



Overview of EU developments on Citizen and Local Energy Communities

DECIDE Workshop

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LIFE – Center for Climate, Energy and Society



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- Europe-wide visible centre due to scientific excellence with a clear social mission:
- Strengthening the resilience to climate and weather risks
- Transition to a low-carbon economy/society with a sustainable energy system
- JR network hub for green tech research at the Smart City Science Tower Graz
- R&D $\Rightarrow$ generate benefits for the economy



Context of the work carried out



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- Monitoring of the status of transposition in all EU27 via the EU project COMPILE and the BRIDGE initiative
- BRIDGE is a cooperation group of Smart Grid, Energy Storage, Islands and Digitalisation H2020 projects
- THINK-E and JR are leading a taskforce on energy communities
- Interviews with regulators in 2020



Country info based on:

Frieden, et al, 2020: Collective self-consumption and energy communities: Trends and challenges in the transposition of the EU framework

Status of transposition



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Country	Renewable energy communities	Citizen energy communities
Austria	✓	✓
Belgium: Wallonia	✓	-
Belgium: Flanders	✓	✓
Czech Republic	✓	✓
Croatia	draft	draft
Denmark	-	✓
Estonia	draft	draft
Finland	-	-
France	draft	draft
Greece	✓	✓
Ireland	✓	-
Italy	✓	✓
Lithuania	✓	-
Luxemburg	✓	-
Portugal	✓	-
Poland	draft	-
Slovenia		draft
Spain	draft	-
Sweden	draft	draft

Collective self-consumption



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- Several Member States have CSC schemes in place e.g. Austria, Spain or France
- Renewable energy communities sometimes built on existing CSC schemes e.g. in Austria, Spain...



(Source EDF)

- Many MS currently **focus on electricity** when partly explicitly foresee a potential expansion to other energy forms at a later stage
 - e.g. Portugal and Austria.
- Some of the central and eastern European countries put a strong focus on renewable heat in their REC frameworks
 - "village heating communities"



<https://www.orygeen.eu/>

Organisational form and actors

- Several Member States list potential options for the type of legal entity that may be chosen.
 - Associations, cooperatives etc.
 - Some EU countries already have the concept of energy cooperatives in their national law eg Spain
- Some Member States mention specific actors, such as
 - municipalities or
 - housing associations

Governance: Empowering Energy communities



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- Several provisions and concepts are introduced in the Clean Energy Package **to allow energy communities to compete on an equal footing with other market participants.**
 - eligibility of shareholders and members
 - “proximity” of the effective control in case of RECs
 - “autonomy” of the REC from individual members and traditional market actors.

→ up to the member states to provide detailed concepts

Physical expansion, proximity, and governance (1)



RECs need to be “**effectively controlled** by shareholders or members that are located in the **proximity** of the renewable energy projects”

So far Member states took the following approaches

- Distance or administrative structures
- Typology of the public grid (LV, HV transformer)
- Case by case judgement, based on criteria, taking into account activities

- Austria



RECs behind the LV or the MV transformer

- Lithuania



Municipality of the project or the neighboring municipality

Physical expansion, proximity, and governance (2)



- Some Member States require that **majority of the members** have to be located in or have ownership in defined spatial boundaries,
- in other MS **all members** have to be within defined spatial boundaries.

EXAMPLES

- Lithuania provides that 51% of members need to be residents in the municipality of the production plant or a neighbouring municipality.
- In Austria all members have to be within the spatial boundaries.

- Power of individual members should be limited
- A few Member states have already defined more specific membership criteria and procedures limiting the power of individual members or types of members.

EXAMPLES

- In Lithuania, at least five members have to be natural persons, holding a minimum of 51% of all votes.
- In Croatia no member can have a share of more than 40%

General issues for to be considered

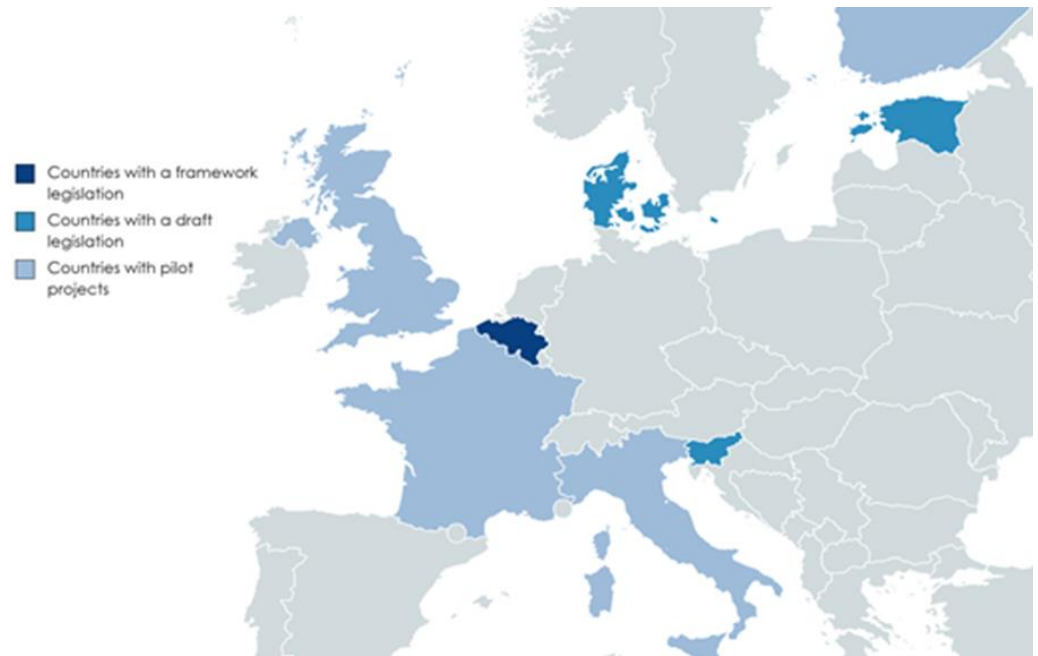


- Role of energy communities for the energy system need to be clarified
- Self-consumption versus flexibility provision: where should the focus be?
- Need for Cost Benefits Assessments considering **all costs**
 - metering
 - digital infrastructure
 - local assets and operational management versus all benefits**versus all benefits**

Link to procurement of flexibilities by the DSO (Art 32 EMD)



- Current implementation of an energy community legislation often addressed without the coordination with possible future flexibility markets
 - Belgium and Estonia being notable exceptions



Source: X-Flex Project 2021

Incentives and support



RECs are part of the national support scheme	Ireland that allocated subsidies for RECs under its RESS auctioning scheme Italy provides subsidies to KWhs self-consumed energy
Local grid tariffs	Austria, Italy or Portugal
Funds	Czechia that will subsidize RECs under its modernisation fund

- **Setting local grid tariffs proved to be complex**

Local grid tariffs in some Member states



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MS	Network tariff for EC	Change of other tariff elements	Additional incentives for self consumption
Austria	Grid fees above the grid level of REC do not need to be paid	<i>Removal of consumption-based surcharges (electricity tax, RES support)</i>	
Italy	Refund of consumption-based part of network tariff, covering transmission-related costs		<i>100-110 €/MWh for RES electricity self-consumed within EC to EC</i>
Portugal	Grid fees above the grid level of REC do not need to be paid	<i>Reduction of consumption-based surcharges (policy costs (CIEG): 100% for CSC, 50% individual self-consumption)</i>	

Energy Poverty

So far, only Greece has embedded the reduction of energy poverty as a prime goal of energy communities in its legal framework, also establishing specific measures.

- Energy poor households can get electricity from the EC even without being member

Other MS mention energy poverty without providing concrete options

- Will the energy communities get real-time data from the DSOs?
- National legal provisions may limited business cases
- Lack of readiness of the infrastructure and actors

Thank you for your attention!

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