



European Union Agency for the Cooperation
of Energy Regulators

Security of power supply in the European context

Vasilis Papandreou, Adequacy team, ACER

Security of Power Supply in the transition towards a net
zero grid webinar,

European Climate Diplomacy Week, 8 November 2021



ACER's mission statement

*Our perspective is European. Our overall purpose is to achieve a transition of the European energy system in line with political objectives set, reaping benefits of increased **energy market integration across Europe**, and **securing low-carbon supply at least possible cost for European businesses and citizens.***

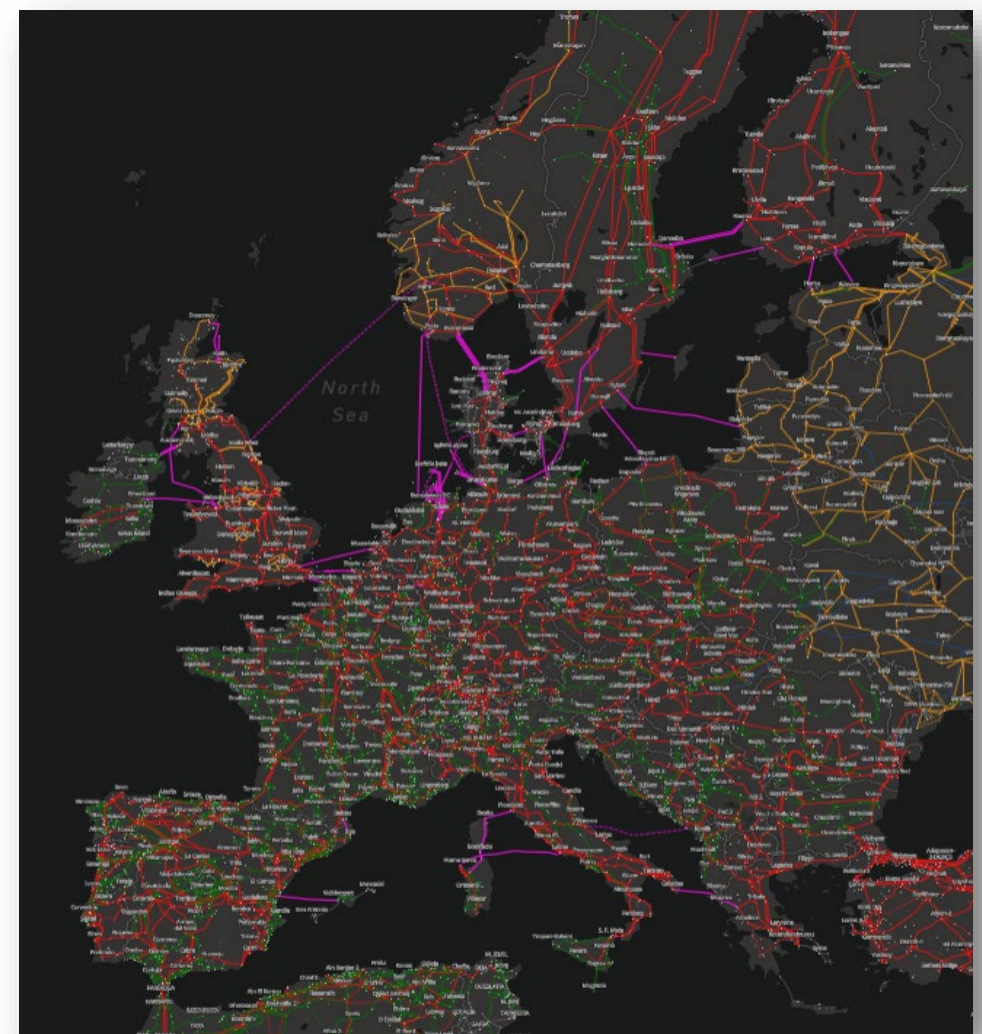
- **Contributing to efficient trans-European energy infrastructure**, ensuring alignment with EU priorities.
- Monitoring the well-functioning and transparency of energy markets, **detering market manipulation and abusive behaviour.**
- Where necessary, **coordinating cross-national regulatory action.**
- Governance: **Regulatory oversight is shared** with national regulators. **Decision-making** is collaborative and joint. **Decentralised enforcement** at national level.

- Present line of action to assess security of supply risks in the EU (focus on adequacy)
- Discuss future challenges

- The European* electricity system and market are complex
 - 4 synchronous areas
 - 42 Transmission System Operators
 - more than 2000 Distribution System Operators
 - 38 Bidding Zones
 - 6 Market Operators (PXs)
 - thousands of market participants

Notably... **The EU consist of 27 Member States that have "...the freedom to set their own desired level of security of supply"**

So for Europe coordination and harmonisation is the real challenge

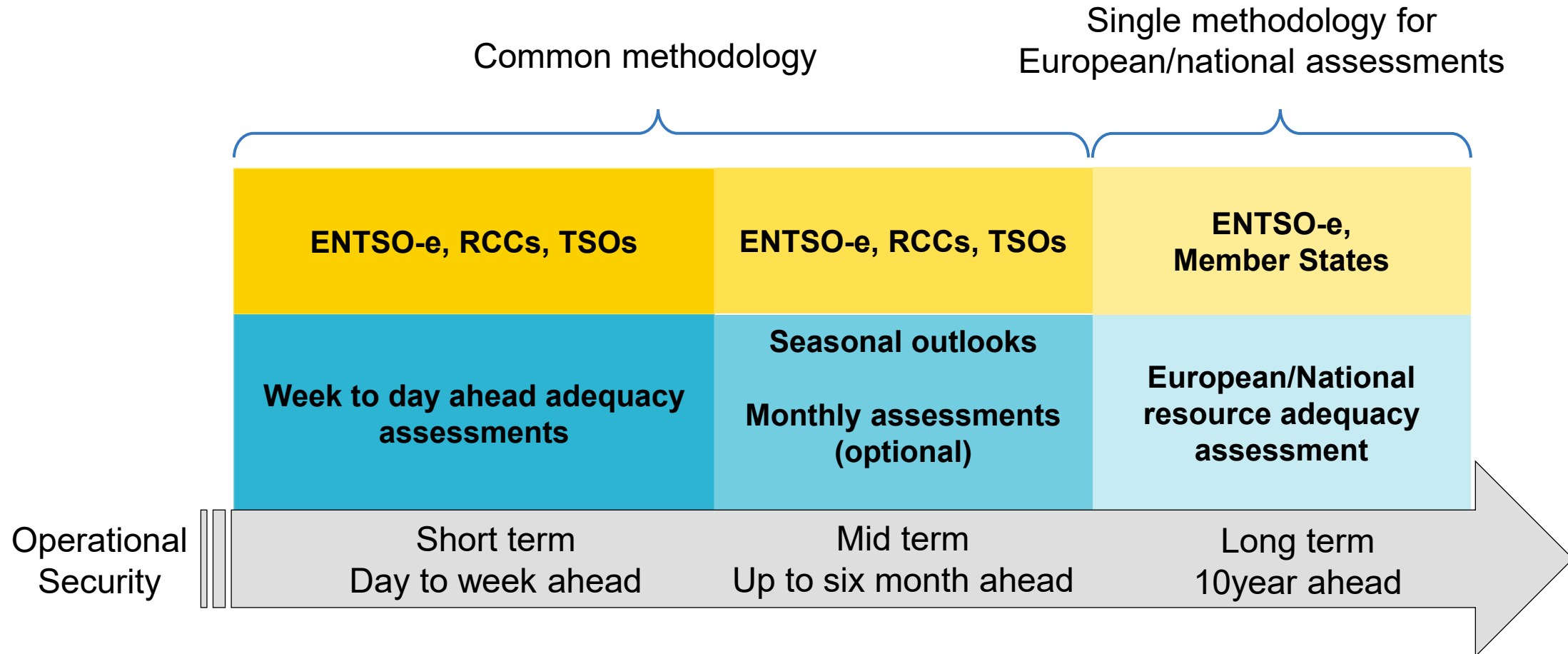


Source: ENTSO-e

*Refers to the EU and 9 more European countries

**Refers to the Single Day Ahead Market Coupling

Assessing the adequacy risks



TSO: transmission system operator

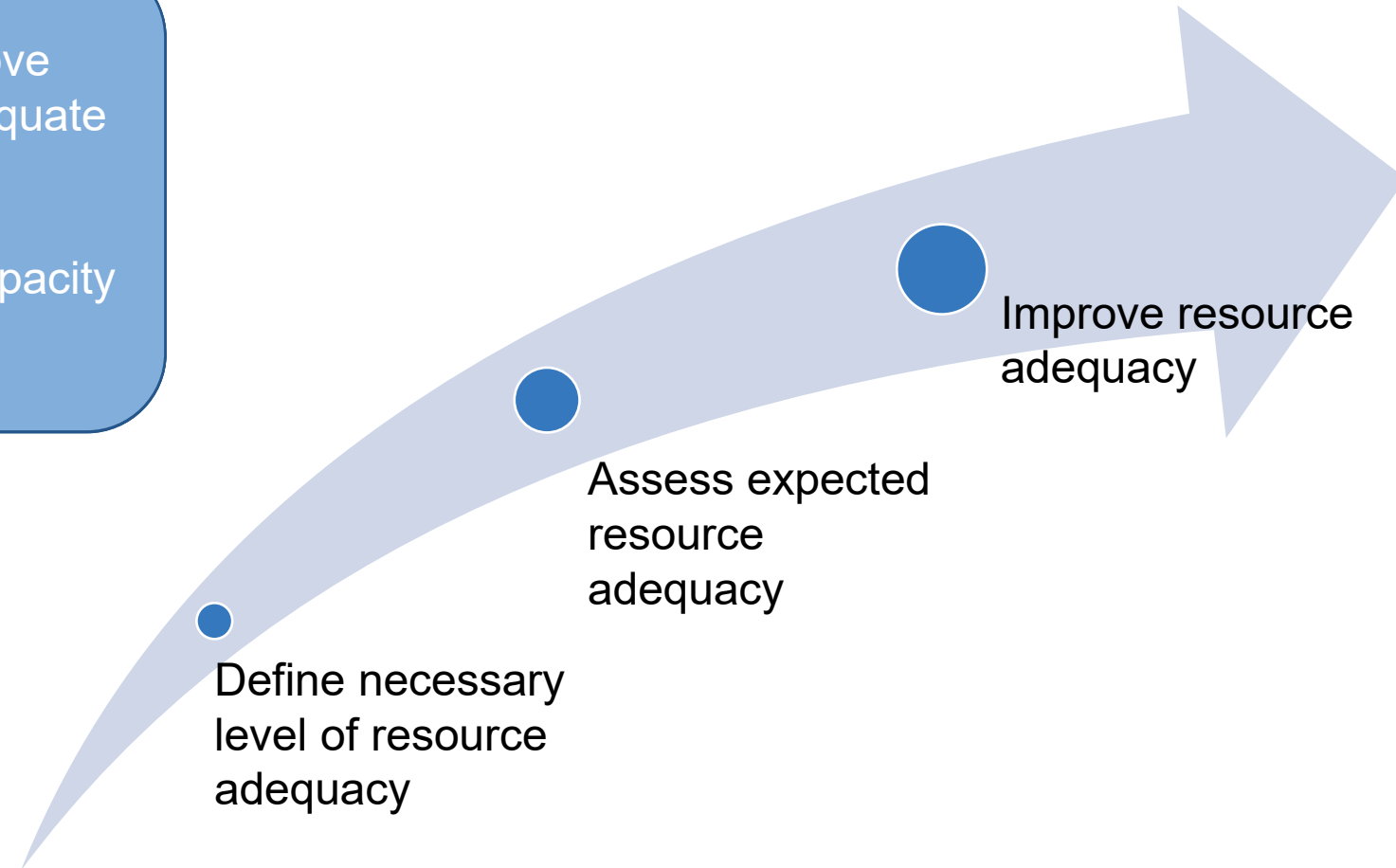
ENTSO-e: association of TSOs established under EU legislation

RCC: Regional coordination centers established under EU legislation

Long-term resource adequacy

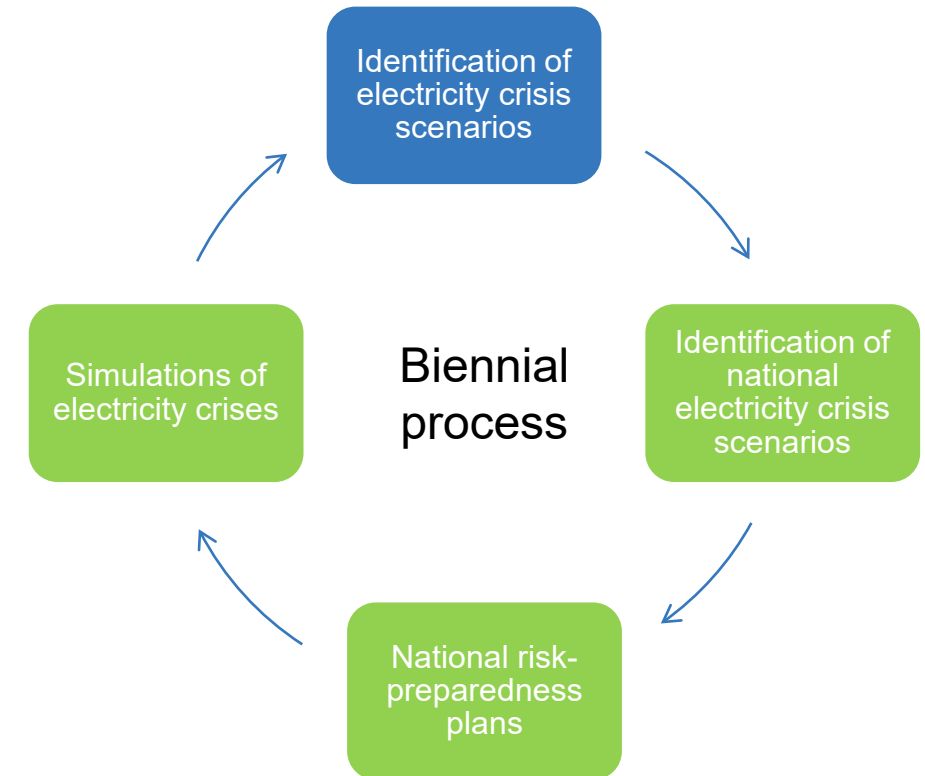
Market reforms to remove
distortions preventing adequate
investment signals

If necessary, temporary capacity
mechanisms



VOLL: Value of lost load
CONE: cost of new entry
LOLE: Lost of load expectation

- In the European context electricity crisis prevention and management calls for regional cooperation
- Common approach to identify risk scenarios
- Coordinated approach to establish risk preparedness plans
 - Define roles and procedures
 - Identify market and out-of-market measures
 - Establish load shedding plans
 - Set commonly agreed regional measures
- Common process for early warnings
- Rules for cooperation and assistance based on solidarity principle



Decarbonisation

Decentralisation

Digitalisation



Is current market design fit for future?

A European Green Deal

Striving to be the first climate-neutral continent

Renewables in the EU energy mix



19.7%
Current renewables share (in 2019)

32%
Current EU 2030 target

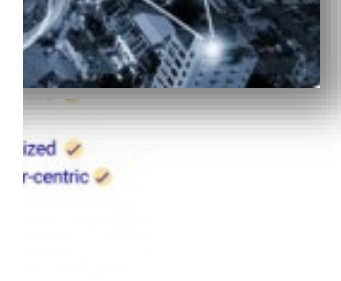
40%
New EU 2030 target

17.0-17.4%

Current energy efficiency savings for primary and final energy consumption (in 2019)

32.5%
Current EU 2030 non-binding target (relative to 2007 projections)

36-39%
New EU 2030 binding target for final and primary energy consumption





Source: [EC](#)



THANK YOU

Vasilis Papandreou, vasilis.papandreou@acer.europa.eu



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 info@acer.europa.eu
 acer.europa.eu

 [@eu_acer](https://twitter.com/eu_acer)
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