



## Framework around capacity mechanisms

*14 May 2019*

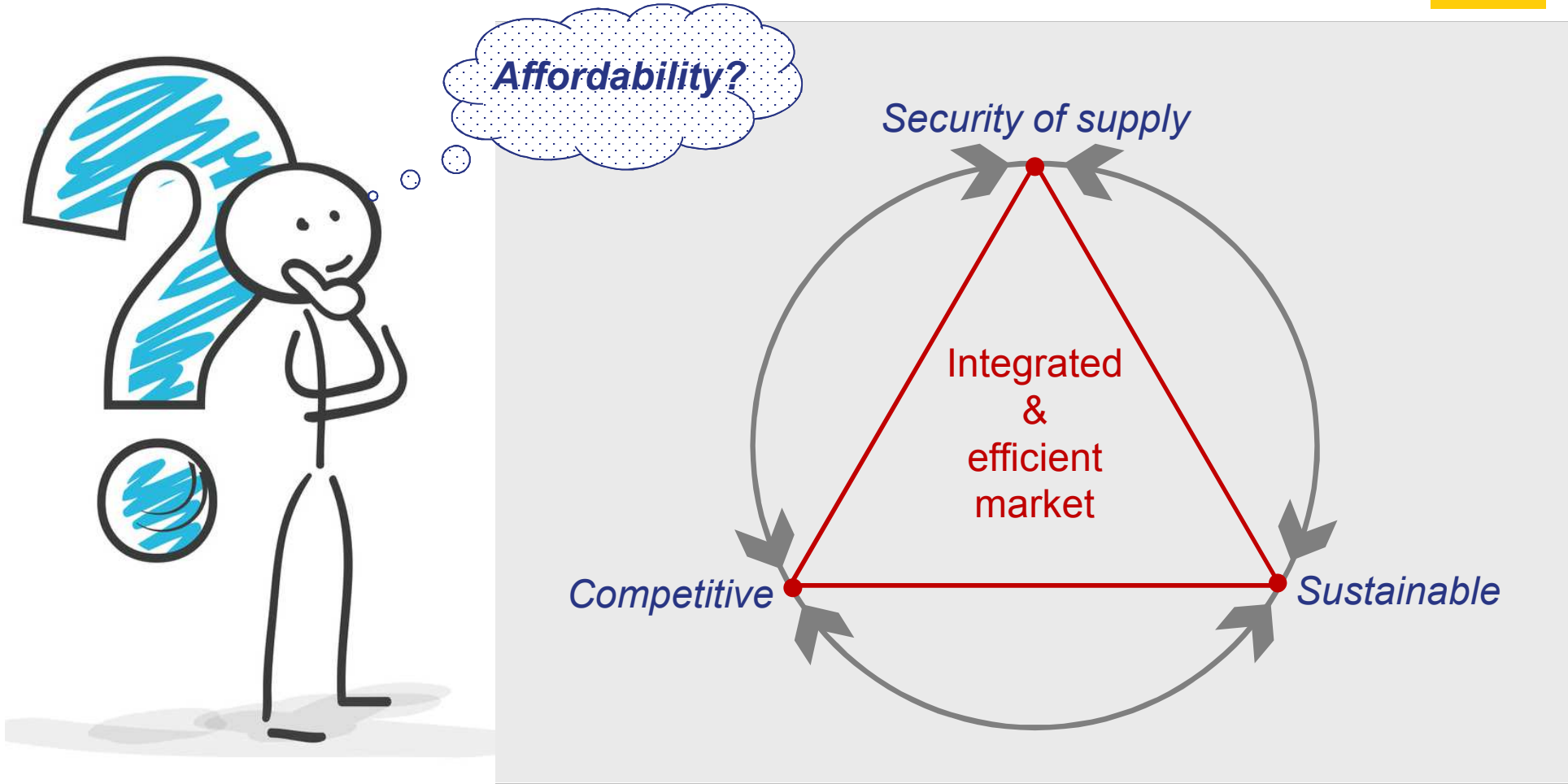
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## *In focus*



- *Objective and challenges*
- *Missing money*
- *Capacity Mechanisms and framework around them*
- *Base-case framework*
- *Legal framework regarding capacity mechanisms ... loading*

# The market we aiming for ...



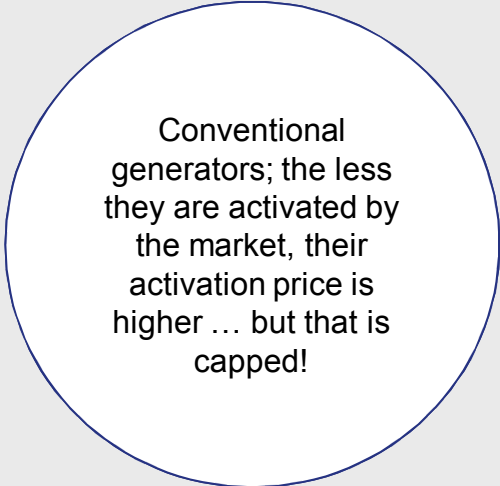
## *Objectives and challenges*

- Security of supply
  - efficiency, reliability and adequacy
- Investments in low carbon technologies
  - More RES integration, phase out of coal and nuclear, aging of existing fleet
- Competitive markets
  - Efficient market mechanisms, scarcity resulting in price spikes, affordability
- Energy efficiency
  - Demand-side response, 'smart' technologies

***... investments needed in every segment of the industry***

## *Missing money problem*

- Is caused as a result of an intervention in the market creating inadequate pricing dynamics – reducing the revenues of conventional generators
- Such situation comes mainly due to **price caps** or in the EnC due to quasi-regulated prices – resulting with lack of investments in generation
  - Exacerbated by the increase share of RES, and
  - For coal: carbon prices
  - General economic conditions:
    - financial conditions of potential investors,
    - Demand increase / decrease cycles, and
  - Dynamics of innovation and technological advances



Conventional generators; the less they are activated by the market, their activation price is higher ... but that is capped!

## *Capacity mechanisms*

Result of: Security of supply concerns + challenges with energy transition

### ***An indispensable need or just a safety net?***

- In theory, energy-only market should be able to deliver adequate level of investments, but other views sound appealing too!
- Academic literature is very inconclusive
- Practical examples do not provide sufficient evidence neither ...

*If one is to be designed what are the key components?*

## *Key framework governing CM*

1. Competition / State aid rules – other presentation
2. European Commission Sector Inquiry on Capacity Mechanisms, Nov 2016
  - An assessment by EC of capacity mechanisms designed and/or implemented in Europe
  - Recommendations for improvement of certain aspects
3. Clean Energy Package – coming soon
  - Binding rules

## EC Sector Inquiry on Capacity Mechanisms

- Capacity mechanisms should not substitute the reforms which would make energy-only market more efficient

### **Three indicators based on which EC identified different types of capacity mechanisms**

1. are generally initiated by or with the involvement of governments;
2. have the primary objective of contributing to security of supply; and
3. provide remuneration to capacity providers in addition to revenues they receive in the electricity market, or instead of revenues they could otherwise have received in the electricity market.



# Design features

## Key categories in assessing different designs in the EU

### 1. Eligibility

- who gets to participate in the capacity mechanism?

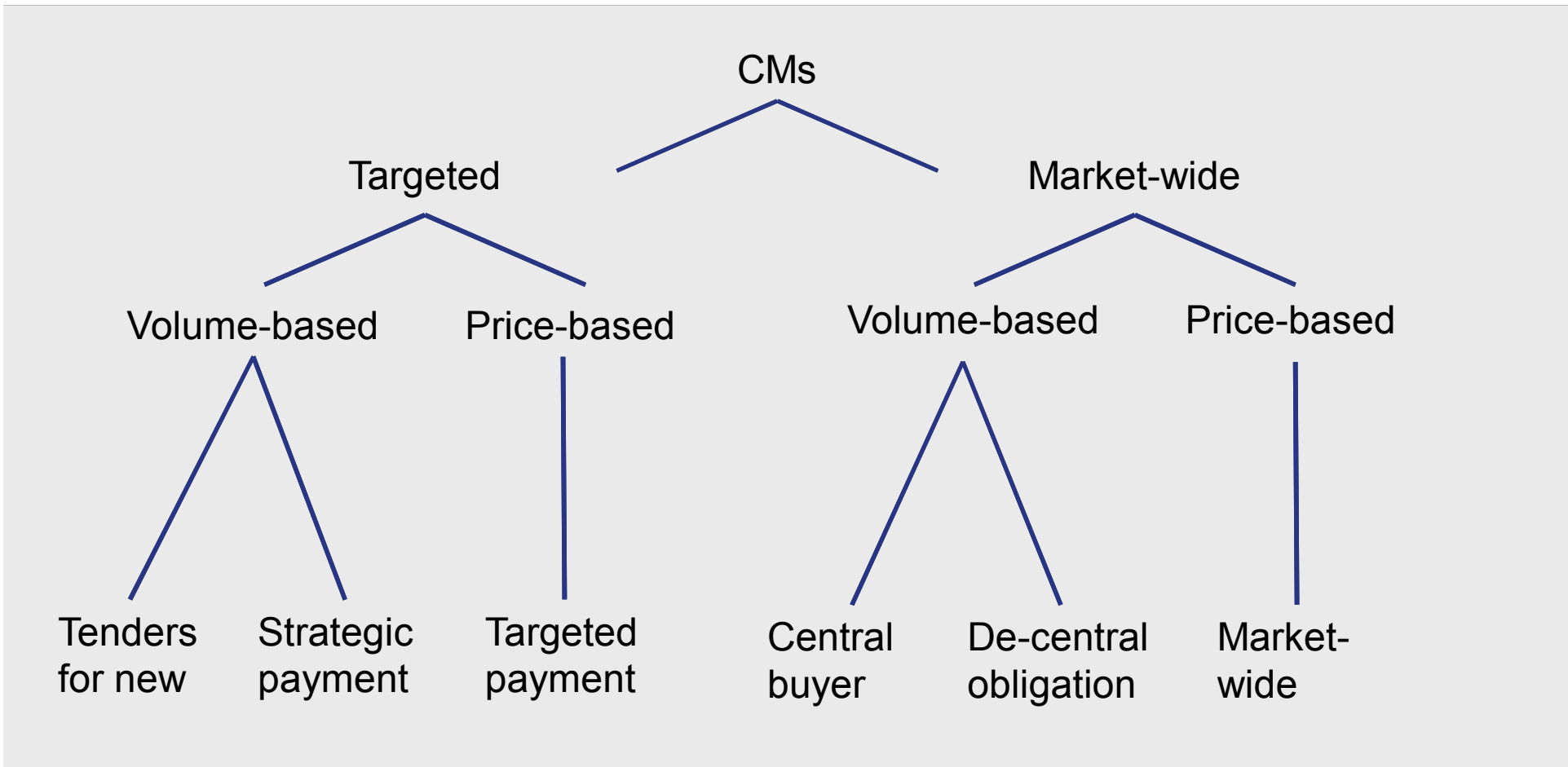
### 2. Allocation

- how does the selection process among the eligible parties work and how is the level of capacity remuneration determined?

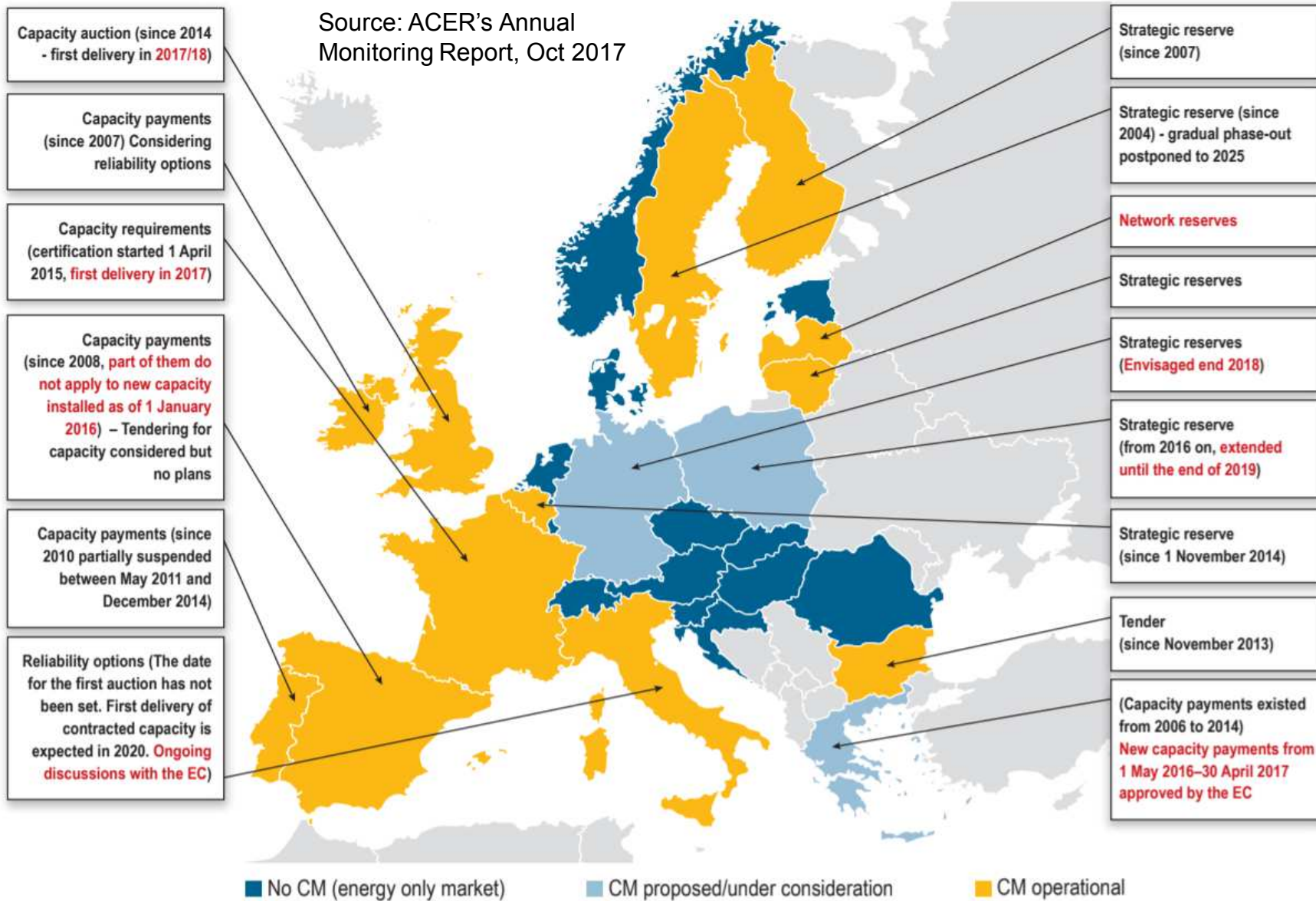
### 3. Product design

- what do participants in the scheme have to do, and what happens if they don't do it?

# Types of capacity mechanism



Source: ACER's Annual Monitoring Report, Oct 2017



## Core recommendations

- Need for rigorous adequacy assessment
- Competitive price setting
- Not distort electricity market prices (as less impact as possible)
- Penalty regime – a kind of ‘imbalance’
- Market-wide being the most appropriate – at least for long-term adequacy risks/issues
- A form of strategic reserve – as a transitional measure
- Cross-border participation

## CEP - Legal framework ... loading

- NRAs in charge of designating – identifying policies, measures
- CM as a last resort to address adequacy concerns
  - Still in line with State aid rules
- Before CM:
  - EU adequacy assessment – complemented with national assessments
  - MS shall conduct a comprehensive study of their possible effects on the neighbouring MS by consulting, at least, its electrically connected neighbouring MSs and the stakeholders of those MSs
  - Assess if strategic reserve can address adequacy concerns
  - EC to assess before implementation
  - CM should be a temporary measure – approved by EC for max 10 years

## Design principles

Any capacity mechanism shall:

- be temporary.
- not create undue market distortions and not limit cross-zonal trade;
- not go beyond what is necessary to address the adequacy concern;
- select capacity providers by means of a transparent, non-discriminatory and competitive process;
- provide incentives for capacity providers to be available in times of expected system stress;
- ensure that the remuneration is determined through the competitive process;
- set out the required technical conditions for the participation of capacity providers in advance of the selection process;
- be open to participation of all resources, including storage and demand side management that are capable of providing the required technical performance;
- apply appropriate penalties to capacity providers when not available in the event of system stress;



***Thank You!***

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