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INFORSE-EUROPE

International Network for Sustainable Energy

Prosumers: Potential of Energy Citizens in EU

by Henning Bo Madsen; August 22, 2017

SustainableEnergy



See the Program and the Proceedings at: http://www.inforse.org/europe/seminar_17_DK.htm

The potential of energy citizens in the European Union

CE Delft study conclusions



Potential for energy citizens

- Study by CE Delft institute
 - commissioned by Greenpeace, Friends of the Earth Europe, European Renewable Energy Federation (EREF) and REScoop
- Conclusion: 264 mio. citizens in EU can produce about 45 pct. of electricity in 2050





Potential for energy citizens

Study of four different energy citizen categories:

- individuals or households producing energy individually,
- individuals or households producing energy collectively,
- public entities and small enterprises.

Renewable energy sources investigated

- solar photovoltaic (PV) and wind energy,
- demand side flexibility focused on the potential for electric vehicles, el-boilers and stationary batteries



THE EU'S CITIZEN-OWNED ELECTRICITY IN 2050



SMEs

39%



HOUSEHOLDS

23%



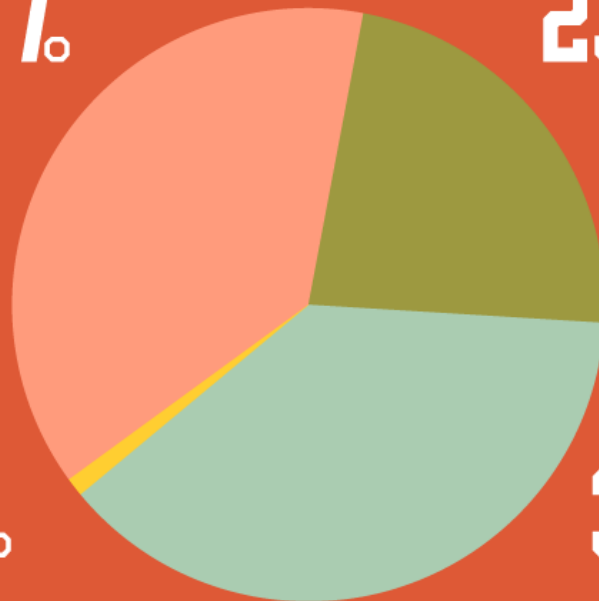
PUBLIC BUILDINGS

1%



CO-OPs

37%



BY 2050

1 OUT OF 2 PEOPLE

IN THE EU



COULD BE PRODUCING THEIR OWN ELECTRICITY

BY 2050

264

MILLION

**PEOPLE IN THE EU
COULD BE PRODUCING
THEIR OWN ELECTRICITY**



Potential for energy citizens

Results of study

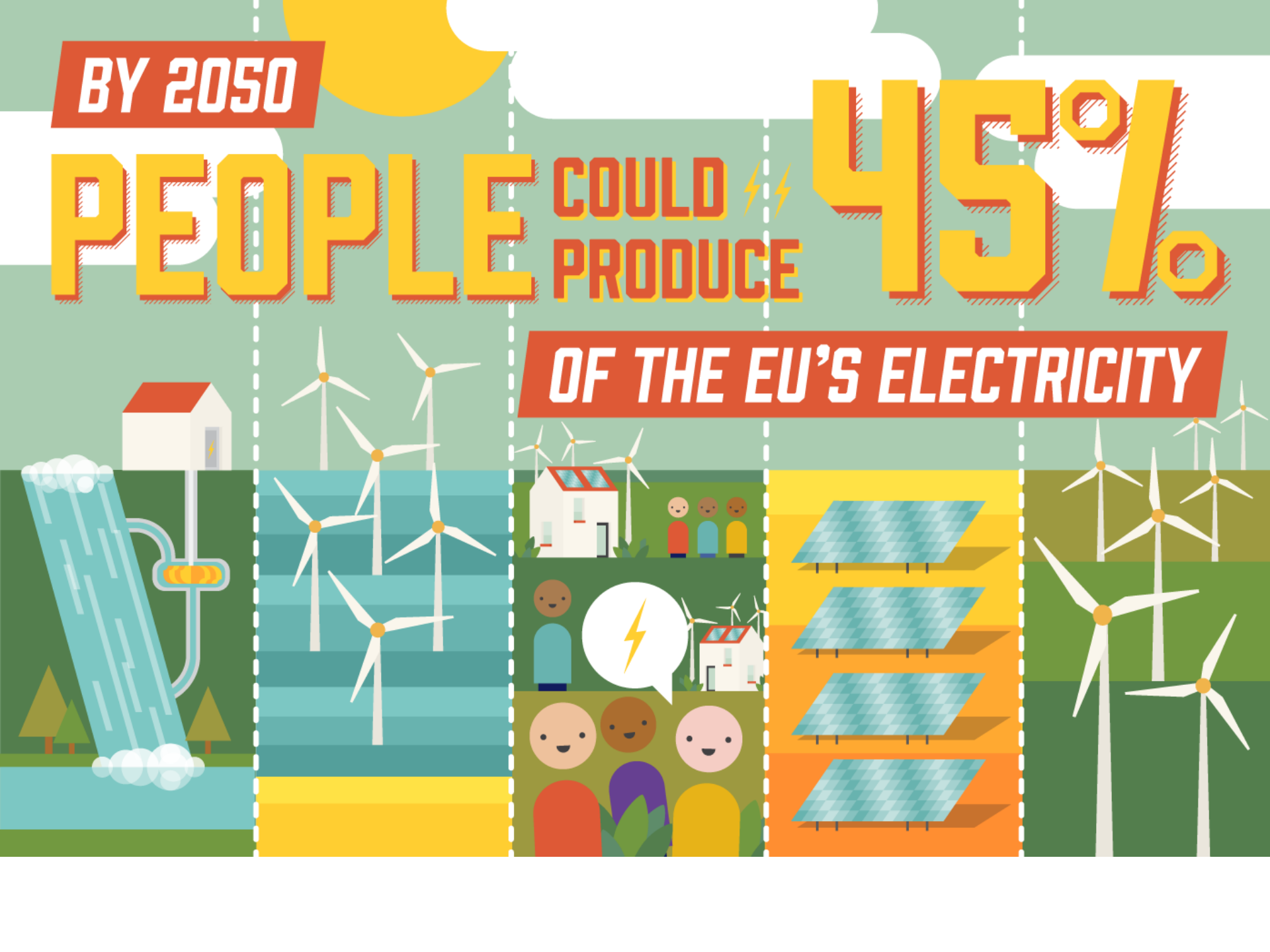
- ✦ **83% of EU's households - about 187 million** - could become an energy citizen and contribute to renewable energy production, demand response and/or energy storage
- ✦ About **half of EU households, around 113 million** may have the potential to produce energy
- ✦ even more could provide demand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



BY 2050

PEOPLE COULD **PRODUCE** **45%**

OF THE EU'S ELECTRICITY



Quotes from CE Delft report

“With a population of more than 500 million, about 216 million households and around 20 million small enterprises (< 50 employees), there is clearly a huge potential of active energy citizens, or prosumers, in the EU.”

“Unlocking their technical potential for RES generation, flexible demand and storage will reduce cost of the future renewable energy system: reduce grid investments and backup power generation, use their investment capacities etc. At the same time, it creates public support for the energy transition.”