



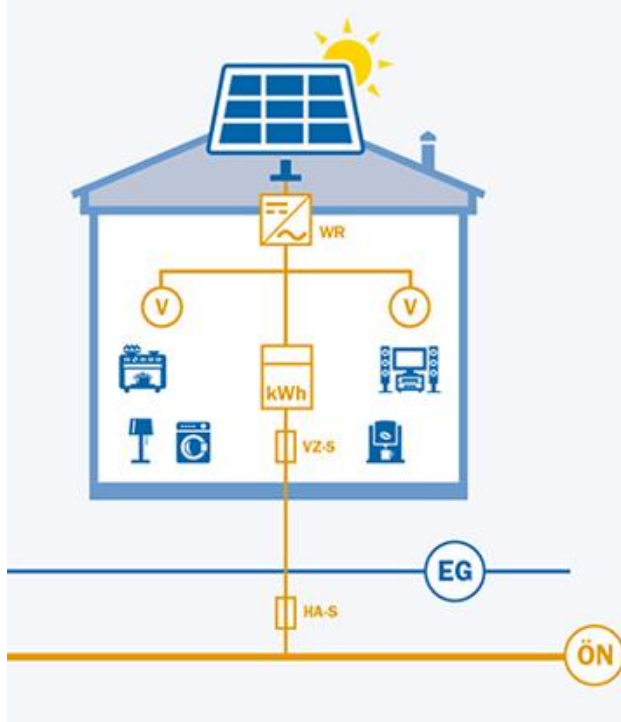
# Energy Communities in Austria

Johannes Mrázek

23.3.2022

# Surplus feeder

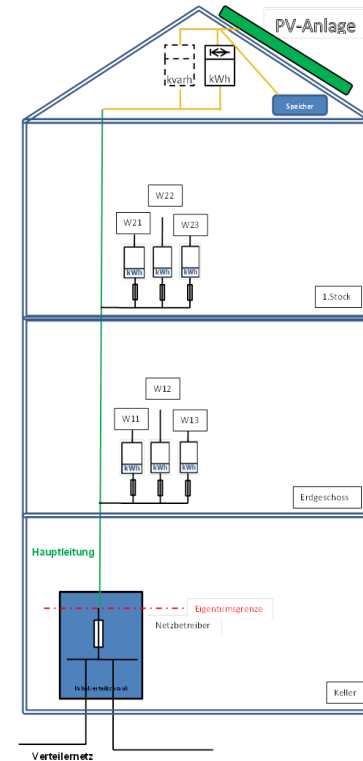
Single customer, no energy community



# Community Generation Installation

(„community plant“) - Art. 16a Electricity Act

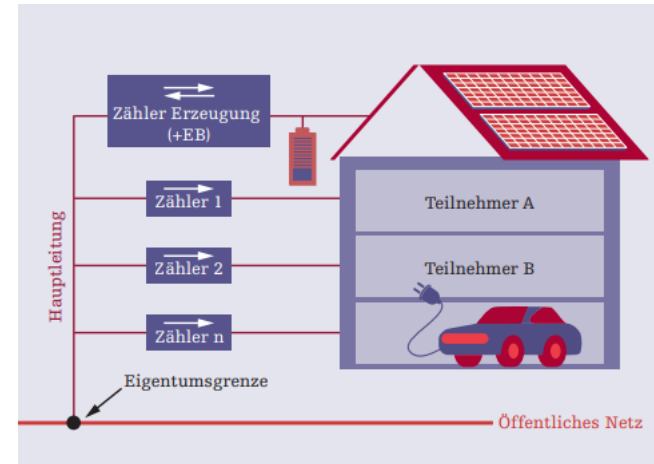
- Intention: Several grid customers share a generation unit, including battery storage facilities
- Metering: Smart meters, metering of energy consumption for each 15 minutes
- Within each 15 minutes timeframe the produced energy is distributed to the customers



# Community Generation Installation

Art. 16a Electricity Act

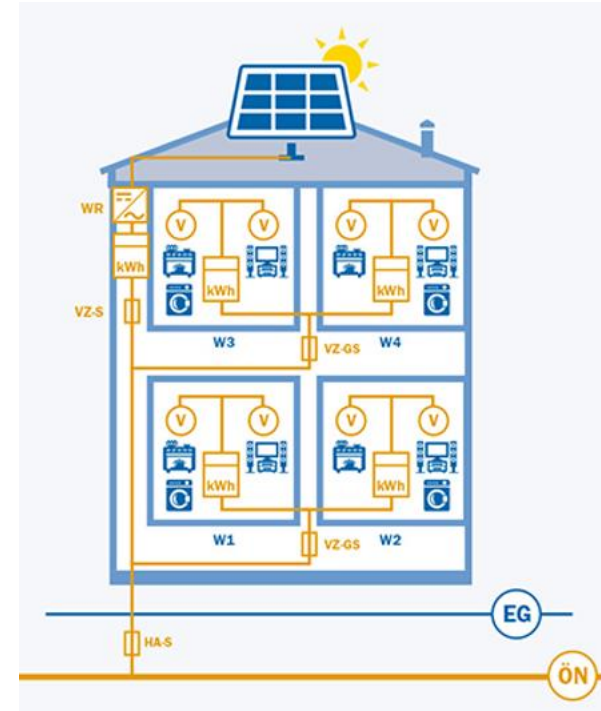
- Only applicable within the same building/same building main line
- Distribution system may not be used as an „energy storage facility“
- Only within the 15 minutes timeframe each customer receives his/her share of the produced energy



# Community Generation Installation

Art. 16a Electricity Act

- Surplus energy is feeded into the grid
- The producer / community needs a contractual partner who purchases the surplus energy.
- No grid fees for energy which is produced and used within the same 15 minutes
- Energy storage within the building is possible



## ADVANTAGES

Simple system

Simple structure, no legal entity required

No grid fees, because the energy stays within the building

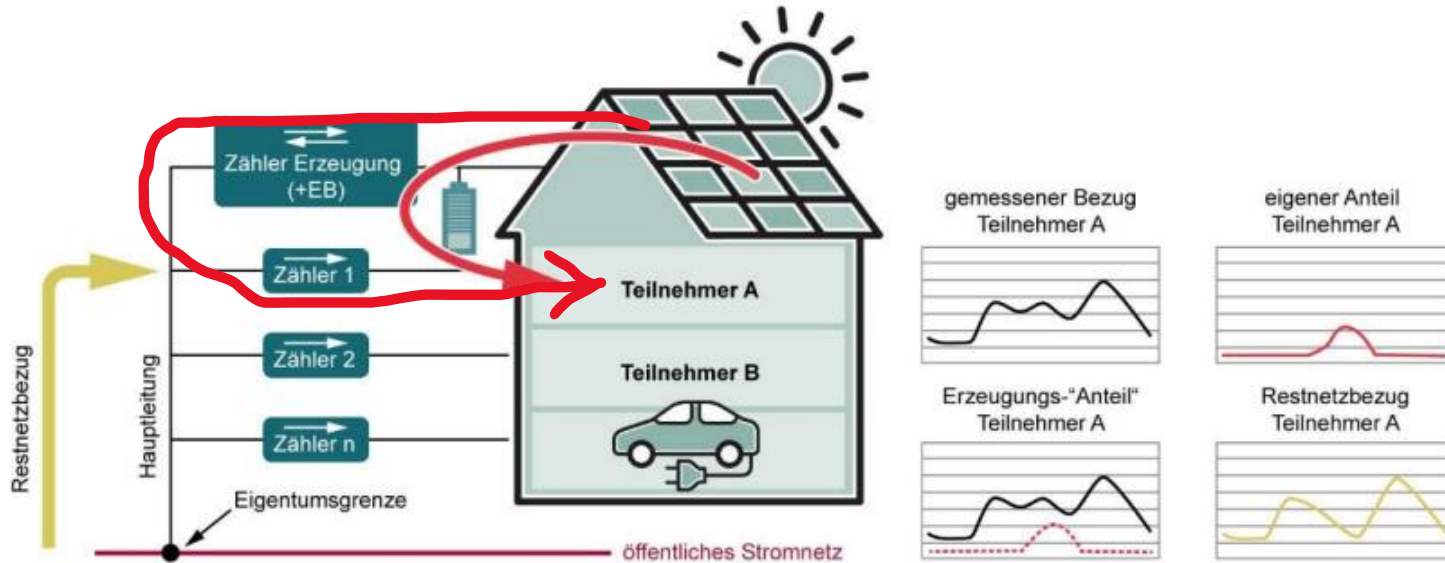
Production which is consumed reduces the amount of energy taken from the TSO system (saves money!)

## DISADVANTAGES

Limited number of participants

No distribution of produced energy to other buildings



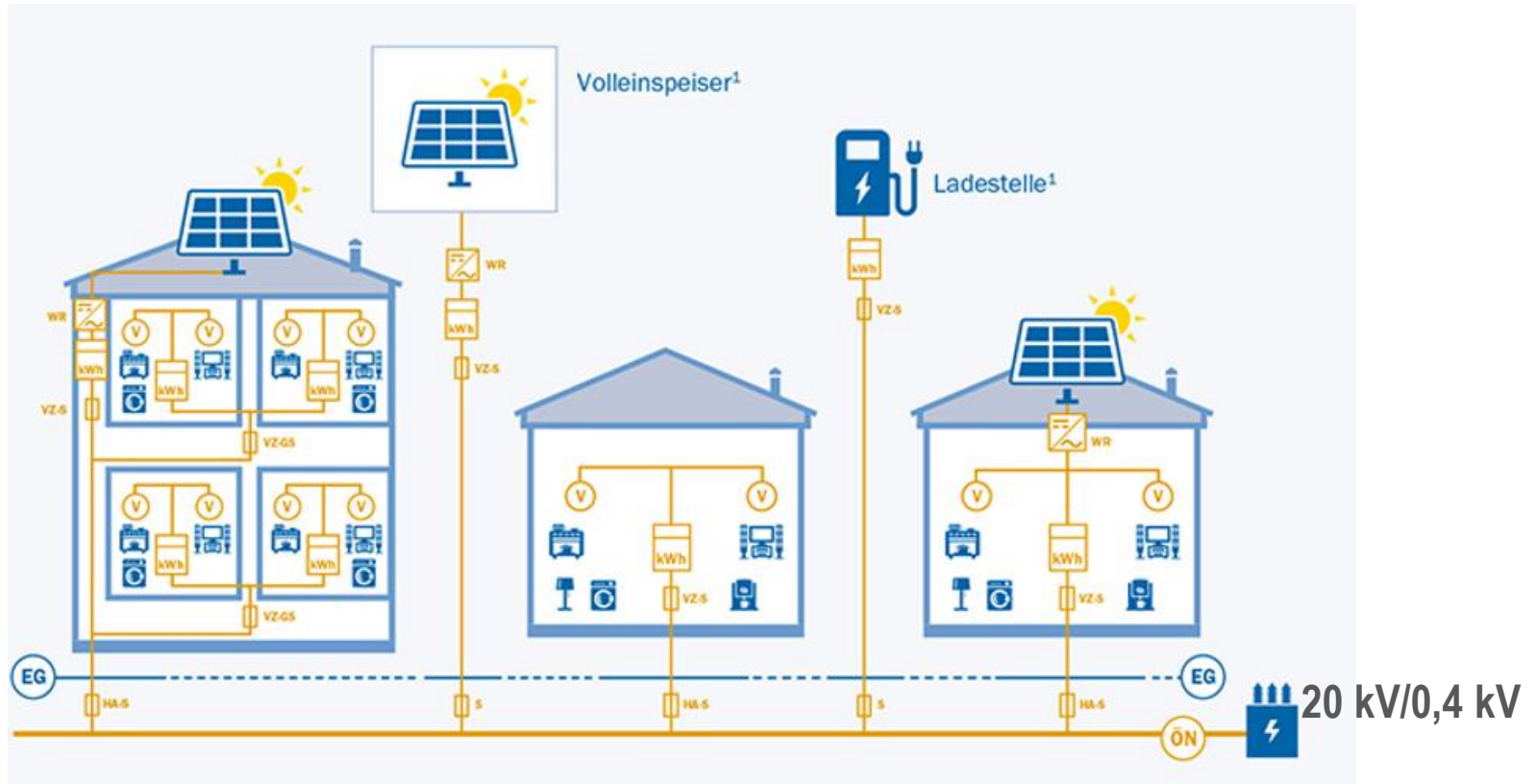




- Participants form a legal entity (corporation, co-operative, registered association)
- Participants: Persons, small and medium sized enterprises, communities, government (e.g. police)
- Restricted to renewable energy (mainly electricity, but also renewable gas and heat from renewable sources)
- Local or regional scope
- Central storage facility possible

# Renewable Energy Community

Art. 16 c Electricity Act

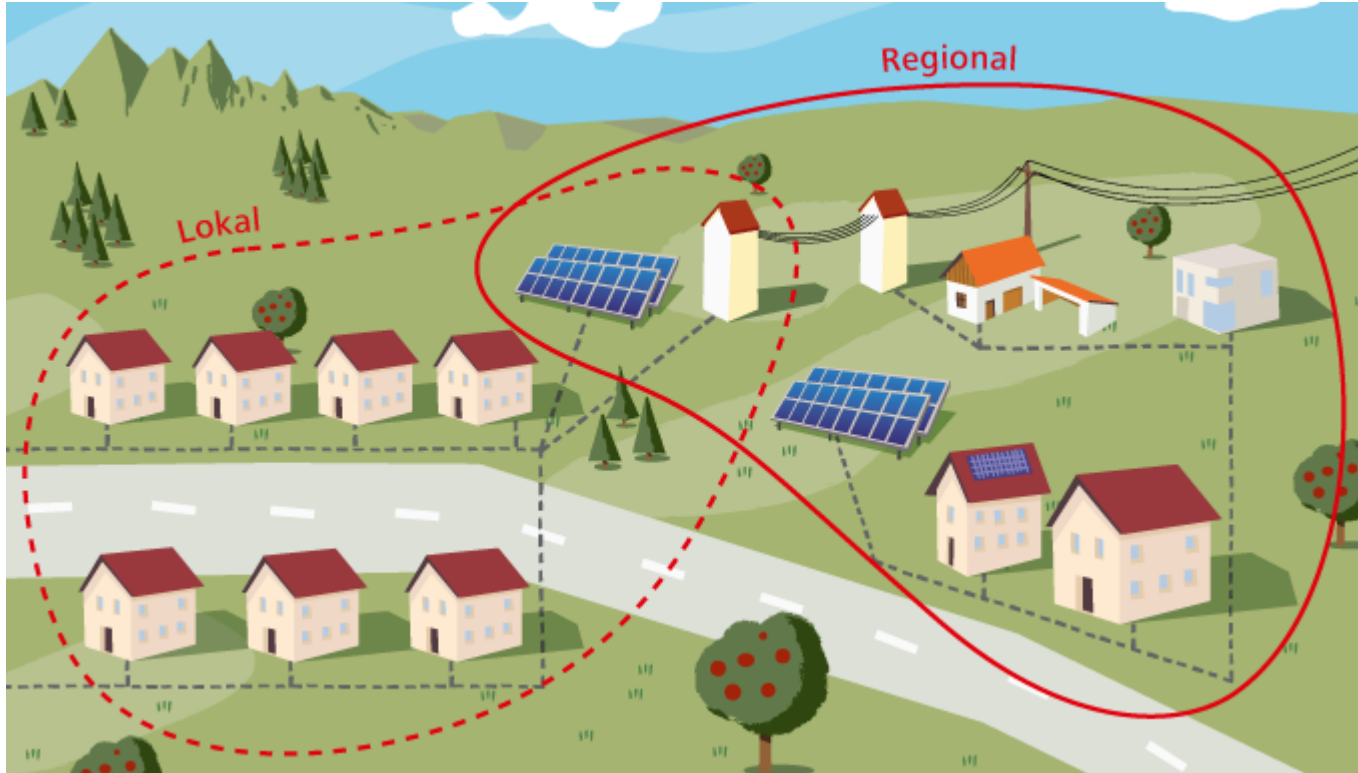


- The energy community needs a contractual partner who purchases surplus energy
- The Energy Community is no grid company! The grid is still operated by the DSO.
- The DSO is also responsible for metering and data processing
- Each participant keeps his energy supplier and can choose his own supplier
- Energy which is delivered through the REC will reduce the energy which is bought from the supplier

- Metering: Smart meters, metering and calculation of energy consumption for each 15 minutes
- Within each 15 minutes timeframe the produced energy is distributed to the members of the energy community
- Energy is distributed through the distribution grid
- Participants pay grid fees
- Grid fees are reduced because only the local grid is used
- Production units can be operated by the energy community or by members of the community

# Renewable Energy Communities

*Local or regional?*



## local

- Only within the low voltage system
- Including customers which are connected directly to the low voltage bus (0,4 kV) of the substation
- Reduction of fees: **57 percent on the energy part of the fee**
- No discount on the capacity fee

## regional

Low voltage and medium voltage (10 kV, 20 kV, 25 kV, 30 kV)

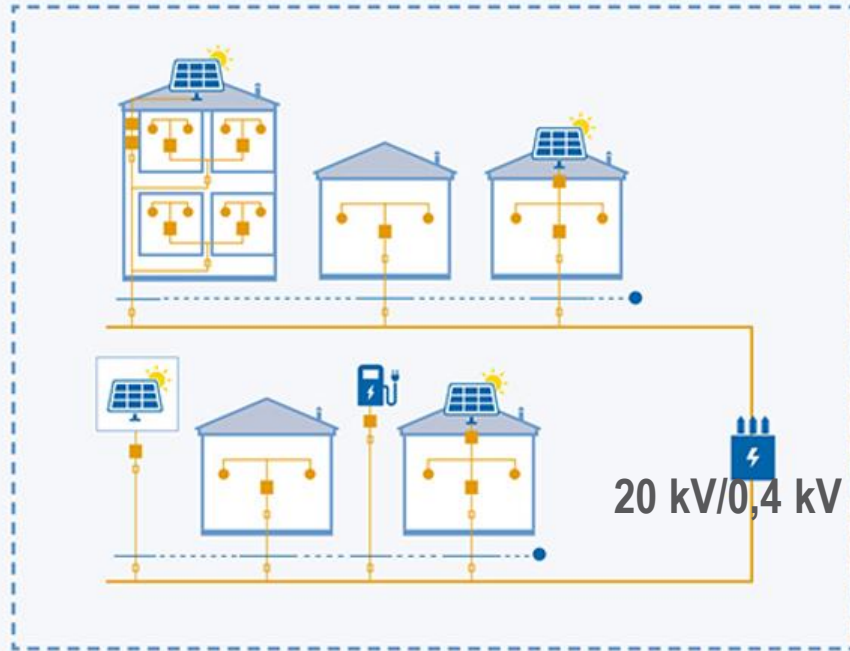
Including customers which are connected directly to the same medium voltage bus of the high voltage/medium voltage substation (eg. 110 kV/30 kV)

Reduction of fees: **28 percent on the energy part for low voltage customers**

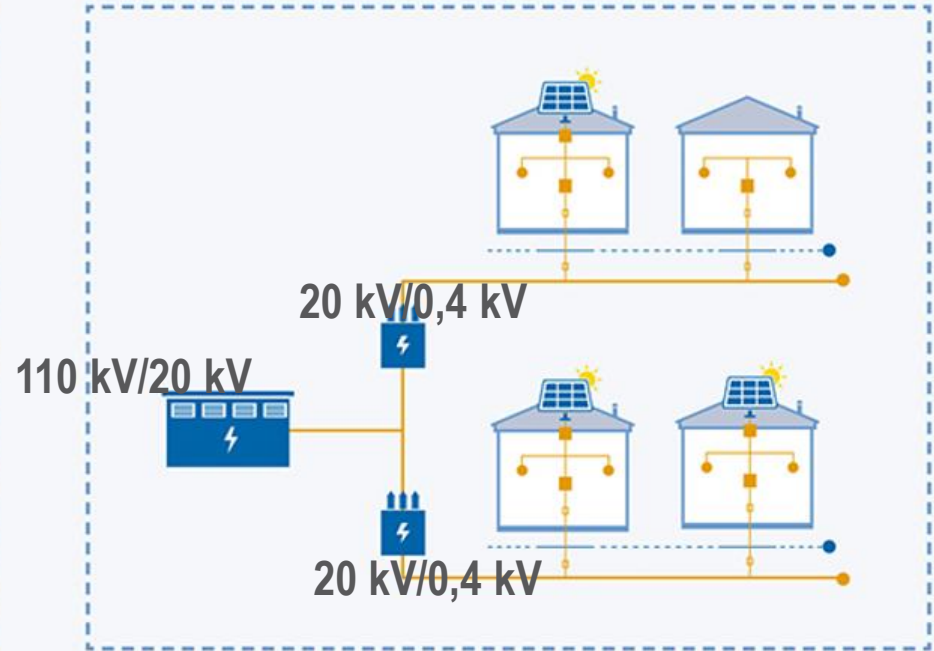
64 percent for medium voltage customers

# Renewable Energy Communities

Lokaler Nahbereich



Regionaler Nahbereich



Transformatorstation Niederspannung



Umspannwerk Mittelspannung

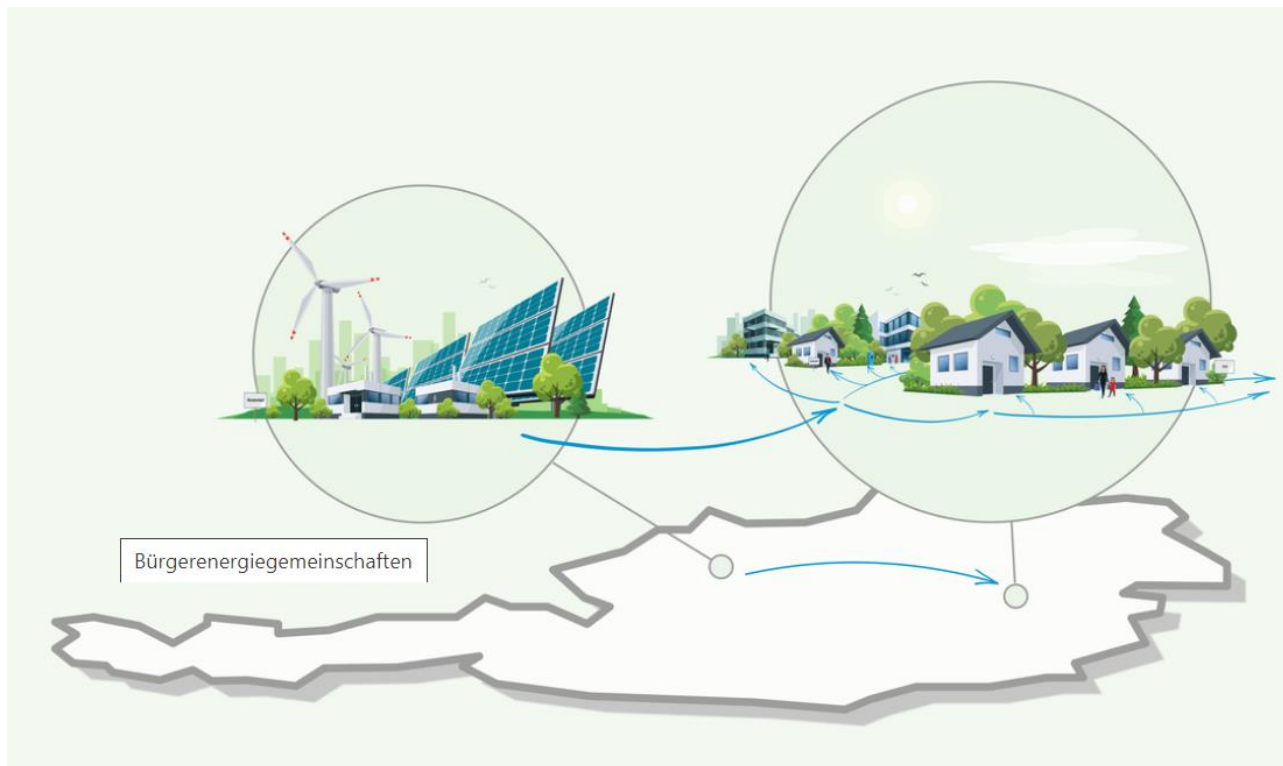
Quelle: E-Control; Stand Dezember 2021

- Each customer keeps his/her supplier
- The energy community does not provide all-inclusive power supply
- Energy which is delivered locally from the energy community reduces the energy delivery from the supplier
- For energy delivered from the supplier standard grid fees will apply
- At the time being customers may not participate in a common production unit and join an energy community at the same time.
- 2024: Customers can join both common production units AND energy communities



# Citizen Energy Community

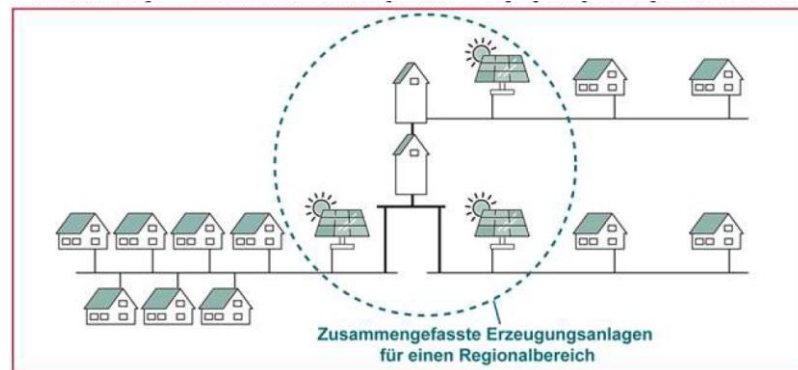
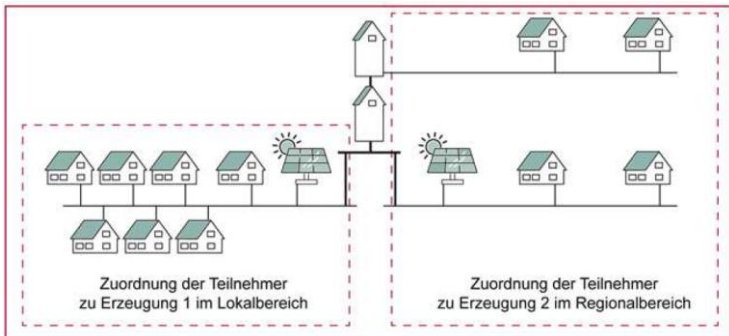
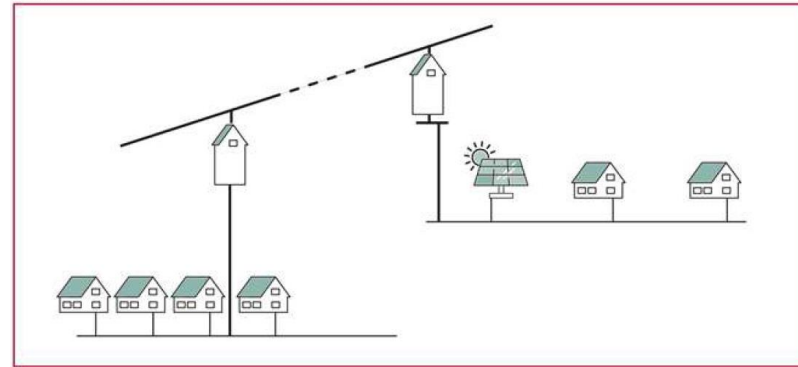
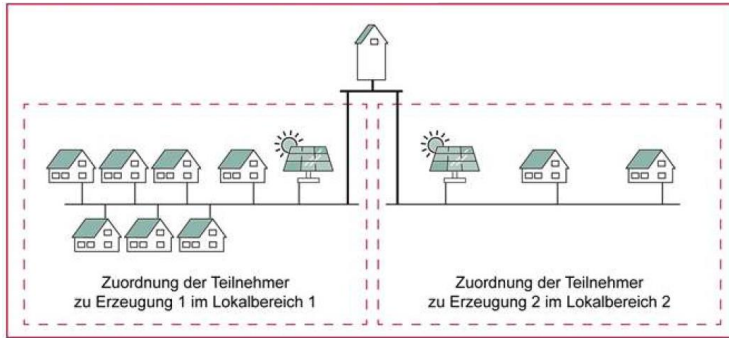
Art. 16 b Electricity Act



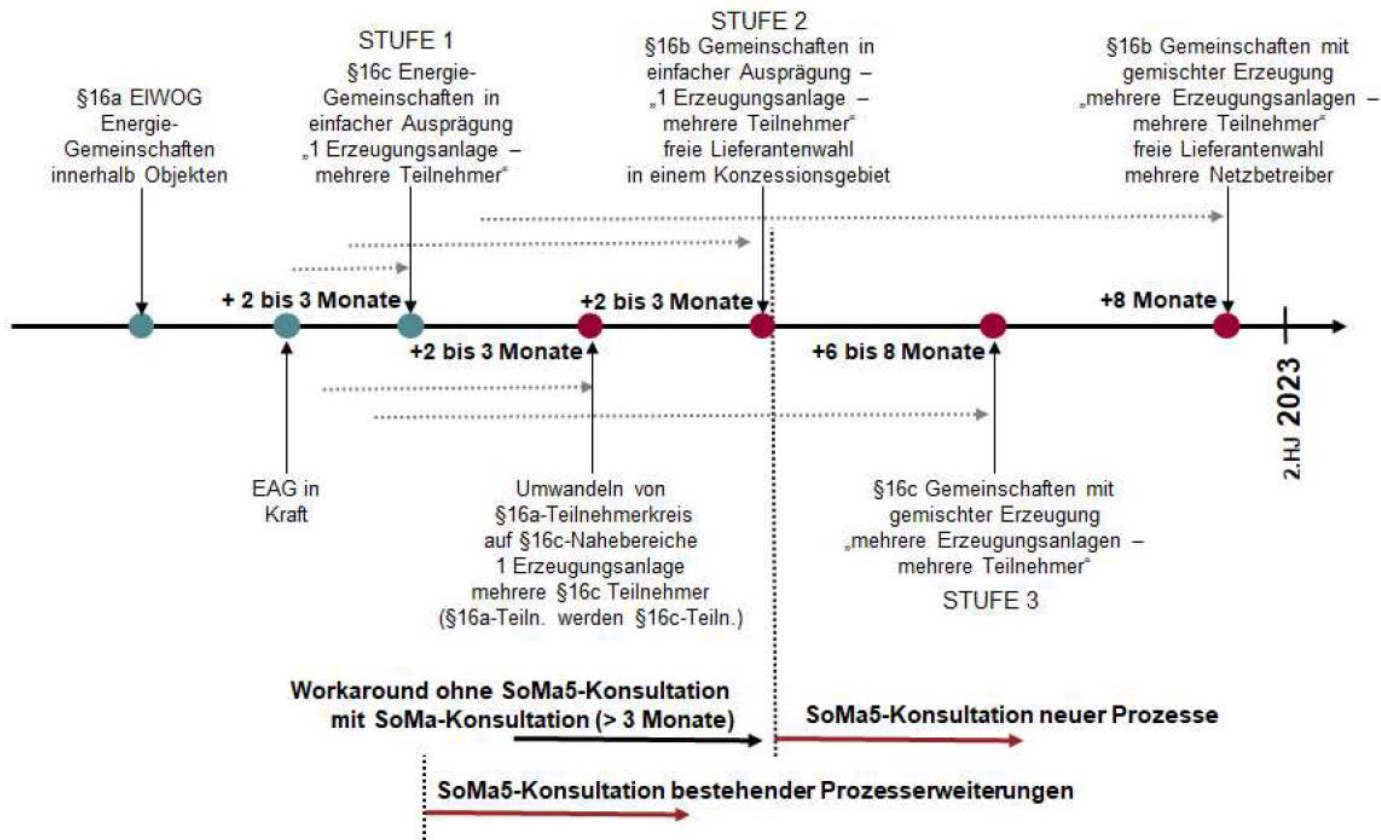
- No regional restriction
- No restriction to renewable energy sources, applicable to all technologies of electricity production
- Only electricity
- No discount on grid fees
- Legal entity still required
- Energy can be transferred „long distance“, no restriction to only one Distribution System Operator

- Smart meters required
- Production and consumption of energy only within the same 15 minutes-timeframe
- One „leading DSO“ who is responsible for data transfer to the other DSOs, suppliers, CEC, etc.

# Timeline: Implementation of models



# Timeline: Implementation of models



## JOHANNES MRÁZEK



+43 1 24724 +43 664 9667223



Johannes.mrazek@e-control.at



[www.e-control.at](http://www.e-control.at)

***Unsere Energie gehört der Zukunft.***

E-Control

Rudolfsplatz 13a, 1010 Wien

Tel.: +43 1 24 7 24-0

Fax: +43 1 247 24-900

E-Mail: [office@e-control.at](mailto:office@e-control.at)

[www.e-control.at](http://www.e-control.at)

Twitter: [www.twitter.com/energiecontrol](https://www.twitter.com/energiecontrol)

Facebook: [www.facebook.com/energie.control](https://www.facebook.com/energie.control)

<https://www.e-control.at/gemeinschaftliche-erzeugungsanlagen>