



**European Sustainable Energy Seminar**  
at the Nordic Folkecenter for Renewable Energy, Denmark  
**August 17-20, 2021**



18. August, 2021

# Energy Communities Day

Introduction  
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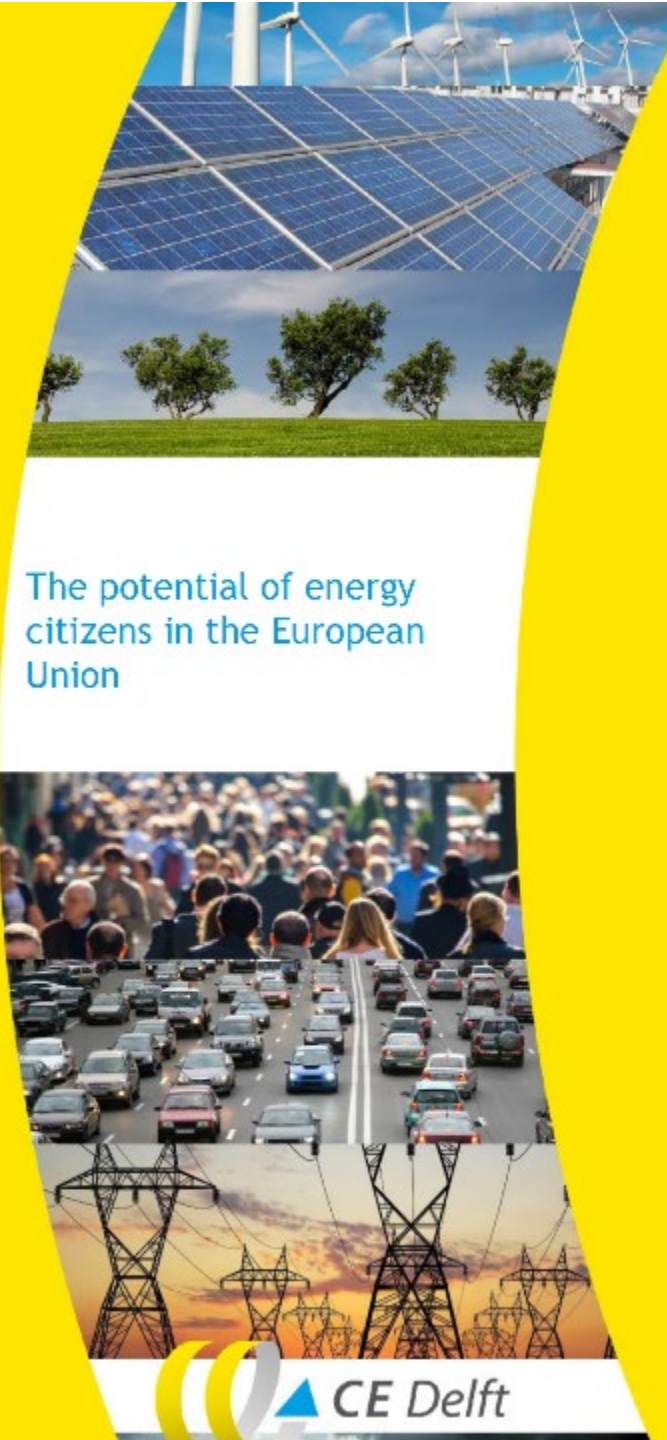


Proceedings at: [https://www.inforse.org/europe/seminar\\_2021\\_INFORSE-Europe\\_DK.htm](https://www.inforse.org/europe/seminar_2021_INFORSE-Europe_DK.htm)

# History of Cooperatives

- Power sector established as cooperatives and municipal companies in several countries (Denmark, France, Germany. etc) 100 years ago
- Danish district heating (now 66% of all heating) established as cooperatives and municipal companies, mainly since 1950
- Nationalisation and centralisation reduced cooperatives from the 1940's
- Starting in the 1980's: new decentralisation with cooperatively owned, grid-connected windpower, gas cogeneration of heat and power (CHP) by primarily district heating cooperatives
- Around 2000, in some countries (DK, Netherlands) development was reduced, but other countries started with energy communities: Germany, later Netherlands Belgium.
- In Eastern Europe, investor-friendly privatisation, vested interests, and low interest in cooperatiins have rlimited the development of energy communities
- Today development os also reduced in some countries, while still progressing in others.
- New EU directives give common framework for energy communities but

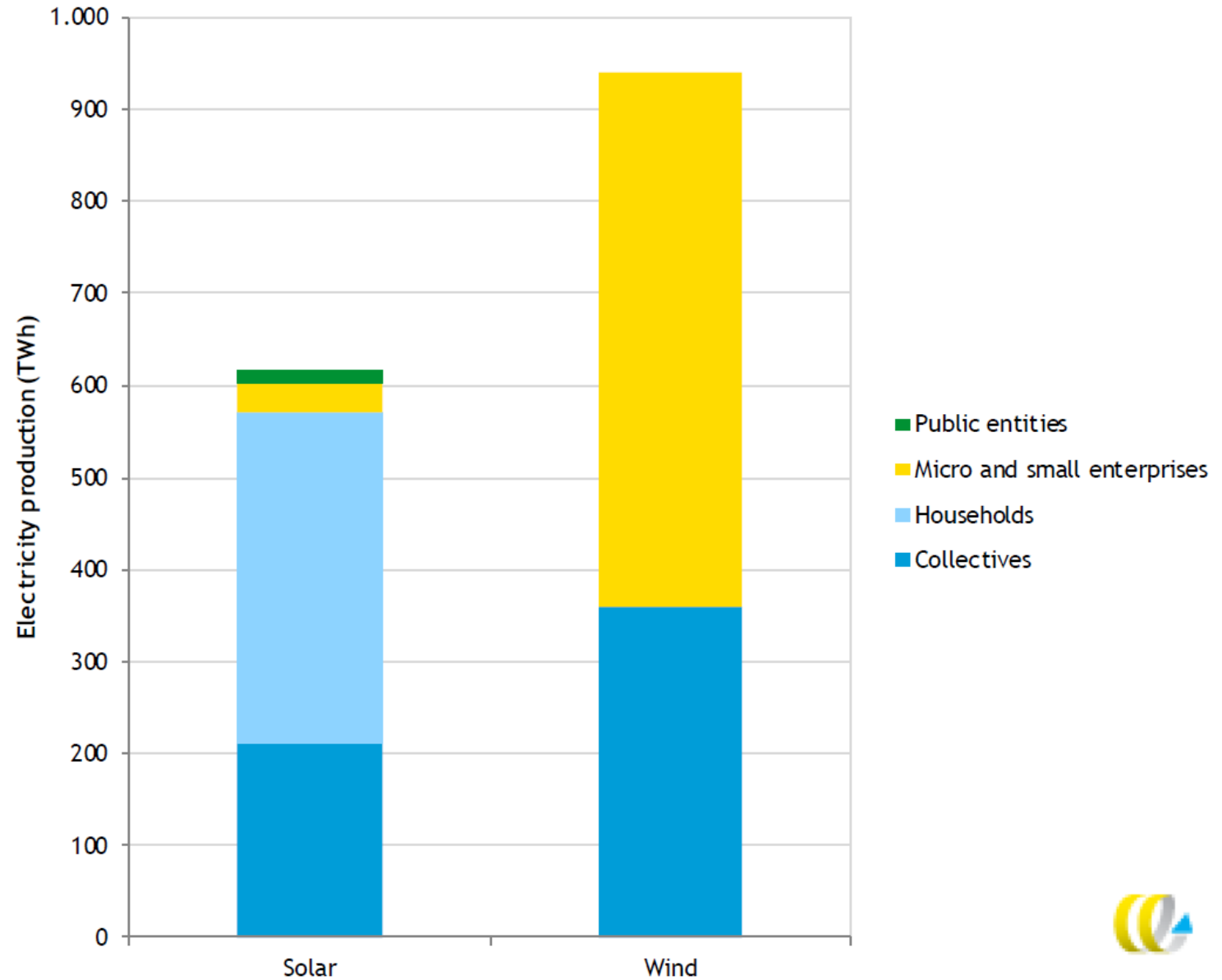
# Large Potential for Energy Communities in EU, *Documented by CE Delft in 2016*



The potential of energy  
citizens in the European  
Union

Potential of  
600 + 900  
TWh RE =  
1500 TWh,  
around 25% of  
total  
electricity  
demand in  
2050 decarb.  
scenario

Figure 13 Estimated potential for electricity production by the various energy citizen categories, in 2050 for the EU28 (TWh)



**BY 2050**

**1 OUT OF 2 PEOPLE**

**IN THE EU**



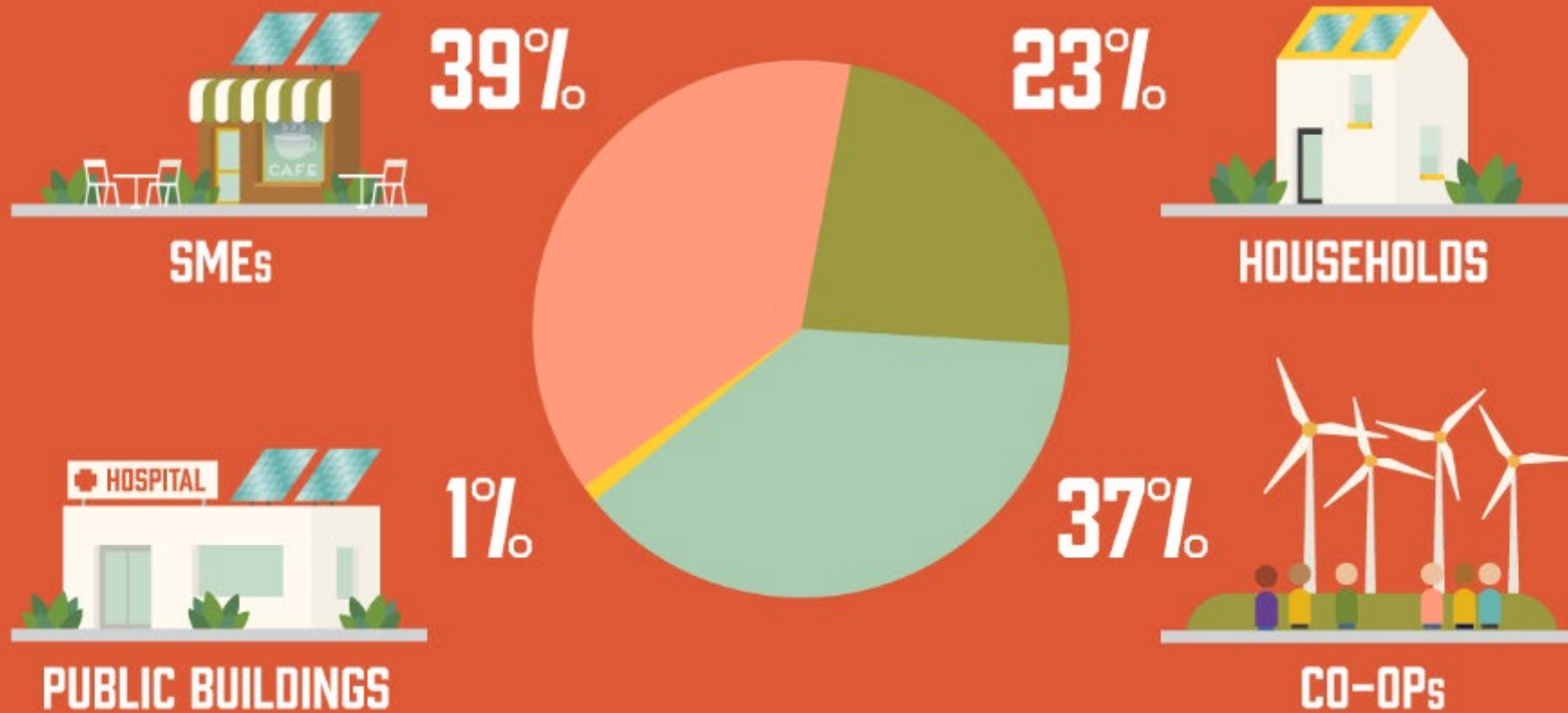
**COULD BE PRODUCING THEIR OWN ELECTRICITY**

# Potential for Energy Citizens

## Results of study

- **83% of EU's households - about 187 million** - could become an energy citizen and contribute to renewable energy production, demand response and/or energy storage, which amounts to households.
- About **half of EU households, around 113 million**, may have the potential to produce energy;
- even more could provide demand flexibility with their electric vehicles, smart el-boilers or stationary batteries

# THE EU'S CITIZEN-OWNED ELECTRICITY IN 2050





# Thank you

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