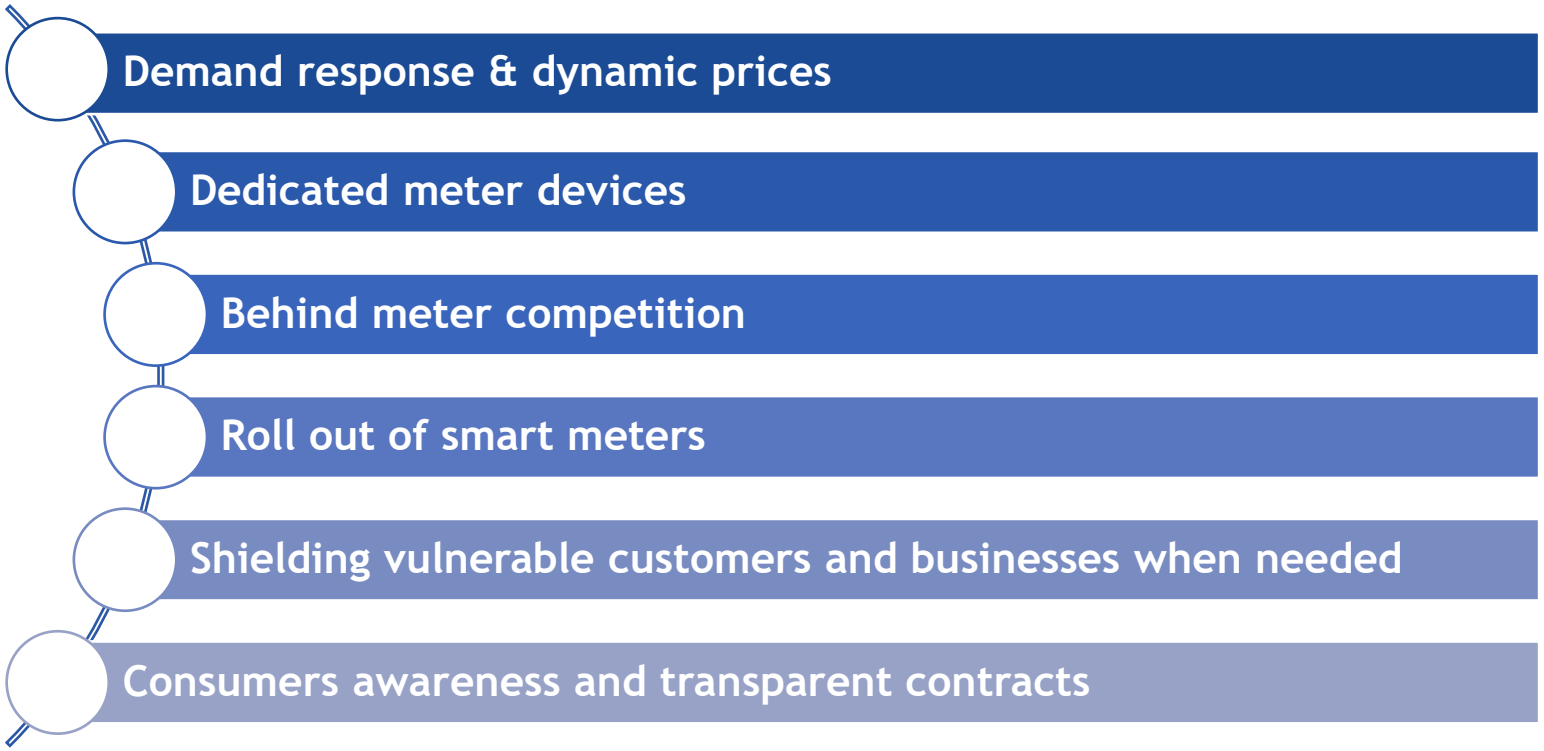
Long-duration flexibility sources are essential



EMDR- Flexibility solutions for a secure and carbon neutral energy system

Market design must support and empower consumers by facilitating their access to

- **Renewable and low carbon electricity,**
- **a wide range of retail offers with transparent contractual information,**
- **new services and engagement opportunities.**



In the longer run, the best way to reduce the impact of high fuel prices for consumers is acceleration of development towards carbon neutral power system with significantly higher energy efficiency and optimised price signals.