### Renewable energy communities & selfconsumption: exemplary cases from Europe

Presentation CWaPE

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## Who do we represent?

- Renewable Energy Sources cooperatives, Community power, or community energy initiatives (i.e. citizens and renewable energy communities)
- Groups of citizens who cooperate on RES or EE
  - ➤ Production
  - > Supply
  - ➤ Distribution
  - ➤ Storage
  - ➤ Services
  - Electrical vehicle sharing
- Legal entity < ICA principles





# Renewable energy cooperatives: a different way to do business



- 1. Voluntary & open membership
- 2. Economic participation
- 3. Democratic ownership
- 4. Autonomy and independence
- 5. Training & education
- 6. Cooperation amongst cooperatives
- 7. Concern for community



## Just some of the benefits of community energy

### 1 revenues from local renewables to meet local needs

- Local supply of cheap, clean renewables
- Services, education
- Buildings renovation and energy efficiency
- Energy poverty
- New activities (e.g. electrification of transport)

### 2 Democratic community ownership

**3 Economic benefits for the participants** 

### **4 Public acceptance**

5 Bringing people on board the energy transition: benefits to the energy system





### Energy communities: a different type of actor in the energy market

### 'Renewable energy community'

- a legal entity:
- Based on open and voluntary participation
- Autonomous in their decision making
- <u>Effective control</u>: by **local** shareholders or members;
- Can include natural persons, SMEs or local authorities, including municipalities
- <u>Primary purpose</u>: 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;





# Link between renewable energy communities and self-consumption:





### **DE: Mieterstrom (tenant electricity)**

### Highlights from the framework:

- Incentive = small bonus per kWh
- Allows tenants to be involved as customers
- Possible for housing cooperative to be the producer, with tenants as the members

#### Issues:

- Operator of the plant needs to be the consumer (same natural or legal person) – not possible for several households to jointly operate a plant together
- Still needs to pay 100% of the renewable energy surcharge

#### Heidelberg Energy Cooperative – "new home" nussloch



445.5 kWP / 370,000 kWh per year



# **FR: Experimenting by REScoops**

### The details:

- Opened up geographical scope (limited to one branch of the distribution network)
- Energycoop Midi-Pyrenees manages the rooftop installations (36 kWp) and interacts with DSO
- Supply store Lou Cussou Biocoop and Clinic Codomier-Masset + other local customers
- Excess electricity makes up supply of Enercoop

### Issues:

- Policy framework is very unstable (constant changes)
- Data collection to invoice client
- Special tariff has yet to materialise
- Possible to be required to pay for two balance responsible parties

#### Enercoop Midi-Pyrénées





# The UK: linking technical and social innovation





Creating Local Energy



- Solar PV cooperative projects on social housing estates throughout London
- Agreement with local Council to lease roofs
- Reduced investment requirement for residents of estates
- Energy savings fund: portion of profits go into EE/renovation initiatives, education
- Brixton Energy: block-chain powered peerto-peer energy trading to allow cheap, clean electricity supply
- Now extending to schools, gardening initiatives



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## **Greece: virtual net metering**

### The details:

- Eligible activity or energy communities, municipalities and groups of farmers
- Eligibility is based on separate legislation that defines and supports energy community
- Installations up to 1 MW eligible
- Municipalities using to provide renewable electricity to their own buildings (e.g. social housing)
- Results in reduction to energy bill and grid charges
- Eligible within regions and in neighboring regions

### Municipality of Thessaloniki





Municipalities can only supply their own buildings



### Beligum: new decree on collective selfconsumption?

### The details:

- Municipality to install and own a communal wind turbine and 1000 solar pv panels
- Will offer electricity to residents and companies within the area for free
- Customers will still have to pay for grid fees and taxes
- Storage is envisioned & would like to supply social housing
- Made possible with new decree on collective selfconsumption

#### Issues:

- Framed mainly around renewable energy community the right approach?
- TBD... Implementing decree?

"Free Power for You" -Crisnée



## **Takeaways and recommendations**

- 1. Need to distinguish between concepts of renewable energy communities and collective self-consumption in legislation
- 2. The ability to collectively self-consume should be guaranteed for renewable energy communities along with other market participants and business models
- 3. Geographical restrictions should not be too narrowly defined limit who can participate, raising fairness questions
- 4. Incentives should take into account energy, distribution and other components of consumers' energy bills and reflect benefit to the system, society and the environment
- 5. Metering and responsibilities between different parties needs to be clear



If you want to know more, please contact us!

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