Addressing adequacy concerns

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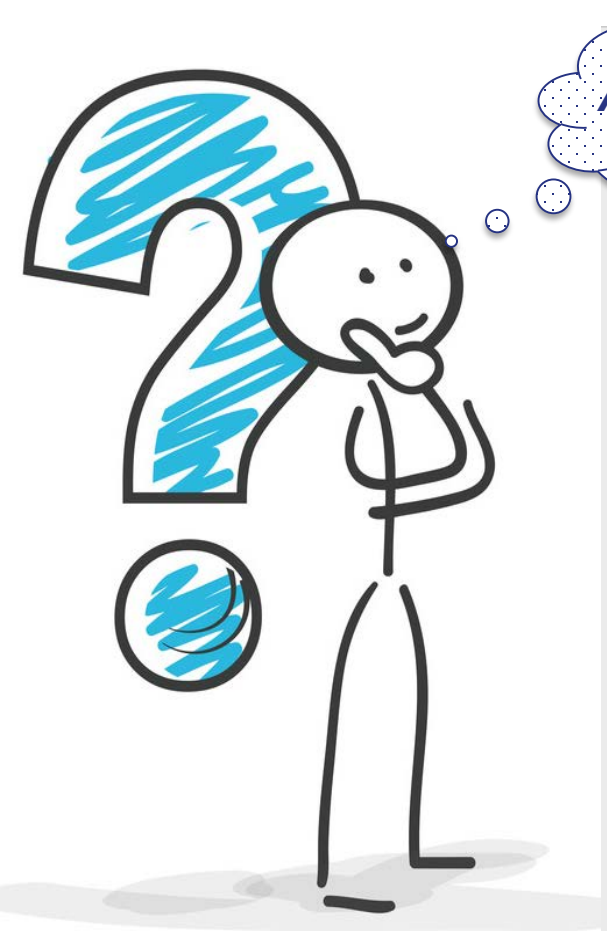
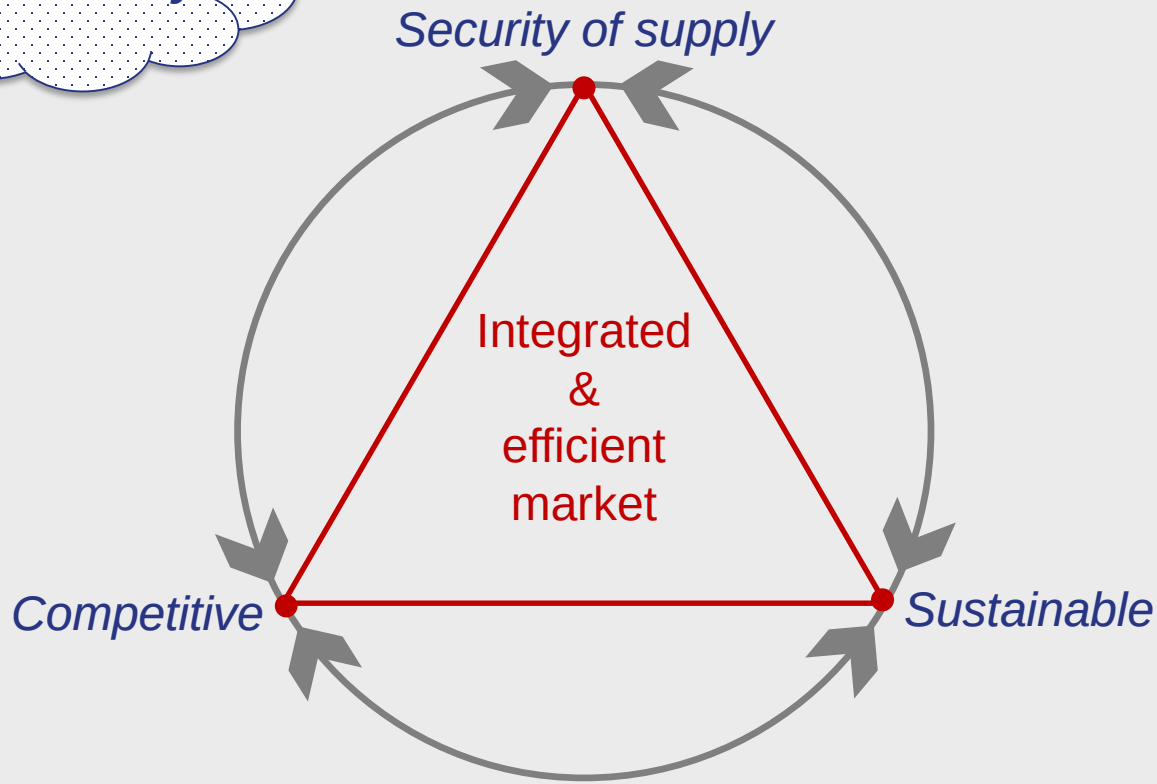
In focus

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

The market we aiming for ...





Objectives and challenges

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

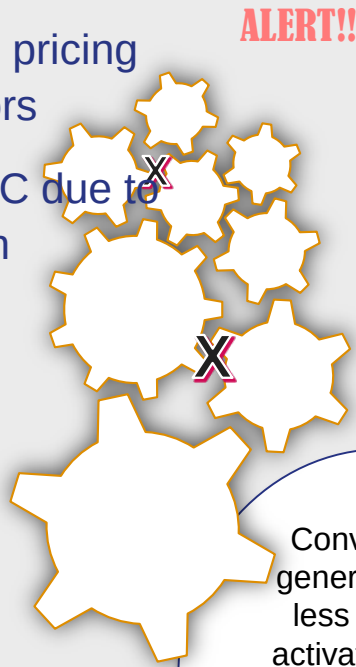
… investments needed in every segment of the industry

Market mechanism as the main mean

- Pan-European market with efficient mechanism to address congestion between zones
- Fully competitive market with freedom of choice
- Level playing field
  - Access to grid and market place
  - Access to information
- Clear and correct signals for investments and use of resources
- Prices are set based on fair interplay between supply and demand reflecting market fundamentals
  - Confidence in this process is key
- Market participants feel safe in taking risks that they can manage via market means
- Attracts liquidity
- Assess, identify and remove obstacles

Missing money problem

- 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
  - For coal & gas: carbon prices
  - General economic conditions:
    - financial conditions of potential investors,
    - Demand increase / decrease cycles, and
  - Dynamics of innovation and technological advances
  - Other crises; COVID-19



Capacity mechanism

Result of: Security of supply concerns / challenges that transition brings / …

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 either …

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

Framework governing CM

1. Competition / State aid rules
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. Electricity Regulation 2019/943
   - ‘capacity mechanism’ temporary measure to ensure the achievement of the necessary level of resource adequacy by remunerating resources for their availability, excluding measures relating to ancillary services or congestion management

EC Sector Inquiry on Capacity Mechanisms (2016)

- 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

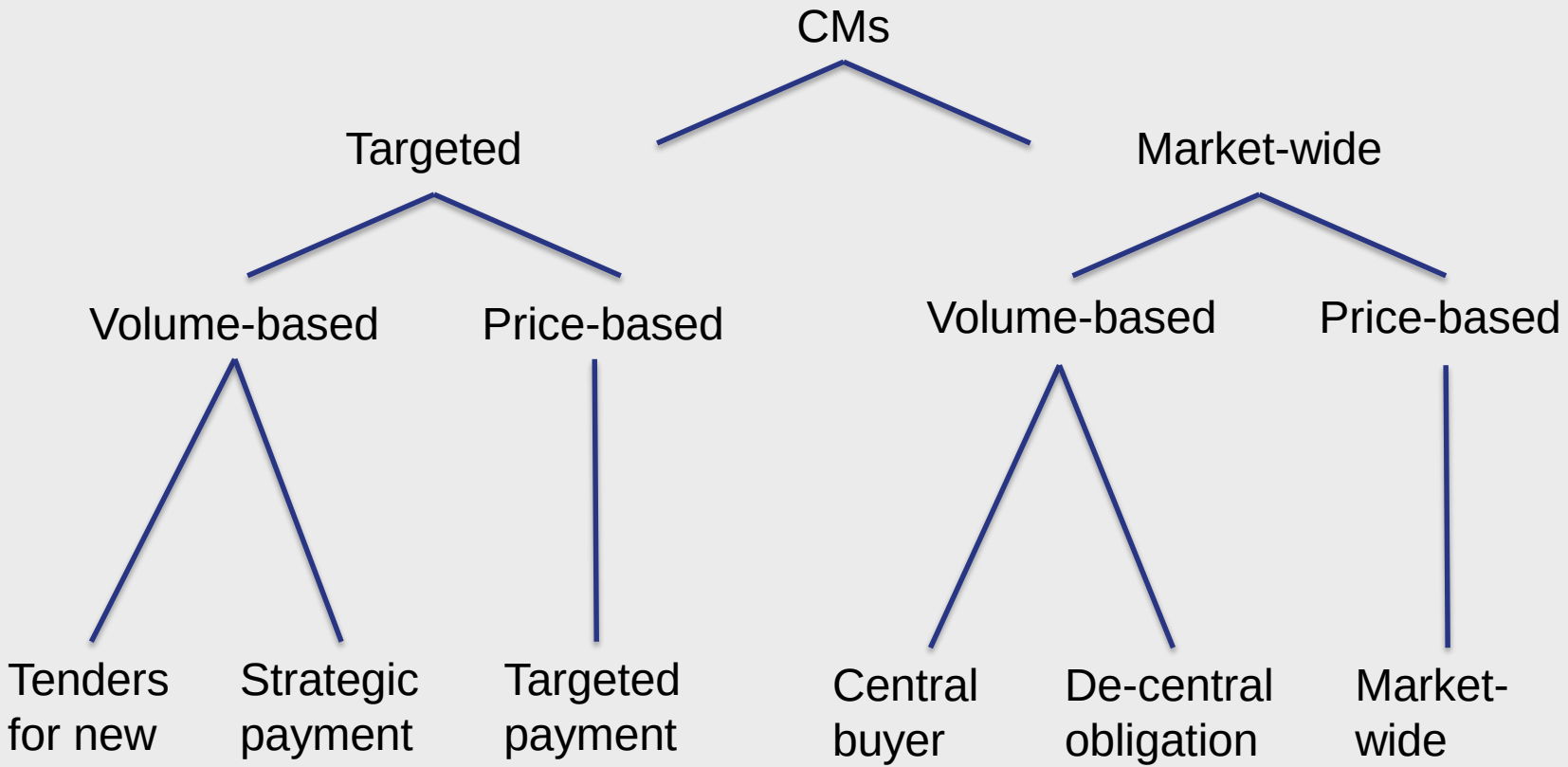
1. are generally initiated by or with the involvement of governments;
2. have the primary objective of contributing to security of supply; and
3. provide remuneration to capacity providers in addition to revenues they receive in the electricity market, or instead of revenues they could otherwise have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

Design features

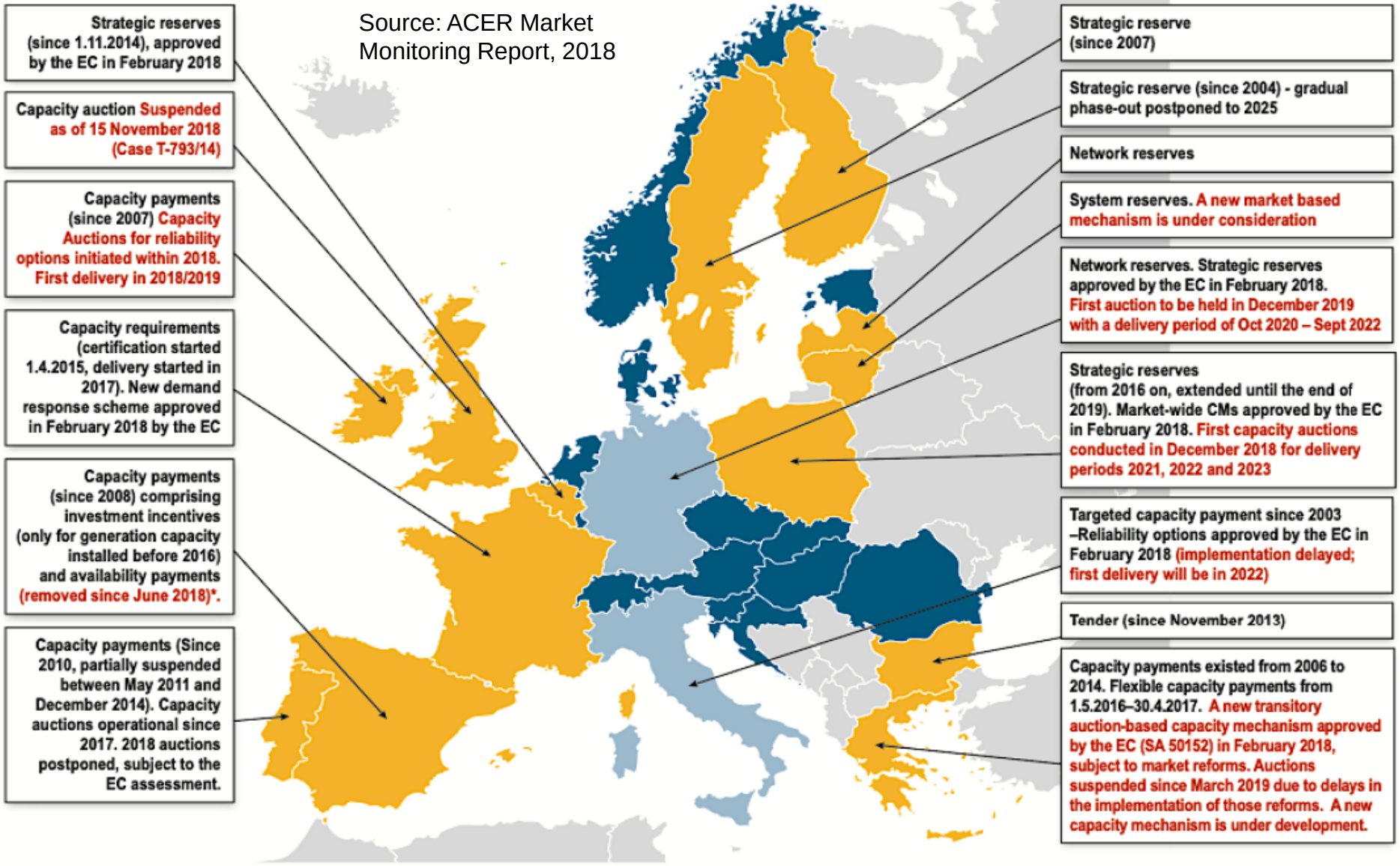
Key categories in assessing different designs in the EU

1. Eligibility
   - who gets to participate in the capacity mechanism?
   - Gen technologies, demand response. Storage, new vs. old, location, etc.
2. Allocation
   - how does the selection process among the eligible parties work and how is the level of capacity remuneration determined?
   - Central auctions vs. de-central process, administrative vs. competitive, ex-ante price setting, result-based, caps, floors, etc.
3. Product design
   - what do participants in the scheme have to do, and what happens if they don't do it?
   - Incentive-based, obligations imposed, testing, exemptions, etc.

Types of capacity mechanism



Source: ACER Market Monitoring Report, 2018



Core recommendations

- Need for rigorous adequacy assessment (firs step)
- 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 - a must

CEP - Legal framework

- CM as a last resort to address adequacy concerns
  - … and should be in line with State aid rules – **very important!**

- Before CM:
  - Pan-European recourse adequacy assessment – complemented with national assessments
  - Identification of any regulatory distortions or market failures that caused or contributed to the emergence of the concern -> develop, publish and implement a plan to eliminate distortions
  - MS shall conduct a comprehensive study on 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
  - Design including phase-out pan to be assessed by EC
  - CM should be a temporary measure – approved by EC for max 10 years

Design principles of capacity mechanism

Capacity mechanism shall:

- be temporary
- no undue market distortions and not limit cross-zonal trade
- limited to what is necessary to address the adequacy concern
- transparent, non-discriminatory and competitive process for selection;
- Incentivises availability at times of system stress; including penalty regime
- competitive process for remuneration;
- technical conditions for the participation set in advance;
- open to participation of all resources: also storage and demand side management

When designed as strategic reserve:

- dispatched only if TSOs are likely to exhaust their balancing resources
- when dispatched, imbalances in the market are to be settled at least at the value of lost load …
- volume dispatched is attributed to BRPs through the imbalances;
- cannot participate in the wholesale electricity markets or balancing markets;
- strategic reserve is to be held outside the market for at least the duration of the contractual period

Energy Community Secretariat

- Analyses on system adequacy and capacity mechanisms in the Western Balkans
- https://www.energy-community.org/dam/jcr:87374c80-64a2-4f18-81ed-f202d4d1ed56/Compass_DLA_EL_122019.pdf

Importance of an integrated energy-only market in safeguarding the security of supply - the focus should remain on:

- speeding up the necessary reforms to enable regional market, ensuring at the same time compliance with the environmental norms,
- ensuring coordinated and efficient use of cross-zonal capacity,
- implementation of a transitional CO2 price to facilitate coal phase out and to avoid price shocks once the EU ETS will be applied (directly or through border price adjustment),
- removing all the non-compliant direct and indirect subsidies to the power plants through vigorous application of State aid rules,
- as a measure of last resort, and where justified, substitute them with the compliant form of capacity mechanism,
- incorporate the Clean Energy Package in the Energy Community to avoid different standards within the single energy market.

Thank You!

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