



International Year of Cooperatives



The partners support the UN International Year of Cooperatives

Sharing Energy in the EU: A possibility everywhere?

Author: Daniel Baltazar Reséndiz



Source: European Commission

From cooperatives to communities

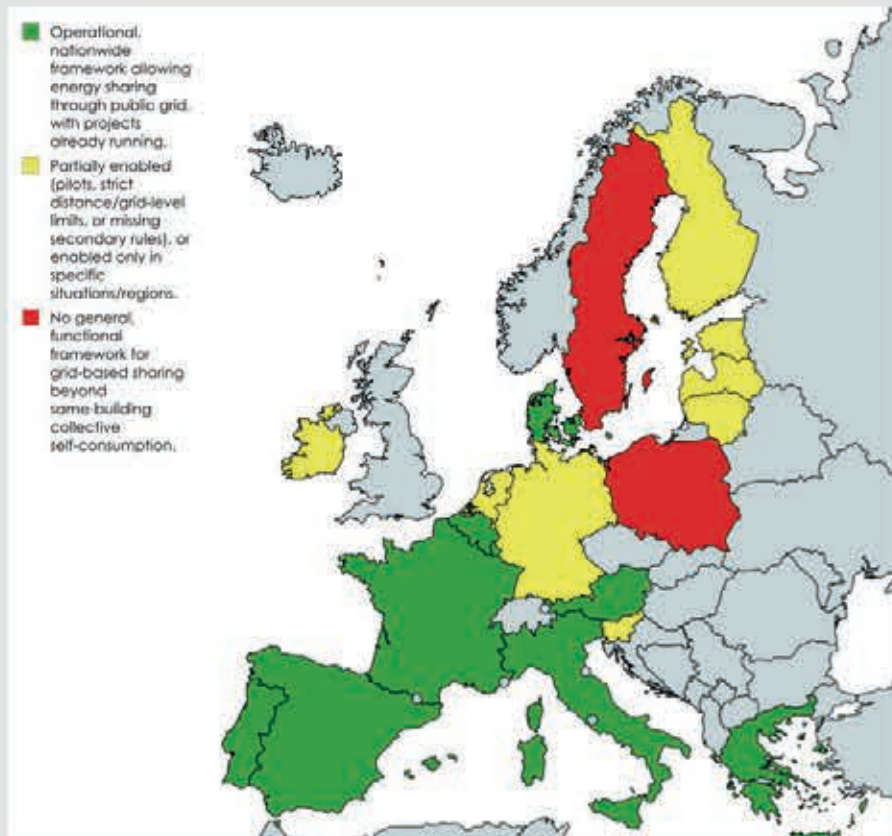
The EU's Clean Energy Package (2019) introduced citizen and renewable energy communities to empower people to set up energy communities, produce energy, and participate in market activities. While the EU sets the direction, countries control implementation.

Then: Energy Cooperatives	Now: Energy Communities
Focus on supply	Focus on shared production & use
Customer-members	Citizen + municipal partnerships
National Cooperative Rules	EU legal recognition (CEC/REC)
No energy sharing (Sell to grid)	Share/self-consume

Source: Own table

Objectives of Energy Sharing

- 1. Increase Participation of Individuals in the Energy Transition.
- 2. Enhance Acceptance and Increase Adoption.
- 3. Reduction of grid expansion.
- 4. Support the transformation from energy cooperatives to energy communities.



Source: Own elaboration based on compiled data

Research Question / Introduction

Main Research Question: Is energy sharing through collective grids possible across all EU countries?

Secondary Research Question: How does energy sharing support the transformation from energy cooperatives to energy communities (ECs)?

EU's energy transition requires not only technological innovation but also new social and institutional arrangements. Energy sharing allows citizens to use the collective grid to exchange locally produced energy. Cooperatives are evolving into energy communities and creating fairer, more democratic energy systems.

This work explores why some countries' communities can share energy through the public grid (while others can't yet) and how this shift may strengthen cooperatives and help the energy transition.

Case 1: Spain

- First country to introduce the decentralized model of collective self-consumption (CSC).
- CSC is defined in Article 4 of Royal Decree 244/2019.
- Can belong to either the modality of self-consumption with surplus or the modality of self-consumption without surplus.
- Scenario: Solar panels on public buildings.
- Electricity is shared with homes and small businesses within 2 km.
- Funded with national and EU support.
- Example of Successful Energy Community: Som Energia (cooperative) + Local communities, governments, and companies.



Source: SOM Energia

Case 2: Germany

- Long tradition of cooperatives, the country with the most energy cooperatives and energy community projects.
- Despite that, parts of the EU directives and guidelines for CEC and REC have not yet been implemented. Especially lagging in the implementation of energy sharing.
- In the same scenario presented before: Self-consumption is possible, but sharing electricity across properties or apartment blocks is almost impossible; all levies, grid fees, and charges still apply, making it uneconomical.
- Regulatory framework and bureaucracy in Germany represent barriers for energy sharing.



Sources: Cwienk, 2024; Koltunov, M. et al, 2023.

Author / Motivation

Daniel Baltazar Reséndiz – Master's Student in Integrated Natural Resource Management (INRM)¹



I am interested in the energy transition in the EU, particularly in its practical implementation.

¹Albrecht Daniel Thaeer-institute of Agricultural and Horticultural Sciences, Humboldt-universität zu Berlin

Conclusions

- Energy sharing within energy communities can be a crucial driver in the energy transition in the EU by enabling local production and consumption of renewable energy, increasing citizen participation, and reducing reliance on centralized grids.
- While EU legislation promotes energy sharing, national policies vary widely; some countries are advancing more quickly than others.
- Technical, regulatory, and financial barriers are stopping the broad adoption of collective energy sharing and hindering cooperatives' evolution to Ecs.

Sources

Link to the Sources:



HOW TO BUILD A BETTER WORLD?
IN SEARCH FOR COOPERATIVE TRANSFORMATION

