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**Council of European
Energy Regulators**



**2nd Trilateral CEER-ECRB-MEDREG
Workshop**

**Regulatory aspects of self-
consumption and energy communities**

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Regulatory aspects of self-consumption and energy communities

- Self-consumers and communities – new actors in the energy system?
- The clean energy package: formalising new forms of active consumers
 - ▶ Self consumption
 - ▶ Energy communities
- Self-consuming, Selling and Sharing: how does it impact consumers and market players?
- Managing consumption and providing flexibility: how can active consumers and communities contribute?
- Owning, operating and managing networks: how far should communities go?



Self-consumers and communities – new actors in the energy system?

- Individual self-consumption is already prevalent across Europe
 - ▶ Drop of PV cost and increasing end-customer electricity price drives viability of self-consumption
 - ▶ Renewable incentive frameworks determines viability
- Collective self-consumption or energy sharing draw increasing interest
 - ▶ Sharing energy within a building or beyond enables citizens without an own individual roof to take part in the energy transition
 - ▶ Legal framework developed in certain countries (e.g. Austria, France)



Self-consumers and communities – new actors in the energy system?

- Energy communities: the next step in citizen cooperation?
 - ▶ Energy communities as “citizens coming together for an energy project” have existed since the beginning of electrification:
 - Local grids for electrification
 - Cooperative energy companies
 - ▶ Technical development and drive for “going local” has led to a surge of citizen energy projects in some Member States
 - Cooperatives for investment in RE projects
 - Peer-to-peer sharing (e.g. using blockchain)
 - Local microgrids
 - ▶ Many innovative projects run as “pilot projects” or in “regulatory sandboxes” outside of general regulation



What is collective self-consumption

- Clean Energy package (CEP)
 - ▶ Electricity market Directive (EMD): **Active consumer** (can be a **group of jointly acting** final customers)
 - Who **consume or store** electricity generated **within their premises** located within **confined boundaries** (can be extended by MS)
 - Who **sell** self-generated electricity
 - ▶ Renewable Energy Directive (RED): **jointly acting renewables self-consumers'** means a **group** of at least two jointly acting renewables self-consumers
 - Who are **located in the same building** or multi-apartment block;
 - Who generate **renewable electricity** for their own consumption,
 - Who may store or sell self-generated renewable electricity



What are Energy Communities?

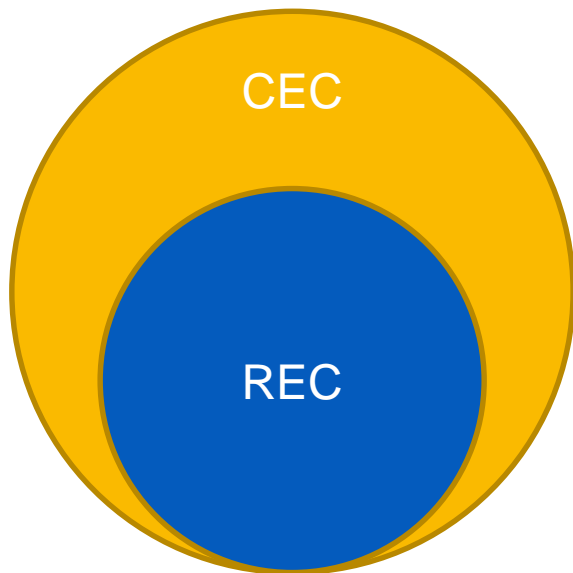
- Communities in the CEP: Legal entity created by citizens, SMEs, local authorities, etc.
 - ▶ Controlled by its members
 - ▶ Not primarily focussed on financial profits
 - ▶ Providing social, environmental and/or economic benefits to its members/shareholders
 - ▶ Entitled to take up various activities in the energy sector
 - ▶ Entitled to operate on a level playing field with commercial actors
- What some people mean when talking about „communities“:
 - ▶ Energy sharing
 - ▶ Microgrids
 - ▶ ...



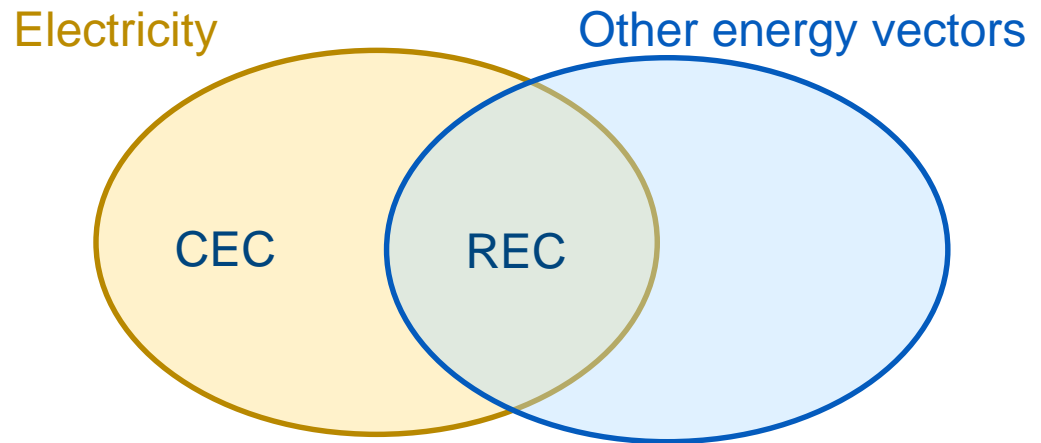
Citizen vs. Renewable Energy communities

- The CEP introduces two types of Energy Communities:
 - ▶ EMD: Citizen Energy Community (CEC)
 - ▶ RED: Renewable Energy Community (REC)

Electricity sector view



Energy sector view





REC and CEC – key differences

	Activities	Geographic scope	Governance	Regulatory treatment	Grid
Citizen Energy Community	Supply, consumption, storage, aggregation and distribution of electricity , other energy services	No explicit geographical limitation	Citizens, SME, public authorities - Effectively controlled by members or shareholders	Aim to create a level playing field for communities	Member State may allow CEC to have DSO status Possibility to give them the advantages of “closed networks”
Renewable Energy Community	Production, consumption, storage and selling of renewable energy	Members to be located “in proximity” of community renewable energy projects	Exclusively citizens, SMEs or local authorities. - Effectively controlled by local members or shareholders	Instrument to promote and facilitate the development of RE - Elimination of barriers	Grids excluded from RECs



Self-consuming, Selling and Sharing

- CECs and RECs are allowed to supply (buy and sell) electricity
- A community-supplier should have the same responsibilities as a equivalent conventional supplier
 - ▶ Contractual information
 - ▶ Billing
 - ▶ Labelling
 - ▶ etc.
- „Supplier light“ models can be applicable to communities in MS where they exist
 - ▶ Cooperation with a fully licenced supply
 - ▶ Less stringent licencing conditions for small/local suppliers



Self-consuming, Selling and Sharing

- Is „organising sharing“ also supply?
- CEP: right to use shared energy on top of traditional supply from the supplier
 - ▶ Impact on customer load profile?
 - Less energy sold to customer
 - Higher balancing risk & cost
 - ▶ Impact on supplier obligations?
 - KWh based public service obligations
 - Combined supply
 - Member State transposition will decide if these still apply
 - ▶ Impact on grid tariffs?
 - Adequate fees should apply if public grid is used
 - Any savings for customers must reflect a benefit for the grid





Self-consuming, Selling and Sharing

- Consumer rights need to be safeguarded, even if customers engage in sharing.
 - ▶ Consumers cannot be forced into a sharing scheme or community
 - ▶ Consumers cannot be prevented from joining a sharing scheme or community
 - ▶ Consumers need to be adequately informed of the conditions of their supply, regardless of its source.
 - ▶ Consumers need to be able to choose their supplier freely, and free to change without undue barriers.



Managing Electricity Consumption and Providing Flexibility

- Communities can unleash consumer's flexibility potential
 - ▶ Common consumption management within communities provides a high flexibility potential
 - ▶ Community are not substantially different from other flexibility sources
 - ▶ Local communities reacting to system-wide signals can increase local constraints
 - ▶ Risk that vulnerable consumers may be forced to provide flexibility they don't have
 - ▶ Active consumers or energy communities are responsible for their imbalances



Owning, Operating and Managing Electricity Networks

- Member States **may** allow CECs to own, manage and operate grids
 - ▶ MS may provide CEC the same exemptions as closed distribution networks
 - NRA does not need to approve tariffs
 - Energy for losses does not need to be sourced through market based mechanisms
 - No obligation to develop network planning
 - Can own and operate storage and EV charging infrastructure
- Apart from possible exemptions, CEC acting as DSOs should provide the same standard of services as conventional DSOs
 - ▶ Reliability, power quality and service quality needs to remain high over time
 - ▶ Data provision and data handling to enable active market participation and safeguard customer privacy
 - ▶ Cost efficient grid operation and development
 - ▶ Grid operation should contribute to system stability as well as possible local optimisation
 - ▶ No discrimination towards other market actors (suppliers, producers, aggregators, service providers and connected customers who are not members).
 - ▶ Furthermore a clear separation of market roles is important to strengthen the role of all DSOs as market facilitators
- The establishment of parallel private networks is generally considered unfavourable



Conclusions

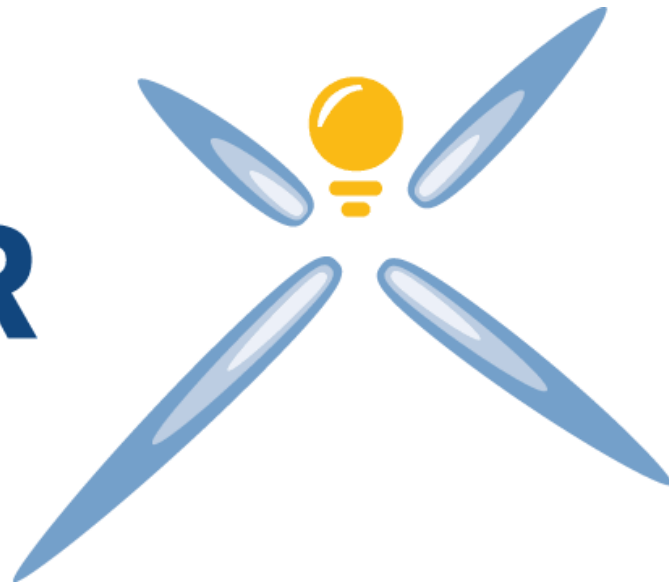
- The Clean Energy package introduces a more formal framework for active consumers and citizen energy projects
- The Directives leave a lot of flexibility to MS to adapt to the national specificities and existing situations
- From a regulatory perspective, the priorities are:
 - ▶ Avoiding that communities are use to circumvent existing regulation (supplier/DSO obligations, adequate network charges etc.)
 - ▶ Ensuring communities operate on a level playing field and unleash their potential for the energy transition
 - ▶ Safeguard consumer rights



Thank you for your attention!

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Individual and collective self-consumption

Electricity Market Directive (2019/944)

‘active customer’ means a final customer, or a **group of jointly acting final customers**, who consumes or stores electricity generated within its premises located within confined boundaries or, where permitted by a Member State, within other premises, or who sells self-generated electricity or **participates in flexibility or energy efficiency schemes**, provided that those activities do not constitute its primary commercial or professional activity;

Renewable Energy Directive (2018/2001):

‘renewables self-consumer’ means a final customer operating within its premises located within confined boundaries or, where permitted by a Member State, within other premises, who generates **renewable electricity** for its own consumption, and who may store or sell self-generated renewable electricity, provided that, for a non-household renewables self-consumer, **those activities do not constitute its primary commercial or professional activity**;

jointly acting renewables self-consumers’ means a group of **at least two jointly acting renewables self-consumers** in accordance with point (14) who are located in the same building or multi-apartment block;



Individual and collective self-consumption

Electricity Market Directive (2019/944)

'citizen energy community' means a legal entity that:

- (a) is based on voluntary and open participation and is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises;
- (b) has for its primary purpose to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits; and
- (c) may engage in generation, including from renewable sources, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services for electric vehicles or provide other energy services to its members or shareholders;

Renewable Energy Directive (2018/2001):

'renewable energy community' means a legal entity:

- (a) which, in accordance with the applicable national law, is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity;
- (b) the shareholders or members of which are natural persons, SMEs or local authorities, including municipalities;
- (c) the primary purpose of which is to provide environmental, economic or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits;