

## *Identifying Types of (Local) Energy Communities*

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*LIFE - Center for Climate, Energy &  
Society*

*Climate Policy and Economics*







- Eco Mobility
- Tourism & Climate
- Renewable Energy
- Urban LIFE
- Consequences of Climate Change and Land Use
- Risk Analysis and Management for Companies



## *JR's work on energy communities*

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- COMPILE (H2020): Community Power in Energy Islands 
- EXCESS (H2020): FIEXible user-CEntric Energy poSitive houseS 
- EU BRIDGE Working Group: Task Force on Energy Communities 



## *Aims of the presentation*

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- Provide an idea of the diversity of energy communities
- Show potential friction between different types of (existing) initiatives and the the RSC, REC and CEC definitions
- Discuss potential implications for actual initiatives
- Provide some insights into national transposition





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## Overview

- 1) [Additional background on legal framework](#)
- 2) Examples
- 3) Further considerations on the transposition and implementation process
- 4) Preliminary conclusions and open questions

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## Renewables self-consumers (RSC)

Article 21 of REDII

- **Renewables self-consumer:** “a final customer [...] who generates renewable electricity for its own consumption, and who may store or sell self-generated renewable electricity...”
- **Jointly acting renewables self-consumers:** a group of at least two cooperating “renewables self-consumers [...] who are located in the same building or multi-apartment block”.
- One of many potential activities within an energy community
- Potential starting point for energy communities (and national legal frameworks)

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## RECs and CECs: Do they make a difference?

Current situation



- Many Member States already have (local) energy initiatives in place. The term „local energy community“ is widely used.
- Type and number of enabling frameworks and initiatives highly heterogeneous.

New framework:

- Introduces EU-wide minimum criteria for specific types of initiatives
- Requires...
  - ... to enable specific activities such as energy „sharing“ via the public grid
  - ... to enable market and support access for energy communities
  - Governance rules

→ In some countries EU framework is driver for creating energy communities, in others it can increase the legal/regulatory space

→ Actual impact of benefit for initiatives will strongly depend on the case

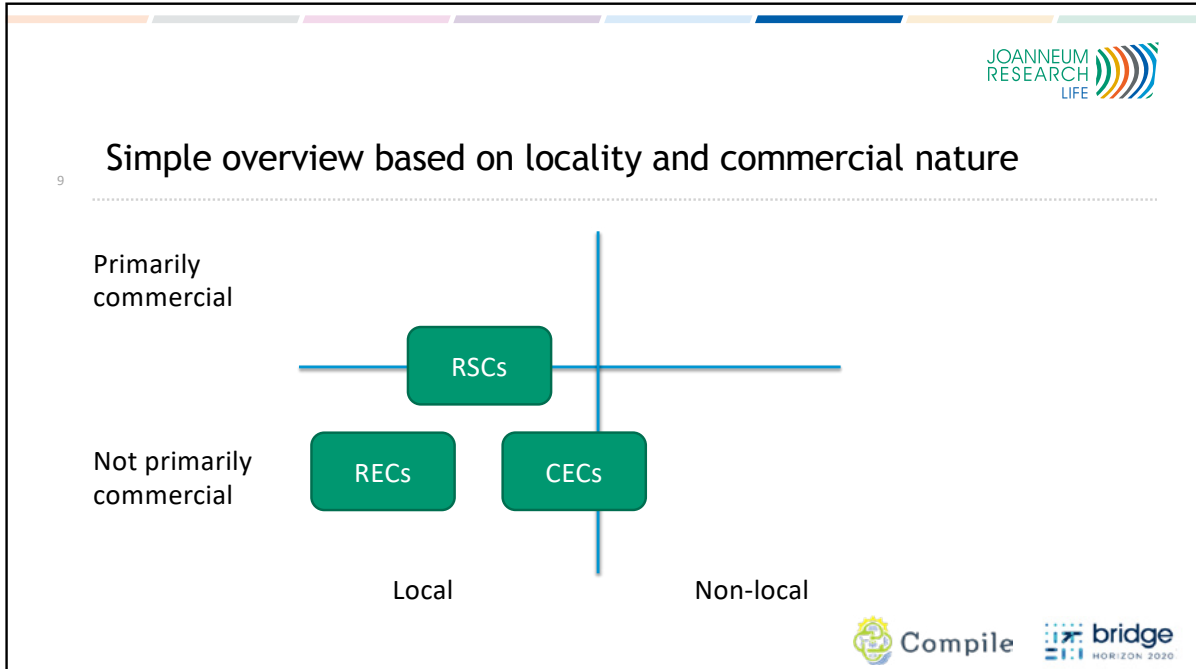
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## Some major characteristics

	Locality	Governance	Commercial nature
<b>Renewables self-consumption (RSC)</b>	<b>Physically local</b> by nature	No specific requirements	For a non-household renewables self-consumer <b>not its primary commercial or professional activity</b>
<b>Renewable EnCs (REC)</b>	<b>Proximity</b> requirement for „effective control“*	<b>Legal entity, open and voluntary</b> participation, <b>proximity, autonomy</b> „from individual members and other traditional market actors“, <b>no large enterprises</b> as shareholders or members	Primary purpose <b>environmental, economic or social</b> community <b>benefits</b> for its shareholders or members or for the local areas where it operates, <b>rather than financial profits</b>
<b>Citizen EnCs (CEC)</b>	No geographic limitation	<b>Legal entity, open and voluntary</b> participation, <b>no „effective control“*</b> for <b>medium and large enterprises</b> ,	

\*‘Control’ (EMDII): possibility of “**exercising decisive influence** on an undertaking, in particular by (a) **ownership** or the **right to use** all or part of the **assets** of an undertaking; (b) rights or contracts which confer **decisive influence on the composition, voting or decisions of the organs** of an undertaking”.



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## Collective generation and supply of renewable electricity: example Elektrizitätswerke Schönau, Germany

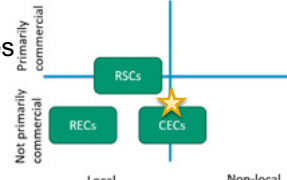
- EWS is a cooperative company active in, e.g., distribution (local DSO), supply and production of energy with different technologies and a range of services.
  - Remote village, 5500 inhabitants, close to 8000 members
  - Official purpose secure and affordable supply of climate-friendly and nuclear energy-free energy and drinking water
  - Similar initiatives emerged also in Austria and Italy in remote areas decades ago
- ➔ **Potential REC exclusion criteria: proximity of voting members, gas supply**
- ➔ **Perhaps access to “low-income or vulnerable households” an issue (Minimum of 5 shares = 500€)**


Primarily commercial

Not primarily commercial

Local

Non-local





Compare Report of the BRIDGE Task Force on Energy Communities: <https://www.h2020-bridge.eu/download>

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## Residential direct-consumption: Example Austria

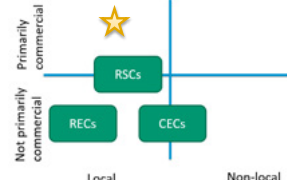
- Electricity sharing in multiapartment buildings in Austria (so far no use of public grid)
- Several projects implemented following a 2017 electricity act amendment including joint generation facilities
- Projects so far mostly developed and run by commercial suppliers as individual supply contracts
- ➔ **Actual practice currently not meeting EU provisions (commercial, large companies of e-sector, no autonomy, no specific legal entity)**


Primarily commercial


Not primarily commercial

Local

Non-local








## *Upcoming legislation towards energy communities (RECs) in Austria*

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- Expansion of RSC to an area within the same low-voltage grid area
- Introduction of reduced local grid tariffs
- Cooperative approach (e.g. cooperatives, associations...)
- Focus on joint use of energy




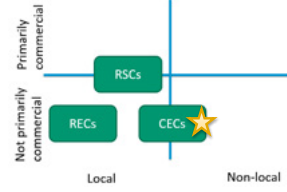
## *National energy generation and supply Cooperative: enercoop, France*

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- Cooperative renewable energy supplier.
  - Members include both producers and consumers of renewable electricity as well as additional partners
  - More than 15000 members, and 22000 consumers.
  - One main objective is to decentralize energy production and to give citizens the opportunity to get involved in the energy transition.

→ **enercoop can potentially be qualified as a CEC, but not as REC as it does not meet the proximity requirement**





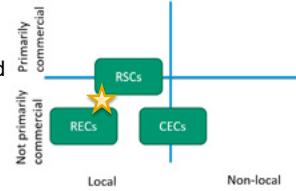
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## Multi-building condominium Lisbon (Compile project)


- Cooperation with Portuguese cooperative Coopernico and condominium
- Activities include structuring of measurement concept, energy sharing rules and responsibilities for, e.g., measurement and netting of consumption
- New law in place allowing for collective self-consumption and RECs, specifics on responsibilities, energy sharing etc. still to be defined, DSO to carry our measuring and “netting”
- Would not be possible without the new framework
- Next step to be specified on national level are local tariffs

→ **Currently primarily collective self-consumption approach**

→ **Formal organisation of participants would allow expanded activities as REC**



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## *General observations of the transposition*

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- Many Member States have a partial transposition in place or underway
- The clear differentiation between Renewable and Citizen Energy Communities is not always made – tendency towards RECs (# Greece including Gas), partly omission of one or the other
- Partial linking of the activity-based jointly acting (collective) self-consumption to REC concepts (Luxembourg)
- Some core streams of legal/regulatory developments
  - Localisation (geographical – proximity / physical)
  - Local grid tariffs
  - options for grid management and ownership
  - ...

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## *Example Localisation*

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**Several MS aim to link regulatory boundaries to physical boundaries of the energy system**  
the LV and/or the MV transformer station

- Austria: Discussion about transformer station as a physical boundary, limitation of RECs to a low-voltage grid area
- Spain (collective self-consumption!): LV network in same center of transformation
- Belgium (Wallonia): „local perimeter“ – grid segment downstream of one or more public transformer stations of medium or low voltage, to be specified
- France (collective self-consumption!): switch from transformer station to distance within the LV grid (probably 1km)






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## Preliminary conclusions


- Many existing initiatives do not fall under the new EU definitions
- An important room for new types of initiatives is created
- Qualification as RSC, REC or CEC will strongly depend on the interpretation of the EU provisions and national transposition (e.g. proximity, autonomy)
- Actual impacts will strongly depend on implications determined by national transposition (e.g. expanded/limited access to support, possibility for specific activities...)

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**Open questions I**

**How to define...**



...100% RES (RECs)?  
...100% electricity (CECs)?

Which extent/form of citizen/consumer engagement?

...cost-reflective network charges?

...proximity?

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Picture: <https://www.compile-project.eu/news/workshop-energy-communities-energy-in-citizens-hands/>

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**Open questions II**

- Will the new frameworks lead to a substantial amount of new initiatives...
  - ...going beyond a strongly limited number of „elite“ projects (e.g. reaching vulnerable groups)?
- Will other types of initiatives be constrained?
- How can actual system impacts be captured by, e.g., local grid tariffs, without importantly increasing the burden for other consumers?
- ...

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*Thanks for your attention!*

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