Citizen Energy – making it real
How to transpose RED II and IEMD

EUFORES Academy: Energy Citizens and Communities - Following the transposition of the RED II and IEMD in the Member States

17 November 2020
Clean Energy Package – new rights for citizens

Targets and monitoring

Taskforce on Energy Communities

Traps to avoid

Barriers, potentials and enabling framework

Early Adopters & Best Practices

Reflections from REScoop.eu
Introduction

Clean Energy Package has to be transposed to national legislation

Risk that member states don’t transpose adequately, too late or without proper public consultation

How should member states transpose prosumer-related provisions? How can citizens’ input be ensured?
Clean Energy Package: new rights for every citizen

1. Recast of the Renewable Energy Directive (RED II)
   - Renewables self-consumer
   - Renewable Energy Communities (RECs)

2. Recast of the Internal Electricity Market Directive (IEMD)
   - Active consumer
   - Citizen Energy Communities (CECs)

3. Governance Regulation
   - National Energy Action Plans (NECPs)

Citizens have the right to
- generate,
- self-consume
- store and
- sell renewable energy
- participate in energy communities
The relationship between RED II and IEMD

- Concept for the lawful control over and administration of (local) energy generation, supply & management

RED II introduces **Renewable Energy Communities (RECs)**

IEMD introduces **Citizen Energy Communities (CECs)**

Only RECs benefit from support to ensure “equal footing”

Both benefit from an **enabling framework** and are authorised for Energy/Electricity Sharing
## Renewable Energy Communities (RECs) vs. Citizen Energy Communities (CECs): Don’t get confused on the definitions

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Renewable Energy Communities (RECs) Arts. 2 (16), 22 RED II</th>
<th>Citizen Energy Communities (CECs) Arts. 2 (11), 16 IEMD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy</strong></td>
<td>• Renewable Energy</td>
<td>• Electricity</td>
</tr>
<tr>
<td><strong>Membership</strong></td>
<td>• Natural persons,</td>
<td>Any entity;</td>
</tr>
<tr>
<td></td>
<td>• SMEs,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Local authorities, incl. municipalities;</td>
<td></td>
</tr>
<tr>
<td><strong>Primary Purpose</strong></td>
<td>“environmental, economic or social community benefits for its shareholders / members or for local areas where it operates, rather than financial profits”;</td>
<td></td>
</tr>
<tr>
<td>** Ownership and Control**</td>
<td>• Effectively controlled by shareholders or members that are located in the proximity of the RE project;</td>
<td>• Effectively controlled by shareholders or members;</td>
</tr>
<tr>
<td></td>
<td>• Is autonomous (no individual shareholder may own more than 33% of the stock).</td>
<td>• limitation for firms included in shareholders controlling entity to those of small/micro size (not medium);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shareholders engaged in large scale commercial activity and for which energy constitutes primary area of activity excluded from control.</td>
</tr>
<tr>
<td><strong>Advantages to qualify as REC or CEC</strong></td>
<td>• “Enabling framework” to promote and facilitate the development of RECs;</td>
<td>• Level playing field;</td>
</tr>
<tr>
<td></td>
<td>• Energy sharing within the REC.</td>
<td>• Electricity sharing within the CEC.</td>
</tr>
</tbody>
</table>
Suggested timelines for transposition of IEMD and RED II, applying principles of Aarhus convention

2-stage stakeholder consultations for both directives recommended; at least during one month. Parallel consultations in Sep/Oct 2020.
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Setting ambitious targets

1. Targets for roof-top PV
   - minimum target of 30-50% of the roof-top potential by 2030
   - important: maximum use of roof space

2. Targets for energy communities
   - 30-50% share of the total national RE target (new builds)
   - number of communities
**EU roof-top PV target of some 340 GW by 2030**

<table>
<thead>
<tr>
<th>Conservative values</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV rooftop potential [GWh].</td>
<td>680.276</td>
</tr>
<tr>
<td>Source: JRC 2019</td>
<td></td>
</tr>
<tr>
<td>Minimum 50% target for 2030 [GWh]</td>
<td>340.138</td>
</tr>
<tr>
<td>PV rooftop potential - capacity [GW]</td>
<td>680</td>
</tr>
<tr>
<td>Minimum 50% capacity target for 2030 [GW]</td>
<td>340</td>
</tr>
</tbody>
</table>

Source: JRC 2019_Rooftop solarphotovoltaic potential in EU
Targets should include small and large RE projects initiated / supported by RECs and CECs

- REC/CEC targets can be
  - share of total national RE target, e.g. 30-50%
  - Share of households being members of a REC/CEC, e.g. 5% by 2030 (currently: 3400 European ECs with 1.5 million citizens -> 0.3% of EU population or 0.6% of the households; some 10-20% long term target)
  - Number of energy communities
  - Number of members in energy communities
  - Number of jointly acting renewable self-consumption activities

- Consider obligations to involve RECs/CECs in RE projects
  - especially if close to settlements to increase social acceptance.

- Annual monitoring of prosumerism and corrective actions
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- Crosscutting work in the framework of Bridge
- What happens in the different MSs?
  - Good and inspiring examples
  - Analysis on legal existing and upcoming framework
- Recommendations expected
  - Replicability and upscaling needs and potentials
  - Research and demonstration needs

- Working Group “Regional Matters” with Taskforce “Local Energy Communities”
  - Knowledge Generation from and for JPP SES projects
- Spotlights and Policy Briefs
  - for academia
  - funding programs
  - legislation (on MS level)
  - practitioners (energy, ICT)
The topics (identified by the core-team of the taskforce)

What are Energy Communities?
2. Which potential for renewable energy use can be triggered by a CEC or REC in addition to existing organisations?
3. What would be benefits and options for a CEC to operate its own (sub) grid?
4. What are benefits of CEC or REC in relation to existing means and measures of citizen involvement?
5. Which overall cost savings can be expected from CECs compared to existing schemes?
6. What are feasible tariffs to allow for the implementation of a CEC as part of the overall energy system?
7. How can candidates be supported to establish a CEC or REC?
8. What are requirements to ICT solutions for the implementation of a CEC or REC?
9. How can data collection and management be limited and data security be ensured in a CEC or REC?
10. What is the national situation of Energy Communities in the context of the CEP?
11. Cases and Experiences
Recommendations

1. Draw on the experiences of existing energy community initiatives, or create a temporary space for them to emerge in
2. Dare to be ambitious to maximize the potential of energy communities, but adequately differentiate between types
3. Specify principles of ‘autonomy’, ‘effective control’ in order to avoid elite-capture
4. Define the concept of ‘locality’ for collective self-consumption and energy sharing in line with grid topology, but do not equate it with the element of ‘proximity’ for REC
5. Put in place participation mechanisms for energy poor and vulnerable households
6. Consider the value that CEC and REC can provide to the public network
7. Consider the value of REC and CEC to the community
8. Pro-actively support the set-up of REC and CEC
9. Consider a separate auction-based support scheme for REC
10. Streamline, simplify and make less burdensome licensing and network connection
11. Don’t reduce concept of CEC & REC to mere collective self-consumption & vice versa
### Classes of Energy Communities

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>LEC Taskforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>class 1</td>
<td>Collective generation and trading of electricity</td>
<td>all types of territorial or commercial groupings of generators – whether active on the market or under feed-in mechanisms (often called Virtual Power Plants)</td>
</tr>
<tr>
<td>class 2</td>
<td>Generation-Consumption Communities</td>
<td>certified sourcing of electricity in a closed group of generators and consumers - not necessarily in proximity but including local or regional energy markets</td>
</tr>
<tr>
<td>class 3</td>
<td>Collective residential &amp; industrial self-consumption</td>
<td>generation, storage and consumption in residential cases with multiple dwellings; includes Tenant-Power (Mieterstrom) - models</td>
</tr>
<tr>
<td>class 4</td>
<td>Energy positive districts</td>
<td>districts with residential and business entities operating their energy supply systems under their own regime</td>
</tr>
<tr>
<td>class 5</td>
<td>Energy islands</td>
<td>real islands or parts of the distribution system that can be operated standalone (e.g. cellular system as in SINTEG, holonic model as in PolyEnergyNet)</td>
</tr>
<tr>
<td>class 6</td>
<td>Municipal utilities</td>
<td>existing organizations for energy production, supply and grid operation under citizens’ control – directly (e.g. cooperative) or indirectly (e.g. controlled by local government)</td>
</tr>
<tr>
<td>class 7</td>
<td>Financial aggregation and investment</td>
<td>a “community” of investors joins to scale the amount of or manage the investment in generation systems (without further involvement in organisation etc.)</td>
</tr>
<tr>
<td>class 8</td>
<td>Cooperative Financing of Energy Efficiency</td>
<td>citizens jointly investing in efficiency means of SMEs and municipalities, possibly in their own region (e.g. contracting / ESCO, crowd-funding)</td>
</tr>
<tr>
<td>class 9</td>
<td>Collective service providers</td>
<td>all types of commercial groupings of energy services (e.g. grouping of EV charging stations, aggregation of demand side management services)</td>
</tr>
<tr>
<td>Class 10</td>
<td>Digital supply and demand response systems</td>
<td>all types of digitally controlled energy systems (e.g. implemented with blockchain), these days possibly operated as a sandbox-model</td>
</tr>
</tbody>
</table>
Utilities (focus: municipal and small / medium sized) and Energy Communities

Utility service provider

Energy Community

Prosumer

Generator

Consumer

Utility super peer

Energy Community

Prosumer

Prosumer

Prosumer

Consumer

Consumer

Consumer
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Reflection from REScooop.eu
Traps to avoid: Capacity limits & Commissioning
Qualification as & Eligibility for REC should not depend on capacity or date of operation

**Expl. Italy:** New Art. 42bis “Self-consumption from RES” (Dec. 2019)

- Legal entities established as REC are
  - limited to a total power not exceeding 200 kW of RES,
  - and which entered into operation after March 1, 2020

- Existing energy communities with RE plants already in operation before March 2020 do not qualify as RECs, but merely as CECs
  - disadvantage vis-a-vis to RECs established after March 2020
  - dis-incentivises to include existing RE-projects in new RECs

- In practise a new energy community that includes (also) older installations and therefore does not qualify as REC
  - will loose incentives for its individual members, e.g., PV net metering
  - while not having access to the new collective incentives for RECs.
Traps to avoid: Proximity & Energy Sharing
"proximity" & “local area” should be contextualised (adapting to national/regional situation)

Expl. Italy:
Energy Sharing in RECs via public grid permitted but:
- metering points must be "located on low-voltage power grids underlying the same MV/LV transformer station"
- same reference used to define “proximity” of members of REC

Expl. Austria:
- medium-voltage grid poses upper limit
- stepwise reduction of per-unit grid charges

• Defining proximity too narrowly may disqualify urban or rural projects spreading over a large territory with various RES
• But also large single-sourced RE projects like a wind park may require participation beyond a single municipality

In both cases:
Members too far away from RE installations are excluded from the circle of controlling shareholders

Source: Modified after Riepel 2007 (CC license)
Legislator expressly postulate inclusion of LIH / energy poor:

- RED II: Recital 67 / Art. 22 para. 4
- IEMD: Recital 60 / Art. 28 - 29

-> However, without saying how to facilitate inclusion

Example for innovative inclusive approach is the French law on energy and climate of November 2019 which defines:

- the legal entity implementing a social housing project by law as a potential REC (once it implements an RE-Project);
- the residents of these buildings REC members by default.

-> **opt-out model for social housing RECs** accelerating adherence of the residents.
Important to avoid conflict with State aid rules (Art 107(1) TFEU)

Preferential tax treatment for RECs will fall outside scope of State aid rules conditional that regarding their (local) controlling shareholders / members:

a) the REC acts in their economic interest;

b) their relations are not purely commercial, but linked to their local individual RE energy supply;

c) they are actively involved as prosumers in the local RE project;

d) they are entitled to equitable distribution of the results of economic performance.


ECJ Joined Cases C-78/08 to C-80/08 O.J. 2011, C 311/06 (Paint Graphos)
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Reflections from REScoop.eu
The strength of Art. 22 on Renewable Energy Communities

Go find the **Renewable Energy Directive (2018)** and read Article 22 for yourselves

- Member states **shall ensure** that Renewable Energy Communities are entitled to (a) produce, consumer, store and sell renewable energy. (Art 22)

- Member states **shall ensure** that Renewable Energy Communities are entitled to (c) access all suitable energy markets in a non-discriminatory manner. (Art 22)

- Is your Energy Ministry aware that they must implement these strong rights for community energy? By mid 2021?
The enabling framework

Member States shall provide an enabling framework to promote and facilitate the development of RECs.

• That framework shall include
  – unjustified regulatory and administrative barriers are removed,
  – fair, proportionate and transparent procedures, including cost-reflective network charges,
  – tools to facilitate access to finance and information are available,
  – capacity-building support is provided to public authorities in enabling and setting up renewable energy communities.

• Enabling frameworks will differ in every country depending on the biggest national barriers
How will we know what barriers to overcome in our country?

“Member States shall carry out an assessment of the existing barriers and potential of development of renewable energy communities in their territories” (Article 22 para. 3 RED II).

• This needs to be done BEFORE the enabling framework is created, so that the relevant barriers are overcome.

• Please write to your Dept of Energy and inquire, or ask a parliamentary question.

Example: “I wish to enquire about Article 22 part 3 of the RED II. I draw the minister’s attention to the value of having such an accurate assessment before the related enabling framework is created for Renewable Energy Communities. I would like to have an update on the progress of this assessment and the likely publication date.”
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An Energy Community (E.C.) is the cooperative solely aiming at

- promoting social and solidarity-based economy and innovation in the energy sector,
- addressing energy poverty and promoting energy sustainability, generation, storage, self-consumption, distribution and supply of energy as well as
- improving end-use energy efficiency at local and regional level.

It is non-profit, except in the case of paragraph 4 under Article 2.”
Early adopters: Ireland

* Ireland created a special “pot” for community energy projects within their RESS auctions.

* This allowed seven new projects to establish and start producing community energy.

* This is the kind of dedicated support that is part of the enabling framework.
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Aim of the Commission in Clean Energy for All Europeans (CE4AE)

The Commission published its Communication on Energy Union on February 25, 2015 [COM (2015) 80 final] “This Communication calls for a fundamental transformation of Europe's energy system: to speak globally with one voice; to, inter alia, build a sustainable, low-carbon and climate-friendly economy that is designed to last; where energy flows freely across borders, based on competition and the best possible use of resources; with citizens at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market, and where vulnerable consumers are protected.”
Aim of REScoop.eu in CE4AE

- a definition for more than 3,400 existing citizen energy initiatives
  - some a century old, most very new
  - very diverse activities: production, distribution, supply, efficiency, e-carsharing, ...

- every EU citizen has the same opportunity to become active, individually at home or collectively in an energy community and take ownership of the future energy production

- In NW Europe quite a lot was already possible, but in Southern and especially Eastern Europe …
Result of CE4AE directives
How can EU Member states support energy communities?

published June 2020 – 100 pages

- Scotland: CARES Community and Renewable Energy Scheme
- Netherlands: 50% Community Energy Target

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